




ORIGINAL RESEARCH

# Association of Incidentally Discovered Covert Cerebrovascular Disease Identified Using Natural Language Processing and Future Dementia

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**BACKGROUND:** Covert cerebrovascular disease (CCD) has been shown to be associated with dementia in population-based studies with magnetic resonance imaging (MRI) screening, but dementia risk associated with incidentally discovered CCD is not known.

**METHODS AND RESULTS:** Individuals aged  $\geq 50$  years enrolled in the Kaiser Permanente Southern California health system receiving head computed tomography (CT) or MRI for nonstroke indications from 2009 to 2019, without prior ischemic stroke/transient ischemic attack, dementia/Alzheimer disease, or visit reason/scan indication suggestive of cognitive decline or stroke were included. Natural language processing identified incidentally discovered covert brain infarction (id-CBI) and white matter disease (id-WMD) on the neuroimage report; white matter disease was characterized as mild, moderate, severe, or undetermined. We estimated risk of dementia associated with id-CBI and id-WMD.

Among 241 050 qualified individuals, natural language processing identified 69 931 (29.0%) with id-WMD and 11 328 (4.7%) with id-CBI. Dementia incidence rates (per 1000 person-years) were 23.5 (95% CI, 22.9–24.0) for patients with id-WMD, 29.4 (95% CI, 27.9–31.0) with id-CBI, and 6.0 (95% CI, 5.8–6.2) without id-CCD. The association of id-WMD with future dementia was stronger in younger (aged  $< 70$  years) versus older (aged  $\geq 70$  years) patients and for CT- versus MRI-discovered lesions. For patients with versus without id-WMD on CT, the adjusted HR was 2.87 (95% CI, 2.58–3.19) for older and 1.87 (95% CI, 1.79–1.95) for younger patients. For patients with versus without id-WMD on MRI, the adjusted HR for dementia risk was 2.28 (95% CI, 1.99–2.62) for older and 1.48 (95% CI, 1.32–1.66) for younger patients. The adjusted HR for id-CBI was 2.02 (95% CI, 1.70–2.41) for older and 1.22 (95% CI, 1.15–1.30) for younger patients for either modality. Dementia risk was strongly correlated with id-WMD severity; adjusted HRs compared with patients who were negative for id-WMD by MRI ranged from 1.41 (95% CI, 1.25–1.60) for those with mild disease on MRI to 4.11 (95% CI, 3.58–4.72) for those with severe disease on CT.

**CONCLUSIONS:** Incidentally discovered CCD is common and associated with a high risk of dementia, representing an opportunity for prevention. The association is strengthened when discovered at younger age, by increasing id-WMD severity, and when id-WMD is detected by CT scan rather than MRI.

**Key Words:** covert brain infarction ■ covert cerebrovascular disease ■ dementia ■ dementia risk ■ white matter disease

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## CLINICAL PERSPECTIVE

### What Is New?

- This is the first cohort study examining the prognostic significance of incidentally discovered covert cerebrovascular disease, comprising covert brain infarction and white matter disease, on future dementia risk.
- Overall, the crude hazard ratio of developing dementia in patients with covert cerebrovascular disease was  $\approx$ 3- to 4-fold compared with those without.
- The adjusted hazard ratios were higher in younger patients with covert cerebrovascular disease, in those whose disease was discovered by computed tomography rather than by magnetic resonance imaging, and in those with more severe disease.

### What Are the Clinical Implications?

- These findings have important implications for future dementia prevention and risk stratification.

## Nonstandard Abbreviations and Acronyms

<b>CBI</b>	covert brain infarction
<b>CCD</b>	covert cerebrovascular diseases
<b>id-CBI</b>	incidentally discovered covert brain infarction
<b>id-CCD</b>	incidentally discovered covert cerebrovascular diseases
<b>id-WMD</b>	incidentally discovered white matter disease
<b>KPSC</b>	Kaiser Permanente Southern California
<b>NLP</b>	natural language processing
<b>WMD</b>	white matter disease

**C**ardiovascular risk factors contribute to the development of several common forms of dementia and are a focus of efforts to prevent these diseases.<sup>1,2</sup> Identifying high-risk individuals before the onset of severe cognitive decline is a central goal in dementia prevention research. One potentially appealing strategy is to identify individuals with covert cerebrovascular diseases (CCD), comprising both covert brain infarction (CBI) and white matter disease (WMD), which are known to be associated with an increased risk for dementia in cohort studies with participants undergoing screening by protocol-driven neuroimaging.<sup>3-10</sup>

However, building upon insights from screened cohort studies and translating their findings into real-world

clinical practice has unique challenges. Findings from population-based research with protocol-driven magnetic resonance imaging (MRI) screening may not be generalizable to real-world cohorts, which include only patients selected for clinically indicated neuroimaging, where imaging may be dominated by computed tomography (CT) scans and where neuroimaging interpretation and reporting are heterogeneous and poorly standardized.<sup>11,12</sup> Yet studying incidentally discovered CCD (id-CCD) is impeded by the poor clinical documentation of these lesions; there are no *International Classification of Diseases, Ninth Revision (ICD-9)* codes for CBI or WMD and no *Tenth Revision (ICD-10)* codes for CBI. Additionally, these lesions are rarely documented in a patient's problem list even when they are reported on neuroimaging reports. Given these barriers to identifying patients with CCD, it is unsurprising that no current standard of care for the management of these conditions or evidence-based strategies for prevention of dementia following their discovery exists, despite the fact that they are commonly encountered in routine care.<sup>13,14</sup>

To facilitate identification of individuals with id-CCD, we previously developed a natural language processing (NLP) algorithm identifying these conditions with a high degree of accuracy.<sup>15,16</sup> In this study, we port the NLP algorithm into Kaiser Permanente Southern California (KPSC), a large integrated health care system, to examine the prognostic significance of NLP-identified, id-CCD on risk of dementia.

## METHODS

### Environment

The data that support the findings of this study may be used to support new studies in collaboration with qualified researchers with provision of funding, given the approval of the corresponding author, the senior author, and the KPSC research program. The data sets generated and analyzed during the current study are not publicly available because of ethical standards. The authors do not have permission to share data. Authors Wansu Chen and Yichen Zhou had full access to all the data in the study and take responsibility for the integrity of the data and the accuracy of the data analysis. The methods of analysis are described herein and are available in greater detail upon request to the authors. In this cohort study, we used health plan enrollees of KPSC, an integrated health care organization that serves 4.8 million individuals ( $\approx$ 19% of the region's population) at 15 hospitals and 230+ medical offices, broadly representative of the residents in the region.<sup>17</sup> Data were extracted, via a research data warehouse, from KPSC's electronic health record. This system integrates all aspects of care, including

inpatient, emergency department, outpatient, pharmacy, and lab services, as well as billing and claims. The study protocol was approved by the Tufts Medical Center and KPSC Institutional Review Boards, which waived the need for informed consent as all data were anonymized.

## Population

We included individuals aged  $\geq 50$  years enrolled in the KPSC health system who received head neuroimaging (CT, MRI) for a nonstroke indication between 2009 and 2019 and who had no history of ischemic stroke or dementia/Alzheimer disease. Patients with transient ischemic attack, hemiplegia, and hemiparesis and other medical conditions were also excluded to ensure a stroke- and dementia-free cohort.

Data S1 includes the complete *ICD-9/ICD-10* Current Procedural Terminology codes used to exclude patients. For the current analysis, we additionally excluded patients with a visit reason or scan indication suggestive of cognitive symptoms or decline (eg, confusion, disorientation, altered mental status, or dementia evaluation). The top 5 scan indications were headache or facial pain; dizziness, vertigo, or syncope; ear or hearing issue; stroke risk factor; and head trauma or fall (Table S1).

If there were multiple neuroimaging studies, the first was considered the index scan. For neuroimaging evidence of cerebral infarction to be considered “covert,” individuals were included in the study only if they did not acquire a new *ICD* code for a diagnosis of cerebral infarction or dementia within 60 days after the index scan. Patients who were not actively enrolled in the KPSC health plan on the index date or not continuously enrolled in the prior 12 months were also excluded (a gap of  $\leq 45$  days was allowed).

## Identification of Patients With CCD

We aimed to identify patients with CCD, comprising either CBI or WMD. Prominent perivascular spaces and microinfarcts were not included, as CBI is defined as a brain lesion presumed to be attributable to vascular occlusion found by neuroimaging (MRI or CT) in patients without clinical manifestations of stroke. WMD implies diminished density of white matter seen on brain CT, which in turn is hyperintense on T2-weighted, proton-density, and fluid-attenuated inversion recovery brain MRI sequences.<sup>18,19</sup>

An NLP algorithm developed at Mayo Clinic and Tufts Medical Center was applied to neuroimaging reports associated with these index scans to identify individuals with incidentally discovered CBI (id-CBI) or incidentally discovered WMD (id-WMD).<sup>15</sup> As described in prior work and Data S2, these algorithms adopted the open-source NLP pipeline MedTagger for generic

NLP processing and task-specific knowledge engineering (coding of specific words and phrases referencing CBI and WMD) to yield identification of CBI and WMD that was on par with human readers of the neuroimaging reports.<sup>15</sup> After 2 rounds of training on data from Kaiser, this NLP algorithm achieved F-scores of 0.90 and 0.91 in id-CBI and id-WMD on a separate test sample ( $n=490$ ), with a prevalence of 29 of 490 and 170 of 490 for id-CBI and id-WMD, respectively (Data S3). NLP algorithms also captured CBI location (Data S4) and WMD severity (Data S5).

## Follow-Up

Follow-up started 60 days after the index scan and ended with the earliest of the following events: disenrollment from the health plan, end of the study (December 31, 2019), death, or dementia (outcome). The 60-day window after the index scan was selected to further exclude patients with symptoms of cognitive decline that might have prompted the neuroimaging scan.

## Outcome Definition

The primary outcome of this study was dementia. Based on shared vascular risk factors and symptomatology, we use a broad definition of dementia including Alzheimer disease, vascular dementia, and mixed dementia<sup>20,21</sup> (*ICD-9* codes 290.x, 294.20, or 331.0 and corresponding *ICD-10* codes). Positive predictive value has been reported to be  $>95\%$ .<sup>22,23</sup> Only a single code was required if accompanied by a cognitive enhancement medication dispensation, or any 2 codes on different dates (with the second as the event date) if cognitive enhancement medication was not dispensed. Equivalent *ICD-9* and *ICD-10* codes used and qualifying cognitive enhancement medications are shown in Data S6.

## Statistical Analysis

Kaplan–Meier plots were used to present dementia-free survival in patients with and without id-CBI and with and without id-WMD, with differences assessed by the log-rank test. The overall and risk-factor–stratified crude incidence rates and the 95% CIs were calculated using Poisson regression and reported as per 1000 person-years of follow-up time. We examined the crude and adjusted associations of id-CBI and of id-WMD with dementia, using Cox proportional hazards regression models. For adjusted effects, we included known cardiovascular risk factors for stroke based on prediction models in the literature, including the following covariates: age, sex, race and ethnicity (non-Hispanic White; Asian/Pacific Islander; Black; Hispanic; multiple/other/unknown), diabetes, hypercholesterolemia, history of smoking, mean systolic blood pressure (averaged over

the prior year, excluding extreme values <70 or >200 to avoid including measurements from periods of critical illness), atrial fibrillation, carotid disease, congestive heart failure, peripheral arterial disease, and use of antiplatelet or statin therapy.<sup>24,25</sup> We also included dementia risk factors, including presence of depression, body mass index, and exercise.<sup>26–29</sup>

For each risk factor, the proportional hazards assumption was examined by the Schoenfeld residuals test. Interaction terms were selected on the basis of clinical judgment. In particular, we hypothesized that the effects of id-WMD and id-CBI would vary on the basis of imaging modality. We thus compared the effect of the presence versus the absence of id-CBI or id-WMD separately in those examined by CT and by MRI. We also anticipated that these lesions might have greater prognostic importance in younger versus older patients and so included interactions with age (age <70 years versus age ≥70 years).

### Sensitivity Analysis

Three sensitivity analyses were performed: (1) defining the outcome on the basis of a single dementia diagnostic code (to examine the stability of results when a more sensitive outcome definition is used); (2) excluding patients who were either on an antithrombotic at baseline or who had a clinical indication for antithrombotic therapy (to examine effects among an antithrombotic-free population who might be considered appropriate for a trial testing “secondary prevention” with an antiplatelet agent); (3) starting follow-up 1 year after the index scan (instead of 60 days after the scan) (to rule out with greater certainty that the index scan was not ordered because of a suspected diagnosis of cognitive decline or dementia).

### Analysis of WMD Severity

To further stratify risk of dementia, we classified patients according to WMD severity using NLP, as discussed in Data S2. Using the description in neuro-radiology reports, patients with id-WMD were classified into 3 severity grades: mild, moderate, or severe. Scan reports with insufficient information on severity were classified as “undetermined.” Analyses were performed in a similar fashion to the main analysis described above. However, id-WMD severity was interacted with imaging modality and thus treated as 10 different classes (ie, no WMD, mild WMD, moderate WMD, severe WMD, and undetermined WMD severity for CT and for MRI). The reference class for all hazards was those patients who underwent MRI and were found to be free of id-WMD (ie, the lowest risk group). We underscore that this approach, using a common reference class, is distinct from the main analysis, which contrasted dementia hazards for patients with

and without id-CCD for each modality separately (eg, comparing hazards for dementia among patients with versus without id-WMD among those undergoing CT and separately among those undergoing MRI, using different reference classes for these contrasts).

Analyses were performed using SAS version 9.4 for Unix (SAS Institute, Cary, NC) and R version 3.6.0 (R Foundation, Vienna, Austria).

## RESULTS

A total of 241 050 individuals receiving brain neuroimaging, with a total of 1 049 777 person-years of follow-up time, were included in our analysis cohort (Figure S1).

The median follow-up time was 3.73 years (range, 61 days to 10.83 years; interquartile range, 1.61–6.85 years); 62 479 (25.9%) patients received MRI and 178 571 (74.1%) received a CT scan. CCD was identified in 74 975 (31.1%) including 11 328 (4.7%) with CBI and 69 931 (29.0%) with WMD. There were 11 554 cases of dementia identified in follow-up, with a median time to event among those with dementia of 2.95 (interquartile range, 1.40–5.16) years. Table 1 describes patient characteristics in the total cohort and in those with CBI (regardless of WMD) and those with WMD (regardless of CBI).

The crude dementia incidence rates (per 1000 person-years) were 29.4 (95% CI, 27.9–31.0) in patients with id-CBI and 23.5 (95% CI, 22.90–24.0) for patients with id-WMD. This compares to an incidence rate of only 6.0 (95% CI, 5.8–6.2) in patients free of cerebrovascular disease (Table 2).

Dementia-free survival in those with and without id-CBI, and with and without id-WMD, stratified by modality (CT versus MRI), is shown in Figure 1A and 1B, respectively. These graphs display clearly the higher incidence rates in patients with id-CCD detected by CT compared with MRI. In patients with id-CBI, when detected by CT, the annualized incidence rate was 32.8 (95% CI, 31.0–34.5), about twice that when detected by MRI, 16.6 (95% CI, 14.2–19.3). In patients with id-WMD, when detected by CT, the annualized incidence rate was 37.7 (95% CI, 36.7–38.7), almost 4-fold than when detected with MRI, 9.6 (95% CI, 9.1–10.1). Overall, the crude hazard ratio (HR) for dementia associated with id-WMD was 3.72 (95% CI, 3.58–3.86); and with id-CBI was 2.91 (95% CI, 2.75–3.07) (Table 3), comparing patients with versus without these findings, within each modality.

In a multivariable model controlling for major cardiovascular and dementia risk factors, we examined the effect of id-WMD on dementia risk. Among patients undergoing CT scan, the adjusted HR for the presence versus the absence of id-WMD was 2.87 (95% CI, 2.58–3.19) for those aged <70 and 1.87 (95% CI, 1.79–1.95) for those aged ≥70 years. Among patients undergoing MRI, the adjusted HR for the presence versus the absence of id-WMD was 2.28 (95% CI, 1.99–2.62)



**Table 1. Patient Demographic and Clinical Characteristics at Baseline**

Patient characteristics	Entire cohort	Subset: patients with id-CBI	Subset: patients with id-WMD	Subset: patients without id-CCD
N	241 050	11 328	69 931	166 075
Demographics				
Age, mean (SD)	64.9 (10.42)	72.2 (10.79)	70.7 (10.77)	62.3 (9.17)
Female, n (%)	147 812 (61.3)	6447 (56.9)	42 659 (61.0)	102 261 (61.6)
Race and ethnicity, n (%)				
Asian and Pacific Islander	28 353 (11.8)	1256 (11.1)	8030 (11.5)	19 755 (11.9)
Black	27 305 (11.3)	1643 (14.5)	7821 (11.2)	18 745 (11.3)
Hispanic	78 146 (32.4)	2869 (25.3)	17 419 (24.9)	59 253 (35.7)
Multiple/Other/Unknown	3999 (1.7)	134 (1.2)	990 (1.4)	2951 (1.8)
Non-Hispanic White	103 247 (42.8)	5426 (47.9)	35 671 (51.0)	65 371 (39.4)
Stroke risk factors, n (%)				
Atrial fibrillation	14 073 (5.8)	1314 (11.6)	6372 (9.1)	7247 (4.4)
Carotid atherosclerosis	2312 (1.0)	206 (1.8)	1125 (1.6)	1120 (0.7)
Congestive heart failure	11 450 (4.8)	1214 (10.7)	5228 (7.5)	5784 (3.5)
Coronary artery disease	25 793 (10.7)	2162 (19.1)	10 324 (14.8)	14 667 (8.8)
Diabetes	62 537 (25.9)	3995 (35.3)	20 385 (29.2)	40 479 (24.4)
Hypercholesterolemia	163 808 (68.0)	8505 (75.1)	51 027 (73.0)	109 089 (65.7)
Hypertension	145 536 (60.4)	8941 (78.9)	49 759 (71.2)	92 061 (55.4)
Peripheral arterial disease	10 539 (4.4)	1067 (9.4)	4749 (6.8)	5434 (3.3)
Tobacco use (ever)				
Yes	111 272 (46.2)	5998 (53.0)	35 124 (50.2)	73 552 (44.3)
No	129 005 (53.5)	5294 (46.7)	34 672 (49.6)	91 910 (55.3)
Unknown	773 (0.3)	36 (0.3)	135 (0.2)	613 (0.4)
Number of stroke risk factors	2.3 (1.47)	2.9 (1.59)	2.6 (1.52)	2.1 (1.42)
Systolic blood pressure, mean (SD)	129.3 (13.17)	132.7 (13.85)	131.4 (13.09)	128.4 (13.07)
Modality				
CT	178 571 (74.1)	9041 (79.8)	36 903 (52.8)	137 121 (82.6)
MRI	62 479 (25.9)	2287 (20.2)	33 028 (47.2)	28 954 (17.4)
Antiplatelet use	10 986 (4.6)	753 (6.7)	3928 (5.6)	6763 (4.1)
Statin use	103 572 (43.0)	6022 (53.2)	34 998 (50.1)	66 023 (39.8)
Depression	47 057 (19.5)	2189 (19.3)	13 713 (19.6)	32 322 (19.5)
Exercise (h/wk), mean (SD)	1.7 (2.53)	1.5 (2.39)	1.7 (2.50)	1.8 (2.54)
BMI (kg/m <sup>2</sup> ), mean (SD)	28.7 (6.04)	27.9 (5.94)	27.9 (5.83)	29.0 (6.09)
id-CBI, n (%)	11 328 (4.7)	NA	6284 (9.0)	NA
id-WMD, n (%)	69 931 (29.0)	6284 (55.5)	NA	NA
id-CCD,* n (%)	74 975 (31.1)	NA	NA	NA

BMI indicates body mass index; CT, computed tomography; id-CBI, incidentally discovered covert brain infarction; id-CCD, incidentally discovered covert cerebrovascular disease; id-WMD, incidentally discovered white matter disease; and MRI, magnetic resonance imaging.

\*id-CBI or id-WMD.

for those aged <70 years and 1.48 (95% CI, 1.32–1.66) for those aged ≥70. The adjusted HR associated with id-CBI was 2.02 (95% CI, 1.70–2.41) for patients aged <70 years and 1.22 (95% CI, 1.15–1.30) for patients aged ≥70 years regardless of modality.

Table S2 shows the crude and adjusted effects of other risk factors included in our model. In general, the predictive effects of all cardiovascular and dementia risk factors were in the expected direction in the multivariable

model. Patients on statins or antiplatelet agents at the time of the index scan had crudely higher risks of dementia, presumably because of confounding by indication, but these effects were nullified after full adjustment.

### Sensitivity Analysis

Dementia incidence patterns were largely the same across sensitivity analyses with a roughly uniform relative increase in outcome rates when dementia

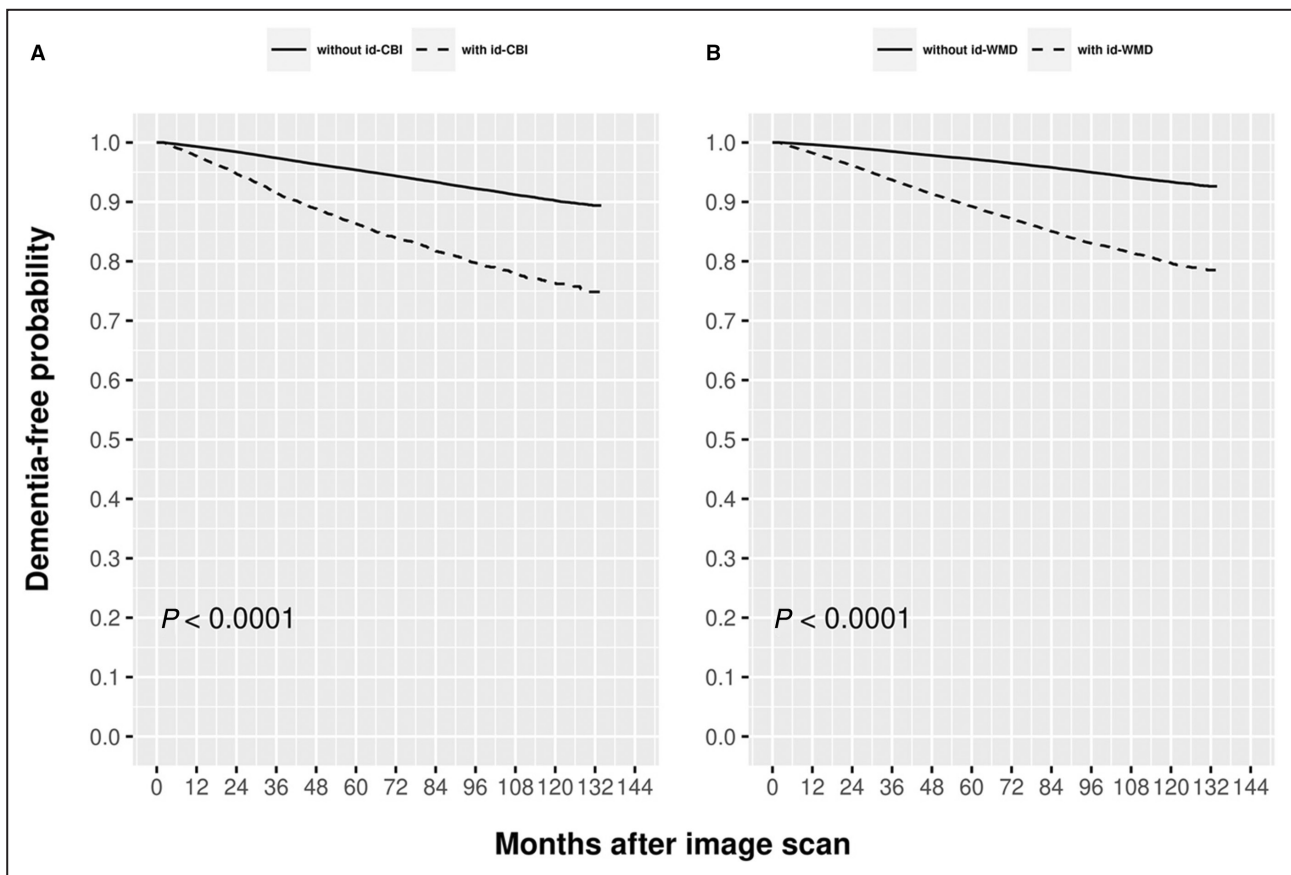
**Table 2. Dementia\* Incidence Rate Overall and in Subgroups (n=241 050)**

Patient characteristics	Patients with id=CBI (n=11 328)			Patient with id-WMD (n=69 931)			Patients with both id-CBI and id-WMD disease (n=6284)			Patients without id-CBI or id-WMD (n=166 075)		
	Average follow-up, y	No. events	Incidence rate (95% CI)	Average follow-up, y	No. events	Incidence rate (95% CI)	Average follow-up, y	No. events	Incidence rate (95% CI)	Average follow-up, y	No. events	Incidence rate (95% CI)
All	4.28	1425	29.4 (27.9–31.0)	4.08	6697	23.5 (22.9–24.0)	3.89	1016	41.5 (39.0–44.1)	4.46	4448	6.0 (5.8–6.2)
Age group, y												
50–59	4.61	24	3.0 (2.0–4.4)	4.40	57	1.0 (0.8–1.3)	4.40	10	4.3 (2.1–7.9)	4.43	167	0.5 (0.4–0.6)
60–69	4.68	115	8.2 (6.8–9.8)	4.33	559	6.4 (5.9–6.9)	4.29	70	11.9 (9.4–14.9)	4.55	849	3.5 (3.3–3.7)
70–79	4.50	484	29.3 (26.8–32.0)	4.16	2436	27.1 (26.0–28.1)	4.16	325	34.9 (31.3–38.9)	4.57	1882	16.3 (15.5–17.0)
80+	3.39	802	80.3 (74.9–86.0)	3.33	3645	73.1 (70.7–75.5)	3.24	611	87.6 (80.8–94.7)	3.87	1550	49.4 (47.0–51.9)
Sex												
Female	4.49	876	30.3 (28.3–32.3)	4.19	4339	24.3 (23.6–25.0)	4.08	619	42.7 (39.5–46.2)	4.56	2868	6.1 (5.9–6.4)
Male	4.00	549	28.1 (25.9–30.6)	3.91	2358	22.1 (21.2–23.0)	3.66	397	39.7 (36.0–43.8)	4.30	1580	5.8 (5.5–6.1)
Race and ethnicity												
Non-Hispanic white	4.19	752	33.0 (30.7–35.5)	4.09	3778	25.9 (25.1–26.7)	3.85	567	45.8 (42.1–49.7)	4.53	2176	7.3 (7.0–7.7)
Asian/Pacific Islander	4.59	114	19.8 (16.4–23.6)	4.26	555	16.2 (14.9–17.6)	4.10	74	26.2 (20.7–32.7)	4.70	382	4.1 (3.7–4.5)
Black	4.39	255	35.4 (31.2–39.9)	4.13	928	28.8 (26.9–30.6)	3.90	175	49.7 (42.7–57.5)	4.73	634	7.2 (6.6–7.7)
Hispanic	4.28	293	23.9 (21.3–26.7)	3.99	1393	20.0 (19.0–21.1)	3.97	195	35.2 (30.5–40.4)	4.26	1218	4.8 (4.6–5.1)
Other†	3.20	11	25.7 (13.6–44.4)	3.31	43	13.1 (9.6–17.5)	2.66	5	24.7 (8.0–57.6)	3.55	38	3.6 (2.6–4.9)
Imaging modality												
CT	4.25	1258	32.8 (31.0–34.6)	3.81	5307	37.7 (36.7–38.7)	3.76	871	51.6 (48.3–55.1)	4.46	4067	6.7 (6.5–6.9)
MRI	4.40	167	16.6 (14.2–19.3)	4.37	1390	9.6 (9.1–10.1)	4.24	145	19.1 (16.2–22.4)	4.47	381	2.9 (2.7–3.3)

CT indicates computed tomography; ICD, *International Classification of Diseases*; id-CBI, incidentally discovered covert brain infarction; id-WMD, incidentally discovered white matter disease; and MRI, magnetic resonance imaging.

\*Dementia was defined by 2 ICD diagnostic codes or 1 diagnostic code and 1 medication dispensing.

†Multiple, other, or unknown race or ethnicity.



**Figure 1. Kaplan-Meier plot of dementia-free survival with and without covert brain infarct (A) and with and without white matter disease (B) stratified by imaging modality (CT vs MRI).**

Differences in dementia-free survival were assessed by the log-rank test. CT indicates computed tomography; id-CBI, incidentally discovered covert brain infarct; id-WMD, incidentally discovered white matter disease; and MRI, magnetic resonance imaging.

was established with only a single diagnostic code (Table S3): 35.2 (95% CI, 33.5–36.9) per 1000 person-years for patients with id-CBI, 27.9 (95% CI, 27.3–28.6) for patients with WMD, and 7.3 (95% CI, 7.1–7.5) for patients without id-CBI or id-WMD. Patients without any indications for antithrombotic therapy had overall lower dementia incidence than the full cohort: 23.8 (95% CI, 22.1–25.5) per 1000 person-years in those with id-CBI, 18.4 (95% CI, 17.8–19.0) for those with id-WMD, and 4.6 (95% CI, 4.5–4.8) for those without id-CBI (Table S4). Neither incidence rates (Table S5) nor HRs (Table S6) changed substantially when follow-up started from 1 year after the index scan rather than 60 days.

### Analysis of WMD Severity

As shown in Table S7, among patients imaged by CT scan, 21% (36 903/178 571) were found to have id-WMD. Of these, 55% had mild disease, 10% had moderate disease, and 5% had severe disease; severity was “undetermined” for the remaining 30% of patients. Among patients imaged by MRI, 53% (33 028/62 479)

were found to have id-WMD. Of these, 62% had mild disease, 15% had moderate disease, and 5% had severe disease; severity was underdetermined in the remaining 17% of patients. Within each imaging modality, the incidence of dementia increased monotonically in the expected direction among those with no, mild, moderate, and severe disease. However, as shown in Figure 2 and Table S7, the incidence was substantially higher among those imaged by CT. Incidence ranged from 3.1 (95% CI, 2.8–3.4) per 1000 person-years among those who were id-WMD negative by MRI to 64.1 (95% CI, 58.3–70.4) per 1000 person-years for those with severe id-WMD as detected by CT scan. Patients with mild disease by MRI had a similar incidence of dementia to patients with no disease on CT, and patients with severe disease on MRI had a similar incidence to patients with mild disease on CT. Adjusted HRs compared with patients who were negative for id-WMD by MRI ranged from 1.41 (95% CI, 1.25–1.60) for those with mild disease on MRI to 4.11 (95% CI, 3.58–4.72) for those with severe disease on CT scan (Table S7).

**Table 3. Crude and Adjusted HRs for Dementia by CBI and WMD**

	HR	95% CI
Crude		
id-CBI	2.91	2.75–3.07
id-WMD	3.72	3.58–3.86
Adjusted		
id-CBI	1.28	1.21–1.35
id-WMD	1.93	1.85–2.00
Adjusted (varied by age and modality)		
id-CBI		
Age <70y	2.02	1.70–2.41
Age ≥70y	1.22	1.15–1.30
id-WMD		
MRI, age <70	2.28	1.99–2.62
MRI, age ≥70	1.48	1.32–1.66
CT, age <70	2.87	2.58–3.19
CT, age ≥70	1.87	1.79–1.95

CBI indicates covert brain infarction; CT, computed tomography; HR, hazard ratio; id-CBI, incidentally discovered covert brain infarction; id-WMD, incidentally discovered white matter disease; MRI, magnetic resonance imaging; and WMD, white matter disease.

The multivariable model included age, sex, race and ethnicity, atrial fibrillation, carotid atherosclerosis, congestive heart failure, coronary artery disease, diabetes, hypercholesterolemia, hypertension, peripheral arterial disease, ever tobacco use, mean systolic blood pressure in 1 year, antiplatelet use, statin use, depression, exercise (h/wk), body mass index (kg/m<sup>2</sup>), modality, age\*CBI, age\*id-WMD, and modality\*id-WMD. Refer to Table S2 for HRs of all the covariates.

## DISCUSSION

In this large observational cohort with ≈250 000 subjects and over 1 million person-years of follow-up, we found that the presence of incidentally discovered, NLP-identified CCD was strongly associated with an increased risk of future dementia. In patients aged between 50 and 70 years, id-CBI conferred a 2-fold increased risk, after adjustment for other risk factors. On CT scan, patients with id-WMD had an adjusted risk almost 3-fold that of those without id-WMD on CT scan; with MRI, the adjusted risk associated with id-WMD was ≈2-fold. These risk estimates are comparable to or greater than those for other major risk factors for dementia, including symptomatic ischemic stroke.<sup>30–33</sup> The size of these effects was reduced in patients aged ≥70 years, emphasizing the importance of early identification and the need for effective midlife prevention strategies. These findings establish that routinely obtained neuroimaging reports carry substantial information that can be used to identify patients at high risk of progressing to dementia.

To our knowledge, this is the first cohort on which the prognostic significance of id-CCD with regard to future dementia has been studied. A prior study in this cohort found that id-CBI was a “stroke equivalent” in

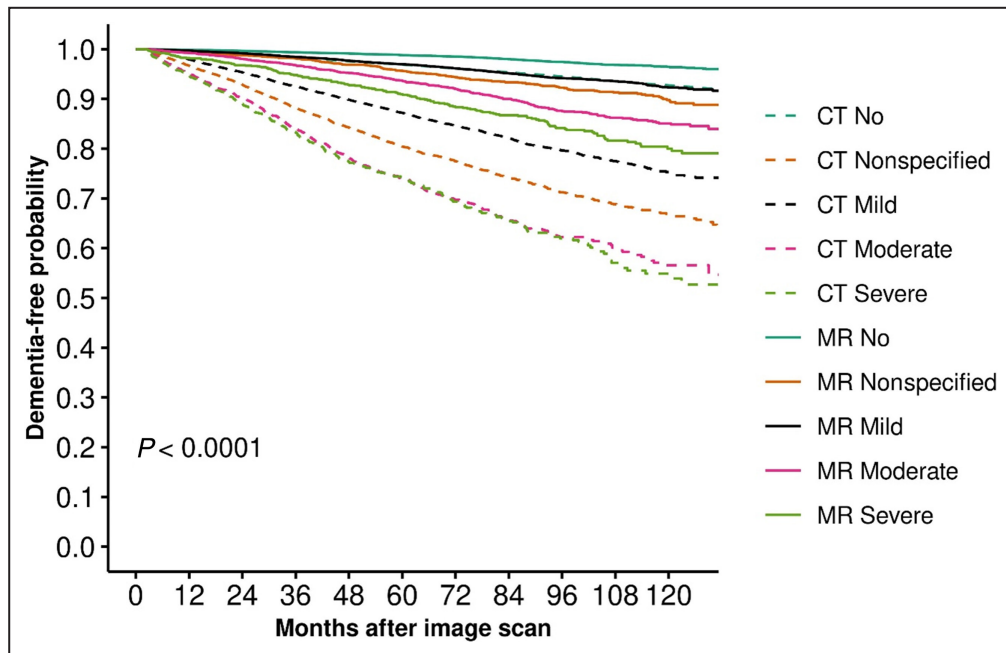
terms of the risk of future clinically evident stroke.<sup>34</sup> While the findings here are similar to some studies of CCD in screened cohorts,<sup>3,35</sup> there are additional insights not previously known. In particular, we found a dramatic increase in the incidence of dementia following CT-detected id-CCD compared with MRI-detected CCD. The incidence of dementia was 2-fold higher when id-CBI was detected by CT scan versus MRI and 4-fold higher when id-WMD was detected by CT scan versus MRI (Table 2). The difference in risk is presumably attributable to the lower sensitivity of a CT scan, particularly for id-WMD. Thus, when changes are detected with a CT scan, id-CCD is generally more advanced. This is consistent with our prior findings in this cohort of a much lower age-related incidence of id-WMD in patients imaged by CT scanning compared with MRI.<sup>36</sup>

Importantly, in 77% of patients with id-WMD, we were able to extract prognostically informative disease severity information from routinely obtained neuroimaging reports, which underscored the difference between CT- and MRI-detected id-WMD. The cohort of patients without WMD by CT scan appears to have a similar risk of dementia as compared with patients with mild WMD on MRI, presumably attributable in part to the presence of undetected WMD within the CT scan cohort, and patients with mild id-WMD on CT scan have a risk of dementia similar to or greater than those with severe id-WMD by MRI. Patients with severe WMD on CT have a dementia incidence ≈20-fold higher than patients free of WMD on MRI, with an adjusted HR of 4, indicating that neuroimaging reports contain substantial information useful for risk stratification extractable by the NLP algorithm.

Patients with id-CCD may be an attractive target for dementia prevention for several reasons. First, the overall incidence of dementia in these patients is high, well over 2% per year in the current study, which makes it a feasible outcome for a prevention trial. Second, it identifies patients with an elevated risk of dementias attributed to vascular risk factors for which there are already many known effective therapies. Third, the number of patients with id-CCD appears to be abundant and now identifiable: We found >11 000 patients aged ≥50 years with CBI and ≈70 000 with WMD without prior symptomatic stroke or cognitive decline, including dementia, in a single health system, suggesting that neuroimaging reports might be a repository of a large number of high-risk patients suitable for trial enrollment. Because of the abundance of these patients, treating id-CCD with aggressive vascular risk factor reduction may have substantial impact on the population risk of dementia and stroke.

While prevention strategies for dementia are lacking, therapies used for secondary stroke prevention are attractive candidate interventions in this population,





**Figure 2.** Kaplan–Meier plot of dementia-free survival by modality and white matter disease severity grade.

CT indicates computed tomography; and MR, magnetic resonance.

given the vascular contributions to the development of many dementias. Antiplatelet medications have not previously been shown to be beneficial for prevention of dementia in a general population but, in theory, may be helpful for patients with vascular brain injury (eg, CCD).<sup>37</sup> In this study, few patients were on prescribed antiplatelets (~5%), an unknown percentage were on over-the-counter aspirin, and about one-third had other indications for antithrombotic therapy. Given the size of this cohort, it is likely that a large population of patients may be candidates for randomization to antiplatelets in a clinical trial. Similarly, only half of the patients in this cohort were on statins. Finally, besides age, hypertension remains the most consistently shared risk factor between CCD, symptomatic stroke, and dementia, making it a compelling target for intervention among patients with id-CCD.<sup>38–42</sup> Novel agents currently being studied in stroke prevention may have unique benefits or a different risk–benefit balance with id-CCD.<sup>43,44</sup>

There are limitations to this study and the proposed approach to patient identification. We focused on neuroimaging findings of id-CBI and id-WMD and did not consider other neuroimaging findings that may indicate CCD (eg, microbleeds or perivascular spaces) or increased dementia risk (eg, prominent ventricles and sulci). Patients were selected into this cohort because they had clinically indicated neuroimaging scans. Thus, the patients are not representative of the full spectrum of patients with WMD and CBI. Also, while we were

able to control for many of the major risk factors for dementia, the variables within our data set are not exhaustive, and other risk factors may have further attenuated the adjusted effects we estimated. Additionally, a previous study by our team showed that agreement between the NLP algorithm and direct reading of images by expert readers was imperfect. Nevertheless, the agreement was similar or better than that achieved by 2 expert readers on direct image review.<sup>16</sup> We acknowledge that, as these reports were obtained from routine care across multiple, heterogeneous clinical settings, there may be substantial limitations to the consistency of and the degree of details recoverable from these reports.

On the other hand, the use of routinely obtained neuroimaging reports as our source of data may also be viewed as the chief strength of our study. First, in the absence of population screening for CCD, *incidentally discovered* CCD represents the most clinically relevant population. Further, by using reports obtained as part of routine care, we were able to estimate the prognostic value of imaging findings across diverse settings using heterogeneous imaging modalities without precise and standardized definitions of CBI and WMD, demonstrating the usefulness of routinely obtained neuroimage reports. Interestingly, while MRI would be considered the gold standard to screen for CCD, CT scans comprised the majority of neuroimages included in our study; lesions discovered by CT scan appear to be substantially more prognostic than those discovered by MRI.

## CONCLUSIONS

id-CCD including id-CBI and id-WMD are common, identifiable with an NLP algorithm, and associated with a high risk for future dementia. Algorithm-supported identification of patients with these conditions on routinely obtained neuroimaging reports may facilitate dementia prevention studies and risk stratification.

## ARTICLE INFORMATION

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### Disclosures

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### Supplemental Material

Data S1–S6  
Tables S1–S7  
Figure S1  
References<sup>45–49</sup>

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## **SUPPLEMENTAL MATERIAL**

**Data S1. ICD diagnosis codes and ICD/CPT procedure codes used to exclude patients from the cohort**

<u>ICD-9 Code</u>	<u>ICD-9 Description</u>	<u>ICD-10 Code</u>	<u>ICD-10 Description</u>
006.5	Amebic brain abscess	A06.6	Amebic brain abscess
013.20	Tuberculoma of brain, unspecified	A17.81	Tuberculoma of brain and spinal cord
013.21	Tuberculoma of brain, bacteriological or histological examination not done	A17.81	Tuberculoma of brain and spinal cord
013.22	Tuberculoma of brain, bacteriological or histological examination unknown (at present)	A17.81	Tuberculoma of brain and spinal cord
013.23	Tuberculoma of brain, tubercle bacilli found (in sputum) by microscopy	A17.81	Tuberculoma of brain and spinal cord
013.24	Tuberculoma of brain, tubercle bacilli not found (in sputum) by microscopy, but found by bacterial culture	A17.81	Tuberculoma of brain and spinal cord
013.25	Tuberculoma of brain, tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically	A17.81	Tuberculoma of brain and spinal cord
013.26	Tuberculoma of brain, tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals]	A17.81	Tuberculoma of brain and spinal cord
013.30	Tuberculous abscess of brain, unspecified	A17.81	Tuberculoma of brain and spinal cord
013.31	Tuberculous abscess of brain, bacteriological or histological examination not done	A17.81	Tuberculoma of brain and spinal cord
013.32	Tuberculous abscess of brain, bacteriological or histological examination unknown (at present)	A17.81	Tuberculoma of brain and spinal cord
013.33	Tuberculous abscess of brain, tubercle bacilli found (in sputum) by microscopy	A17.81	Tuberculoma of brain and spinal cord
013.34	Tuberculous abscess of brain, tubercle bacilli not found (in sputum) by microscopy, but found by bacterial culture	A17.81	Tuberculoma of brain and spinal cord
013.35	Tuberculous abscess of brain, tubercle bacilli not found by bacteriological examination, but tuberculosis confirmed histologically	A17.81	Tuberculoma of brain and spinal cord
013.36	Tuberculous abscess of brain, tubercle bacilli not found by bacteriological or histological examination, but tuberculosis confirmed by other methods [inoculation of animals]	A17.81	Tuberculoma of brain and spinal cord
191.0	Malignant neoplasm of cerebrum, except lobes and ventricles	C71.0	Malignant neoplasm of cerebrum, except lobes and ventricles
191.1	Malignant neoplasm of frontal lobe	C71.1	Malignant neoplasm of frontal lobe
191.2	Malignant neoplasm of temporal lobe	C71.2	Malignant neoplasm of temporal lobe
191.3	Malignant neoplasm of parietal lobe	C71.3	Malignant neoplasm of parietal lobe
191.4	Malignant neoplasm of occipital lobe	C71.4	Malignant neoplasm of occipital lobe
191.5	Malignant neoplasm of ventricles	C71.5	Malignant neoplasm of cerebral ventricle
191.6	Malignant neoplasm of cerebellum nos	C71.6	Malignant neoplasm of cerebellum
191.7	Malignant neoplasm of brain stem	C71.7	Malignant neoplasm of brain stem
191.8	Malignant neoplasm of other parts of brain	C71.8	Malignant neoplasm of overlapping sites of brain



<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
191.9	Malignant neoplasm of brain, unspecified	C71.9	Malignant neoplasm of brain, unspecified
239.6	Neoplasm of unspecified nature of brain	D49.6	Neoplasm of unspecified behavior of brain
290.0	Senile dementia, uncomplicated	F03.90	Unspecified dementia without behavioral disturbance
290.10	Presenile dementia, uncomplicated	F03.90	Unspecified dementia without behavioral disturbance
290.11	Presenile dementia with delirium	F03.90	Unspecified dementia without behavioral disturbance
290.12	Presenile dementia with delusional features	F03.90	Unspecified dementia without behavioral disturbance
290.12	Presenile dementia with delusional features		
290.13	Presenile dementia with depressive features	F03.90	Unspecified dementia without behavioral disturbance
290.20	Senile dementia with delusional features	F03.90	Unspecified dementia without behavioral disturbance
290.20	Senile dementia with delusional features		
290.21	Senile dementia with depressive features	F03.90	Unspecified dementia without behavioral disturbance
290.3	Senile dementia with delirium	F03.90	Unspecified dementia without behavioral disturbance
290.3	Senile dementia with delirium		
290.40	Vascular dementia, uncomplicated	F01.50	Vascular dementia without behavioral disturbance
290.41	Vascular dementia, with delirium	F01.51	Vascular dementia with behavioral disturbance
290.42	Vascular dementia, with delusions	F01.51	Vascular dementia with behavioral disturbance
290.43	Vascular dementia, with depressed mood	F01.51	Vascular dementia with behavioral disturbance
290.8	Other specified senile psychotic conditions	F03.90	Unspecified dementia without behavioral disturbance
290.9	Unspecified senile psychotic condition	F03.90	Unspecified dementia without behavioral disturbance
291.2	Alcohol-induced persisting dementia	F10.27	Alcohol dependence with alcohol-induced persisting dementia
292.82	Drug-induced persisting dementia	F13.27	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced persisting dementia
292.82	Drug-induced persisting dementia	F13.97	Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced persisting dementia
292.82	Drug-induced persisting dementia	F18.17	Inhalant abuse with inhalant-induced dementia
292.82	Drug-induced persisting dementia	F18.27	Inhalant dependence with inhalant-induced dementia
292.82	Drug-induced persisting dementia	F18.97	Inhalant use, unspecified with inhalant-induced persisting dementia
292.82	Drug-induced persisting dementia	F19.17	Other psychoactive substance abuse with psychoactive substance-induced persisting dementia

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
292.82	Drug-induced persisting dementia	F19.27	Other psychoactive substance dependence with psychoactive substance-induced persisting dementia
292.82	Drug-induced persisting dementia	F19.97	Other psychoactive substance use, unspecified with psychoactive substance-induced persisting dementia
294.10	Dementia in conditions classified elsewhere without behavioral disturbance	F02.80	Dementia in other diseases classified elsewhere without behavioral disturbance
294.11	Dementia in conditions classified elsewhere with behavioral disturbance	F02.81	Dementia in other diseases classified elsewhere with behavioral disturbance
294.20	Dementia, unspecified, without behavioral disturbance	F03.90	Unspecified dementia without behavioral disturbance
294.21	Dementia, unspecified, with behavioral disturbance	F03.91	Unspecified dementia with behavioral disturbance
315.31	Expressive language disorder	F80.1	Expressive language disorder
324.0	Intracranial abscess	G06.0	Intracranial abscess and granuloma
326.	Late effects of intracranial abscess or pyogenic infection	G09.	Sequelae of inflammatory diseases of central nervous system
331.0	Alzheimer's disease	G30.0	Alzheimer's disease with early onset
331.0	Alzheimer's disease	G30.1	Alzheimer's disease with late onset
331.0	Alzheimer's disease	G30.8	Other Alzheimer's disease
331.0	Alzheimer's disease	G30.9	Alzheimer's disease, unspecified
331.11	Pick's disease	G31.01	Pick's disease
331.19	Other frontotemporal dementia	G31.09	Other frontotemporal dementia
331.2	Senile degeneration of brain	G31.1	Senile degeneration of brain, not elsewhere classified
331.3	Communicating hydrocephalus	G91.0	Communicating hydrocephalus
331.4	Obstructive hydrocephalus	G91.1	Obstructive hydrocephalus
331.4	Obstructive hydrocephalus	G91.3	Post-traumatic hydrocephalus, unspecified
331.4	Obstructive hydrocephalus	G91.8	Other hydrocephalus
331.4	Obstructive hydrocephalus	G91.9	Hydrocephalus, unspecified
331.5	Idiopathic normal pressure hydrocephalus (INPH)	G91.2	(Idiopathic) normal pressure hydrocephalus
331.6	Corticobasal degeneration	G31.85	Corticobasal degeneration
331.82	Dementia with lewy bodies	G31.83	Dementia with Lewy bodies
340.	Multiple sclerosis	G35.	Multiple sclerosis
342.00	Flaccid hemiplegia and hemiparesis affecting unspecified side	G81.00	Flaccid hemiplegia affecting unspecified side
342.01	Flaccid hemiplegia and hemiparesis affecting dominant side	G81.01	Flaccid hemiplegia affecting right dominant side
342.01	Flaccid hemiplegia and hemiparesis affecting dominant side	G81.02	Flaccid hemiplegia affecting left dominant side
342.02	Flaccid hemiplegia and hemiparesis affecting nondominant side	G81.03	Flaccid hemiplegia affecting right nondominant side
342.02	Flaccid hemiplegia and hemiparesis affecting nondominant side	G81.04	Flaccid hemiplegia affecting left nondominant side
342.10	Spastic hemiplegia and hemiparesis affecting unspecified side	G81.10	Spastic hemiplegia affecting unspecified side
342.11	Spastic hemiplegia and hemiparesis affecting dominant side	G81.11	Spastic hemiplegia affecting right dominant side

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
342.11	Spastic hemiplegia and hemiparesis affecting dominant side	G81.12	Spastic hemiplegia affecting left dominant side
342.12	Spastic hemiplegia and hemiparesis affecting nondominant side	G81.13	Spastic hemiplegia affecting right nondominant side
342.12	Spastic hemiplegia and hemiparesis affecting nondominant side	G81.14	Spastic hemiplegia affecting left nondominant side
342.80	Other specified hemiplegia and hemiparesis affecting unspecified side	G81.90	Hemiplegia, unspecified affecting unspecified side
342.81	Other specified hemiplegia and hemiparesis affecting dominant side	G81.91	Hemiplegia, unspecified affecting right dominant side
342.81	Other specified hemiplegia and hemiparesis affecting dominant side	G81.92	Hemiplegia, unspecified affecting left dominant side
342.82	Other specified hemiplegia and hemiparesis affecting nondominant side	G81.93	Hemiplegia, unspecified affecting right nondominant side
342.82	Other specified hemiplegia and hemiparesis affecting nondominant side	G81.94	Hemiplegia, unspecified affecting left nondominant side
342.90	Hemiplegia, unspecified, affecting unspecified side	G81.90	Hemiplegia, unspecified affecting unspecified side
342.91	Hemiplegia, unspecified, affecting dominant side	G81.91	Hemiplegia, unspecified affecting right dominant side
342.91	Hemiplegia, unspecified, affecting dominant side	G81.92	Hemiplegia, unspecified affecting left dominant side
342.92	Hemiplegia, unspecified, affecting nondominant side	G81.93	Hemiplegia, unspecified affecting right nondominant side
342.92	Hemiplegia, unspecified, affecting nondominant side	G81.94	Hemiplegia, unspecified affecting left nondominant side
344.30	Monoplegia of lower limb affecting unspecified side	G83.10	Monoplegia of lower limb affecting unspecified side
344.31	Monoplegia of lower limb affecting dominant side	G83.11	Monoplegia of lower limb affecting right dominant side
344.31	Monoplegia of lower limb affecting dominant side	G83.12	Monoplegia of lower limb affecting left dominant side
344.32	Monoplegia of lower limb affecting nondominant side	G83.13	Monoplegia of lower limb affecting right nondominant side
344.32	Monoplegia of lower limb affecting nondominant side	G83.14	Monoplegia of lower limb affecting left nondominant side
344.40	Monoplegia of upper limb affecting unspecified side	G83.20	Monoplegia of upper limb affecting unspecified side
344.41	Monoplegia of upper limb affecting dominant side	G83.21	Monoplegia of upper limb affecting right dominant side
344.41	Monoplegia of upper limb affecting dominant side	G83.22	Monoplegia of upper limb affecting left dominant side
344.42	Monoplegia of upper limb affecting nondominant side	G83.23	Monoplegia of upper limb affecting right nondominant side
344.42	Monoplegia of upper limb affecting nondominant side	G83.24	Monoplegia of upper limb affecting left nondominant side
344.5	Unspecified monoplegia	G83.30	Monoplegia, unspecified affecting unspecified side
344.5	Unspecified monoplegia	G83.31	Monoplegia, unspecified affecting right dominant side
344.5	Unspecified monoplegia	G83.32	Monoplegia, unspecified affecting left dominant side

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
344.5	Unspecified monoplegia	G83.33	Monoplegia, unspecified affecting right nondominant side
344.5	Unspecified monoplegia	G83.34	Monoplegia, unspecified affecting left nondominant side
344.9	Paralysis, unspecified	G83.9	Paralytic syndrome, unspecified
348.1	Anoxic brain damage	G93.1	Anoxic brain damage, not elsewhere classified
362.30	Retinal vascular occlusion, unspecified	H34.9	Unspecified retinal vascular occlusion
362.31	Central retinal artery occlusion	H34.10	Central retinal artery occlusion, unspecified eye
362.31	Central retinal artery occlusion	H34.11	Central retinal artery occlusion, right eye
362.31	Central retinal artery occlusion	H34.12	Central retinal artery occlusion, left eye
362.31	Central retinal artery occlusion	H34.13	Central retinal artery occlusion, bilateral
362.32	Retinal arterial branch occlusion	H34.231	Retinal artery branch occlusion, right eye
362.32	Retinal arterial branch occlusion	H34.232	Retinal artery branch occlusion, left eye
362.32	Retinal arterial branch occlusion	H34.233	Retinal artery branch occlusion, bilateral
362.32	Retinal arterial branch occlusion	H34.239	Retinal artery branch occlusion, unspecified eye
362.33	Partial retinal arterial occlusion	H34.211	Partial retinal artery occlusion, right eye
362.33	Partial retinal arterial occlusion	H34.212	Partial retinal artery occlusion, left eye
362.33	Partial retinal arterial occlusion	H34.213	Partial retinal artery occlusion, bilateral
362.33	Partial retinal arterial occlusion	H34.219	Partial retinal artery occlusion, unspecified eye
362.34	Transient retinal arterial occlusion	G45.3	Amaurosis fugax
362.34	Transient retinal arterial occlusion	H34.00	Transient retinal artery occlusion, unspecified eye
362.34	Transient retinal arterial occlusion	H34.01	Transient retinal artery occlusion, right eye
362.34	Transient retinal arterial occlusion	H34.02	Transient retinal artery occlusion, left eye
362.34	Transient retinal arterial occlusion	H34.03	Transient retinal artery occlusion, bilateral
368.00	Amblyopia, unspecified		
368.01	Strabismic amblyopia		
368.02	Deprivation amblyopia		
368.03	Refractive amblyopia		
368.11	Sudden visual loss	H53.131	Sudden visual loss, right eye
368.11	Sudden visual loss	H53.132	Sudden visual loss, left eye
368.11	Sudden visual loss	H53.133	Sudden visual loss, bilateral
368.11	Sudden visual loss	H53.139	Sudden visual loss, unspecified eye
368.12	Transient visual loss	H53.121	Transient visual loss, right eye
368.12	Transient visual loss	H53.122	Transient visual loss, left eye
368.12	Transient visual loss	H53.123	Transient visual loss, bilateral
368.12	Transient visual loss	H53.129	Transient visual loss, unspecified eye
368.13	Visual discomfort		
368.14	Visual distortions of shape and size	H53.15	Visual distortions of shape and size
368.15	Other visual distortions and entoptic phenomena		

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
368.16	Psychophysical visual disturbances	R48.3	Visual agnosia
368.16	Psychophysical visual disturbances		
368.2	Diplopia	H53.2	Diplopia
368.30	Binocular vision disorder, unspecified	H53.30	Unspecified disorder of binocular vision
368.31	Suppression of binocular vision		
368.32	Simultaneous visual perception without fusion		
368.33	Fusion with defective stereopsis		
368.34	Abnormal retinal correspondence		
368.40	Visual field defect, unspecified	H53.40	Unspecified visual field defects
368.41	Scotoma involving central area	H53.411	Scotoma involving central area, right eye
368.41	Scotoma involving central area	H53.412	Scotoma involving central area, left eye
368.41	Scotoma involving central area	H53.413	Scotoma involving central area, bilateral
368.41	Scotoma involving central area	H53.419	Scotoma involving central area, unspecified eye
368.42	Scotoma of blind spot area	H53.421	Scotoma of blind spot area, right eye
368.42	Scotoma of blind spot area	H53.422	Scotoma of blind spot area, left eye
368.42	Scotoma of blind spot area	H53.423	Scotoma of blind spot area, bilateral
368.42	Scotoma of blind spot area	H53.429	Scotoma of blind spot area, unspecified eye
368.43	Sector or arcuate visual field defects	H53.431	Sector or arcuate defects, right eye
368.43	Sector or arcuate visual field defects	H53.432	Sector or arcuate defects, left eye
368.43	Sector or arcuate visual field defects	H53.433	Sector or arcuate defects, bilateral
368.43	Sector or arcuate visual field defects	H53.439	Sector or arcuate defects, unspecified eye
368.44	Other localized visual field defect	H53.451	Other localized visual field defect, right eye
368.44	Other localized visual field defect	H53.452	Other localized visual field defect, left eye
368.44	Other localized visual field defect	H53.453	Other localized visual field defect, bilateral
368.44	Other localized visual field defect	H53.459	Other localized visual field defect, unspecified eye
368.45	Generalized visual field contraction or constriction	H53.481	Generalized contraction of visual field, right eye
368.45	Generalized visual field contraction or constriction	H53.482	Generalized contraction of visual field, left eye
368.45	Generalized visual field contraction or constriction	H53.483	Generalized contraction of visual field, bilateral
368.45	Generalized visual field contraction or constriction	H53.489	Generalized contraction of visual field, unspecified eye
368.46	Homonymous bilateral field defects	H53.461	Homonymous bilateral field defects, right side
368.46	Homonymous bilateral field defects	H53.462	Homonymous bilateral field defects, left side
368.46	Homonymous bilateral field defects	H53.469	Homonymous bilateral field defects, unspecified side
368.47	Heteronymous bilateral field defects	H53.47	Heteronymous bilateral field defects
368.51	Protan defect		
368.52	Deutan defect		
368.53	Tritan defect		



<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
368.54	Achromatopsia		
368.55	Acquired color vision deficiencies		
368.59	Other color vision deficiencies		
368.60	Night blindness, unspecified		
368.61	Congenital night blindness		
368.62	Acquired night blindness		
368.63	Abnormal dark adaptation curve		
368.69	Other night blindness		
369.8	Unqualified visual loss, one eye	H54.60	Unqualified visual loss, one eye, unspecified
369.8	Unqualified visual loss, one eye	H54.61	Unqualified visual loss, right eye, normal vision left eye
369.8	Unqualified visual loss, one eye	H54.62	Unqualified visual loss, left eye, normal vision right eye
369.9	Unspecified visual loss	H54.7	Unspecified visual loss
377.62	Disorders of other visual pathways associated with vascular disorders	H47.531	Disorders of visual pathways in (due to) vascular disorders, right side
377.62	Disorders of other visual pathways associated with vascular disorders	H47.532	Disorders of visual pathways in (due to) vascular disorders, left side
377.62	Disorders of other visual pathways associated with vascular disorders	H47.539	Disorders of visual pathways in (due to) vascular disorders, unspecified side
377.72	Disorders of visual cortex associated with vascular disorders	H47.641	Disorders of visual cortex in (due to) vascular disorders, right side of brain
377.72	Disorders of visual cortex associated with vascular disorders	H47.642	Disorders of visual cortex in (due to) vascular disorders, left side of brain
377.72	Disorders of visual cortex associated with vascular disorders	H47.649	Disorders of visual cortex in (due to) vascular disorders, unspecified side of brain
430.	Subarachnoid hemorrhage	I60.00	Nontraumatic subarachnoid hemorrhage from unspecified carotid siphon and bifurcation
430.	Subarachnoid hemorrhage	I60.01	Nontraumatic subarachnoid hemorrhage from right carotid siphon and bifurcation
430.	Subarachnoid hemorrhage	I60.02	Nontraumatic subarachnoid hemorrhage from left carotid siphon and bifurcation
430.	Subarachnoid hemorrhage	I60.10	Nontraumatic subarachnoid hemorrhage from unspecified middle cerebral artery
430.	Subarachnoid hemorrhage	I60.11	Nontraumatic subarachnoid hemorrhage from right middle cerebral artery
430.	Subarachnoid hemorrhage	I60.12	Nontraumatic subarachnoid hemorrhage from left middle cerebral artery
430.	Subarachnoid hemorrhage	I60.2	Nontraumatic subarachnoid hemorrhage from anterior communicating artery
430.	Subarachnoid hemorrhage	I60.30	Nontraumatic subarachnoid hemorrhage from unspecified posterior communicating artery

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
430.	Subarachnoid hemorrhage	I60.31	Nontraumatic subarachnoid hemorrhage from right posterior communicating artery
430.	Subarachnoid hemorrhage	I60.32	Nontraumatic subarachnoid hemorrhage from left posterior communicating artery
430.	Subarachnoid hemorrhage	I60.4	Nontraumatic subarachnoid hemorrhage from basilar artery
430.	Subarachnoid hemorrhage	I60.50	Nontraumatic subarachnoid hemorrhage from unspecified vertebral artery
430.	Subarachnoid hemorrhage	I60.51	Nontraumatic subarachnoid hemorrhage from right vertebral artery
430.	Subarachnoid hemorrhage	I60.52	Nontraumatic subarachnoid hemorrhage from left vertebral artery
430.	Subarachnoid hemorrhage	I60.6	Nontraumatic subarachnoid hemorrhage from other intracranial arteries
430.	Subarachnoid hemorrhage	I60.7	Nontraumatic subarachnoid hemorrhage from unspecified intracranial artery
430.	Subarachnoid hemorrhage	I60.8	Other nontraumatic subarachnoid hemorrhage
430.	Subarachnoid hemorrhage	I60.9	Nontraumatic subarachnoid hemorrhage, unspecified
431.	Intracerebral hemorrhage	I61.0	Nontraumatic intracerebral hemorrhage in hemisphere, subcortical
431.	Intracerebral hemorrhage	I61.1	Nontraumatic intracerebral hemorrhage in hemisphere, cortical
431.	Intracerebral hemorrhage	I61.2	Nontraumatic intracerebral hemorrhage in hemisphere, unspecified
431.	Intracerebral hemorrhage	I61.3	Nontraumatic intracerebral hemorrhage in brain stem
431.	Intracerebral hemorrhage	I61.4	Nontraumatic intracerebral hemorrhage in cerebellum
431.	Intracerebral hemorrhage	I61.5	Nontraumatic intracerebral hemorrhage, intraventricular
431.	Intracerebral hemorrhage	I61.6	Nontraumatic intracerebral hemorrhage, multiple localized
431.	Intracerebral hemorrhage	I61.8	Other nontraumatic intracerebral hemorrhage
431.	Intracerebral hemorrhage	I61.9	Nontraumatic intracerebral hemorrhage, unspecified
432.0	Nontraumatic extradural hemorrhage	I62.1	Nontraumatic extradural hemorrhage
432.1	Subdural hemorrhage	I62.00	Nontraumatic subdural hemorrhage, unspecified
432.1	Subdural hemorrhage	I62.01	Nontraumatic acute subdural hemorrhage
432.1	Subdural hemorrhage	I62.02	Nontraumatic subacute subdural hemorrhage
432.1	Subdural hemorrhage	I62.03	Nontraumatic chronic subdural hemorrhage

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
432.9	Unspecified intracranial hemorrhage	I62.9	Nontraumatic intracranial hemorrhage, unspecified
433.01	Occlusion and stenosis of basilar artery with cerebral infarction	I63.02	Cerebral infarction due to thrombosis of basilar artery
433.01	Occlusion and stenosis of basilar artery with cerebral infarction	I63.12	Cerebral infarction due to embolism of basilar artery
433.01	Occlusion and stenosis of basilar artery with cerebral infarction	I63.22	Cerebral infarction due to unspecified occlusion or stenosis of basilar artery
433.11	Occlusion and stenosis of carotid artery with cerebral infarction	I63.031	Cerebral infarction due to thrombosis of right carotid artery
433.11	Occlusion and stenosis of carotid artery with cerebral infarction	I63.032	Cerebral infarction due to thrombosis of left carotid artery
433.11	Occlusion and stenosis of carotid artery with cerebral infarction	I63.033	Cerebral infarction due to thrombosis of bilateral carotid arteries
433.11	Occlusion and stenosis of carotid artery with cerebral infarction	I63.039	Cerebral infarction due to thrombosis of unspecified carotid artery
433.11	Occlusion and stenosis of carotid artery with cerebral infarction	I63.131	Cerebral infarction due to embolism of right carotid artery
433.11	Occlusion and stenosis of carotid artery with cerebral infarction	I63.132	Cerebral infarction due to embolism of left carotid artery
433.11	Occlusion and stenosis of carotid artery with cerebral infarction	I63.133	Cerebral infarction due to embolism of bilateral carotid arteries
433.11	Occlusion and stenosis of carotid artery with cerebral infarction	I63.139	Cerebral infarction due to embolism of unspecified carotid artery
433.11	Occlusion and stenosis of carotid artery with cerebral infarction	I63.231	Cerebral infarction due to unspecified occlusion or stenosis of right carotid arteries
433.11	Occlusion and stenosis of carotid artery with cerebral infarction	I63.232	Cerebral infarction due to unspecified occlusion or stenosis of left carotid arteries
433.11	Occlusion and stenosis of carotid artery with cerebral infarction	I63.233	Cerebral infarction due to unspecified occlusion or stenosis of bilateral carotid arteries
433.11	Occlusion and stenosis of carotid artery with cerebral infarction	I63.239	Cerebral infarction due to unspecified occlusion or stenosis of unspecified carotid arteries
433.21	Occlusion and stenosis of vertebral artery with cerebral infarction	I63.011	Cerebral infarction due to thrombosis of right vertebral artery
433.21	Occlusion and stenosis of vertebral artery with cerebral infarction	I63.012	Cerebral infarction due to thrombosis of left vertebral artery
433.21	Occlusion and stenosis of vertebral artery with cerebral infarction	I63.013	Cerebral infarction due to thrombosis of bilateral vertebral arteries
433.21	Occlusion and stenosis of vertebral artery with cerebral infarction	I63.019	Cerebral infarction due to thrombosis of unspecified vertebral artery
433.21	Occlusion and stenosis of vertebral artery with cerebral infarction	I63.111	Cerebral infarction due to embolism of right vertebral artery
433.21	Occlusion and stenosis of vertebral artery with cerebral infarction	I63.112	Cerebral infarction due to embolism of left vertebral artery
433.21	Occlusion and stenosis of vertebral artery with cerebral infarction	I63.113	Cerebral infarction due to embolism of bilateral vertebral arteries
433.21	Occlusion and stenosis of vertebral artery with cerebral infarction	I63.119	Cerebral infarction due to embolism of unspecified vertebral artery

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
433.21	Occlusion and stenosis of vertebral artery with cerebral infarction	I63.211	Cerebral infarction due to unspecified occlusion or stenosis of right vertebral artery
433.21	Occlusion and stenosis of vertebral artery with cerebral infarction	I63.212	Cerebral infarction due to unspecified occlusion or stenosis of left vertebral artery
433.21	Occlusion and stenosis of vertebral artery with cerebral infarction	I63.213	Cerebral infarction due to unspecified occlusion or stenosis of bilateral vertebral arteries
433.21	Occlusion and stenosis of vertebral artery with cerebral infarction	I63.219	Cerebral infarction due to unspecified occlusion or stenosis of unspecified vertebral arteries
433.31	Occlusion and stenosis of multiple and bilateral precerebral arteries with cerebral infarction	I63.59	Cerebral infarction due to unspecified occlusion or stenosis of other cerebral artery
433.81	Occlusion and stenosis of other specified precerebral artery with cerebral infarction	I63.09	Cerebral infarction due to thrombosis of other precerebral artery
433.81	Occlusion and stenosis of other specified precerebral artery with cerebral infarction	I63.19	Cerebral infarction due to embolism of other precerebral artery
433.81	Occlusion and stenosis of other specified precerebral artery with cerebral infarction	I63.59	Cerebral infarction due to unspecified occlusion or stenosis of other cerebral artery
433.91	Occlusion and stenosis of unspecified precerebral artery with cerebral infarction	I63.00	Cerebral infarction due to thrombosis of unspecified precerebral artery
433.91	Occlusion and stenosis of unspecified precerebral artery with cerebral infarction	I63.10	Cerebral infarction due to embolism of unspecified precerebral artery
433.91	Occlusion and stenosis of unspecified precerebral artery with cerebral infarction	I63.20	Cerebral infarction due to unspecified occlusion or stenosis of unspecified precerebral arteries
433.91	Occlusion and stenosis of unspecified precerebral artery with cerebral infarction	I63.29	Cerebral infarction due to unspecified occlusion or stenosis of other precerebral arteries
434.00	Cerebral thrombosis without mention of cerebral infarction		
434.01	Cerebral thrombosis with cerebral infarction	I63.30	Cerebral infarction due to thrombosis of unspecified cerebral artery
434.01	Cerebral thrombosis with cerebral infarction	I63.311	Cerebral infarction due to thrombosis of right middle cerebral artery
434.01	Cerebral thrombosis with cerebral infarction	I63.312	Cerebral infarction due to thrombosis of left middle cerebral artery
434.01	Cerebral thrombosis with cerebral infarction	I63.313	Cerebral infarction due to thrombosis of bilateral middle cerebral arteries
434.01	Cerebral thrombosis with cerebral infarction	I63.319	Cerebral infarction due to thrombosis of unspecified middle cerebral artery
434.01	Cerebral thrombosis with cerebral infarction	I63.321	Cerebral infarction due to thrombosis of right anterior cerebral artery
434.01	Cerebral thrombosis with cerebral infarction	I63.322	Cerebral infarction due to thrombosis of left anterior cerebral artery
434.01	Cerebral thrombosis with cerebral infarction	I63.323	Cerebral infarction due to thrombosis of bilateral anterior cerebral arteries
434.01	Cerebral thrombosis with cerebral infarction	I63.329	Cerebral infarction due to thrombosis of unspecified anterior cerebral artery

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
434.01	Cerebral thrombosis with cerebral infarction	I63.331	Cerebral infarction due to thrombosis of right posterior cerebral artery
434.01	Cerebral thrombosis with cerebral infarction	I63.332	Cerebral infarction due to thrombosis of left posterior cerebral artery
434.01	Cerebral thrombosis with cerebral infarction	I63.333	Cerebral infarction to thrombosis of bilateral posterior cerebral arteries
434.01	Cerebral thrombosis with cerebral infarction	I63.339	Cerebral infarction due to thrombosis of unspecified posterior cerebral artery
434.01	Cerebral thrombosis with cerebral infarction	I63.341	Cerebral infarction due to thrombosis of right cerebellar artery
434.01	Cerebral thrombosis with cerebral infarction	I63.342	Cerebral infarction due to thrombosis of left cerebellar artery
434.01	Cerebral thrombosis with cerebral infarction	I63.343	Cerebral infarction to thrombosis of bilateral cerebellar arteries
434.01	Cerebral thrombosis with cerebral infarction	I63.349	Cerebral infarction due to thrombosis of unspecified cerebellar artery
434.01	Cerebral thrombosis with cerebral infarction	I63.39	Cerebral infarction due to thrombosis of other cerebral artery
434.01	Cerebral thrombosis with cerebral infarction	I63.6	Cerebral infarction due to cerebral venous thrombosis, nonpyogenic
434.10	Cerebral embolism without mention of cerebral infarction		
434.11	Cerebral embolism with cerebral infarction	I63.40	Cerebral infarction due to embolism of unspecified cerebral artery
434.11	Cerebral embolism with cerebral infarction	I63.411	Cerebral infarction due to embolism of right middle cerebral artery
434.11	Cerebral embolism with cerebral infarction	I63.412	Cerebral infarction due to embolism of left middle cerebral artery
434.11	Cerebral embolism with cerebral infarction	I63.413	Cerebral infarction due to embolism of bilateral middle cerebral arteries
434.11	Cerebral embolism with cerebral infarction	I63.419	Cerebral infarction due to embolism of unspecified middle cerebral artery
434.11	Cerebral embolism with cerebral infarction	I63.421	Cerebral infarction due to embolism of right anterior cerebral artery
434.11	Cerebral embolism with cerebral infarction	I63.422	Cerebral infarction due to embolism of left anterior cerebral artery
434.11	Cerebral embolism with cerebral infarction	I63.423	Cerebral infarction due to embolism of bilateral anterior cerebral arteries
434.11	Cerebral embolism with cerebral infarction	I63.429	Cerebral infarction due to embolism of unspecified anterior cerebral artery
434.11	Cerebral embolism with cerebral infarction	I63.431	Cerebral infarction due to embolism of right posterior cerebral artery
434.11	Cerebral embolism with cerebral infarction	I63.432	Cerebral infarction due to embolism of left posterior cerebral artery
434.11	Cerebral embolism with cerebral infarction	I63.433	Cerebral infarction due to embolism of bilateral posterior cerebral arteries
434.11	Cerebral embolism with cerebral infarction	I63.439	Cerebral infarction due to embolism of unspecified posterior cerebral artery
434.11	Cerebral embolism with cerebral infarction	I63.441	Cerebral infarction due to embolism of right cerebellar artery
434.11	Cerebral embolism with cerebral infarction	I63.442	Cerebral infarction due to embolism of left cerebellar artery



<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
434.11	Cerebral embolism with cerebral infarction	I63.443	Cerebral infarction due to embolism of bilateral cerebellar arteries
434.11	Cerebral embolism with cerebral infarction	I63.449	Cerebral infarction due to embolism of unspecified cerebellar artery
434.11	Cerebral embolism with cerebral infarction	I63.49	Cerebral infarction due to embolism of other cerebral artery
434.91	Cerebral artery occlusion, unspecified with cerebral infarction	I63.50	Cerebral infarction due to unspecified occlusion or stenosis of unspecified cerebral artery
434.91	Cerebral artery occlusion, unspecified with cerebral infarction	I63.511	Cerebral infarction due to unspecified occlusion or stenosis of right middle cerebral artery
434.91	Cerebral artery occlusion, unspecified with cerebral infarction	I63.512	Cerebral infarction due to unspecified occlusion or stenosis of left middle cerebral artery
434.91	Cerebral artery occlusion, unspecified with cerebral infarction	I63.513	Cerebral infarction due to unspecified occlusion or stenosis of bilateral middle cerebral arteries
434.91	Cerebral artery occlusion, unspecified with cerebral infarction	I63.519	Cerebral infarction due to unspecified occlusion or stenosis of unspecified middle cerebral artery
434.91	Cerebral artery occlusion, unspecified with cerebral infarction	I63.521	Cerebral infarction due to unspecified occlusion or stenosis of right anterior cerebral artery
434.91	Cerebral artery occlusion, unspecified with cerebral infarction	I63.522	Cerebral infarction due to unspecified occlusion or stenosis of left anterior cerebral artery
434.91	Cerebral artery occlusion, unspecified with cerebral infarction	I63.523	Cerebral infarction due to unspecified occlusion or stenosis of bilateral anterior cerebral arteries
434.91	Cerebral artery occlusion, unspecified with cerebral infarction	I63.529	Cerebral infarction due to unspecified occlusion or stenosis of unspecified anterior cerebral artery
434.91	Cerebral artery occlusion, unspecified with cerebral infarction	I63.531	Cerebral infarction due to unspecified occlusion or stenosis of right posterior cerebral artery
434.91	Cerebral artery occlusion, unspecified with cerebral infarction	I63.532	Cerebral infarction due to unspecified occlusion or stenosis of left posterior cerebral artery
434.91	Cerebral artery occlusion, unspecified with cerebral infarction	I63.533	Cerebral infarction due to unspecified occlusion or stenosis of bilateral posterior cerebral arteries
434.91	Cerebral artery occlusion, unspecified with cerebral infarction	I63.539	Cerebral infarction due to unspecified occlusion or stenosis of unspecified posterior cerebral artery
434.91	Cerebral artery occlusion, unspecified with cerebral infarction	I63.541	Cerebral infarction due to unspecified occlusion or stenosis of right cerebellar artery
434.91	Cerebral artery occlusion, unspecified with cerebral infarction	I63.542	Cerebral infarction due to unspecified occlusion or stenosis of left cerebellar artery

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
434.91	Cerebral artery occlusion, unspecified with cerebral infarction	I63.543	Cerebral infarction due to unspecified occlusion or stenosis of bilateral cerebellar arteries
434.91	Cerebral artery occlusion, unspecified with cerebral infarction	I63.549	Cerebral infarction due to unspecified occlusion or stenosis of unspecified cerebellar artery
434.91	Cerebral artery occlusion, unspecified with cerebral infarction	I63.59	Cerebral infarction due to unspecified occlusion or stenosis of other cerebral artery
434.91	Cerebral artery occlusion, unspecified with cerebral infarction	I63.8	Other cerebral infarction
434.91	Cerebral artery occlusion, unspecified with cerebral infarction	I63.9	Cerebral infarction, unspecified
435.8	Other specified transient cerebral ischemias	G45.1	Carotid artery syndrome (hemispheric)
435.8	Other specified transient cerebral ischemias	G45.2	Multiple and bilateral precerebral artery syndromes
435.8	Other specified transient cerebral ischemias	G45.8	Other transient cerebral ischemic attacks and related syndromes
435.8	Other specified transient cerebral ischemias	G46.0	Middle cerebral artery syndrome
435.8	Other specified transient cerebral ischemias	G46.1	Anterior cerebral artery syndrome
435.8	Other specified transient cerebral ischemias	G46.2	Posterior cerebral artery syndrome
435.9	Unspecified transient cerebral ischemia	G45.9	Transient cerebral ischemic attack, unspecified
435.9	Unspecified transient cerebral ischemia	I67.841	Reversible cerebrovascular vasoconstriction syndrome
435.9	Unspecified transient cerebral ischemia		
436.	Acute, but ill-defined, cerebrovascular disease		
437.1	Other generalized ischemic cerebrovascular disease	I67.82	Cerebral ischemia
437.1	Other generalized ischemic cerebrovascular disease	I67.89	Other cerebrovascular disease
437.8	Other ill-defined cerebrovascular disease	G46.3	Brain stem stroke syndrome
437.8	Other ill-defined cerebrovascular disease	G46.4	Cerebellar stroke syndrome
437.8	Other ill-defined cerebrovascular disease	G46.5	Pure motor lacunar syndrome
437.8	Other ill-defined cerebrovascular disease	G46.6	Pure sensory lacunar syndrome
437.8	Other ill-defined cerebrovascular disease	G46.7	Other lacunar syndromes
437.8	Other ill-defined cerebrovascular disease	G46.8	Other vascular syndromes of brain in cerebrovascular diseases
437.8	Other ill-defined cerebrovascular disease	I67.89	Other cerebrovascular disease
438.0	Late effects of cerebrovascular disease, cognitive deficits	I69.010	Attention and concentration deficit following nontraumatic subarachnoid hemorrhage
438.0	Late effects of cerebrovascular disease, cognitive deficits	I69.011	Memory deficit following nontraumatic subarachnoid hemorrhage
438.0	Late effects of cerebrovascular disease, cognitive deficits	I69.012	Visuospatial deficit and spatial neglect following nontraumatic subarachnoid hemorrhage
438.0	Late effects of cerebrovascular disease, cognitive deficits	I69.013	Psychomotor deficit following nontraumatic subarachnoid hemorrhage

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
438.0	Late effects of cerebrovascular disease, cognitive deficits	I69.014	Frontal lobe and executive function deficit following nontraumatic subarachnoid hemorrhage
438.0	Late effects of cerebrovascular disease, cognitive deficits	I69.015	Cognitive social or emotional deficit following nontraumatic subarachnoid hemorrhage
438.0	Late effects of cerebrovascular disease, cognitive deficits	I69.018	Other symptoms and signs involving cognitive functions following nontraumatic subarachnoid hemorrhage
438.0	Late effects of cerebrovascular disease, cognitive deficits	I69.019	Unspecified symptoms and signs involving cognitive functions following nontraumatic subarachnoid hemorrhage
438.0	Late effects of cerebrovascular disease, cognitive deficits	I69.110	Attention and concentration deficit following nontraumatic intracerebral hemorrhage
438.0	Late effects of cerebrovascular disease, cognitive deficits	I69.111	Memory deficit following nontraumatic intracerebral hemorrhage
438.0	Late effects of cerebrovascular disease, cognitive deficits	I69.112	Visuospatial deficit and spatial neglect following nontraumatic intracerebral hemorrhage
438.0	Late effects of cerebrovascular disease, cognitive deficits	I69.113	Psychomotor deficit following nontraumatic intracerebral hemorrhage
438.0	Late effects of cerebrovascular disease, cognitive deficits	I69.114	Frontal lobe and executive function deficit following nontraumatic intracerebral hemorrhage
438.0	Late effects of cerebrovascular disease, cognitive deficits	I69.115	Cognitive social or emotional deficit following nontraumatic intracerebral hemorrhage
438.0	Late effects of cerebrovascular disease, cognitive deficits	I69.118	Other symptoms and signs involving cognitive functions following nontraumatic intracerebral hemorrhage
438.0	Late effects of cerebrovascular disease, cognitive deficits	I69.119	Unspecified symptoms and signs involving cognitive functions following nontraumatic intracerebral hemorrhage
438.0	Late effects of cerebrovascular disease, cognitive deficits	I69.210	Attention and concentration deficit following other nontraumatic intracranial hemorrhage
438.0	Late effects of cerebrovascular disease, cognitive deficits	I69.211	Memory deficit following other nontraumatic intracranial hemorrhage
438.0	Late effects of cerebrovascular disease, cognitive deficits	I69.212	Visuospatial deficit and spatial neglect following other nontraumatic intracranial hemorrhage
438.0	Late effects of cerebrovascular disease, cognitive deficits	I69.213	Psychomotor deficit following other nontraumatic intracranial hemorrhage
438.0	Late effects of cerebrovascular disease, cognitive deficits	I69.214	Frontal lobe and executive function deficit following other nontraumatic intracranial hemorrhage
438.0	Late effects of cerebrovascular disease, cognitive deficits	I69.215	Cognitive social or emotional deficit following other nontraumatic intracranial hemorrhage

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
438.0	Late effects of cerebrovascular disease, cognitive deficits	I69.218	Other symptoms and signs involving cognitive functions following other nontraumatic intracranial hemorrhage
438.0	Late effects of cerebrovascular disease, cognitive deficits	I69.219	Unspecified symptoms and signs involving cognitive functions following other nontraumatic intracranial hemorrhage
438.0	Late effects of cerebrovascular disease, cognitive deficits	I69.310	Attention and concentration deficit following cerebral infarction
438.0	Late effects of cerebrovascular disease, cognitive deficits	I69.311	Memory deficit following cerebral infarction
438.0	Late effects of cerebrovascular disease, cognitive deficits	I69.312	Visuospatial deficit and spatial neglect following cerebral infarction
438.0	Late effects of cerebrovascular disease, cognitive deficits	I69.313	Psychomotor deficit following cerebral infarction
438.0	Late effects of cerebrovascular disease, cognitive deficits	I69.314	Frontal lobe and executive function deficit following cerebral infarction
438.0	Late effects of cerebrovascular disease, cognitive deficits	I69.315	Cognitive social or emotional deficit following cerebral infarction
438.0	Late effects of cerebrovascular disease, cognitive deficits	I69.318	Other symptoms and signs involving cognitive functions following cerebral infarction
438.0	Late effects of cerebrovascular disease, cognitive deficits	I69.319	Unspecified symptoms and signs involving cognitive functions following cerebral infarction
438.0	Late effects of cerebrovascular disease, cognitive deficits	I69.810	Attention and concentration deficit following other cerebrovascular disease
438.0	Late effects of cerebrovascular disease, cognitive deficits	I69.811	Memory deficit following other cerebrovascular disease
438.0	Late effects of cerebrovascular disease, cognitive deficits	I69.812	Visuospatial deficit and spatial neglect following other cerebrovascular disease
438.0	Late effects of cerebrovascular disease, cognitive deficits	I69.813	Psychomotor deficit following other cerebrovascular disease
438.0	Late effects of cerebrovascular disease, cognitive deficits	I69.814	Frontal lobe and executive function deficit following other cerebrovascular disease
438.0	Late effects of cerebrovascular disease, cognitive deficits	I69.815	Cognitive social or emotional deficit following other cerebrovascular disease
438.0	Late effects of cerebrovascular disease, cognitive deficits	I69.818	Other symptoms and signs involving cognitive functions following other cerebrovascular disease
438.0	Late effects of cerebrovascular disease, cognitive deficits	I69.819	Unspecified symptoms and signs involving cognitive functions following other cerebrovascular disease
438.0	Late effects of cerebrovascular disease, cognitive deficits	I69.910	Attention and concentration deficit following unspecified cerebrovascular disease
438.0	Late effects of cerebrovascular disease, cognitive deficits	I69.911	Memory deficit following unspecified cerebrovascular disease

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
438.0	Late effects of cerebrovascular disease, cognitive deficits	I69.912	Visuospatial deficit and spatial neglect following unspecified cerebrovascular disease
438.0	Late effects of cerebrovascular disease, cognitive deficits	I69.913	Psychomotor deficit following unspecified cerebrovascular disease
438.0	Late effects of cerebrovascular disease, cognitive deficits	I69.914	Frontal lobe and executive function deficit following unspecified cerebrovascular disease
438.0	Late effects of cerebrovascular disease, cognitive deficits	I69.915	Cognitive social or emotional deficit following unspecified cerebrovascular disease
438.0	Late effects of cerebrovascular disease, cognitive deficits	I69.918	Other symptoms and signs involving cognitive functions following unspecified cerebrovascular disease
438.0	Late effects of cerebrovascular disease, cognitive deficits	I69.919	Unspecified symptoms and signs involving cognitive functions following unspecified cerebrovascular disease
438.10	Late effects of cerebrovascular disease, speech and language deficit, unspecified	I69.928	Other speech and language deficits following unspecified cerebrovascular disease
438.11	Late effects of cerebrovascular disease, aphasia	I69.020	Aphasia following nontraumatic subarachnoid hemorrhage
438.11	Late effects of cerebrovascular disease, aphasia	I69.120	Aphasia following nontraumatic intracerebral hemorrhage
438.11	Late effects of cerebrovascular disease, aphasia	I69.220	Aphasia following other nontraumatic intracranial hemorrhage
438.11	Late effects of cerebrovascular disease, aphasia	I69.320	Aphasia following cerebral infarction
438.11	Late effects of cerebrovascular disease, aphasia	I69.820	Aphasia following other cerebrovascular disease
438.11	Late effects of cerebrovascular disease, aphasia	I69.920	Aphasia following unspecified cerebrovascular disease
438.12	Late effects of cerebrovascular disease, dysphasia	I69.021	Dysphasia following nontraumatic subarachnoid hemorrhage
438.12	Late effects of cerebrovascular disease, dysphasia	I69.121	Dysphasia following nontraumatic intracerebral hemorrhage
438.12	Late effects of cerebrovascular disease, dysphasia	I69.221	Dysphasia following other nontraumatic intracranial hemorrhage
438.12	Late effects of cerebrovascular disease, dysphasia	I69.321	Dysphasia following cerebral infarction
438.12	Late effects of cerebrovascular disease, dysphasia	I69.821	Dysphasia following other cerebrovascular disease
438.12	Late effects of cerebrovascular disease, dysphasia	I69.921	Dysphasia following unspecified cerebrovascular disease
438.13	Late effects of cerebrovascular disease, dysarthria	I69.022	Dysarthria following nontraumatic subarachnoid hemorrhage
438.13	Late effects of cerebrovascular disease, dysarthria	I69.122	Dysarthria following nontraumatic intracerebral hemorrhage
438.13	Late effects of cerebrovascular disease, dysarthria	I69.222	Dysarthria following other nontraumatic intracranial hemorrhage
438.13	Late effects of cerebrovascular disease, dysarthria	I69.322	Dysarthria following cerebral infarction

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
438.13	Late effects of cerebrovascular disease, dysarthria	I69.822	Dysarthria following other cerebrovascular disease
438.13	Late effects of cerebrovascular disease, dysarthria	I69.922	Dysarthria following unspecified cerebrovascular disease
438.14	Late effects of cerebrovascular disease, fluency disorder	I69.023	Fluency disorder following nontraumatic subarachnoid hemorrhage
438.14	Late effects of cerebrovascular disease, fluency disorder	I69.123	Fluency disorder following nontraumatic intracerebral hemorrhage
438.14	Late effects of cerebrovascular disease, fluency disorder	I69.223	Fluency disorder following other nontraumatic intracranial hemorrhage
438.14	Late effects of cerebrovascular disease, fluency disorder	I69.323	Fluency disorder following cerebral infarction
438.14	Late effects of cerebrovascular disease, fluency disorder	I69.823	Fluency disorder following other cerebrovascular disease
438.14	Late effects of cerebrovascular disease, fluency disorder	I69.923	Fluency disorder following unspecified cerebrovascular disease
438.19	Late effects of cerebrovascular disease, other speech and language deficits	I69.028	Other speech and language deficits following nontraumatic subarachnoid hemorrhage
438.19	Late effects of cerebrovascular disease, other speech and language deficits	I69.128	Other speech and language deficits following nontraumatic intracerebral hemorrhage
438.19	Late effects of cerebrovascular disease, other speech and language deficits	I69.228	Other speech and language deficits following other nontraumatic intracranial hemorrhage
438.19	Late effects of cerebrovascular disease, other speech and language deficits	I69.328	Other speech and language deficits following cerebral infarction
438.19	Late effects of cerebrovascular disease, other speech and language deficits	I69.828	Other speech and language deficits following other cerebrovascular disease
438.19	Late effects of cerebrovascular disease, other speech and language deficits	I69.928	Other speech and language deficits following unspecified cerebrovascular disease
438.20	Late effects of cerebrovascular disease, hemiplegia affecting unspecified side	I69.059	Hemiplegia and hemiparesis following nontraumatic subarachnoid hemorrhage affecting unspecified side
438.20	Late effects of cerebrovascular disease, hemiplegia affecting unspecified side	I69.159	Hemiplegia and hemiparesis following nontraumatic intracerebral hemorrhage affecting unspecified side
438.20	Late effects of cerebrovascular disease, hemiplegia affecting unspecified side	I69.259	Hemiplegia and hemiparesis following other nontraumatic intracranial hemorrhage affecting unspecified side
438.20	Late effects of cerebrovascular disease, hemiplegia affecting unspecified side	I69.359	Hemiplegia and hemiparesis following cerebral infarction affecting unspecified side
438.20	Late effects of cerebrovascular disease, hemiplegia affecting unspecified side	I69.859	Hemiplegia and hemiparesis following other cerebrovascular disease affecting unspecified side
438.20	Late effects of cerebrovascular disease, hemiplegia affecting unspecified side	I69.959	Hemiplegia and hemiparesis following unspecified cerebrovascular disease affecting unspecified side

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
438.21	Late effects of cerebrovascular disease, hemiplegia affecting dominant side	I69.051	Hemiplegia and hemiparesis following nontraumatic subarachnoid hemorrhage affecting right dominant side
438.21	Late effects of cerebrovascular disease, hemiplegia affecting dominant side	I69.052	Hemiplegia and hemiparesis following nontraumatic subarachnoid hemorrhage affecting left dominant side
438.21	Late effects of cerebrovascular disease, hemiplegia affecting dominant side	I69.151	Hemiplegia and hemiparesis following nontraumatic intracerebral hemorrhage affecting right dominant side
438.21	Late effects of cerebrovascular disease, hemiplegia affecting dominant side	I69.152	Hemiplegia and hemiparesis following nontraumatic intracerebral hemorrhage affecting left dominant side
438.21	Late effects of cerebrovascular disease, hemiplegia affecting dominant side	I69.251	Hemiplegia and hemiparesis following other nontraumatic intracranial hemorrhage affecting right dominant side
438.21	Late effects of cerebrovascular disease, hemiplegia affecting dominant side	I69.252	Hemiplegia and hemiparesis following other nontraumatic intracranial hemorrhage affecting left dominant side
438.21	Late effects of cerebrovascular disease, hemiplegia affecting dominant side	I69.351	Hemiplegia and hemiparesis following cerebral infarction affecting right dominant side
438.21	Late effects of cerebrovascular disease, hemiplegia affecting dominant side	I69.352	Hemiplegia and hemiparesis following cerebral infarction affecting left dominant side
438.21	Late effects of cerebrovascular disease, hemiplegia affecting dominant side	I69.851	Hemiplegia and hemiparesis following other cerebrovascular disease affecting right dominant side
438.21	Late effects of cerebrovascular disease, hemiplegia affecting dominant side	I69.852	Hemiplegia and hemiparesis following other cerebrovascular disease affecting left dominant side
438.21	Late effects of cerebrovascular disease, hemiplegia affecting dominant side	I69.951	Hemiplegia and hemiparesis following unspecified cerebrovascular disease affecting right dominant side
438.21	Late effects of cerebrovascular disease, hemiplegia affecting dominant side	I69.952	Hemiplegia and hemiparesis following unspecified cerebrovascular disease affecting left dominant side
438.22	Late effects of cerebrovascular disease, hemiplegia affecting nondominant side	I69.053	Hemiplegia and hemiparesis following nontraumatic subarachnoid hemorrhage affecting right non-dominant side
438.22	Late effects of cerebrovascular disease, hemiplegia affecting nondominant side	I69.054	Hemiplegia and hemiparesis following nontraumatic subarachnoid hemorrhage affecting left non-dominant side
438.22	Late effects of cerebrovascular disease, hemiplegia affecting nondominant side	I69.153	Hemiplegia and hemiparesis following nontraumatic intracerebral hemorrhage affecting right non-dominant side



<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
438.22	Late effects of cerebrovascular disease, hemiplegia affecting nondominant side	I69.154	Hemiplegia and hemiparesis following nontraumatic intracerebral hemorrhage affecting left non-dominant side
438.22	Late effects of cerebrovascular disease, hemiplegia affecting nondominant side	I69.253	Hemiplegia and hemiparesis following other nontraumatic intracranial hemorrhage affecting right non-dominant side
438.22	Late effects of cerebrovascular disease, hemiplegia affecting nondominant side	I69.254	Hemiplegia and hemiparesis following other nontraumatic intracranial hemorrhage affecting left non-dominant side
438.22	Late effects of cerebrovascular disease, hemiplegia affecting nondominant side	I69.353	Hemiplegia and hemiparesis following cerebral infarction affecting right non-dominant side
438.22	Late effects of cerebrovascular disease, hemiplegia affecting nondominant side	I69.354	Hemiplegia and hemiparesis following cerebral infarction affecting left non-dominant side
438.22	Late effects of cerebrovascular disease, hemiplegia affecting nondominant side	I69.853	Hemiplegia and hemiparesis following other cerebrovascular disease affecting right non-dominant side
438.22	Late effects of cerebrovascular disease, hemiplegia affecting nondominant side	I69.854	Hemiplegia and hemiparesis following other cerebrovascular disease affecting left non-dominant side
438.22	Late effects of cerebrovascular disease, hemiplegia affecting nondominant side	I69.953	Hemiplegia and hemiparesis following unspecified cerebrovascular disease affecting right non-dominant side
438.22	Late effects of cerebrovascular disease, hemiplegia affecting nondominant side	I69.954	Hemiplegia and hemiparesis following unspecified cerebrovascular disease affecting left non-dominant side
438.30	Late effects of cerebrovascular disease, monoplegia of upper limb affecting unspecified side	I69.039	Monoplegia of upper limb following nontraumatic subarachnoid hemorrhage affecting unspecified side
438.30	Late effects of cerebrovascular disease, monoplegia of upper limb affecting unspecified side	I69.139	Monoplegia of upper limb following nontraumatic intracerebral hemorrhage affecting unspecified side
438.30	Late effects of cerebrovascular disease, monoplegia of upper limb affecting unspecified side	I69.239	Monoplegia of upper limb following other nontraumatic intracranial hemorrhage affecting unspecified side
438.30	Late effects of cerebrovascular disease, monoplegia of upper limb affecting unspecified side	I69.339	Monoplegia of upper limb following cerebral infarction affecting unspecified side
438.30	Late effects of cerebrovascular disease, monoplegia of upper limb affecting unspecified side	I69.839	Monoplegia of upper limb following other cerebrovascular disease affecting unspecified side
438.30	Late effects of cerebrovascular disease, monoplegia of upper limb affecting unspecified side	I69.939	Monoplegia of upper limb following unspecified cerebrovascular disease affecting unspecified side
438.31	Late effects of cerebrovascular disease, monoplegia of upper limb affecting dominant side	I69.031	Monoplegia of upper limb following nontraumatic subarachnoid hemorrhage affecting right dominant side

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
438.31	Late effects of cerebrovascular disease, monoplegia of upper limb affecting dominant side	I69.032	Monoplegia of upper limb following nontraumatic subarachnoid hemorrhage affecting left dominant side
438.31	Late effects of cerebrovascular disease, monoplegia of upper limb affecting dominant side	I69.131	Monoplegia of upper limb following nontraumatic intracerebral hemorrhage affecting right dominant side
438.31	Late effects of cerebrovascular disease, monoplegia of upper limb affecting dominant side	I69.132	Monoplegia of upper limb following nontraumatic intracerebral hemorrhage affecting left dominant side
438.31	Late effects of cerebrovascular disease, monoplegia of upper limb affecting dominant side	I69.231	Monoplegia of upper limb following other nontraumatic intracranial hemorrhage affecting right dominant side
438.31	Late effects of cerebrovascular disease, monoplegia of upper limb affecting dominant side	I69.232	Monoplegia of upper limb following other nontraumatic intracranial hemorrhage affecting left dominant side
438.31	Late effects of cerebrovascular disease, monoplegia of upper limb affecting dominant side	I69.331	Monoplegia of upper limb following cerebral infarction affecting right dominant side
438.31	Late effects of cerebrovascular disease, monoplegia of upper limb affecting dominant side	I69.332	Monoplegia of upper limb following cerebral infarction affecting left dominant side
438.31	Late effects of cerebrovascular disease, monoplegia of upper limb affecting dominant side	I69.831	Monoplegia of upper limb following other cerebrovascular disease affecting right dominant side
438.31	Late effects of cerebrovascular disease, monoplegia of upper limb affecting dominant side	I69.832	Monoplegia of upper limb following other cerebrovascular disease affecting left dominant side
438.31	Late effects of cerebrovascular disease, monoplegia of upper limb affecting dominant side	I69.931	Monoplegia of upper limb following unspecified cerebrovascular disease affecting right dominant side
438.31	Late effects of cerebrovascular disease, monoplegia of upper limb affecting dominant side	I69.932	Monoplegia of upper limb following unspecified cerebrovascular disease affecting left dominant side
438.32	Late effects of cerebrovascular disease, monoplegia of upper limb affecting nondominant side	I69.033	Monoplegia of upper limb following nontraumatic subarachnoid hemorrhage affecting right non-dominant side
438.32	Late effects of cerebrovascular disease, monoplegia of upper limb affecting nondominant side	I69.034	Monoplegia of upper limb following nontraumatic subarachnoid hemorrhage affecting left non-dominant side
438.32	Late effects of cerebrovascular disease, monoplegia of upper limb affecting nondominant side	I69.133	Monoplegia of upper limb following nontraumatic intracerebral hemorrhage affecting right non-dominant side
438.32	Late effects of cerebrovascular disease, monoplegia of upper limb affecting nondominant side	I69.134	Monoplegia of upper limb following nontraumatic intracerebral hemorrhage affecting left non-dominant side
438.32	Late effects of cerebrovascular disease, monoplegia of upper limb affecting nondominant side	I69.233	Monoplegia of upper limb following other nontraumatic intracranial

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
			hemorrhage affecting right non-dominant side
438.32	Late effects of cerebrovascular disease, monoplegia of upper limb affecting nondominant side	I69.234	Monoplegia of upper limb following other nontraumatic intracranial hemorrhage affecting left non-dominant side
438.32	Late effects of cerebrovascular disease, monoplegia of upper limb affecting nondominant side	I69.333	Monoplegia of upper limb following cerebral infarction affecting right non-dominant side
438.32	Late effects of cerebrovascular disease, monoplegia of upper limb affecting nondominant side	I69.334	Monoplegia of upper limb following cerebral infarction affecting left non-dominant side
438.32	Late effects of cerebrovascular disease, monoplegia of upper limb affecting nondominant side	I69.833	Monoplegia of upper limb following other cerebrovascular disease affecting right non-dominant side
438.32	Late effects of cerebrovascular disease, monoplegia of upper limb affecting nondominant side	I69.834	Monoplegia of upper limb following other cerebrovascular disease affecting left non-dominant side
438.32	Late effects of cerebrovascular disease, monoplegia of upper limb affecting nondominant side	I69.933	Monoplegia of upper limb following unspecified cerebrovascular disease affecting right non-dominant side
438.32	Late effects of cerebrovascular disease, monoplegia of upper limb affecting nondominant side	I69.934	Monoplegia of upper limb following unspecified cerebrovascular disease affecting left non-dominant side
438.40	Late effects of cerebrovascular disease, monoplegia of lower limb affecting unspecified side	I69.049	Monoplegia of lower limb following nontraumatic subarachnoid hemorrhage affecting unspecified side
438.40	Late effects of cerebrovascular disease, monoplegia of lower limb affecting unspecified side	I69.149	Monoplegia of lower limb following nontraumatic intracerebral hemorrhage affecting unspecified side
438.40	Late effects of cerebrovascular disease, monoplegia of lower limb affecting unspecified side	I69.249	Monoplegia of lower limb following other nontraumatic intracranial hemorrhage affecting unspecified side
438.40	Late effects of cerebrovascular disease, monoplegia of lower limb affecting unspecified side	I69.349	Monoplegia of lower limb following cerebral infarction affecting unspecified side
438.40	Late effects of cerebrovascular disease, monoplegia of lower limb affecting unspecified side	I69.849	Monoplegia of lower limb following other cerebrovascular disease affecting unspecified side
438.40	Late effects of cerebrovascular disease, monoplegia of lower limb affecting unspecified side	I69.949	Monoplegia of lower limb following unspecified cerebrovascular disease affecting unspecified side
438.41	Late effects of cerebrovascular disease, monoplegia of lower limb affecting dominant side	I69.041	Monoplegia of lower limb following nontraumatic subarachnoid hemorrhage affecting right dominant side
438.41	Late effects of cerebrovascular disease, monoplegia of lower limb affecting dominant side	I69.042	Monoplegia of lower limb following nontraumatic subarachnoid hemorrhage affecting left dominant side
438.41	Late effects of cerebrovascular disease, monoplegia of lower limb affecting dominant side	I69.141	Monoplegia of lower limb following nontraumatic intracerebral hemorrhage affecting right dominant side

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
438.41	Late effects of cerebrovascular disease, monoplegia of lower limb affecting dominant side	I69.142	Monoplegia of lower limb following nontraumatic intracerebral hemorrhage affecting left dominant side
438.41	Late effects of cerebrovascular disease, monoplegia of lower limb affecting dominant side	I69.241	Monoplegia of lower limb following other nontraumatic intracranial hemorrhage affecting right dominant side
438.41	Late effects of cerebrovascular disease, monoplegia of lower limb affecting dominant side	I69.242	Monoplegia of lower limb following other nontraumatic intracranial hemorrhage affecting left dominant side
438.41	Late effects of cerebrovascular disease, monoplegia of lower limb affecting dominant side	I69.341	Monoplegia of lower limb following cerebral infarction affecting right dominant side
438.41	Late effects of cerebrovascular disease, monoplegia of lower limb affecting dominant side	I69.342	Monoplegia of lower limb following cerebral infarction affecting left dominant side
438.41	Late effects of cerebrovascular disease, monoplegia of lower limb affecting dominant side	I69.841	Monoplegia of lower limb following other cerebrovascular disease affecting right dominant side
438.41	Late effects of cerebrovascular disease, monoplegia of lower limb affecting dominant side	I69.842	Monoplegia of lower limb following other cerebrovascular disease affecting left dominant side
438.41	Late effects of cerebrovascular disease, monoplegia of lower limb affecting dominant side	I69.941	Monoplegia of lower limb following unspecified cerebrovascular disease affecting right dominant side
438.41	Late effects of cerebrovascular disease, monoplegia of lower limb affecting dominant side	I69.942	Monoplegia of lower limb following unspecified cerebrovascular disease affecting left dominant side
438.42	Late effects of cerebrovascular disease, monoplegia of lower limb affecting nondominant side	I69.043	Monoplegia of lower limb following nontraumatic subarachnoid hemorrhage affecting right non-dominant side
438.42	Late effects of cerebrovascular disease, monoplegia of lower limb affecting nondominant side	I69.044	Monoplegia of lower limb following nontraumatic subarachnoid hemorrhage affecting left non-dominant side
438.42	Late effects of cerebrovascular disease, monoplegia of lower limb affecting nondominant side	I69.143	Monoplegia of lower limb following nontraumatic intracerebral hemorrhage affecting right non-dominant side
438.42	Late effects of cerebrovascular disease, monoplegia of lower limb affecting nondominant side	I69.144	Monoplegia of lower limb following nontraumatic intracerebral hemorrhage affecting left non-dominant side
438.42	Late effects of cerebrovascular disease, monoplegia of lower limb affecting nondominant side	I69.243	Monoplegia of lower limb following other nontraumatic intracranial hemorrhage affecting right non-dominant side
438.42	Late effects of cerebrovascular disease, monoplegia of lower limb affecting nondominant side	I69.244	Monoplegia of lower limb following other nontraumatic intracranial hemorrhage affecting left non-dominant side

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
438.42	Late effects of cerebrovascular disease, monoplegia of lower limb affecting nondominant side	I69.343	Monoplegia of lower limb following cerebral infarction affecting right non-dominant side
438.42	Late effects of cerebrovascular disease, monoplegia of lower limb affecting nondominant side	I69.344	Monoplegia of lower limb following cerebral infarction affecting left non-dominant side
438.42	Late effects of cerebrovascular disease, monoplegia of lower limb affecting nondominant side	I69.843	Monoplegia of lower limb following other cerebrovascular disease affecting right non-dominant side
438.42	Late effects of cerebrovascular disease, monoplegia of lower limb affecting nondominant side	I69.844	Monoplegia of lower limb following other cerebrovascular disease affecting left non-dominant side
438.42	Late effects of cerebrovascular disease, monoplegia of lower limb affecting nondominant side	I69.943	Monoplegia of lower limb following unspecified cerebrovascular disease affecting right non-dominant side
438.42	Late effects of cerebrovascular disease, monoplegia of lower limb affecting nondominant side	I69.944	Monoplegia of lower limb following unspecified cerebrovascular disease affecting left non-dominant side
438.50	Late effects of cerebrovascular disease, other paralytic syndrome affecting unspecified side	I69.069	Other paralytic syndrome following nontraumatic subarachnoid hemorrhage affecting unspecified side
438.50	Late effects of cerebrovascular disease, other paralytic syndrome affecting unspecified side	I69.169	Other paralytic syndrome following nontraumatic intracerebral hemorrhage affecting unspecified side
438.50	Late effects of cerebrovascular disease, other paralytic syndrome affecting unspecified side	I69.269	Other paralytic syndrome following other nontraumatic intracranial hemorrhage affecting unspecified side
438.50	Late effects of cerebrovascular disease, other paralytic syndrome affecting unspecified side	I69.369	Other paralytic syndrome following cerebral infarction affecting unspecified side
438.50	Late effects of cerebrovascular disease, other paralytic syndrome affecting unspecified side	I69.869	Other paralytic syndrome following other cerebrovascular disease affecting unspecified side
438.50	Late effects of cerebrovascular disease, other paralytic syndrome affecting unspecified side	I69.969	Other paralytic syndrome following unspecified cerebrovascular disease affecting unspecified side
438.51	Late effects of cerebrovascular disease, other paralytic syndrome affecting dominant side	I69.061	Other paralytic syndrome following nontraumatic subarachnoid hemorrhage affecting right dominant side
438.51	Late effects of cerebrovascular disease, other paralytic syndrome affecting dominant side	I69.062	Other paralytic syndrome following nontraumatic subarachnoid hemorrhage affecting left dominant side
438.51	Late effects of cerebrovascular disease, other paralytic syndrome affecting dominant side	I69.161	Other paralytic syndrome following nontraumatic intracerebral hemorrhage affecting right dominant side
438.51	Late effects of cerebrovascular disease, other paralytic syndrome affecting dominant side	I69.162	Other paralytic syndrome following nontraumatic intracerebral hemorrhage affecting left dominant side
438.51	Late effects of cerebrovascular disease, other paralytic syndrome affecting dominant side	I69.261	Other paralytic syndrome following other nontraumatic intracranial

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
			hemorrhage affecting right dominant side
438.51	Late effects of cerebrovascular disease, other paralytic syndrome affecting dominant side	I69.262	Other paralytic syndrome following other nontraumatic intracranial hemorrhage affecting left dominant side
438.51	Late effects of cerebrovascular disease, other paralytic syndrome affecting dominant side	I69.361	Other paralytic syndrome following cerebral infarction affecting right dominant side
438.51	Late effects of cerebrovascular disease, other paralytic syndrome affecting dominant side	I69.362	Other paralytic syndrome following cerebral infarction affecting left dominant side
438.51	Late effects of cerebrovascular disease, other paralytic syndrome affecting dominant side	I69.861	Other paralytic syndrome following other cerebrovascular disease affecting right dominant side
438.51	Late effects of cerebrovascular disease, other paralytic syndrome affecting dominant side	I69.862	Other paralytic syndrome following other cerebrovascular disease affecting left dominant side
438.51	Late effects of cerebrovascular disease, other paralytic syndrome affecting dominant side	I69.961	Other paralytic syndrome following unspecified cerebrovascular disease affecting right dominant side
438.51	Late effects of cerebrovascular disease, other paralytic syndrome affecting dominant side	I69.962	Other paralytic syndrome following unspecified cerebrovascular disease affecting left dominant side
438.52	Late effects of cerebrovascular disease, other paralytic syndrome affecting nondominant side	I69.063	Other paralytic syndrome following nontraumatic subarachnoid hemorrhage affecting right non-dominant side
438.52	Late effects of cerebrovascular disease, other paralytic syndrome affecting nondominant side	I69.064	Other paralytic syndrome following nontraumatic subarachnoid hemorrhage affecting left non-dominant side
438.52	Late effects of cerebrovascular disease, other paralytic syndrome affecting nondominant side	I69.163	Other paralytic syndrome following nontraumatic intracerebral hemorrhage affecting right non-dominant side
438.52	Late effects of cerebrovascular disease, other paralytic syndrome affecting nondominant side	I69.164	Other paralytic syndrome following nontraumatic intracerebral hemorrhage affecting left non-dominant side
438.52	Late effects of cerebrovascular disease, other paralytic syndrome affecting nondominant side	I69.263	Other paralytic syndrome following other nontraumatic intracranial hemorrhage affecting right non-dominant side
438.52	Late effects of cerebrovascular disease, other paralytic syndrome affecting nondominant side	I69.264	Other paralytic syndrome following other nontraumatic intracranial hemorrhage affecting left non-dominant side
438.52	Late effects of cerebrovascular disease, other paralytic syndrome affecting nondominant side	I69.363	Other paralytic syndrome following cerebral infarction affecting right non-dominant side
438.52	Late effects of cerebrovascular disease, other paralytic syndrome affecting nondominant side	I69.364	Other paralytic syndrome following cerebral infarction affecting left non-dominant side

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
438.52	Late effects of cerebrovascular disease, other paralytic syndrome affecting nondominant side	I69.863	Other paralytic syndrome following other cerebrovascular disease affecting right non-dominant side
438.52	Late effects of cerebrovascular disease, other paralytic syndrome affecting nondominant side	I69.864	Other paralytic syndrome following other cerebrovascular disease affecting left non-dominant side
438.52	Late effects of cerebrovascular disease, other paralytic syndrome affecting nondominant side	I69.963	Other paralytic syndrome following unspecified cerebrovascular disease affecting right non-dominant side
438.52	Late effects of cerebrovascular disease, other paralytic syndrome affecting nondominant side	I69.964	Other paralytic syndrome following unspecified cerebrovascular disease affecting left non-dominant side
438.53	Late effects of cerebrovascular disease, other paralytic syndrome, bilateral	I69.065	Other paralytic syndrome following nontraumatic subarachnoid hemorrhage, bilateral
438.53	Late effects of cerebrovascular disease, other paralytic syndrome, bilateral	I69.165	Other paralytic syndrome following nontraumatic intracerebral hemorrhage, bilateral
438.53	Late effects of cerebrovascular disease, other paralytic syndrome, bilateral	I69.265	Other paralytic syndrome following other nontraumatic intracranial hemorrhage, bilateral
438.53	Late effects of cerebrovascular disease, other paralytic syndrome, bilateral	I69.365	Other paralytic syndrome following cerebral infarction, bilateral
438.53	Late effects of cerebrovascular disease, other paralytic syndrome, bilateral	I69.865	Other paralytic syndrome following other cerebrovascular disease, bilateral
438.53	Late effects of cerebrovascular disease, other paralytic syndrome, bilateral	I69.965	Other paralytic syndrome following unspecified cerebrovascular disease, bilateral
438.6	Late effects of cerebrovascular disease, alterations of sensations	I69.998	Other sequelae following unspecified cerebrovascular disease
438.7	Late effects of cerebrovascular disease, disturbances of vision	I69.998	Other sequelae following unspecified cerebrovascular disease
438.81	Other late effects of cerebrovascular disease, apraxia	I69.090	Apraxia following nontraumatic subarachnoid hemorrhage
438.81	Other late effects of cerebrovascular disease, apraxia	I69.190	Apraxia following nontraumatic intracerebral hemorrhage
438.81	Other late effects of cerebrovascular disease, apraxia	I69.290	Apraxia following other nontraumatic intracranial hemorrhage
438.81	Other late effects of cerebrovascular disease, apraxia	I69.390	Apraxia following cerebral infarction
438.81	Other late effects of cerebrovascular disease, apraxia	I69.890	Apraxia following other cerebrovascular disease
438.81	Other late effects of cerebrovascular disease, apraxia	I69.990	Apraxia following unspecified cerebrovascular disease
438.82	Other late effects of cerebrovascular disease, dysphagia	I69.091	Dysphagia following nontraumatic subarachnoid hemorrhage
438.82	Other late effects of cerebrovascular disease, dysphagia	I69.191	Dysphagia following nontraumatic intracerebral hemorrhage
438.82	Other late effects of cerebrovascular disease, dysphagia	I69.291	Dysphagia following other nontraumatic intracranial hemorrhage
438.82	Other late effects of cerebrovascular disease, dysphagia	I69.391	Dysphagia following cerebral infarction



<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
438.82	Other late effects of cerebrovascular disease, dysphagia	I69.891	Dysphagia following other cerebrovascular disease
438.82	Other late effects of cerebrovascular disease, dysphagia	I69.991	Dysphagia following unspecified cerebrovascular disease
438.83	Other late effects of cerebrovascular disease, facial weakness	I69.092	Facial weakness following nontraumatic subarachnoid hemorrhage
438.83	Other late effects of cerebrovascular disease, facial weakness	I69.192	Facial weakness following nontraumatic intracerebral hemorrhage
438.83	Other late effects of cerebrovascular disease, facial weakness	I69.292	Facial weakness following other nontraumatic intracranial hemorrhage
438.83	Other late effects of cerebrovascular disease, facial weakness	I69.392	Facial weakness following cerebral infarction
438.83	Other late effects of cerebrovascular disease, facial weakness	I69.892	Facial weakness following other cerebrovascular disease
438.83	Other late effects of cerebrovascular disease, facial weakness	I69.992	Facial weakness following unspecified cerebrovascular disease
438.84	Other late effects of cerebrovascular disease, ataxia	I69.093	Ataxia following nontraumatic subarachnoid hemorrhage
438.84	Other late effects of cerebrovascular disease, ataxia	I69.193	Ataxia following nontraumatic intracerebral hemorrhage
438.84	Other late effects of cerebrovascular disease, ataxia	I69.293	Ataxia following other nontraumatic intracranial hemorrhage
438.84	Other late effects of cerebrovascular disease, ataxia	I69.393	Ataxia following cerebral infarction
438.84	Other late effects of cerebrovascular disease, ataxia	I69.893	Ataxia following other cerebrovascular disease
438.84	Other late effects of cerebrovascular disease, ataxia	I69.993	Ataxia following unspecified cerebrovascular disease
438.85	Other late effects of cerebrovascular disease, vertigo	I69.998	Other sequelae following unspecified cerebrovascular disease
438.89	Other late effects of cerebrovascular disease	I69.098	Other sequelae following nontraumatic subarachnoid hemorrhage
438.89	Other late effects of cerebrovascular disease	I69.198	Other sequelae of nontraumatic intracerebral hemorrhage
438.89	Other late effects of cerebrovascular disease	I69.298	Other sequelae of other nontraumatic intracranial hemorrhage
438.89	Other late effects of cerebrovascular disease	I69.398	Other sequelae of cerebral infarction
438.89	Other late effects of cerebrovascular disease	I69.898	Other sequelae of other cerebrovascular disease
438.89	Other late effects of cerebrovascular disease	I69.998	Other sequelae following unspecified cerebrovascular disease
438.9	Unspecified late effects of cerebrovascular disease	I69.00	Unspecified sequelae of nontraumatic subarachnoid hemorrhage
438.9	Unspecified late effects of cerebrovascular disease	I69.10	Unspecified sequelae of nontraumatic intracerebral hemorrhage
438.9	Unspecified late effects of cerebrovascular disease	I69.20	Unspecified sequelae of other nontraumatic intracranial hemorrhage
438.9	Unspecified late effects of cerebrovascular disease	I69.30	Unspecified sequelae of cerebral infarction
438.9	Unspecified late effects of cerebrovascular disease	I69.80	Unspecified sequelae of other cerebrovascular disease

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
438.9	Unspecified late effects of cerebrovascular disease	I69.90	Unspecified sequelae of unspecified cerebrovascular disease
781.4	Transient paralysis of limb	R29.5	Transient paralysis
781.8	Neurologic neglect syndrome	R41.4	Neurologic neglect syndrome
781.94	Facial weakness	R29.810	Facial weakness
784.3	Aphasia	R47.01	Aphasia
784.51	Dysarthria	R47.1	Dysarthria and anarthria
787.20	Dysphagia, unspecified	R13.0	Aphagia
787.20	Dysphagia, unspecified	R13.10	Dysphagia, unspecified
787.21	Dysphagia, oral phase	R13.11	Dysphagia, oral phase
787.22	Dysphagia, oropharyngeal phase	R13.12	Dysphagia, oropharyngeal phase
787.23	Dysphagia, pharyngeal phase	R13.13	Dysphagia, pharyngeal phase
787.24	Dysphagia, pharyngoesophageal phase	R13.14	Dysphagia, pharyngoesophageal phase
787.29	Other dysphagia	R13.19	Other dysphagia
799.53	Visuospatial deficit	R41.842	Visuospatial deficit
800.10	Closed fracture of vault of skull with cerebral laceration and contusion, unspecified state of consciousness	S02.0XXA	Fracture of vault of skull, initial encounter for closed fracture
800.10	Closed fracture of vault of skull with cerebral laceration and contusion, unspecified state of consciousness	S06.330A	Contusion and laceration of cerebrum, unspecified, without loss of consciousness, initial encounter
800.11	Closed fracture of vault of skull with cerebral laceration and contusion, with no loss of consciousness	S02.0XXA	Fracture of vault of skull, initial encounter for closed fracture
800.11	Closed fracture of vault of skull with cerebral laceration and contusion, with no loss of consciousness	S06.330A	Contusion and laceration of cerebrum, unspecified, without loss of consciousness, initial encounter
800.12	Closed fracture of vault of skull with cerebral laceration and contusion, with brief [less than one hour] loss of consciousness	S02.0XXA	Fracture of vault of skull, initial encounter for closed fracture
800.12	Closed fracture of vault of skull with cerebral laceration and contusion, with brief [less than one hour] loss of consciousness	S06.331A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 30 minutes or less, initial encounter
800.12	Closed fracture of vault of skull with cerebral laceration and contusion, with brief [less than one hour] loss of consciousness	S06.332A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 31 minutes to 59 minutes, initial encounter
800.13	Closed fracture of vault of skull with cerebral laceration and contusion, with moderate [1-24 hours] loss of consciousness	S02.0XXA	Fracture of vault of skull, initial encounter for closed fracture
800.13	Closed fracture of vault of skull with cerebral laceration and contusion, with moderate [1-24 hours] loss of consciousness	S06.333A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
800.13	Closed fracture of vault of skull with cerebral laceration and contusion, with moderate [1-24 hours] loss of consciousness	S06.334A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 6 hours to 24 hours, initial encounter
800.14	Closed fracture of vault of skull with cerebral laceration and contusion, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S02.0XXA	Fracture of vault of skull, initial encounter for closed fracture

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
800.14	Closed fracture of vault of skull with cerebral laceration and contusion, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.335A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
800.15	Closed fracture of vault of skull with cerebral laceration and contusion, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S02.0XXA	Fracture of vault of skull, initial encounter for closed fracture
800.15	Closed fracture of vault of skull with cerebral laceration and contusion, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.336A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
800.15	Closed fracture of vault of skull with cerebral laceration and contusion, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.337A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
800.15	Closed fracture of vault of skull with cerebral laceration and contusion, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.338A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
800.16	Closed fracture of vault of skull with cerebral laceration and contusion, with loss of consciousness of unspecified duration	S02.0XXA	Fracture of vault of skull, initial encounter for closed fracture
800.16	Closed fracture of vault of skull with cerebral laceration and contusion, with loss of consciousness of unspecified duration	S06.339A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of unspecified duration, initial encounter
800.19	Closed fracture of vault of skull with cerebral laceration and contusion, with concussion, unspecified	S02.0XXA	Fracture of vault of skull, initial encounter for closed fracture
800.19	Closed fracture of vault of skull with cerebral laceration and contusion, with concussion, unspecified	S06.330A	Contusion and laceration of cerebrum, unspecified, without loss of consciousness, initial encounter
800.20	Closed fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, unspecified state of consciousness	S06.4X0A	Epidural hemorrhage without loss of consciousness, initial encounter
800.20	Closed fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, unspecified state of consciousness	S06.5X0A	Traumatic subdural hemorrhage without loss of consciousness, initial encounter
800.20	Closed fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, unspecified state of consciousness	S06.6X0A	Traumatic subarachnoid hemorrhage without loss of consciousness, initial encounter
800.20	Closed fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, unspecified state of consciousness		

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
800.21	Closed fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with no loss of consciousness	S06.4X0A	Epidural hemorrhage without loss of consciousness, initial encounter
800.21	Closed fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with no loss of consciousness	S06.5X0A	Traumatic subdural hemorrhage without loss of consciousness, initial encounter
800.21	Closed fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with no loss of consciousness	S06.6X0A	Traumatic subarachnoid hemorrhage without loss of consciousness, initial encounter
800.21	Closed fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with no loss of consciousness		
800.22	Closed fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness	S06.4X1A	Epidural hemorrhage with loss of consciousness of 30 minutes or less, initial encounter
800.22	Closed fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness	S06.4X2A	Epidural hemorrhage with loss of consciousness of 31 minutes to 59 minutes, initial encounter
800.22	Closed fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness	S06.5X1A	Traumatic subdural hemorrhage with loss of consciousness of 30 minutes or less, initial encounter
800.22	Closed fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness	S06.5X2A	Traumatic subdural hemorrhage with loss of consciousness of 31 minutes to 59 minutes, initial encounter
800.22	Closed fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness	S06.6X1A	Traumatic subarachnoid hemorrhage with loss of consciousness of 30 minutes or less, initial encounter
800.22	Closed fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness	S06.6X2A	Traumatic subarachnoid hemorrhage with loss of consciousness of 31 minutes to 59 minutes, initial encounter
800.22	Closed fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness		
800.23	Closed fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.4X3A	Epidural hemorrhage with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
800.23	Closed fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.4X4A	Epidural hemorrhage with loss of consciousness of 6 hours to 24 hours, initial encounter
800.23	Closed fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.5X3A	Traumatic subdural hemorrhage with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
800.23	Closed fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.5X4A	Traumatic subdural hemorrhage with loss of consciousness of 6 hours to 24 hours, initial encounter
800.23	Closed fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.6X3A	Traumatic subarachnoid hemorrhage with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
800.23	Closed fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.6X4A	Traumatic subarachnoid hemorrhage with loss of consciousness of 6 hours to 24 hours, initial encounter
800.23	Closed fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness		
800.24	Closed fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S02.0XXA	Fracture of vault of skull, initial encounter for closed fracture
800.24	Closed fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.4X5A	Epidural hemorrhage with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
800.24	Closed fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.5X5A	Traumatic subdural hemorrhage with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
800.24	Closed fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.6X5A	Traumatic subarachnoid hemorrhage with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
800.25	Closed fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.4X6A	Epidural hemorrhage with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
800.25	Closed fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.4X7A	Epidural hemorrhage with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
800.25	Closed fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.4X8A	Epidural hemorrhage with loss of consciousness of any duration with death due to other causes prior to regaining consciousness, initial encounter
800.25	Closed fracture of vault of skull with subarachnoid, subdural, and extradural	S06.5X6A	Traumatic subdural hemorrhage with loss of consciousness greater than 24

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
	hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level		hours without return to pre-existing conscious level with patient surviving, initial encounter
800.25	Closed fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.5X7A	Traumatic subdural hemorrhage with loss of consciousness of any duration with death due to brain injury before regaining consciousness, initial encounter
800.25	Closed fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.5X8A	Traumatic subdural hemorrhage with loss of consciousness of any duration with death due to other cause before regaining consciousness, initial encounter
800.25	Closed fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.6X6A	Traumatic subarachnoid hemorrhage with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
800.25	Closed fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.6X7A	Traumatic subarachnoid hemorrhage with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
800.25	Closed fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.6X8A	Traumatic subarachnoid hemorrhage with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
800.25	Closed fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level		
800.26	Closed fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with loss of consciousness of unspecified duration	S06.4X9A	Epidural hemorrhage with loss of consciousness of unspecified duration, initial encounter
800.26	Closed fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with loss of consciousness of unspecified duration	S06.5X9A	Traumatic subdural hemorrhage with loss of consciousness of unspecified duration, initial encounter
800.26	Closed fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with loss of consciousness of unspecified duration	S06.6X9A	Traumatic subarachnoid hemorrhage with loss of consciousness of unspecified duration, initial encounter
800.26	Closed fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with loss of consciousness of unspecified duration		
800.29	Closed fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with concussion, unspecified	S06.4X0A	Epidural hemorrhage without loss of consciousness, initial encounter

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
800.29	Closed fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with concussion, unspecified	S06.5X0A	Traumatic subdural hemorrhage without loss of consciousness, initial encounter
800.29	Closed fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with concussion, unspecified	S06.6X0A	Traumatic subarachnoid hemorrhage without loss of consciousness, initial encounter
800.29	Closed fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with concussion, unspecified		
800.30	Closed fracture of vault of skull with other and unspecified intracranial hemorrhage, unspecified state of consciousness	S02.0XXA	Fracture of vault of skull, initial encounter for closed fracture
800.30	Closed fracture of vault of skull with other and unspecified intracranial hemorrhage, unspecified state of consciousness	S06.360A	Traumatic hemorrhage of cerebrum, unspecified, without loss of consciousness, initial encounter
800.31	Closed fracture of vault of skull with other and unspecified intracranial hemorrhage, with no loss of consciousness	S02.0XXA	Fracture of vault of skull, initial encounter for closed fracture
800.31	Closed fracture of vault of skull with other and unspecified intracranial hemorrhage, with no loss of consciousness	S06.360A	Traumatic hemorrhage of cerebrum, unspecified, without loss of consciousness, initial encounter
800.32	Closed fracture of vault of skull with other and unspecified intracranial hemorrhage, with brief [less than one hour] loss of consciousness	S02.0XXA	Fracture of vault of skull, initial encounter for closed fracture
800.32	Closed fracture of vault of skull with other and unspecified intracranial hemorrhage, with brief [less than one hour] loss of consciousness	S06.361A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of 30 minutes or less, initial encounter
800.32	Closed fracture of vault of skull with other and unspecified intracranial hemorrhage, with brief [less than one hour] loss of consciousness	S06.362A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of 31 minutes to 59 minutes, initial encounter
800.33	Closed fracture of vault of skull with other and unspecified intracranial hemorrhage, with moderate [1-24 hours] loss of consciousness	S02.0XXA	Fracture of vault of skull, initial encounter for closed fracture
800.33	Closed fracture of vault of skull with other and unspecified intracranial hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.363A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of 1 hours to 5 hours 59 minutes, initial encounter
800.33	Closed fracture of vault of skull with other and unspecified intracranial hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.364A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of 6 hours to 24 hours, initial encounter
800.34	Closed fracture of vault of skull with other and unspecified intracranial hemorrhage, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S02.0XXA	Fracture of vault of skull, initial encounter for closed fracture
800.34	Closed fracture of vault of skull with other and unspecified intracranial hemorrhage, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.365A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter



<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
800.35	Closed fracture of vault of skull with other and unspecified intracranial hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S02.0XXA	Fracture of vault of skull, initial encounter for closed fracture
800.35	Closed fracture of vault of skull with other and unspecified intracranial hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.366A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
800.35	Closed fracture of vault of skull with other and unspecified intracranial hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.367A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
800.35	Closed fracture of vault of skull with other and unspecified intracranial hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.368A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
800.36	Closed fracture of vault of skull with other and unspecified intracranial hemorrhage, with loss of consciousness of unspecified duration	S02.0XXA	Fracture of vault of skull, initial encounter for closed fracture
800.36	Closed fracture of vault of skull with other and unspecified intracranial hemorrhage, with loss of consciousness of unspecified duration	S06.369A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of unspecified duration, initial encounter
800.39	Closed fracture of vault of skull with other and unspecified intracranial hemorrhage, with concussion, unspecified	S02.0XXA	Fracture of vault of skull, initial encounter for closed fracture
800.39	Closed fracture of vault of skull with other and unspecified intracranial hemorrhage, with concussion, unspecified	S06.360A	Traumatic hemorrhage of cerebrum, unspecified, without loss of consciousness, initial encounter
800.40	Closed fracture of vault of skull with intracranial injury of other and unspecified nature, unspecified state of consciousness	S02.0XXA	Fracture of vault of skull, initial encounter for closed fracture
800.40	Closed fracture of vault of skull with intracranial injury of other and unspecified nature, unspecified state of consciousness	S06.890A	Other specified intracranial injury without loss of consciousness, initial encounter
800.40	Closed fracture of vault of skull with intracranial injury of other and unspecified nature, unspecified state of consciousness	S06.9X0A	Unspecified intracranial injury without loss of consciousness, initial encounter
800.41	Closed fracture of vault of skull with intracranial injury of other and unspecified nature, with no loss of consciousness	S02.0XXA	Fracture of vault of skull, initial encounter for closed fracture
800.41	Closed fracture of vault of skull with intracranial injury of other and unspecified nature, with no loss of consciousness	S06.890A	Other specified intracranial injury without loss of consciousness, initial encounter
800.41	Closed fracture of vault of skull with intracranial injury of other and unspecified nature, with no loss of consciousness	S06.9X0A	Unspecified intracranial injury without loss of consciousness, initial encounter
800.42	Closed fracture of vault of skull with intracranial injury of other and unspecified	S02.0XXA	Fracture of vault of skull, initial encounter for closed fracture

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
	nature, with brief [less than one hour] loss of consciousness		
800.42	Closed fracture of vault of skull with intracranial injury of other and unspecified nature, with brief [less than one hour] loss of consciousness	S06.891A	Other specified intracranial injury with loss of consciousness of 30 minutes or less, initial encounter
800.42	Closed fracture of vault of skull with intracranial injury of other and unspecified nature, with brief [less than one hour] loss of consciousness	S06.892A	Other specified intracranial injury with loss of consciousness of 31 minutes to 59 minutes, initial encounter
800.42	Closed fracture of vault of skull with intracranial injury of other and unspecified nature, with brief [less than one hour] loss of consciousness	S06.9X1A	Unspecified intracranial injury with loss of consciousness of 30 minutes or less, initial encounter
800.42	Closed fracture of vault of skull with intracranial injury of other and unspecified nature, with brief [less than one hour] loss of consciousness	S06.9X2A	Unspecified intracranial injury with loss of consciousness of 31 minutes to 59 minutes, initial encounter
800.43	Closed fracture of vault of skull with intracranial injury of other and unspecified nature, with moderate [1-24 hours] loss of consciousness	S02.0XXA	Fracture of vault of skull, initial encounter for closed fracture
800.43	Closed fracture of vault of skull with intracranial injury of other and unspecified nature, with moderate [1-24 hours] loss of consciousness	S06.893A	Other specified intracranial injury with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
800.43	Closed fracture of vault of skull with intracranial injury of other and unspecified nature, with moderate [1-24 hours] loss of consciousness	S06.894A	Other specified intracranial injury with loss of consciousness of 6 hours to 24 hours, initial encounter
800.43	Closed fracture of vault of skull with intracranial injury of other and unspecified nature, with moderate [1-24 hours] loss of consciousness	S06.9X3A	Unspecified intracranial injury with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
800.43	Closed fracture of vault of skull with intracranial injury of other and unspecified nature, with moderate [1-24 hours] loss of consciousness	S06.9X4A	Unspecified intracranial injury with loss of consciousness of 6 hours to 24 hours, initial encounter
800.44	Closed fracture of vault of skull with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S02.0XXA	Fracture of vault of skull, initial encounter for closed fracture
800.44	Closed fracture of vault of skull with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.895A	Other specified intracranial injury with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
800.44	Closed fracture of vault of skull with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.9X5A	Unspecified intracranial injury with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
800.45	Closed fracture of vault of skull with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S02.0XXA	Fracture of vault of skull, initial encounter for closed fracture
800.45	Closed fracture of vault of skull with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.896A	Other specified intracranial injury with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
800.45	Closed fracture of vault of skull with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.897A	Other specified intracranial injury with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
800.45	Closed fracture of vault of skull with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.898A	Other specified intracranial injury with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
800.45	Closed fracture of vault of skull with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.9X6A	Unspecified intracranial injury with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
800.45	Closed fracture of vault of skull with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.9X7A	Unspecified intracranial injury with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
800.45	Closed fracture of vault of skull with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.9X8A	Unspecified intracranial injury with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
800.46	Closed fracture of vault of skull with intracranial injury of other and unspecified nature, with loss of consciousness of unspecified duration	S02.0XXA	Fracture of vault of skull, initial encounter for closed fracture
800.46	Closed fracture of vault of skull with intracranial injury of other and unspecified nature, with loss of consciousness of unspecified duration	S06.899A	Other specified intracranial injury with loss of consciousness of unspecified duration, initial encounter
800.46	Closed fracture of vault of skull with intracranial injury of other and unspecified nature, with loss of consciousness of unspecified duration	S06.9X9A	Unspecified intracranial injury with loss of consciousness of unspecified duration, initial encounter
800.49	Closed fracture of vault of skull with intracranial injury of other and unspecified nature, with concussion, unspecified	S02.0XXA	Fracture of vault of skull, initial encounter for closed fracture
800.49	Closed fracture of vault of skull with intracranial injury of other and unspecified nature, with concussion, unspecified	S06.890A	Other specified intracranial injury without loss of consciousness, initial encounter

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
800.49	Closed fracture of vault of skull with intracranial injury of other and unspecified nature, with concussion, unspecified	S06.9X0A	Unspecified intracranial injury without loss of consciousness, initial encounter
800.60	Open fracture of vault of skull with cerebral laceration and contusion, unspecified state of consciousness	S02.0XXB	Fracture of vault of skull, initial encounter for open fracture
800.60	Open fracture of vault of skull with cerebral laceration and contusion, unspecified state of consciousness	S06.330A	Contusion and laceration of cerebrum, unspecified, without loss of consciousness, initial encounter
800.61	Open fracture of vault of skull with cerebral laceration and contusion, with no loss of consciousness	S02.0XXB	Fracture of vault of skull, initial encounter for open fracture
800.61	Open fracture of vault of skull with cerebral laceration and contusion, with no loss of consciousness	S06.330A	Contusion and laceration of cerebrum, unspecified, without loss of consciousness, initial encounter
800.62	Open fracture of vault of skull with cerebral laceration and contusion, with brief [less than one hour] loss of consciousness	S02.0XXB	Fracture of vault of skull, initial encounter for open fracture
800.62	Open fracture of vault of skull with cerebral laceration and contusion, with brief [less than one hour] loss of consciousness	S06.331A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 30 minutes or less, initial encounter
800.62	Open fracture of vault of skull with cerebral laceration and contusion, with brief [less than one hour] loss of consciousness	S06.332A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 31 minutes to 59 minutes, initial encounter
800.63	Open fracture of vault of skull with cerebral laceration and contusion, with moderate [1-24 hours] loss of consciousness	S02.0XXB	Fracture of vault of skull, initial encounter for open fracture
800.63	Open fracture of vault of skull with cerebral laceration and contusion, with moderate [1-24 hours] loss of consciousness	S06.333A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
800.63	Open fracture of vault of skull with cerebral laceration and contusion, with moderate [1-24 hours] loss of consciousness	S06.334A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 6 hours to 24 hours, initial encounter
800.64	Open fracture of vault of skull with cerebral laceration and contusion, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S02.0XXB	Fracture of vault of skull, initial encounter for open fracture
800.64	Open fracture of vault of skull with cerebral laceration and contusion, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.335A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
800.65	Open fracture of vault of skull with cerebral laceration and contusion, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S02.0XXB	Fracture of vault of skull, initial encounter for open fracture
800.65	Open fracture of vault of skull with cerebral laceration and contusion, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.336A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
800.65	Open fracture of vault of skull with cerebral laceration and contusion, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.337A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
800.65	Open fracture of vault of skull with cerebral laceration and contusion, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.338A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
800.66	Open fracture of vault of skull with cerebral laceration and contusion, with loss of consciousness of unspecified duration	S02.0XXB	Fracture of vault of skull, initial encounter for open fracture
800.66	Open fracture of vault of skull with cerebral laceration and contusion, with loss of consciousness of unspecified duration	S06.339A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of unspecified duration, initial encounter
800.69	Open fracture of vault of skull with cerebral laceration and contusion, with concussion, unspecified	S02.0XXB	Fracture of vault of skull, initial encounter for open fracture
800.69	Open fracture of vault of skull with cerebral laceration and contusion, with concussion, unspecified	S06.330A	Contusion and laceration of cerebrum, unspecified, without loss of consciousness, initial encounter
800.70	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, unspecified state of consciousness	S06.4X0A	Epidural hemorrhage without loss of consciousness, initial encounter
800.70	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, unspecified state of consciousness	S06.5X0A	Traumatic subdural hemorrhage without loss of consciousness, initial encounter
800.70	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, unspecified state of consciousness	S06.6X0A	Traumatic subarachnoid hemorrhage without loss of consciousness, initial encounter
800.70	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, unspecified state of consciousness		
800.71	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with no loss of consciousness	S06.4X0A	Epidural hemorrhage without loss of consciousness, initial encounter
800.71	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with no loss of consciousness	S06.5X0A	Traumatic subdural hemorrhage without loss of consciousness, initial encounter
800.71	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with no loss of consciousness	S06.6X0A	Traumatic subarachnoid hemorrhage without loss of consciousness, initial encounter
800.71	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with no loss of consciousness		

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
800.72	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness	S06.4X1A	Epidural hemorrhage with loss of consciousness of 30 minutes or less, initial encounter
800.72	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness	S06.4X2A	Epidural hemorrhage with loss of consciousness of 31 minutes to 59 minutes, initial encounter
800.72	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness	S06.5X1A	Traumatic subdural hemorrhage with loss of consciousness of 30 minutes or less, initial encounter
800.72	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness	S06.5X2A	Traumatic subdural hemorrhage with loss of consciousness of 31 minutes to 59 minutes, initial encounter
800.72	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness	S06.6X1A	Traumatic subarachnoid hemorrhage with loss of consciousness of 30 minutes or less, initial encounter
800.72	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness	S06.6X2A	Traumatic subarachnoid hemorrhage with loss of consciousness of 31 minutes to 59 minutes, initial encounter
800.72	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness		
800.73	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.4X3A	Epidural hemorrhage with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
800.73	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.4X4A	Epidural hemorrhage with loss of consciousness of 6 hours to 24 hours, initial encounter
800.73	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.5X3A	Traumatic subdural hemorrhage with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
800.73	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.5X4A	Traumatic subdural hemorrhage with loss of consciousness of 6 hours to 24 hours, initial encounter
800.73	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.6X3A	Traumatic subarachnoid hemorrhage with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
800.73	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.6X4A	Traumatic subarachnoid hemorrhage with loss of consciousness of 6 hours to 24 hours, initial encounter

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
800.73	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness		
800.74	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.4X5A	Epidural hemorrhage with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
800.74	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.5X5A	Traumatic subdural hemorrhage with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
800.74	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.6X5A	Traumatic subarachnoid hemorrhage with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
800.74	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level		
800.75	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.4X6A	Epidural hemorrhage with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
800.75	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.4X7A	Epidural hemorrhage with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
800.75	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.4X8A	Epidural hemorrhage with loss of consciousness of any duration with death due to other causes prior to regaining consciousness, initial encounter
800.75	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.5X6A	Traumatic subdural hemorrhage with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
800.75	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.5X7A	Traumatic subdural hemorrhage with loss of consciousness of any duration with death due to brain injury before regaining consciousness, initial encounter
800.75	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24	S06.5X8A	Traumatic subdural hemorrhage with loss of consciousness of any duration with death due to other cause before

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
	hours] loss of consciousness, without return to pre-existing conscious level		regaining consciousness, initial encounter
800.75	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.6X6A	Traumatic subarachnoid hemorrhage with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
800.75	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.6X7A	Traumatic subarachnoid hemorrhage with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
800.75	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.6X8A	Traumatic subarachnoid hemorrhage with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
800.75	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level		
800.76	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with loss of consciousness of unspecified duration	S06.4X9A	Epidural hemorrhage with loss of consciousness of unspecified duration, initial encounter
800.76	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with loss of consciousness of unspecified duration	S06.5X9A	Traumatic subdural hemorrhage with loss of consciousness of unspecified duration, initial encounter
800.76	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with loss of consciousness of unspecified duration	S06.6X9A	Traumatic subarachnoid hemorrhage with loss of consciousness of unspecified duration, initial encounter
800.76	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with loss of consciousness of unspecified duration		
800.79	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with concussion, unspecified	S06.4X0A	Epidural hemorrhage without loss of consciousness, initial encounter
800.79	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with concussion, unspecified	S06.5X0A	Traumatic subdural hemorrhage without loss of consciousness, initial encounter
800.79	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with concussion, unspecified	S06.6X0A	Traumatic subarachnoid hemorrhage without loss of consciousness, initial encounter
800.79	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, with concussion, unspecified		
800.80	Open fracture of vault of skull with other and unspecified intracranial hemorrhage, unspecified state of consciousness	S02.0XXB	Fracture of vault of skull, initial encounter for open fracture



<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
800.80	Open fracture of vault of skull with other and unspecified intracranial hemorrhage, unspecified state of consciousness	S06.360A	Traumatic hemorrhage of cerebrum, unspecified, without loss of consciousness, initial encounter
800.81	Open fracture of vault of skull with other and unspecified intracranial hemorrhage, with no loss of consciousness	S02.0XXB	Fracture of vault of skull, initial encounter for open fracture
800.81	Open fracture of vault of skull with other and unspecified intracranial hemorrhage, with no loss of consciousness	S06.360A	Traumatic hemorrhage of cerebrum, unspecified, without loss of consciousness, initial encounter
800.82	Open fracture of vault of skull with other and unspecified intracranial hemorrhage, with brief [less than one hour] loss of consciousness	S02.0XXB	Fracture of vault of skull, initial encounter for open fracture
800.82	Open fracture of vault of skull with other and unspecified intracranial hemorrhage, with brief [less than one hour] loss of consciousness	S06.361A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of 30 minutes or less, initial encounter
800.82	Open fracture of vault of skull with other and unspecified intracranial hemorrhage, with brief [less than one hour] loss of consciousness	S06.362A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of 31 minutes to 59 minutes, initial encounter
800.83	Open fracture of vault of skull with other and unspecified intracranial hemorrhage, with moderate [1-24 hours] loss of consciousness	S02.0XXB	Fracture of vault of skull, initial encounter for open fracture
800.83	Open fracture of vault of skull with other and unspecified intracranial hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.363A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of 1 hours to 5 hours 59 minutes, initial encounter
800.83	Open fracture of vault of skull with other and unspecified intracranial hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.364A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of 6 hours to 24 hours, initial encounter
800.84	Open fracture of vault of skull with other and unspecified intracranial hemorrhage, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S02.0XXB	Fracture of vault of skull, initial encounter for open fracture
800.84	Open fracture of vault of skull with other and unspecified intracranial hemorrhage, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.365A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
800.85	Open fracture of vault of skull with other and unspecified intracranial hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S02.0XXB	Fracture of vault of skull, initial encounter for open fracture
800.85	Open fracture of vault of skull with other and unspecified intracranial hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.366A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
800.85	Open fracture of vault of skull with other and unspecified intracranial hemorrhage, with	S06.367A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
	prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level		of any duration with death due to brain injury prior to regaining consciousness, initial encounter
800.85	Open fracture of vault of skull with other and unspecified intracranial hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.368A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
800.86	Open fracture of vault of skull with other and unspecified intracranial hemorrhage, with loss of consciousness of unspecified duration	S02.0XXB	Fracture of vault of skull, initial encounter for open fracture
800.86	Open fracture of vault of skull with other and unspecified intracranial hemorrhage, with loss of consciousness of unspecified duration	S06.369A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of unspecified duration, initial encounter
800.89	Open fracture of vault of skull with other and unspecified intracranial hemorrhage, with concussion, unspecified	S02.0XXB	Fracture of vault of skull, initial encounter for open fracture
800.89	Open fracture of vault of skull with other and unspecified intracranial hemorrhage, with concussion, unspecified	S06.360A	Traumatic hemorrhage of cerebrum, unspecified, without loss of consciousness, initial encounter
800.90	Open fracture of vault of skull with intracranial injury of other and unspecified nature, unspecified state of consciousness	S02.0XXB	Fracture of vault of skull, initial encounter for open fracture
800.90	Open fracture of vault of skull with intracranial injury of other and unspecified nature, unspecified state of consciousness	S06.890A	Other specified intracranial injury without loss of consciousness, initial encounter
800.90	Open fracture of vault of skull with intracranial injury of other and unspecified nature, unspecified state of consciousness	S06.9X0A	Unspecified intracranial injury without loss of consciousness, initial encounter
800.91	Open fracture of vault of skull with intracranial injury of other and unspecified nature, with no loss of consciousness	S02.0XXB	Fracture of vault of skull, initial encounter for open fracture
800.91	Open fracture of vault of skull with intracranial injury of other and unspecified nature, with no loss of consciousness	S06.890A	Other specified intracranial injury without loss of consciousness, initial encounter
800.91	Open fracture of vault of skull with intracranial injury of other and unspecified nature, with no loss of consciousness	S06.9X0A	Unspecified intracranial injury without loss of consciousness, initial encounter
800.92	Open fracture of vault of skull with intracranial injury of other and unspecified nature, with brief [less than one hour] loss of consciousness	S02.0XXB	Fracture of vault of skull, initial encounter for open fracture
800.92	Open fracture of vault of skull with intracranial injury of other and unspecified nature, with brief [less than one hour] loss of consciousness	S06.891A	Other specified intracranial injury with loss of consciousness of 30 minutes or less, initial encounter
800.92	Open fracture of vault of skull with intracranial injury of other and unspecified nature, with brief [less than one hour] loss of consciousness	S06.892A	Other specified intracranial injury with loss of consciousness of 31 minutes to 59 minutes, initial encounter

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
800.92	Open fracture of vault of skull with intracranial injury of other and unspecified nature, with brief [less than one hour] loss of consciousness	S06.9X1A	Unspecified intracranial injury with loss of consciousness of 30 minutes or less, initial encounter
800.92	Open fracture of vault of skull with intracranial injury of other and unspecified nature, with brief [less than one hour] loss of consciousness	S06.9X2A	Unspecified intracranial injury with loss of consciousness of 31 minutes to 59 minutes, initial encounter
800.93	Open fracture of vault of skull with intracranial injury of other and unspecified nature, with moderate [1-24 hours] loss of consciousness	S02.0XXB	Fracture of vault of skull, initial encounter for open fracture
800.93	Open fracture of vault of skull with intracranial injury of other and unspecified nature, with moderate [1-24 hours] loss of consciousness	S06.893A	Other specified intracranial injury with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
800.93	Open fracture of vault of skull with intracranial injury of other and unspecified nature, with moderate [1-24 hours] loss of consciousness	S06.894A	Other specified intracranial injury with loss of consciousness of 6 hours to 24 hours, initial encounter
800.93	Open fracture of vault of skull with intracranial injury of other and unspecified nature, with moderate [1-24 hours] loss of consciousness	S06.9X3A	Unspecified intracranial injury with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
800.93	Open fracture of vault of skull with intracranial injury of other and unspecified nature, with moderate [1-24 hours] loss of consciousness	S06.9X4A	Unspecified intracranial injury with loss of consciousness of 6 hours to 24 hours, initial encounter
800.94	Open fracture of vault of skull with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S02.0XXB	Fracture of vault of skull, initial encounter for open fracture
800.94	Open fracture of vault of skull with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.895A	Other specified intracranial injury with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
800.94	Open fracture of vault of skull with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.9X5A	Unspecified intracranial injury with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
800.95	Open fracture of vault of skull with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S02.0XXB	Fracture of vault of skull, initial encounter for open fracture
800.95	Open fracture of vault of skull with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.896A	Other specified intracranial injury with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
800.95	Open fracture of vault of skull with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.897A	Other specified intracranial injury with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
800.95	Open fracture of vault of skull with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.898A	Other specified intracranial injury with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
800.95	Open fracture of vault of skull with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.9X6A	Unspecified intracranial injury with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
800.95	Open fracture of vault of skull with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.9X7A	Unspecified intracranial injury with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
800.95	Open fracture of vault of skull with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.9X8A	Unspecified intracranial injury with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
800.96	Open fracture of vault of skull with intracranial injury of other and unspecified nature, with loss of consciousness of unspecified duration	S02.0XXB	Fracture of vault of skull, initial encounter for open fracture
800.96	Open fracture of vault of skull with intracranial injury of other and unspecified nature, with loss of consciousness of unspecified duration	S06.899A	Other specified intracranial injury with loss of consciousness of unspecified duration, initial encounter
800.96	Open fracture of vault of skull with intracranial injury of other and unspecified nature, with loss of consciousness of unspecified duration	S06.9X9A	Unspecified intracranial injury with loss of consciousness of unspecified duration, initial encounter
800.99	Open fracture of vault of skull with intracranial injury of other and unspecified nature, with concussion, unspecified	S02.0XXB	Fracture of vault of skull, initial encounter for open fracture
800.99	Open fracture of vault of skull with intracranial injury of other and unspecified nature, with concussion, unspecified	S06.890A	Other specified intracranial injury without loss of consciousness, initial encounter
800.99	Open fracture of vault of skull with intracranial injury of other and unspecified nature, with concussion, unspecified	S06.9X0A	Unspecified intracranial injury without loss of consciousness, initial encounter
801.10	Closed fracture of base of skull with cerebral laceration and contusion, unspecified state of consciousness	S02.109A	Fracture of base of skull, unspecified side, initial encounter for closed fracture
801.10	Closed fracture of base of skull with cerebral laceration and contusion, unspecified state of consciousness	S06.330A	Contusion and laceration of cerebrum, unspecified, without loss of consciousness, initial encounter
801.11	Closed fracture of base of skull with cerebral laceration and contusion, with no loss of consciousness	S02.109A	Fracture of base of skull, unspecified side, initial encounter for closed fracture
801.11	Closed fracture of base of skull with cerebral laceration and contusion, with no loss of consciousness	S06.330A	Contusion and laceration of cerebrum, unspecified, without loss of consciousness, initial encounter
801.12	Closed fracture of base of skull with cerebral laceration and contusion, with brief [less than one hour] loss of consciousness	S02.109A	Fracture of base of skull, unspecified side, initial encounter for closed fracture

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
801.12	Closed fracture of base of skull with cerebral laceration and contusion, with brief [less than one hour] loss of consciousness	S06.331A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 30 minutes or less, initial encounter
801.12	Closed fracture of base of skull with cerebral laceration and contusion, with brief [less than one hour] loss of consciousness	S06.332A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 31 minutes to 59 minutes, initial encounter
801.13	Closed fracture of base of skull with cerebral laceration and contusion, with moderate [1-24 hours] loss of consciousness	S02.109A	Fracture of base of skull, unspecified side, initial encounter for closed fracture
801.13	Closed fracture of base of skull with cerebral laceration and contusion, with moderate [1-24 hours] loss of consciousness	S06.333A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
801.13	Closed fracture of base of skull with cerebral laceration and contusion, with moderate [1-24 hours] loss of consciousness	S06.334A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 6 hours to 24 hours, initial encounter
801.14	Closed fracture of base of skull with cerebral laceration and contusion, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S02.109A	Fracture of base of skull, unspecified side, initial encounter for closed fracture
801.14	Closed fracture of base of skull with cerebral laceration and contusion, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.335A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
801.15	Closed fracture of base of skull with cerebral laceration and contusion, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S02.109A	Fracture of base of skull, unspecified side, initial encounter for closed fracture
801.15	Closed fracture of base of skull with cerebral laceration and contusion, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.336A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
801.15	Closed fracture of base of skull with cerebral laceration and contusion, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.337A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
801.15	Closed fracture of base of skull with cerebral laceration and contusion, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.338A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
801.16	Closed fracture of base of skull with cerebral laceration and contusion, with loss of consciousness of unspecified duration	S02.109A	Fracture of base of skull, unspecified side, initial encounter for closed fracture
801.16	Closed fracture of base of skull with cerebral laceration and contusion, with loss of consciousness of unspecified duration	S06.339A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of unspecified duration, initial encounter

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
801.19	Closed fracture of base of skull with cerebral laceration and contusion, with concussion, unspecified	S02.109A	Fracture of base of skull, unspecified side, initial encounter for closed fracture
801.19	Closed fracture of base of skull with cerebral laceration and contusion, with concussion, unspecified	S06.330A	Contusion and laceration of cerebrum, unspecified, without loss of consciousness, initial encounter
801.20	Closed fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, unspecified state of consciousness	S06.4X0A	Epidural hemorrhage without loss of consciousness, initial encounter
801.20	Closed fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, unspecified state of consciousness	S06.5X0A	Traumatic subdural hemorrhage without loss of consciousness, initial encounter
801.20	Closed fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, unspecified state of consciousness	S06.6X0A	Traumatic subarachnoid hemorrhage without loss of consciousness, initial encounter
801.20	Closed fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, unspecified state of consciousness		
801.21	Closed fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with no loss of consciousness	S06.4X0A	Epidural hemorrhage without loss of consciousness, initial encounter
801.21	Closed fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with no loss of consciousness	S06.5X0A	Traumatic subdural hemorrhage without loss of consciousness, initial encounter
801.21	Closed fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with no loss of consciousness	S06.6X0A	Traumatic subarachnoid hemorrhage without loss of consciousness, initial encounter
801.21	Closed fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with no loss of consciousness		
801.22	Closed fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness	S06.4X1A	Epidural hemorrhage with loss of consciousness of 30 minutes or less, initial encounter
801.22	Closed fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness	S06.4X2A	Epidural hemorrhage with loss of consciousness of 31 minutes to 59 minutes, initial encounter
801.22	Closed fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness	S06.5X1A	Traumatic subdural hemorrhage with loss of consciousness of 30 minutes or less, initial encounter
801.22	Closed fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness	S06.5X2A	Traumatic subdural hemorrhage with loss of consciousness of 31 minutes to 59 minutes, initial encounter
801.22	Closed fracture of base of skull with subarachnoid, subdural, and extradural	S06.6X1A	Traumatic subarachnoid hemorrhage with loss of consciousness of 30 minutes or less, initial encounter

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
	hemorrhage, with brief [less than one hour] loss of consciousness		
801.22	Closed fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness	S06.6X2A	Traumatic subarachnoid hemorrhage with loss of consciousness of 31 minutes to 59 minutes, initial encounter
801.22	Closed fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness		
801.23	Closed fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.4X3A	Epidural hemorrhage with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
801.23	Closed fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.4X4A	Epidural hemorrhage with loss of consciousness of 6 hours to 24 hours, initial encounter
801.23	Closed fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.5X3A	Traumatic subdural hemorrhage with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
801.23	Closed fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.5X4A	Traumatic subdural hemorrhage with loss of consciousness of 6 hours to 24 hours, initial encounter
801.23	Closed fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.6X3A	Traumatic subarachnoid hemorrhage with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
801.23	Closed fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.6X4A	Traumatic subarachnoid hemorrhage with loss of consciousness of 6 hours to 24 hours, initial encounter
801.23	Closed fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness		
801.24	Closed fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.4X5A	Epidural hemorrhage with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
801.24	Closed fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.5X5A	Traumatic subdural hemorrhage with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
801.24	Closed fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.6X5A	Traumatic subarachnoid hemorrhage with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
801.24	Closed fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level		
801.25	Closed fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.4X6A	Epidural hemorrhage with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
801.25	Closed fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.4X7A	Epidural hemorrhage with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
801.25	Closed fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.4X8A	Epidural hemorrhage with loss of consciousness of any duration with death due to other causes prior to regaining consciousness, initial encounter
801.25	Closed fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.5X6A	Traumatic subdural hemorrhage with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
801.25	Closed fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.5X7A	Traumatic subdural hemorrhage with loss of consciousness of any duration with death due to brain injury before regaining consciousness, initial encounter
801.25	Closed fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.5X8A	Traumatic subdural hemorrhage with loss of consciousness of any duration with death due to other cause before regaining consciousness, initial encounter
801.25	Closed fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.6X6A	Traumatic subarachnoid hemorrhage with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
801.25	Closed fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.6X7A	Traumatic subarachnoid hemorrhage with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
801.25	Closed fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.6X8A	Traumatic subarachnoid hemorrhage with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
801.25	Closed fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24		



<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
	hours] loss of consciousness, without return to pre-existing conscious level		
801.26	Closed fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with loss of consciousness of unspecified duration	S06.4X9A	Epidural hemorrhage with loss of consciousness of unspecified duration, initial encounter
801.26	Closed fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with loss of consciousness of unspecified duration	S06.5X9A	Traumatic subdural hemorrhage with loss of consciousness of unspecified duration, initial encounter
801.26	Closed fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with loss of consciousness of unspecified duration	S06.6X9A	Traumatic subarachnoid hemorrhage with loss of consciousness of unspecified duration, initial encounter
801.26	Closed fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with loss of consciousness of unspecified duration		
801.29	Closed fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with concussion, unspecified	S06.4X0A	Epidural hemorrhage without loss of consciousness, initial encounter
801.29	Closed fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with concussion, unspecified	S06.5X0A	Traumatic subdural hemorrhage without loss of consciousness, initial encounter
801.29	Closed fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with concussion, unspecified	S06.6X0A	Traumatic subarachnoid hemorrhage without loss of consciousness, initial encounter
801.29	Closed fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with concussion, unspecified		
801.30	Closed fracture of base of skull with other and unspecified intracranial hemorrhage, unspecified state of consciousness	S02.109A	Fracture of base of skull, unspecified side, initial encounter for closed fracture
801.30	Closed fracture of base of skull with other and unspecified intracranial hemorrhage, unspecified state of consciousness	S06.360A	Traumatic hemorrhage of cerebrum, unspecified, without loss of consciousness, initial encounter
801.31	Closed fracture of base of skull with other and unspecified intracranial hemorrhage, with no loss of consciousness	S02.109A	Fracture of base of skull, unspecified side, initial encounter for closed fracture
801.31	Closed fracture of base of skull with other and unspecified intracranial hemorrhage, with no loss of consciousness	S06.360A	Traumatic hemorrhage of cerebrum, unspecified, without loss of consciousness, initial encounter
801.32	Closed fracture of base of skull with other and unspecified intracranial hemorrhage, with brief [less than one hour] loss of consciousness	S02.109A	Fracture of base of skull, unspecified side, initial encounter for closed fracture
801.32	Closed fracture of base of skull with other and unspecified intracranial hemorrhage, with brief [less than one hour] loss of consciousness	S06.361A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of 30 minutes or less, initial encounter
801.32	Closed fracture of base of skull with other and unspecified intracranial hemorrhage, with	S06.362A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
	brief [less than one hour] loss of consciousness		of 31 minutes to 59 minutes, initial encounter
801.33	Closed fracture of base of skull with other and unspecified intracranial hemorrhage, with moderate [1-24 hours] loss of consciousness	S02.109A	Fracture of base of skull, unspecified side, initial encounter for closed fracture
801.33	Closed fracture of base of skull with other and unspecified intracranial hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.363A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of 1 hours to 5 hours 59 minutes, initial encounter
801.33	Closed fracture of base of skull with other and unspecified intracranial hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.364A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of 6 hours to 24 hours, initial encounter
801.34	Closed fracture of base of skull with other and unspecified intracranial hemorrhage, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S02.109A	Fracture of base of skull, unspecified side, initial encounter for closed fracture
801.34	Closed fracture of base of skull with other and unspecified intracranial hemorrhage, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.365A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
801.35	Closed fracture of base of skull with other and unspecified intracranial hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S02.109A	Fracture of base of skull, unspecified side, initial encounter for closed fracture
801.35	Closed fracture of base of skull with other and unspecified intracranial hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.366A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
801.35	Closed fracture of base of skull with other and unspecified intracranial hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.367A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
801.35	Closed fracture of base of skull with other and unspecified intracranial hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.368A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
801.36	Closed fracture of base of skull with other and unspecified intracranial hemorrhage, with loss of consciousness of unspecified duration	S02.109A	Fracture of base of skull, unspecified side, initial encounter for closed fracture
801.36	Closed fracture of base of skull with other and unspecified intracranial hemorrhage, with loss of consciousness of unspecified duration	S06.369A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of unspecified duration, initial encounter
801.39	Closed fracture of base of skull with other and unspecified intracranial hemorrhage, with concussion, unspecified	S02.109A	Fracture of base of skull, unspecified side, initial encounter for closed fracture

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
801.39	Closed fracture of base of skull with other and unspecified intracranial hemorrhage, with concussion, unspecified	S06.360A	Traumatic hemorrhage of cerebrum, unspecified, without loss of consciousness, initial encounter
801.40	Closed fracture of base of skull with intracranial injury of other and unspecified nature, unspecified state of consciousness	S02.109A	Fracture of base of skull, unspecified side, initial encounter for closed fracture
801.40	Closed fracture of base of skull with intracranial injury of other and unspecified nature, unspecified state of consciousness	S06.890A	Other specified intracranial injury without loss of consciousness, initial encounter
801.40	Closed fracture of base of skull with intracranial injury of other and unspecified nature, unspecified state of consciousness	S06.9X0A	Unspecified intracranial injury without loss of consciousness, initial encounter
801.41	Closed fracture of base of skull with intracranial injury of other and unspecified nature, with no loss of consciousness	S02.109A	Fracture of base of skull, unspecified side, initial encounter for closed fracture
801.41	Closed fracture of base of skull with intracranial injury of other and unspecified nature, with no loss of consciousness	S06.890A	Other specified intracranial injury without loss of consciousness, initial encounter
801.41	Closed fracture of base of skull with intracranial injury of other and unspecified nature, with no loss of consciousness	S06.9X0A	Unspecified intracranial injury without loss of consciousness, initial encounter
801.42	Closed fracture of base of skull with intracranial injury of other and unspecified nature, with brief [less than one hour] loss of consciousness	S02.109A	Fracture of base of skull, unspecified side, initial encounter for closed fracture
801.42	Closed fracture of base of skull with intracranial injury of other and unspecified nature, with brief [less than one hour] loss of consciousness	S06.891A	Other specified intracranial injury with loss of consciousness of 30 minutes or less, initial encounter
801.42	Closed fracture of base of skull with intracranial injury of other and unspecified nature, with brief [less than one hour] loss of consciousness	S06.892A	Other specified intracranial injury with loss of consciousness of 31 minutes to 59 minutes, initial encounter
801.42	Closed fracture of base of skull with intracranial injury of other and unspecified nature, with brief [less than one hour] loss of consciousness	S06.9X1A	Unspecified intracranial injury with loss of consciousness of 30 minutes or less, initial encounter
801.42	Closed fracture of base of skull with intracranial injury of other and unspecified nature, with brief [less than one hour] loss of consciousness	S06.9X2A	Unspecified intracranial injury with loss of consciousness of 31 minutes to 59 minutes, initial encounter
801.43	Closed fracture of base of skull with intracranial injury of other and unspecified nature, with moderate [1-24 hours] loss of consciousness	S02.109A	Fracture of base of skull, unspecified side, initial encounter for closed fracture
801.43	Closed fracture of base of skull with intracranial injury of other and unspecified nature, with moderate [1-24 hours] loss of consciousness	S06.893A	Other specified intracranial injury with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
801.43	Closed fracture of base of skull with intracranial injury of other and unspecified nature, with moderate [1-24 hours] loss of consciousness	S06.894A	Other specified intracranial injury with loss of consciousness of 6 hours to 24 hours, initial encounter

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
801.43	Closed fracture of base of skull with intracranial injury of other and unspecified nature, with moderate [1-24 hours] loss of consciousness	S06.9X3A	Unspecified intracranial injury with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
801.43	Closed fracture of base of skull with intracranial injury of other and unspecified nature, with moderate [1-24 hours] loss of consciousness	S06.9X4A	Unspecified intracranial injury with loss of consciousness of 6 hours to 24 hours, initial encounter
801.44	Closed fracture of base of skull with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S02.109A	Fracture of base of skull, unspecified side, initial encounter for closed fracture
801.44	Closed fracture of base of skull with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.895A	Other specified intracranial injury with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
801.44	Closed fracture of base of skull with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.9X5A	Unspecified intracranial injury with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
801.45	Closed fracture of base of skull with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S02.109A	Fracture of base of skull, unspecified side, initial encounter for closed fracture
801.45	Closed fracture of base of skull with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.896A	Other specified intracranial injury with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
801.45	Closed fracture of base of skull with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.897A	Other specified intracranial injury with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
801.45	Closed fracture of base of skull with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.898A	Other specified intracranial injury with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
801.45	Closed fracture of base of skull with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.9X6A	Unspecified intracranial injury with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
801.45	Closed fracture of base of skull with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.9X7A	Unspecified intracranial injury with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
801.45	Closed fracture of base of skull with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.9X8A	Unspecified intracranial injury with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
801.46	Closed fracture of base of skull with intracranial injury of other and unspecified nature, with loss of consciousness of unspecified duration	S02.109A	Fracture of base of skull, unspecified side, initial encounter for closed fracture
801.46	Closed fracture of base of skull with intracranial injury of other and unspecified nature, with loss of consciousness of unspecified duration	S06.899A	Other specified intracranial injury with loss of consciousness of unspecified duration, initial encounter
801.46	Closed fracture of base of skull with intracranial injury of other and unspecified nature, with loss of consciousness of unspecified duration	S06.9X9A	Unspecified intracranial injury with loss of consciousness of unspecified duration, initial encounter
801.49	Closed fracture of base of skull with intracranial injury of other and unspecified nature, with concussion, unspecified	S02.109A	Fracture of base of skull, unspecified side, initial encounter for closed fracture
801.49	Closed fracture of base of skull with intracranial injury of other and unspecified nature, with concussion, unspecified	S06.890A	Other specified intracranial injury without loss of consciousness, initial encounter
801.49	Closed fracture of base of skull with intracranial injury of other and unspecified nature, with concussion, unspecified	S06.9X0A	Unspecified intracranial injury without loss of consciousness, initial encounter
801.60	Open fracture of base of skull with cerebral laceration and contusion, unspecified state of consciousness	S02.109B	Fracture of base of skull, unspecified side, initial encounter for open fracture
801.60	Open fracture of base of skull with cerebral laceration and contusion, unspecified state of consciousness	S06.330A	Contusion and laceration of cerebrum, unspecified, without loss of consciousness, initial encounter
801.61	Open fracture of base of skull with cerebral laceration and contusion, with no loss of consciousness	S02.109B	Fracture of base of skull, unspecified side, initial encounter for open fracture
801.61	Open fracture of base of skull with cerebral laceration and contusion, with no loss of consciousness	S06.330A	Contusion and laceration of cerebrum, unspecified, without loss of consciousness, initial encounter
801.62	Open fracture of base of skull with cerebral laceration and contusion, with brief [less than one hour] loss of consciousness	S02.109B	Fracture of base of skull, unspecified side, initial encounter for open fracture
801.62	Open fracture of base of skull with cerebral laceration and contusion, with brief [less than one hour] loss of consciousness	S06.331A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 30 minutes or less, initial encounter
801.62	Open fracture of base of skull with cerebral laceration and contusion, with brief [less than one hour] loss of consciousness	S06.332A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 31 minutes to 59 minutes, initial encounter
801.63	Open fracture of base of skull with cerebral laceration and contusion, with moderate [1-24 hours] loss of consciousness	S02.109B	Fracture of base of skull, unspecified side, initial encounter for open fracture

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
801.63	Open fracture of base of skull with cerebral laceration and contusion, with moderate [1-24 hours] loss of consciousness	S06.333A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
801.63	Open fracture of base of skull with cerebral laceration and contusion, with moderate [1-24 hours] loss of consciousness	S06.334A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 6 hours to 24 hours, initial encounter
801.64	Open fracture of base of skull with cerebral laceration and contusion, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S02.109B	Fracture of base of skull, unspecified side, initial encounter for open fracture
801.64	Open fracture of base of skull with cerebral laceration and contusion, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.335A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
801.65	Open fracture of base of skull with cerebral laceration and contusion, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S02.109B	Fracture of base of skull, unspecified side, initial encounter for open fracture
801.65	Open fracture of base of skull with cerebral laceration and contusion, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.336A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
801.65	Open fracture of base of skull with cerebral laceration and contusion, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.337A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
801.65	Open fracture of base of skull with cerebral laceration and contusion, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.338A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
801.66	Open fracture of base of skull with cerebral laceration and contusion, with loss of consciousness of unspecified duration	S02.109B	Fracture of base of skull, unspecified side, initial encounter for open fracture
801.66	Open fracture of base of skull with cerebral laceration and contusion, with loss of consciousness of unspecified duration	S06.339A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of unspecified duration, initial encounter
801.69	Open fracture of base of skull with cerebral laceration and contusion, with concussion, unspecified	S02.109B	Fracture of base of skull, unspecified side, initial encounter for open fracture
801.69	Open fracture of base of skull with cerebral laceration and contusion, with concussion, unspecified	S06.330A	Contusion and laceration of cerebrum, unspecified, without loss of consciousness, initial encounter
801.70	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, unspecified state of consciousness	S06.4X0A	Epidural hemorrhage without loss of consciousness, initial encounter

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
801.70	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, unspecified state of consciousness	S06.5X0A	Traumatic subdural hemorrhage without loss of consciousness, initial encounter
801.70	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, unspecified state of consciousness	S06.6X0A	Traumatic subarachnoid hemorrhage without loss of consciousness, initial encounter
801.70	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, unspecified state of consciousness		
801.71	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with no loss of consciousness	S06.4X0A	Epidural hemorrhage without loss of consciousness, initial encounter
801.71	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with no loss of consciousness	S06.5X0A	Traumatic subdural hemorrhage without loss of consciousness, initial encounter
801.71	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with no loss of consciousness	S06.6X0A	Traumatic subarachnoid hemorrhage without loss of consciousness, initial encounter
801.71	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with no loss of consciousness		
801.72	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness	S06.4X1A	Epidural hemorrhage with loss of consciousness of 30 minutes or less, initial encounter
801.72	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness	S06.4X2A	Epidural hemorrhage with loss of consciousness of 31 minutes to 59 minutes, initial encounter
801.72	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness	S06.5X1A	Traumatic subdural hemorrhage with loss of consciousness of 30 minutes or less, initial encounter
801.72	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness	S06.5X2A	Traumatic subdural hemorrhage with loss of consciousness of 31 minutes to 59 minutes, initial encounter
801.72	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness	S06.6X1A	Traumatic subarachnoid hemorrhage with loss of consciousness of 30 minutes or less, initial encounter
801.72	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness	S06.6X2A	Traumatic subarachnoid hemorrhage with loss of consciousness of 31 minutes to 59 minutes, initial encounter
801.72	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness		

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
801.73	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.4X3A	Epidural hemorrhage with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
801.73	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.4X4A	Epidural hemorrhage with loss of consciousness of 6 hours to 24 hours, initial encounter
801.73	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.5X3A	Traumatic subdural hemorrhage with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
801.73	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.5X4A	Traumatic subdural hemorrhage with loss of consciousness of 6 hours to 24 hours, initial encounter
801.73	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.6X3A	Traumatic subarachnoid hemorrhage with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
801.73	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.6X4A	Traumatic subarachnoid hemorrhage with loss of consciousness of 6 hours to 24 hours, initial encounter
801.73	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness		
801.74	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.4X5A	Epidural hemorrhage with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
801.74	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.5X5A	Traumatic subdural hemorrhage with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
801.74	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.6X5A	Traumatic subarachnoid hemorrhage with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
801.74	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level		
801.75	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.4X6A	Epidural hemorrhage with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter



<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
801.75	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.4X7A	Epidural hemorrhage with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
801.75	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.4X8A	Epidural hemorrhage with loss of consciousness of any duration with death due to other causes prior to regaining consciousness, initial encounter
801.75	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.5X6A	Traumatic subdural hemorrhage with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
801.75	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.5X7A	Traumatic subdural hemorrhage with loss of consciousness of any duration with death due to brain injury before regaining consciousness, initial encounter
801.75	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.5X8A	Traumatic subdural hemorrhage with loss of consciousness of any duration with death due to other cause before regaining consciousness, initial encounter
801.75	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.6X6A	Traumatic subarachnoid hemorrhage with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
801.75	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.6X7A	Traumatic subarachnoid hemorrhage with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
801.75	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.6X8A	Traumatic subarachnoid hemorrhage with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
801.75	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level		
801.76	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with loss of consciousness of unspecified duration	S06.4X9A	Epidural hemorrhage with loss of consciousness of unspecified duration, initial encounter
801.76	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with loss of consciousness of unspecified duration	S06.5X9A	Traumatic subdural hemorrhage with loss of consciousness of unspecified duration, initial encounter

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
801.76	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with loss of consciousness of unspecified duration	S06.6X9A	Traumatic subarachnoid hemorrhage with loss of consciousness of unspecified duration, initial encounter
801.76	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with loss of consciousness of unspecified duration		
801.79	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with concussion, unspecified	S06.4X0A	Epidural hemorrhage without loss of consciousness, initial encounter
801.79	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with concussion, unspecified	S06.5X0A	Traumatic subdural hemorrhage without loss of consciousness, initial encounter
801.79	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with concussion, unspecified	S06.6X0A	Traumatic subarachnoid hemorrhage without loss of consciousness, initial encounter
801.79	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, with concussion, unspecified		
801.80	Open fracture of base of skull with other and unspecified intracranial hemorrhage, unspecified state of consciousness	S02.109B	Fracture of base of skull, unspecified side, initial encounter for open fracture
801.80	Open fracture of base of skull with other and unspecified intracranial hemorrhage, unspecified state of consciousness	S06.360A	Traumatic hemorrhage of cerebrum, unspecified, without loss of consciousness, initial encounter
801.81	Open fracture of base of skull with other and unspecified intracranial hemorrhage, with no loss of consciousness	S02.109B	Fracture of base of skull, unspecified side, initial encounter for open fracture
801.81	Open fracture of base of skull with other and unspecified intracranial hemorrhage, with no loss of consciousness	S06.360A	Traumatic hemorrhage of cerebrum, unspecified, without loss of consciousness, initial encounter
801.82	Open fracture of base of skull with other and unspecified intracranial hemorrhage, with brief [less than one hour] loss of consciousness	S02.109B	Fracture of base of skull, unspecified side, initial encounter for open fracture
801.82	Open fracture of base of skull with other and unspecified intracranial hemorrhage, with brief [less than one hour] loss of consciousness	S06.361A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of 30 minutes or less, initial encounter
801.82	Open fracture of base of skull with other and unspecified intracranial hemorrhage, with brief [less than one hour] loss of consciousness	S06.362A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of 31 minutes to 59 minutes, initial encounter
801.83	Open fracture of base of skull with other and unspecified intracranial hemorrhage, with moderate [1-24 hours] loss of consciousness	S02.109B	Fracture of base of skull, unspecified side, initial encounter for open fracture
801.83	Open fracture of base of skull with other and unspecified intracranial hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.363A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of 1 hours to 5 hours 59 minutes, initial encounter

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
801.83	Open fracture of base of skull with other and unspecified intracranial hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.364A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of 6 hours to 24 hours, initial encounter
801.84	Open fracture of base of skull with other and unspecified intracranial hemorrhage, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S02.109B	Fracture of base of skull, unspecified side, initial encounter for open fracture
801.84	Open fracture of base of skull with other and unspecified intracranial hemorrhage, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.365A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
801.85	Open fracture of base of skull with other and unspecified intracranial hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S02.109B	Fracture of base of skull, unspecified side, initial encounter for open fracture
801.85	Open fracture of base of skull with other and unspecified intracranial hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.366A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
801.85	Open fracture of base of skull with other and unspecified intracranial hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.367A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
801.85	Open fracture of base of skull with other and unspecified intracranial hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.368A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
801.86	Open fracture of base of skull with other and unspecified intracranial hemorrhage, with loss of consciousness of unspecified duration	S02.109B	Fracture of base of skull, unspecified side, initial encounter for open fracture
801.86	Open fracture of base of skull with other and unspecified intracranial hemorrhage, with loss of consciousness of unspecified duration	S06.369A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of unspecified duration, initial encounter
801.89	Open fracture of base of skull with other and unspecified intracranial hemorrhage, with concussion, unspecified	S02.109B	Fracture of base of skull, unspecified side, initial encounter for open fracture
801.89	Open fracture of base of skull with other and unspecified intracranial hemorrhage, with concussion, unspecified	S06.360A	Traumatic hemorrhage of cerebrum, unspecified, without loss of consciousness, initial encounter
801.90	Open fracture of base of skull with intracranial injury of other and unspecified nature, unspecified state of consciousness	S02.109B	Fracture of base of skull, unspecified side, initial encounter for open fracture
801.90	Open fracture of base of skull with intracranial injury of other and unspecified nature, unspecified state of consciousness	S06.890A	Other specified intracranial injury without loss of consciousness, initial encounter

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
801.90	Open fracture of base of skull with intracranial injury of other and unspecified nature, unspecified state of consciousness	S06.9X0A	Unspecified intracranial injury without loss of consciousness, initial encounter
801.91	Open fracture of base of skull with intracranial injury of other and unspecified nature, with no loss of consciousness	S02.109B	Fracture of base of skull, unspecified side, initial encounter for open fracture
801.91	Open fracture of base of skull with intracranial injury of other and unspecified nature, with no loss of consciousness	S06.890A	Other specified intracranial injury without loss of consciousness, initial encounter
801.91	Open fracture of base of skull with intracranial injury of other and unspecified nature, with no loss of consciousness	S06.9X0A	Unspecified intracranial injury without loss of consciousness, initial encounter
801.92	Open fracture of base of skull with intracranial injury of other and unspecified nature, with brief [less than one hour] loss of consciousness	S02.109B	Fracture of base of skull, unspecified side, initial encounter for open fracture
801.92	Open fracture of base of skull with intracranial injury of other and unspecified nature, with brief [less than one hour] loss of consciousness	S06.891A	Other specified intracranial injury with loss of consciousness of 30 minutes or less, initial encounter
801.92	Open fracture of base of skull with intracranial injury of other and unspecified nature, with brief [less than one hour] loss of consciousness	S06.892A	Other specified intracranial injury with loss of consciousness of 31 minutes to 59 minutes, initial encounter
801.92	Open fracture of base of skull with intracranial injury of other and unspecified nature, with brief [less than one hour] loss of consciousness	S06.9X1A	Unspecified intracranial injury with loss of consciousness of 30 minutes or less, initial encounter
801.92	Open fracture of base of skull with intracranial injury of other and unspecified nature, with brief [less than one hour] loss of consciousness	S06.9X2A	Unspecified intracranial injury with loss of consciousness of 31 minutes to 59 minutes, initial encounter
801.93	Open fracture of base of skull with intracranial injury of other and unspecified nature, with moderate [1-24 hours] loss of consciousness	S02.109B	Fracture of base of skull, unspecified side, initial encounter for open fracture
801.93	Open fracture of base of skull with intracranial injury of other and unspecified nature, with moderate [1-24 hours] loss of consciousness	S06.893A	Other specified intracranial injury with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
801.93	Open fracture of base of skull with intracranial injury of other and unspecified nature, with moderate [1-24 hours] loss of consciousness	S06.894A	Other specified intracranial injury with loss of consciousness of 6 hours to 24 hours, initial encounter
801.93	Open fracture of base of skull with intracranial injury of other and unspecified nature, with moderate [1-24 hours] loss of consciousness	S06.9X3A	Unspecified intracranial injury with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
801.93	Open fracture of base of skull with intracranial injury of other and unspecified nature, with moderate [1-24 hours] loss of consciousness	S06.9X4A	Unspecified intracranial injury with loss of consciousness of 6 hours to 24 hours, initial encounter

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
801.94	Open fracture of base of skull with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S02.109B	Fracture of base of skull, unspecified side, initial encounter for open fracture
801.94	Open fracture of base of skull with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.895A	Other specified intracranial injury with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
801.94	Open fracture of base of skull with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.9X5A	Unspecified intracranial injury with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
801.95	Open fracture of base of skull with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S02.109B	Fracture of base of skull, unspecified side, initial encounter for open fracture
801.95	Open fracture of base of skull with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.896A	Other specified intracranial injury with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
801.95	Open fracture of base of skull with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.897A	Other specified intracranial injury with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
801.95	Open fracture of base of skull with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.898A	Other specified intracranial injury with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
801.95	Open fracture of base of skull with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.9X6A	Unspecified intracranial injury with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
801.95	Open fracture of base of skull with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.9X7A	Unspecified intracranial injury with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
801.95	Open fracture of base of skull with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.9X8A	Unspecified intracranial injury with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
801.96	Open fracture of base of skull with intracranial injury of other and unspecified	S02.109B	Fracture of base of skull, unspecified side, initial encounter for open fracture

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
	nature, with loss of consciousness of unspecified duration		
801.96	Open fracture of base of skull with intracranial injury of other and unspecified nature, with loss of consciousness of unspecified duration	S06.899A	Other specified intracranial injury with loss of consciousness of unspecified duration, initial encounter
801.96	Open fracture of base of skull with intracranial injury of other and unspecified nature, with loss of consciousness of unspecified duration	S06.9X9A	Unspecified intracranial injury with loss of consciousness of unspecified duration, initial encounter
801.99	Open fracture of base of skull with intracranial injury of other and unspecified nature, with concussion, unspecified	S02.109B	Fracture of base of skull, unspecified side, initial encounter for open fracture
801.99	Open fracture of base of skull with intracranial injury of other and unspecified nature, with concussion, unspecified	S06.890A	Other specified intracranial injury without loss of consciousness, initial encounter
801.99	Open fracture of base of skull with intracranial injury of other and unspecified nature, with concussion, unspecified	S06.9X0A	Unspecified intracranial injury without loss of consciousness, initial encounter
803.10	Other closed skull fracture with cerebral laceration and contusion, unspecified state of consciousness	S02.91XA	Unspecified fracture of skull, initial encounter for closed fracture
803.10	Other closed skull fracture with cerebral laceration and contusion, unspecified state of consciousness	S06.330A	Contusion and laceration of cerebrum, unspecified, without loss of consciousness, initial encounter
803.11	Other closed skull fracture with cerebral laceration and contusion, with no loss of consciousness	S02.91XA	Unspecified fracture of skull, initial encounter for closed fracture
803.11	Other closed skull fracture with cerebral laceration and contusion, with no loss of consciousness	S06.330A	Contusion and laceration of cerebrum, unspecified, without loss of consciousness, initial encounter
803.12	Other closed skull fracture with cerebral laceration and contusion, with brief [less than one hour] loss of consciousness	S02.91XA	Unspecified fracture of skull, initial encounter for closed fracture
803.12	Other closed skull fracture with cerebral laceration and contusion, with brief [less than one hour] loss of consciousness	S06.331A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 30 minutes or less, initial encounter
803.12	Other closed skull fracture with cerebral laceration and contusion, with brief [less than one hour] loss of consciousness	S06.332A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 31 minutes to 59 minutes, initial encounter
803.13	Other closed skull fracture with cerebral laceration and contusion, with moderate [1-24 hours] loss of consciousness	S02.91XA	Unspecified fracture of skull, initial encounter for closed fracture
803.13	Other closed skull fracture with cerebral laceration and contusion, with moderate [1-24 hours] loss of consciousness	S06.333A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
803.13	Other closed skull fracture with cerebral laceration and contusion, with moderate [1-24 hours] loss of consciousness	S06.334A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 6 hours to 24 hours, initial encounter
803.14	Other closed skull fracture with cerebral laceration and contusion, with prolonged	S02.91XA	Unspecified fracture of skull, initial encounter for closed fracture

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
	[more than 24 hours] loss of consciousness and return to pre-existing conscious level		
803.14	Other closed skull fracture with cerebral laceration and contusion, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.335A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
803.15	Other closed skull fracture with cerebral laceration and contusion, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S02.91XA	Unspecified fracture of skull, initial encounter for closed fracture
803.15	Other closed skull fracture with cerebral laceration and contusion, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.336A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
803.15	Other closed skull fracture with cerebral laceration and contusion, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.337A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
803.15	Other closed skull fracture with cerebral laceration and contusion, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.338A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
803.16	Other closed skull fracture with cerebral laceration and contusion, with loss of consciousness of unspecified duration	S02.91XA	Unspecified fracture of skull, initial encounter for closed fracture
803.16	Other closed skull fracture with cerebral laceration and contusion, with loss of consciousness of unspecified duration	S06.339A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of unspecified duration, initial encounter
803.19	Other closed skull fracture with cerebral laceration and contusion, with concussion, unspecified	S02.91XA	Unspecified fracture of skull, initial encounter for closed fracture
803.19	Other closed skull fracture with cerebral laceration and contusion, with concussion, unspecified	S06.330A	Contusion and laceration of cerebrum, unspecified, without loss of consciousness, initial encounter
803.20	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage, unspecified state of consciousness	S06.4X0A	Epidural hemorrhage without loss of consciousness, initial encounter
803.20	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage, unspecified state of consciousness	S06.5X0A	Traumatic subdural hemorrhage without loss of consciousness, initial encounter
803.20	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage, unspecified state of consciousness	S06.6X0A	Traumatic subarachnoid hemorrhage without loss of consciousness, initial encounter
803.20	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage, unspecified state of consciousness		

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
803.21	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage, with no loss of consciousness	S06.4X0A	Epidural hemorrhage without loss of consciousness, initial encounter
803.21	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage, with no loss of consciousness	S06.5X0A	Traumatic subdural hemorrhage without loss of consciousness, initial encounter
803.21	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage, with no loss of consciousness	S06.6X0A	Traumatic subarachnoid hemorrhage without loss of consciousness, initial encounter
803.21	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage, with no loss of consciousness		
803.22	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness	S06.4X1A	Epidural hemorrhage with loss of consciousness of 30 minutes or less, initial encounter
803.22	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness	S06.4X2A	Epidural hemorrhage with loss of consciousness of 31 minutes to 59 minutes, initial encounter
803.22	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness	S06.5X1A	Traumatic subdural hemorrhage with loss of consciousness of 30 minutes or less, initial encounter
803.22	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness	S06.5X2A	Traumatic subdural hemorrhage with loss of consciousness of 31 minutes to 59 minutes, initial encounter
803.22	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness	S06.6X1A	Traumatic subarachnoid hemorrhage with loss of consciousness of 30 minutes or less, initial encounter
803.22	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness	S06.6X2A	Traumatic subarachnoid hemorrhage with loss of consciousness of 31 minutes to 59 minutes, initial encounter
803.22	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness		
803.23	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.4X3A	Epidural hemorrhage with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
803.23	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.4X4A	Epidural hemorrhage with loss of consciousness of 6 hours to 24 hours, initial encounter
803.23	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.5X3A	Traumatic subdural hemorrhage with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
803.23	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.5X4A	Traumatic subdural hemorrhage with loss of consciousness of 6 hours to 24 hours, initial encounter



<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
803.23	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.6X3A	Traumatic subarachnoid hemorrhage with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
803.23	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.6X4A	Traumatic subarachnoid hemorrhage with loss of consciousness of 6 hours to 24 hours, initial encounter
803.23	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness		
803.24	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.4X5A	Epidural hemorrhage with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
803.24	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.5X5A	Traumatic subdural hemorrhage with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
803.24	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.6X5A	Traumatic subarachnoid hemorrhage with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
803.24	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level		
803.25	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.4X6A	Epidural hemorrhage with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
803.25	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.4X7A	Epidural hemorrhage with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
803.25	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.4X8A	Epidural hemorrhage with loss of consciousness of any duration with death due to other causes prior to regaining consciousness, initial encounter
803.25	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.5X6A	Traumatic subdural hemorrhage with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
803.25	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of	S06.5X7A	Traumatic subdural hemorrhage with loss of consciousness of any duration with death due to brain injury before

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
	consciousness, without return to pre-existing conscious level		regaining consciousness, initial encounter
803.25	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.5X8A	Traumatic subdural hemorrhage with loss of consciousness of any duration with death due to other cause before regaining consciousness, initial encounter
803.25	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.6X6A	Traumatic subarachnoid hemorrhage with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
803.25	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.6X7A	Traumatic subarachnoid hemorrhage with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
803.25	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.6X8A	Traumatic subarachnoid hemorrhage with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
803.25	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level		
803.26	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage, with loss of consciousness of unspecified duration	S06.4X9A	Epidural hemorrhage with loss of consciousness of unspecified duration, initial encounter
803.26	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage, with loss of consciousness of unspecified duration	S06.5X9A	Traumatic subdural hemorrhage with loss of consciousness of unspecified duration, initial encounter
803.26	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage, with loss of consciousness of unspecified duration	S06.6X9A	Traumatic subarachnoid hemorrhage with loss of consciousness of unspecified duration, initial encounter
803.26	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage, with loss of consciousness of unspecified duration		
803.29	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage, with concussion, unspecified	S06.4X0A	Epidural hemorrhage without loss of consciousness, initial encounter
803.29	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage, with concussion, unspecified	S06.5X0A	Traumatic subdural hemorrhage without loss of consciousness, initial encounter
803.29	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage, with concussion, unspecified	S06.6X0A	Traumatic subarachnoid hemorrhage without loss of consciousness, initial encounter
803.29	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage, with concussion, unspecified		

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
803.30	Other closed skull fracture with other and unspecified intracranial hemorrhage, unspecified state of unconsciousness	S02.91XA	Unspecified fracture of skull, initial encounter for closed fracture
803.30	Other closed skull fracture with other and unspecified intracranial hemorrhage, unspecified state of unconsciousness	S06.369A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of unspecified duration, initial encounter
803.31	Other closed skull fracture with other and unspecified intracranial hemorrhage, with no loss of consciousness	S02.91XA	Unspecified fracture of skull, initial encounter for closed fracture
803.31	Other closed skull fracture with other and unspecified intracranial hemorrhage, with no loss of consciousness	S06.360A	Traumatic hemorrhage of cerebrum, unspecified, without loss of consciousness, initial encounter
803.32	Other closed skull fracture with other and unspecified intracranial hemorrhage, with brief [less than one hour] loss of consciousness	S02.91XA	Unspecified fracture of skull, initial encounter for closed fracture
803.32	Other closed skull fracture with other and unspecified intracranial hemorrhage, with brief [less than one hour] loss of consciousness	S06.361A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of 30 minutes or less, initial encounter
803.32	Other closed skull fracture with other and unspecified intracranial hemorrhage, with brief [less than one hour] loss of consciousness	S06.362A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of 31 minutes to 59 minutes, initial encounter
803.33	Other closed skull fracture with other and unspecified intracranial hemorrhage, with moderate [1-24 hours] loss of consciousness	S02.91XA	Unspecified fracture of skull, initial encounter for closed fracture
803.33	Other closed skull fracture with other and unspecified intracranial hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.363A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of 1 hours to 5 hours 59 minutes, initial encounter
803.33	Other closed skull fracture with other and unspecified intracranial hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.364A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of 6 hours to 24 hours, initial encounter
803.34	Other closed skull fracture with other and unspecified intracranial hemorrhage, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S02.91XA	Unspecified fracture of skull, initial encounter for closed fracture
803.34	Other closed skull fracture with other and unspecified intracranial hemorrhage, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.365A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
803.35	Other closed skull fracture with other and unspecified intracranial hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S02.91XA	Unspecified fracture of skull, initial encounter for closed fracture
803.35	Other closed skull fracture with other and unspecified intracranial hemorrhage, with prolonged [more than 24 hours] loss of	S06.366A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness greater than 24 hours without return to

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
	consciousness, without return to pre-existing conscious level		pre-existing conscious level with patient surviving, initial encounter
803.35	Other closed skull fracture with other and unspecified intracranial hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.367A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
803.35	Other closed skull fracture with other and unspecified intracranial hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.368A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
803.36	Other closed skull fracture with other and unspecified intracranial hemorrhage, with loss of consciousness of unspecified duration	S02.91XA	Unspecified fracture of skull, initial encounter for closed fracture
803.36	Other closed skull fracture with other and unspecified intracranial hemorrhage, with loss of consciousness of unspecified duration	S06.369A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of unspecified duration, initial encounter
803.39	Other closed skull fracture with other and unspecified intracranial hemorrhage, with concussion, unspecified	S02.91XA	Unspecified fracture of skull, initial encounter for closed fracture
803.39	Other closed skull fracture with other and unspecified intracranial hemorrhage, with concussion, unspecified	S06.360A	Traumatic hemorrhage of cerebrum, unspecified, without loss of consciousness, initial encounter
803.40	Other closed skull fracture with intracranial injury of other and unspecified nature, unspecified state of consciousness	S02.91XA	Unspecified fracture of skull, initial encounter for closed fracture
803.40	Other closed skull fracture with intracranial injury of other and unspecified nature, unspecified state of consciousness	S06.890A	Other specified intracranial injury without loss of consciousness, initial encounter
803.40	Other closed skull fracture with intracranial injury of other and unspecified nature, unspecified state of consciousness	S06.9X0A	Unspecified intracranial injury without loss of consciousness, initial encounter
803.41	Other closed skull fracture with intracranial injury of other and unspecified nature, with no loss of consciousness	S02.91XA	Unspecified fracture of skull, initial encounter for closed fracture
803.41	Other closed skull fracture with intracranial injury of other and unspecified nature, with no loss of consciousness	S06.890A	Other specified intracranial injury without loss of consciousness, initial encounter
803.41	Other closed skull fracture with intracranial injury of other and unspecified nature, with no loss of consciousness	S06.9X0A	Unspecified intracranial injury without loss of consciousness, initial encounter
803.42	Other closed skull fracture with intracranial injury of other and unspecified nature, with brief [less than one hour] loss of consciousness	S02.91XA	Unspecified fracture of skull, initial encounter for closed fracture
803.42	Other closed skull fracture with intracranial injury of other and unspecified nature, with brief [less than one hour] loss of consciousness	S06.891A	Other specified intracranial injury with loss of consciousness of 30 minutes or less, initial encounter

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
803.42	Other closed skull fracture with intracranial injury of other and unspecified nature, with brief [less than one hour] loss of consciousness	S06.892A	Other specified intracranial injury with loss of consciousness of 31 minutes to 59 minutes, initial encounter
803.42	Other closed skull fracture with intracranial injury of other and unspecified nature, with brief [less than one hour] loss of consciousness	S06.9X1A	Unspecified intracranial injury with loss of consciousness of 30 minutes or less, initial encounter
803.42	Other closed skull fracture with intracranial injury of other and unspecified nature, with brief [less than one hour] loss of consciousness	S06.9X2A	Unspecified intracranial injury with loss of consciousness of 31 minutes to 59 minutes, initial encounter
803.43	Other closed skull fracture with intracranial injury of other and unspecified nature, with moderate [1-24 hours] loss of consciousness	S02.91XA	Unspecified fracture of skull, initial encounter for closed fracture
803.43	Other closed skull fracture with intracranial injury of other and unspecified nature, with moderate [1-24 hours] loss of consciousness	S06.893A	Other specified intracranial injury with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
803.43	Other closed skull fracture with intracranial injury of other and unspecified nature, with moderate [1-24 hours] loss of consciousness	S06.894A	Other specified intracranial injury with loss of consciousness of 6 hours to 24 hours, initial encounter
803.43	Other closed skull fracture with intracranial injury of other and unspecified nature, with moderate [1-24 hours] loss of consciousness	S06.9X3A	Unspecified intracranial injury with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
803.43	Other closed skull fracture with intracranial injury of other and unspecified nature, with moderate [1-24 hours] loss of consciousness	S06.9X4A	Unspecified intracranial injury with loss of consciousness of 6 hours to 24 hours, initial encounter
803.44	Other closed skull fracture with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S02.91XA	Unspecified fracture of skull, initial encounter for closed fracture
803.44	Other closed skull fracture with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.895A	Other specified intracranial injury with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
803.44	Other closed skull fracture with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.9X5A	Unspecified intracranial injury with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
803.45	Other closed skull fracture with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S02.91XA	Unspecified fracture of skull, initial encounter for closed fracture
803.45	Other closed skull fracture with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.896A	Other specified intracranial injury with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
803.45	Other closed skull fracture with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.897A	Other specified intracranial injury with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
803.45	Other closed skull fracture with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.898A	Other specified intracranial injury with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
803.45	Other closed skull fracture with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.9X6A	Unspecified intracranial injury with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
803.45	Other closed skull fracture with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.9X7A	Unspecified intracranial injury with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
803.45	Other closed skull fracture with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.9X8A	Unspecified intracranial injury with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
803.46	Other closed skull fracture with intracranial injury of other and unspecified nature, with loss of consciousness of unspecified duration	S02.91XA	Unspecified fracture of skull, initial encounter for closed fracture
803.46	Other closed skull fracture with intracranial injury of other and unspecified nature, with loss of consciousness of unspecified duration	S06.899A	Other specified intracranial injury with loss of consciousness of unspecified duration, initial encounter
803.46	Other closed skull fracture with intracranial injury of other and unspecified nature, with loss of consciousness of unspecified duration	S06.9X9A	Unspecified intracranial injury with loss of consciousness of unspecified duration, initial encounter
803.49	Other closed skull fracture with intracranial injury of other and unspecified nature, with concussion, unspecified	S02.91XA	Unspecified fracture of skull, initial encounter for closed fracture
803.49	Other closed skull fracture with intracranial injury of other and unspecified nature, with concussion, unspecified	S06.890A	Other specified intracranial injury without loss of consciousness, initial encounter
803.49	Other closed skull fracture with intracranial injury of other and unspecified nature, with concussion, unspecified	S06.9X0A	Unspecified intracranial injury without loss of consciousness, initial encounter
803.60	Other open skull fracture with cerebral laceration and contusion, unspecified state of consciousness	S02.91XB	Unspecified fracture of skull, initial encounter for open fracture
803.60	Other open skull fracture with cerebral laceration and contusion, unspecified state of consciousness	S06.330A	Contusion and laceration of cerebrum, unspecified, without loss of consciousness, initial encounter
803.61	Other open skull fracture with cerebral laceration and contusion, with no loss of consciousness	S02.91XB	Unspecified fracture of skull, initial encounter for open fracture

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
803.61	Other open skull fracture with cerebral laceration and contusion, with no loss of consciousness	S06.330A	Contusion and laceration of cerebrum, unspecified, without loss of consciousness, initial encounter
803.62	Other open skull fracture with cerebral laceration and contusion, with brief [less than one hour] loss of consciousness	S02.91XB	Unspecified fracture of skull, initial encounter for open fracture
803.62	Other open skull fracture with cerebral laceration and contusion, with brief [less than one hour] loss of consciousness	S06.331A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 30 minutes or less, initial encounter
803.62	Other open skull fracture with cerebral laceration and contusion, with brief [less than one hour] loss of consciousness	S06.332A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 31 minutes to 59 minutes, initial encounter
803.63	Other open skull fracture with cerebral laceration and contusion, with moderate [1-24 hours] loss of consciousness	S02.91XB	Unspecified fracture of skull, initial encounter for open fracture
803.63	Other open skull fracture with cerebral laceration and contusion, with moderate [1-24 hours] loss of consciousness	S06.333A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
803.63	Other open skull fracture with cerebral laceration and contusion, with moderate [1-24 hours] loss of consciousness	S06.334A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 6 hours to 24 hours, initial encounter
803.64	Other open skull fracture with cerebral laceration and contusion, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S02.91XB	Unspecified fracture of skull, initial encounter for open fracture
803.64	Other open skull fracture with cerebral laceration and contusion, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.335A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
803.65	Other open skull fracture with cerebral laceration and contusion, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S02.91XB	Unspecified fracture of skull, initial encounter for open fracture
803.65	Other open skull fracture with cerebral laceration and contusion, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.336A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
803.65	Other open skull fracture with cerebral laceration and contusion, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.337A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
803.65	Other open skull fracture with cerebral laceration and contusion, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.338A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
803.66	Other open skull fracture with cerebral laceration and contusion, with loss of consciousness of unspecified duration	S02.91XB	Unspecified fracture of skull, initial encounter for open fracture
803.66	Other open skull fracture with cerebral laceration and contusion, with loss of consciousness of unspecified duration	S06.339A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of unspecified duration, initial encounter
803.69	Other open skull fracture with cerebral laceration and contusion, with concussion, unspecified	S02.91XB	Unspecified fracture of skull, initial encounter for open fracture
803.69	Other open skull fracture with cerebral laceration and contusion, with concussion, unspecified	S06.330A	Contusion and laceration of cerebrum, unspecified, without loss of consciousness, initial encounter
803.70	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage, unspecified state of consciousness	S06.4X0A	Epidural hemorrhage without loss of consciousness, initial encounter
803.70	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage, unspecified state of consciousness	S06.5X0A	Traumatic subdural hemorrhage without loss of consciousness, initial encounter
803.70	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage, unspecified state of consciousness	S06.6X0A	Traumatic subarachnoid hemorrhage without loss of consciousness, initial encounter
803.70	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage, unspecified state of consciousness		
803.71	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage, with no loss of consciousness	S06.4X0A	Epidural hemorrhage without loss of consciousness, initial encounter
803.71	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage, with no loss of consciousness	S06.5X0A	Traumatic subdural hemorrhage without loss of consciousness, initial encounter
803.71	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage, with no loss of consciousness	S06.6X0A	Traumatic subarachnoid hemorrhage without loss of consciousness, initial encounter
803.71	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage, with no loss of consciousness		
803.72	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness	S06.4X1A	Epidural hemorrhage with loss of consciousness of 30 minutes or less, initial encounter
803.72	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness	S06.4X2A	Epidural hemorrhage with loss of consciousness of 31 minutes to 59 minutes, initial encounter
803.72	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness	S06.5X1A	Traumatic subdural hemorrhage with loss of consciousness of 30 minutes or less, initial encounter
803.72	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness	S06.5X2A	Traumatic subdural hemorrhage with loss of consciousness of 31 minutes to 59 minutes, initial encounter



<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
803.72	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness	S06.6X1A	Traumatic subarachnoid hemorrhage with loss of consciousness of 30 minutes or less, initial encounter
803.72	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness	S06.6X2A	Traumatic subarachnoid hemorrhage with loss of consciousness of 31 minutes to 59 minutes, initial encounter
803.72	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness		
803.73	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.4X3A	Epidural hemorrhage with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
803.73	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.4X4A	Epidural hemorrhage with loss of consciousness of 6 hours to 24 hours, initial encounter
803.73	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.5X3A	Traumatic subdural hemorrhage with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
803.73	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.5X4A	Traumatic subdural hemorrhage with loss of consciousness of 6 hours to 24 hours, initial encounter
803.73	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.6X3A	Traumatic subarachnoid hemorrhage with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
803.73	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.6X4A	Traumatic subarachnoid hemorrhage with loss of consciousness of 6 hours to 24 hours, initial encounter
803.73	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness		
803.74	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.4X5A	Epidural hemorrhage with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
803.74	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.5X5A	Traumatic subdural hemorrhage with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
803.74	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.6X5A	Traumatic subarachnoid hemorrhage with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
803.74	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level		

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
803.75	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.4X6A	Epidural hemorrhage with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
803.75	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.4X7A	Epidural hemorrhage with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
803.75	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.4X8A	Epidural hemorrhage with loss of consciousness of any duration with death due to other causes prior to regaining consciousness, initial encounter
803.75	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.5X6A	Traumatic subdural hemorrhage with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
803.75	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.5X7A	Traumatic subdural hemorrhage with loss of consciousness of any duration with death due to brain injury before regaining consciousness, initial encounter
803.75	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.5X8A	Traumatic subdural hemorrhage with loss of consciousness of any duration with death due to other cause before regaining consciousness, initial encounter
803.75	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.6X6A	Traumatic subarachnoid hemorrhage with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
803.75	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.6X7A	Traumatic subarachnoid hemorrhage with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
803.75	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.6X8A	Traumatic subarachnoid hemorrhage with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
803.75	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level		
803.76	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage, with loss of consciousness of unspecified duration	S06.4X9A	Epidural hemorrhage with loss of consciousness of unspecified duration, initial encounter

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
803.76	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage, with loss of consciousness of unspecified duration	S06.5X9A	Traumatic subdural hemorrhage with loss of consciousness of unspecified duration, initial encounter
803.76	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage, with loss of consciousness of unspecified duration	S06.6X9A	Traumatic subarachnoid hemorrhage with loss of consciousness of unspecified duration, initial encounter
803.76	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage, with loss of consciousness of unspecified duration		
803.79	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage, with concussion, unspecified	S06.4X0A	Epidural hemorrhage without loss of consciousness, initial encounter
803.79	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage, with concussion, unspecified	S06.5X0A	Traumatic subdural hemorrhage without loss of consciousness, initial encounter
803.79	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage, with concussion, unspecified	S06.6X0A	Traumatic subarachnoid hemorrhage without loss of consciousness, initial encounter
803.79	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage, with concussion, unspecified		
803.80	Other open skull fracture with other and unspecified intracranial hemorrhage, unspecified state of consciousness	S02.91XB	Unspecified fracture of skull, initial encounter for open fracture
803.80	Other open skull fracture with other and unspecified intracranial hemorrhage, unspecified state of consciousness	S06.360A	Traumatic hemorrhage of cerebrum, unspecified, without loss of consciousness, initial encounter
803.81	Other open skull fracture with other and unspecified intracranial hemorrhage, with no loss of consciousness	S02.91XB	Unspecified fracture of skull, initial encounter for open fracture
803.81	Other open skull fracture with other and unspecified intracranial hemorrhage, with no loss of consciousness	S06.360A	Traumatic hemorrhage of cerebrum, unspecified, without loss of consciousness, initial encounter
803.82	Other open skull fracture with other and unspecified intracranial hemorrhage, with brief [less than one hour] loss of consciousness	S02.91XB	Unspecified fracture of skull, initial encounter for open fracture
803.82	Other open skull fracture with other and unspecified intracranial hemorrhage, with brief [less than one hour] loss of consciousness	S06.361A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of 30 minutes or less, initial encounter
803.82	Other open skull fracture with other and unspecified intracranial hemorrhage, with brief [less than one hour] loss of consciousness	S06.362A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of 31 minutes to 59 minutes, initial encounter
803.83	Other open skull fracture with other and unspecified intracranial hemorrhage, with moderate [1-24 hours] loss of consciousness	S02.91XB	Unspecified fracture of skull, initial encounter for open fracture
803.83	Other open skull fracture with other and unspecified intracranial hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.363A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of 1 hours to 5 hours 59 minutes, initial encounter

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
803.83	Other open skull fracture with other and unspecified intracranial hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.364A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of 6 hours to 24 hours, initial encounter
803.84	Other open skull fracture with other and unspecified intracranial hemorrhage, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S02.91XB	Unspecified fracture of skull, initial encounter for open fracture
803.84	Other open skull fracture with other and unspecified intracranial hemorrhage, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.365A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
803.85	Other open skull fracture with other and unspecified intracranial hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S02.91XB	Unspecified fracture of skull, initial encounter for open fracture
803.85	Other open skull fracture with other and unspecified intracranial hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.366A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
803.85	Other open skull fracture with other and unspecified intracranial hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.367A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
803.85	Other open skull fracture with other and unspecified intracranial hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.368A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
803.86	Other open skull fracture with other and unspecified intracranial hemorrhage, with loss of consciousness of unspecified duration	S02.91XB	Unspecified fracture of skull, initial encounter for open fracture
803.86	Other open skull fracture with other and unspecified intracranial hemorrhage, with loss of consciousness of unspecified duration	S06.369A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of unspecified duration, initial encounter
803.89	Other open skull fracture with other and unspecified intracranial hemorrhage, with concussion, unspecified	S02.91XB	Unspecified fracture of skull, initial encounter for open fracture
803.89	Other open skull fracture with other and unspecified intracranial hemorrhage, with concussion, unspecified	S06.360A	Traumatic hemorrhage of cerebrum, unspecified, without loss of consciousness, initial encounter
803.90	Other open skull fracture with intracranial injury of other and unspecified nature, unspecified state of consciousness	S02.91XB	Unspecified fracture of skull, initial encounter for open fracture
803.90	Other open skull fracture with intracranial injury of other and unspecified nature, unspecified state of consciousness	S06.890A	Other specified intracranial injury without loss of consciousness, initial encounter

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
803.90	Other open skull fracture with intracranial injury of other and unspecified nature, unspecified state of consciousness	S06.9X0A	Unspecified intracranial injury without loss of consciousness, initial encounter
803.91	Other open skull fracture with intracranial injury of other and unspecified nature, with no loss of consciousness	S02.91XB	Unspecified fracture of skull, initial encounter for open fracture
803.91	Other open skull fracture with intracranial injury of other and unspecified nature, with no loss of consciousness	S06.890A	Other specified intracranial injury without loss of consciousness, initial encounter
803.91	Other open skull fracture with intracranial injury of other and unspecified nature, with no loss of consciousness	S06.9X0A	Unspecified intracranial injury without loss of consciousness, initial encounter
803.92	Other open skull fracture with intracranial injury of other and unspecified nature, with brief [less than one hour] loss of consciousness	S02.91XB	Unspecified fracture of skull, initial encounter for open fracture
803.92	Other open skull fracture with intracranial injury of other and unspecified nature, with brief [less than one hour] loss of consciousness	S06.891A	Other specified intracranial injury with loss of consciousness of 30 minutes or less, initial encounter
803.92	Other open skull fracture with intracranial injury of other and unspecified nature, with brief [less than one hour] loss of consciousness	S06.892A	Other specified intracranial injury with loss of consciousness of 31 minutes to 59 minutes, initial encounter
803.92	Other open skull fracture with intracranial injury of other and unspecified nature, with brief [less than one hour] loss of consciousness	S06.9X1A	Unspecified intracranial injury with loss of consciousness of 30 minutes or less, initial encounter
803.92	Other open skull fracture with intracranial injury of other and unspecified nature, with brief [less than one hour] loss of consciousness	S06.9X2A	Unspecified intracranial injury with loss of consciousness of 31 minutes to 59 minutes, initial encounter
803.93	Other open skull fracture with intracranial injury of other and unspecified nature, with moderate [1-24 hours] loss of consciousness	S02.91XB	Unspecified fracture of skull, initial encounter for open fracture
803.93	Other open skull fracture with intracranial injury of other and unspecified nature, with moderate [1-24 hours] loss of consciousness	S06.893A	Other specified intracranial injury with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
803.93	Other open skull fracture with intracranial injury of other and unspecified nature, with moderate [1-24 hours] loss of consciousness	S06.894A	Other specified intracranial injury with loss of consciousness of 6 hours to 24 hours, initial encounter
803.93	Other open skull fracture with intracranial injury of other and unspecified nature, with moderate [1-24 hours] loss of consciousness	S06.9X3A	Unspecified intracranial injury with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
803.93	Other open skull fracture with intracranial injury of other and unspecified nature, with moderate [1-24 hours] loss of consciousness	S06.9X4A	Unspecified intracranial injury with loss of consciousness of 6 hours to 24 hours, initial encounter
803.94	Other open skull fracture with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S02.91XB	Unspecified fracture of skull, initial encounter for open fracture

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
803.94	Other open skull fracture with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.895A	Other specified intracranial injury with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
803.94	Other open skull fracture with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.9X5A	Unspecified intracranial injury with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
803.95	Other open skull fracture with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S02.91XB	Unspecified fracture of skull, initial encounter for open fracture
803.95	Other open skull fracture with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.896A	Other specified intracranial injury with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
803.95	Other open skull fracture with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.897A	Other specified intracranial injury with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
803.95	Other open skull fracture with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.898A	Other specified intracranial injury with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
803.95	Other open skull fracture with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.9X6A	Unspecified intracranial injury with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
803.95	Other open skull fracture with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.9X7A	Unspecified intracranial injury with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
803.95	Other open skull fracture with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.9X8A	Unspecified intracranial injury with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
803.96	Other open skull fracture with intracranial injury of other and unspecified nature, with loss of consciousness of unspecified duration	S02.91XB	Unspecified fracture of skull, initial encounter for open fracture
803.96	Other open skull fracture with intracranial injury of other and unspecified nature, with loss of consciousness of unspecified duration	S06.899A	Other specified intracranial injury with loss of consciousness of unspecified duration, initial encounter

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
803.96	Other open skull fracture with intracranial injury of other and unspecified nature, with loss of consciousness of unspecified duration	S06.9X9A	Unspecified intracranial injury with loss of consciousness of unspecified duration, initial encounter
803.99	Other open skull fracture with intracranial injury of other and unspecified nature, with concussion, unspecified	S02.91XB	Unspecified fracture of skull, initial encounter for open fracture
803.99	Other open skull fracture with intracranial injury of other and unspecified nature, with concussion, unspecified	S06.890A	Other specified intracranial injury without loss of consciousness, initial encounter
803.99	Other open skull fracture with intracranial injury of other and unspecified nature, with concussion, unspecified	S06.9X0A	Unspecified intracranial injury without loss of consciousness, initial encounter
804.10	Closed fractures involving skull or face with other bones, with cerebral laceration and contusion, unspecified state of consciousness	S02.91XA	Unspecified fracture of skull, initial encounter for closed fracture
804.10	Closed fractures involving skull or face with other bones, with cerebral laceration and contusion, unspecified state of consciousness	S06.330A	Contusion and laceration of cerebrum, unspecified, without loss of consciousness, initial encounter
804.11	Closed fractures involving skull or face with other bones, with cerebral laceration and contusion, with no loss of consciousness	S02.91XA	Unspecified fracture of skull, initial encounter for closed fracture
804.11	Closed fractures involving skull or face with other bones, with cerebral laceration and contusion, with no loss of consciousness	S06.330A	Contusion and laceration of cerebrum, unspecified, without loss of consciousness, initial encounter
804.12	Closed fractures involving skull or face with other bones, with cerebral laceration and contusion, with brief [less than one hour] loss of consciousness	S02.91XA	Unspecified fracture of skull, initial encounter for closed fracture
804.12	Closed fractures involving skull or face with other bones, with cerebral laceration and contusion, with brief [less than one hour] loss of consciousness	S06.331A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 30 minutes or less, initial encounter
804.12	Closed fractures involving skull or face with other bones, with cerebral laceration and contusion, with brief [less than one hour] loss of consciousness	S06.332A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 31 minutes to 59 minutes, initial encounter
804.13	Closed fractures involving skull or face with other bones, with cerebral laceration and contusion, with moderate [1-24 hours] loss of consciousness	S02.91XA	Unspecified fracture of skull, initial encounter for closed fracture
804.13	Closed fractures involving skull or face with other bones, with cerebral laceration and contusion, with moderate [1-24 hours] loss of consciousness	S06.333A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
804.13	Closed fractures involving skull or face with other bones, with cerebral laceration and contusion, with moderate [1-24 hours] loss of consciousness	S06.334A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 6 hours to 24 hours, initial encounter
804.14	Closed fractures involving skull or face with other bones, with cerebral laceration and contusion, with prolonged [more than 24	S02.91XA	Unspecified fracture of skull, initial encounter for closed fracture

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
	hours] loss of consciousness and return to pre-existing conscious level		
804.14	Closed fractures involving skull or face with other bones, with cerebral laceration and contusion, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.335A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
804.15	Closed fractures involving skull or face with other bones, with cerebral laceration and contusion, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S02.91XA	Unspecified fracture of skull, initial encounter for closed fracture
804.15	Closed fractures involving skull or face with other bones, with cerebral laceration and contusion, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.336A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
804.15	Closed fractures involving skull or face with other bones, with cerebral laceration and contusion, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.337A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
804.15	Closed fractures involving skull or face with other bones, with cerebral laceration and contusion, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.338A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
804.16	Closed fractures involving skull or face with other bones, with cerebral laceration and contusion, with loss of consciousness of unspecified duration	S02.91XA	Unspecified fracture of skull, initial encounter for closed fracture
804.16	Closed fractures involving skull or face with other bones, with cerebral laceration and contusion, with loss of consciousness of unspecified duration	S06.339A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of unspecified duration, initial encounter
804.19	Closed fractures involving skull or face with other bones, with cerebral laceration and contusion, with concussion, unspecified	S02.91XA	Unspecified fracture of skull, initial encounter for closed fracture
804.19	Closed fractures involving skull or face with other bones, with cerebral laceration and contusion, with concussion, unspecified	S06.330A	Contusion and laceration of cerebrum, unspecified, without loss of consciousness, initial encounter
804.20	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, unspecified state of consciousness	S06.4X0A	Epidural hemorrhage without loss of consciousness, initial encounter
804.20	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, unspecified state of consciousness	S06.5X0A	Traumatic subdural hemorrhage without loss of consciousness, initial encounter
804.20	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, unspecified state of consciousness	S06.6X0A	Traumatic subarachnoid hemorrhage without loss of consciousness, initial encounter



<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
804.20	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, unspecified state of consciousness		
804.21	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with no loss of consciousness	S06.4X0A	Epidural hemorrhage without loss of consciousness, initial encounter
804.21	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with no loss of consciousness	S06.5X0A	Traumatic subdural hemorrhage without loss of consciousness, initial encounter
804.21	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with no loss of consciousness	S06.6X0A	Traumatic subarachnoid hemorrhage without loss of consciousness, initial encounter
804.21	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with no loss of consciousness		
804.22	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness	S06.4X1A	Epidural hemorrhage with loss of consciousness of 30 minutes or less, initial encounter
804.22	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness	S06.4X2A	Epidural hemorrhage with loss of consciousness of 31 minutes to 59 minutes, initial encounter
804.22	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness	S06.5X1A	Traumatic subdural hemorrhage with loss of consciousness of 30 minutes or less, initial encounter
804.22	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness	S06.5X2A	Traumatic subdural hemorrhage with loss of consciousness of 31 minutes to 59 minutes, initial encounter
804.22	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness	S06.6X1A	Traumatic subarachnoid hemorrhage with loss of consciousness of 30 minutes or less, initial encounter
804.22	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness	S06.6X2A	Traumatic subarachnoid hemorrhage with loss of consciousness of 31 minutes to 59 minutes, initial encounter
804.22	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness		
804.23	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.4X3A	Epidural hemorrhage with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
804.23	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.4X4A	Epidural hemorrhage with loss of consciousness of 6 hours to 24 hours, initial encounter
804.23	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.5X3A	Traumatic subdural hemorrhage with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
804.23	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.5X4A	Traumatic subdural hemorrhage with loss of consciousness of 6 hours to 24 hours, initial encounter
804.23	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.6X3A	Traumatic subarachnoid hemorrhage with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
804.23	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.6X4A	Traumatic subarachnoid hemorrhage with loss of consciousness of 6 hours to 24 hours, initial encounter
804.23	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness		
804.24	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.4X5A	Epidural hemorrhage with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
804.24	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.5X5A	Traumatic subdural hemorrhage with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
804.24	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.6X5A	Traumatic subarachnoid hemorrhage with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
804.24	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level		
804.25	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.4X6A	Epidural hemorrhage with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
804.25	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more	S06.4X7A	Epidural hemorrhage with loss of consciousness of any duration with death due to brain injury prior to

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
	than 24 hours] loss of consciousness, without return to pre-existing conscious level		regaining consciousness, initial encounter
804.25	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.4X8A	Epidural hemorrhage with loss of consciousness of any duration with death due to other causes prior to regaining consciousness, initial encounter
804.25	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.5X6A	Traumatic subdural hemorrhage with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
804.25	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.5X7A	Traumatic subdural hemorrhage with loss of consciousness of any duration with death due to brain injury before regaining consciousness, initial encounter
804.25	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.5X8A	Traumatic subdural hemorrhage with loss of consciousness of any duration with death due to other cause before regaining consciousness, initial encounter
804.25	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.6X6A	Traumatic subarachnoid hemorrhage with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
804.25	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.6X7A	Traumatic subarachnoid hemorrhage with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
804.25	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.6X8A	Traumatic subarachnoid hemorrhage with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
804.25	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level		
804.26	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with loss of consciousness of unspecified duration	S06.4X9A	Epidural hemorrhage with loss of consciousness of unspecified duration, initial encounter
804.26	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with loss of consciousness of unspecified duration	S06.5X9A	Traumatic subdural hemorrhage with loss of consciousness of unspecified duration, initial encounter
804.26	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and	S06.6X9A	Traumatic subarachnoid hemorrhage with loss of consciousness of unspecified duration, initial encounter

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
	extradural hemorrhage, with loss of consciousness of unspecified duration		
804.26	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with loss of consciousness of unspecified duration		
804.29	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with concussion, unspecified	S06.4X0A	Epidural hemorrhage without loss of consciousness, initial encounter
804.29	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with concussion, unspecified	S06.5X0A	Traumatic subdural hemorrhage without loss of consciousness, initial encounter
804.29	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with concussion, unspecified	S06.6X0A	Traumatic subarachnoid hemorrhage without loss of consciousness, initial encounter
804.29	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with concussion, unspecified		
804.30	Closed fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, unspecified state of consciousness	S02.91XA	Unspecified fracture of skull, initial encounter for closed fracture
804.30	Closed fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, unspecified state of consciousness	S06.360A	Traumatic hemorrhage of cerebrum, unspecified, without loss of consciousness, initial encounter
804.31	Closed fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, with no loss of consciousness	S02.91XA	Unspecified fracture of skull, initial encounter for closed fracture
804.31	Closed fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, with no loss of consciousness	S06.360A	Traumatic hemorrhage of cerebrum, unspecified, without loss of consciousness, initial encounter
804.32	Closed fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, with brief [less than one hour] loss of consciousness	S02.91XA	Unspecified fracture of skull, initial encounter for closed fracture
804.32	Closed fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, with brief [less than one hour] loss of consciousness	S06.361A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of 30 minutes or less, initial encounter
804.32	Closed fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, with brief [less than one hour] loss of consciousness	S06.362A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of 31 minutes to 59 minutes, initial encounter
804.33	Closed fractures involving skull or face with other bones, with other and unspecified	S02.91XA	Unspecified fracture of skull, initial encounter for closed fracture

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
	intracranial hemorrhage, with moderate [1-24 hours] loss of consciousness		
804.33	Closed fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.363A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of 1 hours to 5 hours 59 minutes, initial encounter
804.33	Closed fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.364A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of 6 hours to 24 hours, initial encounter
804.34	Closed fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S02.91XA	Unspecified fracture of skull, initial encounter for closed fracture
804.34	Closed fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.365A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
804.35	Closed fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S02.91XA	Unspecified fracture of skull, initial encounter for closed fracture
804.35	Closed fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.366A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
804.35	Closed fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.367A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
804.35	Closed fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.368A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
804.36	Closed fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, with loss of consciousness of unspecified duration	S02.91XA	Unspecified fracture of skull, initial encounter for closed fracture
804.36	Closed fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, with loss of consciousness of unspecified duration	S06.369A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of unspecified duration, initial encounter
804.39	Closed fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, with concussion, unspecified	S02.91XA	Unspecified fracture of skull, initial encounter for closed fracture

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
804.39	Closed fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, with concussion, unspecified	S06.360A	Traumatic hemorrhage of cerebrum, unspecified, without loss of consciousness, initial encounter
804.40	Closed fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, unspecified state of consciousness	S02.91XA	Unspecified fracture of skull, initial encounter for closed fracture
804.40	Closed fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, unspecified state of consciousness	S06.890A	Other specified intracranial injury without loss of consciousness, initial encounter
804.40	Closed fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, unspecified state of consciousness	S06.9X0A	Unspecified intracranial injury without loss of consciousness, initial encounter
804.41	Closed fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with no loss of consciousness	S02.91XA	Unspecified fracture of skull, initial encounter for closed fracture
804.41	Closed fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with no loss of consciousness	S06.890A	Other specified intracranial injury without loss of consciousness, initial encounter
804.41	Closed fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with no loss of consciousness	S06.9X0A	Unspecified intracranial injury without loss of consciousness, initial encounter
804.42	Closed fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with brief [less than one hour] loss of consciousness	S02.91XA	Unspecified fracture of skull, initial encounter for closed fracture
804.42	Closed fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with brief [less than one hour] loss of consciousness	S06.891A	Other specified intracranial injury with loss of consciousness of 30 minutes or less, initial encounter
804.42	Closed fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with brief [less than one hour] loss of consciousness	S06.892A	Other specified intracranial injury with loss of consciousness of 31 minutes to 59 minutes, initial encounter
804.42	Closed fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with brief [less than one hour] loss of consciousness	S06.9X1A	Unspecified intracranial injury with loss of consciousness of 30 minutes or less, initial encounter
804.42	Closed fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with brief [less than one hour] loss of consciousness	S06.9X2A	Unspecified intracranial injury with loss of consciousness of 31 minutes to 59 minutes, initial encounter
804.43	Closed fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with moderate [1-24 hours] loss of consciousness	S02.91XA	Unspecified fracture of skull, initial encounter for closed fracture

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
804.43	Closed fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with moderate [1-24 hours] loss of consciousness	S06.893A	Other specified intracranial injury with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
804.43	Closed fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with moderate [1-24 hours] loss of consciousness	S06.894A	Other specified intracranial injury with loss of consciousness of 6 hours to 24 hours, initial encounter
804.43	Closed fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with moderate [1-24 hours] loss of consciousness	S06.9X4A	Unspecified intracranial injury with loss of consciousness of 6 hours to 24 hours, initial encounter
804.44	Closed fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S02.91XA	Unspecified fracture of skull, initial encounter for closed fracture
804.44	Closed fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.895A	Other specified intracranial injury with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
804.44	Closed fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.9X5A	Unspecified intracranial injury with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
804.45	Closed fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S02.91XA	Unspecified fracture of skull, initial encounter for closed fracture
804.45	Closed fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.896A	Other specified intracranial injury with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
804.45	Closed fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.897A	Other specified intracranial injury with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
804.45	Closed fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.898A	Other specified intracranial injury with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
804.45	Closed fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.9X6A	Unspecified intracranial injury with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
804.45	Closed fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.9X7A	Unspecified intracranial injury with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
804.45	Closed fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.9X8A	Unspecified intracranial injury with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
804.46	Closed fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with loss of consciousness of unspecified duration	S02.91XA	Unspecified fracture of skull, initial encounter for closed fracture
804.46	Closed fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with loss of consciousness of unspecified duration	S06.899A	Other specified intracranial injury with loss of consciousness of unspecified duration, initial encounter
804.46	Closed fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with loss of consciousness of unspecified duration	S06.9X9A	Unspecified intracranial injury with loss of consciousness of unspecified duration, initial encounter
804.49	Closed fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with concussion, unspecified	S02.91XA	Unspecified fracture of skull, initial encounter for closed fracture
804.49	Closed fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with concussion, unspecified	S06.890A	Other specified intracranial injury without loss of consciousness, initial encounter
804.49	Closed fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with concussion, unspecified	S06.9X9A	Unspecified intracranial injury with loss of consciousness of unspecified duration, initial encounter
804.60	Open fractures involving skull or face with other bones, with cerebral laceration and contusion, unspecified state of consciousness	S02.91XB	Unspecified fracture of skull, initial encounter for open fracture
804.60	Open fractures involving skull or face with other bones, with cerebral laceration and contusion, unspecified state of consciousness	S06.330A	Contusion and laceration of cerebrum, unspecified, without loss of consciousness, initial encounter
804.61	Open fractures involving skull or face with other bones, with cerebral laceration and contusion, with no loss of consciousness	S02.91XB	Unspecified fracture of skull, initial encounter for open fracture
804.61	Open fractures involving skull or face with other bones, with cerebral laceration and contusion, with no loss of consciousness	S06.330A	Contusion and laceration of cerebrum, unspecified, without loss of consciousness, initial encounter
804.62	Open fractures involving skull or face with other bones, with cerebral laceration and contusion, with brief [less than one hour] loss of consciousness	S02.91XB	Unspecified fracture of skull, initial encounter for open fracture



<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
804.62	Open fractures involving skull or face with other bones, with cerebral laceration and contusion, with brief [less than one hour] loss of consciousness	S06.331A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 30 minutes or less, initial encounter
804.62	Open fractures involving skull or face with other bones, with cerebral laceration and contusion, with brief [less than one hour] loss of consciousness	S06.332A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 31 minutes to 59 minutes, initial encounter
804.63	Open fractures involving skull or face with other bones, with cerebral laceration and contusion, with moderate [1-24 hours] loss of consciousness	S02.91XB	Unspecified fracture of skull, initial encounter for open fracture
804.63	Open fractures involving skull or face with other bones, with cerebral laceration and contusion, with moderate [1-24 hours] loss of consciousness	S06.333A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
804.63	Open fractures involving skull or face with other bones, with cerebral laceration and contusion, with moderate [1-24 hours] loss of consciousness	S06.334A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 6 hours to 24 hours, initial encounter
804.64	Open fractures involving skull or face with other bones, with cerebral laceration and contusion, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S02.91XB	Unspecified fracture of skull, initial encounter for open fracture
804.64	Open fractures involving skull or face with other bones, with cerebral laceration and contusion, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.335A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
804.65	Open fractures involving skull or face with other bones, with cerebral laceration and contusion, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S02.91XB	Unspecified fracture of skull, initial encounter for open fracture
804.65	Open fractures involving skull or face with other bones, with cerebral laceration and contusion, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.336A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
804.65	Open fractures involving skull or face with other bones, with cerebral laceration and contusion, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.337A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
804.65	Open fractures involving skull or face with other bones, with cerebral laceration and contusion, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.338A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
804.66	Open fractures involving skull or face with other bones, with cerebral laceration and	S02.91XB	Unspecified fracture of skull, initial encounter for open fracture

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
	contusion, with loss of consciousness of unspecified duration		
804.66	Open fractures involving skull or face with other bones, with cerebral laceration and contusion, with loss of consciousness of unspecified duration	S06.339A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of unspecified duration, initial encounter
804.69	Open fractures involving skull or face with other bones, with cerebral laceration and contusion, with concussion, unspecified	S02.91XB	Unspecified fracture of skull, initial encounter for open fracture
804.69	Open fractures involving skull or face with other bones, with cerebral laceration and contusion, with concussion, unspecified	S06.330A	Contusion and laceration of cerebrum, unspecified, without loss of consciousness, initial encounter
804.70	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, unspecified state of consciousness	S06.4X0A	Epidural hemorrhage without loss of consciousness, initial encounter
804.70	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, unspecified state of consciousness	S06.5X0A	Traumatic subdural hemorrhage without loss of consciousness, initial encounter
804.70	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, unspecified state of consciousness	S06.6X0A	Traumatic subarachnoid hemorrhage without loss of consciousness, initial encounter
804.70	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, unspecified state of consciousness		
804.71	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with no loss of consciousness	S06.4X0A	Epidural hemorrhage without loss of consciousness, initial encounter
804.71	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with no loss of consciousness	S06.5X0A	Traumatic subdural hemorrhage without loss of consciousness, initial encounter
804.71	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with no loss of consciousness	S06.6X0A	Traumatic subarachnoid hemorrhage without loss of consciousness, initial encounter
804.71	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with no loss of consciousness		
804.72	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness	S06.4X1A	Epidural hemorrhage with loss of consciousness of 30 minutes or less, initial encounter
804.72	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness	S06.4X2A	Epidural hemorrhage with loss of consciousness of 31 minutes to 59 minutes, initial encounter

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
804.72	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness	S06.5X1A	Traumatic subdural hemorrhage with loss of consciousness of 30 minutes or less, initial encounter
804.72	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness	S06.5X2A	Traumatic subdural hemorrhage with loss of consciousness of 31 minutes to 59 minutes, initial encounter
804.72	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness	S06.6X1A	Traumatic subarachnoid hemorrhage with loss of consciousness of 30 minutes or less, initial encounter
804.72	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness	S06.6X2A	Traumatic subarachnoid hemorrhage with loss of consciousness of 31 minutes to 59 minutes, initial encounter
804.72	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with brief [less than one hour] loss of consciousness		
804.73	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.4X3A	Epidural hemorrhage with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
804.73	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.4X4A	Epidural hemorrhage with loss of consciousness of 6 hours to 24 hours, initial encounter
804.73	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.5X3A	Traumatic subdural hemorrhage with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
804.73	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.5X4A	Traumatic subdural hemorrhage with loss of consciousness of 6 hours to 24 hours, initial encounter
804.73	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.6X3A	Traumatic subarachnoid hemorrhage with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
804.73	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.6X4A	Traumatic subarachnoid hemorrhage with loss of consciousness of 6 hours to 24 hours, initial encounter
804.73	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with moderate [1-24 hours] loss of consciousness		
804.74	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.4X5A	Epidural hemorrhage with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
804.74	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.5X5A	Traumatic subdural hemorrhage with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
804.74	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.6X5A	Traumatic subarachnoid hemorrhage with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
804.74	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level		
804.75	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.4X6A	Epidural hemorrhage with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
804.75	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.4X7A	Epidural hemorrhage with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
804.75	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.4X8A	Epidural hemorrhage with loss of consciousness of any duration with death due to other causes prior to regaining consciousness, initial encounter
804.75	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.5X6A	Traumatic subdural hemorrhage with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
804.75	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.5X7A	Traumatic subdural hemorrhage with loss of consciousness of any duration with death due to brain injury before regaining consciousness, initial encounter
804.75	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.5X8A	Traumatic subdural hemorrhage with loss of consciousness of any duration with death due to other cause before regaining consciousness, initial encounter
804.75	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.6X6A	Traumatic subarachnoid hemorrhage with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
804.75	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more	S06.6X7A	Traumatic subarachnoid hemorrhage with loss of consciousness of any duration with death due to brain injury

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
	than 24 hours] loss of consciousness, without return to pre-existing conscious level		prior to regaining consciousness, initial encounter
804.75	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level	S06.6X8A	Traumatic subarachnoid hemorrhage with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
804.75	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level		
804.76	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with loss of consciousness of unspecified duration	S06.4X9A	Epidural hemorrhage with loss of consciousness of unspecified duration, initial encounter
804.76	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with loss of consciousness of unspecified duration	S06.5X9A	Traumatic subdural hemorrhage with loss of consciousness of unspecified duration, initial encounter
804.76	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with loss of consciousness of unspecified duration	S06.6X9A	Traumatic subarachnoid hemorrhage with loss of consciousness of unspecified duration, initial encounter
804.76	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with loss of consciousness of unspecified duration		
804.79	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with concussion, unspecified	S06.4X0A	Epidural hemorrhage without loss of consciousness, initial encounter
804.79	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with concussion, unspecified	S06.5X0A	Traumatic subdural hemorrhage without loss of consciousness, initial encounter
804.79	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with concussion, unspecified	S06.6X0A	Traumatic subarachnoid hemorrhage without loss of consciousness, initial encounter
804.79	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, with concussion, unspecified		
804.80	Open fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, unspecified state of consciousness	S02.91XB	Unspecified fracture of skull, initial encounter for open fracture
804.80	Open fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, unspecified state of consciousness	S06.360A	Traumatic hemorrhage of cerebrum, unspecified, without loss of consciousness, initial encounter

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
804.81	Open fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, with no loss of consciousness	S02.91XB	Unspecified fracture of skull, initial encounter for open fracture
804.81	Open fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, with no loss of consciousness	S06.360A	Traumatic hemorrhage of cerebrum, unspecified, without loss of consciousness, initial encounter
804.82	Open fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, with brief [less than one hour] loss of consciousness	S02.91XB	Unspecified fracture of skull, initial encounter for open fracture
804.82	Open fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, with brief [less than one hour] loss of consciousness	S06.361A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of 30 minutes or less, initial encounter
804.82	Open fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, with brief [less than one hour] loss of consciousness	S06.362A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of 31 minutes to 59 minutes, initial encounter
804.83	Open fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, with moderate [1-24 hours] loss of consciousness	S02.91XB	Unspecified fracture of skull, initial encounter for open fracture
804.83	Open fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.363A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of 1 hours to 5 hours 59 minutes, initial encounter
804.83	Open fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, with moderate [1-24 hours] loss of consciousness	S06.364A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of 6 hours to 24 hours, initial encounter
804.84	Open fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S02.91XB	Unspecified fracture of skull, initial encounter for open fracture
804.84	Open fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.365A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
804.85	Open fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, with prolonged [more than 24 hours] loss consciousness, without return to pre-existing conscious level	S02.91XB	Unspecified fracture of skull, initial encounter for open fracture
804.85	Open fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, with prolonged [more than 24 hours] loss consciousness, without return to pre-existing conscious level	S06.366A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
804.85	Open fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, with prolonged [more than 24 hours] loss consciousness, without return to pre-existing conscious level	S06.367A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
804.85	Open fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, with prolonged [more than 24 hours] loss consciousness, without return to pre-existing conscious level	S06.368A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
804.86	Open fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, with loss of consciousness of unspecified duration	S02.91XB	Unspecified fracture of skull, initial encounter for open fracture
804.86	Open fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, with loss of consciousness of unspecified duration	S06.369A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of unspecified duration, initial encounter
804.89	Open fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, with concussion, unspecified	S02.91XB	Unspecified fracture of skull, initial encounter for open fracture
804.89	Open fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, with concussion, unspecified	S06.360A	Traumatic hemorrhage of cerebrum, unspecified, without loss of consciousness, initial encounter
804.90	Open fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, unspecified state of consciousness	S02.91XB	Unspecified fracture of skull, initial encounter for open fracture
804.90	Open fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, unspecified state of consciousness	S06.890A	Other specified intracranial injury without loss of consciousness, initial encounter
804.90	Open fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, unspecified state of consciousness	S06.9X0A	Unspecified intracranial injury without loss of consciousness, initial encounter
804.91	Open fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with no loss of consciousness	S02.91XB	Unspecified fracture of skull, initial encounter for open fracture
804.91	Open fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with no loss of consciousness	S06.890A	Other specified intracranial injury without loss of consciousness, initial encounter
804.91	Open fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with no loss of consciousness	S06.9X0A	Unspecified intracranial injury without loss of consciousness, initial encounter
804.92	Open fractures involving skull or face with other bones, with intracranial injury of other	S02.91XB	Unspecified fracture of skull, initial encounter for open fracture

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
	and unspecified nature, with brief [less than one hour] loss of consciousness		
804.92	Open fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with brief [less than one hour] loss of consciousness	S06.891A	Other specified intracranial injury with loss of consciousness of 30 minutes or less, initial encounter
804.92	Open fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with brief [less than one hour] loss of consciousness	S06.892A	Other specified intracranial injury with loss of consciousness of 31 minutes to 59 minutes, initial encounter
804.92	Open fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with brief [less than one hour] loss of consciousness	S06.9X1A	Unspecified intracranial injury with loss of consciousness of 30 minutes or less, initial encounter
804.92	Open fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with brief [less than one hour] loss of consciousness	S06.9X2A	Unspecified intracranial injury with loss of consciousness of 31 minutes to 59 minutes, initial encounter
804.93	Open fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with moderate [1-24 hours] loss of consciousness	S02.91XB	Unspecified fracture of skull, initial encounter for open fracture
804.93	Open fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with moderate [1-24 hours] loss of consciousness	S06.893A	Other specified intracranial injury with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
804.93	Open fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with moderate [1-24 hours] loss of consciousness	S06.894A	Other specified intracranial injury with loss of consciousness of 6 hours to 24 hours, initial encounter
804.93	Open fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with moderate [1-24 hours] loss of consciousness	S06.9X4A	Unspecified intracranial injury with loss of consciousness of 6 hours to 24 hours, initial encounter
804.94	Open fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S02.91XB	Unspecified fracture of skull, initial encounter for open fracture
804.94	Open fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.895A	Other specified intracranial injury with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
804.94	Open fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.9X5A	Unspecified intracranial injury with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
804.95	Open fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with prolonged [more	S02.91XB	Unspecified fracture of skull, initial encounter for open fracture



<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
	than 24 hours] loss of consciousness without return to pre-existing conscious level		
804.95	Open fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.896A	Other specified intracranial injury with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
804.95	Open fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.897A	Other specified intracranial injury with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
804.95	Open fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.898A	Other specified intracranial injury with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
804.95	Open fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.9X6A	Unspecified intracranial injury with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
804.95	Open fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.9X7A	Unspecified intracranial injury with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
804.95	Open fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.9X8A	Unspecified intracranial injury with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
804.96	Open fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with loss of consciousness of unspecified duration	S02.91XB	Unspecified fracture of skull, initial encounter for open fracture
804.96	Open fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with loss of consciousness of unspecified duration	S06.899A	Other specified intracranial injury with loss of consciousness of unspecified duration, initial encounter
804.96	Open fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with loss of consciousness of unspecified duration	S06.9X9A	Unspecified intracranial injury with loss of consciousness of unspecified duration, initial encounter
804.99	Open fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with concussion, unspecified	S02.91XB	Unspecified fracture of skull, initial encounter for open fracture
804.99	Open fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with concussion, unspecified	S06.890A	Other specified intracranial injury without loss of consciousness, initial encounter

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
804.99	Open fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, with concussion, unspecified	S06.9X0A	Unspecified intracranial injury without loss of consciousness, initial encounter
851.00	Cortex (cerebral) contusion without mention of open intracranial wound, unspecified state of consciousness	S06.330A	Contusion and laceration of cerebrum, unspecified, without loss of consciousness, initial encounter
851.01	Cortex (cerebral) contusion without mention of open intracranial wound, with no loss of consciousness	S06.330A	Contusion and laceration of cerebrum, unspecified, without loss of consciousness, initial encounter
851.02	Cortex (cerebral) contusion without mention of open intracranial wound, with brief [less than one hour] loss of consciousness	S06.331A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 30 minutes or less, initial encounter
851.03	Cortex (cerebral) contusion without mention of open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.333A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
851.04	Cortex (cerebral) contusion without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.335A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
851.05	Cortex (cerebral) contusion without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.336A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
851.06	Cortex (cerebral) contusion without mention of open intracranial wound, with loss of consciousness of unspecified duration	S06.339A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of unspecified duration, initial encounter
851.09	Cortex (cerebral) contusion without mention of open intracranial wound, with concussion, unspecified	S06.330A	Contusion and laceration of cerebrum, unspecified, without loss of consciousness, initial encounter
851.10	Cortex (cerebral) contusion with open intracranial wound, unspecified state of consciousness	S06.330A	Contusion and laceration of cerebrum, unspecified, without loss of consciousness, initial encounter
851.10	Cortex (cerebral) contusion with open intracranial wound, unspecified state of consciousness		
851.11	Cortex (cerebral) contusion with open intracranial wound, with no loss of consciousness	S06.330A	Contusion and laceration of cerebrum, unspecified, without loss of consciousness, initial encounter
851.11	Cortex (cerebral) contusion with open intracranial wound, with no loss of consciousness		
851.12	Cortex (cerebral) contusion with open intracranial wound, with brief [less than one hour] loss of consciousness	S06.331A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 30 minutes or less, initial encounter
851.12	Cortex (cerebral) contusion with open intracranial wound, with brief [less than one hour] loss of consciousness	S06.332A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 31 minutes to 59 minutes, initial encounter

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
851.12	Cortex (cerebral) contusion with open intracranial wound, with brief [less than one hour] loss of consciousness		
851.13	Cortex (cerebral) contusion with open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.333A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
851.13	Cortex (cerebral) contusion with open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.334A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 6 hours to 24 hours, initial encounter
851.13	Cortex (cerebral) contusion with open intracranial wound, with moderate [1-24 hours] loss of consciousness		
851.14	Cortex (cerebral) contusion with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.335A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
851.14	Cortex (cerebral) contusion with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level		
851.15	Cortex (cerebral) contusion with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.336A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
851.15	Cortex (cerebral) contusion with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.337A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
851.15	Cortex (cerebral) contusion with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.338A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
851.15	Cortex (cerebral) contusion with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level		
851.16	Cortex (cerebral) contusion with open intracranial wound, with loss of consciousness of unspecified duration	S06.339A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of unspecified duration, initial encounter
851.16	Cortex (cerebral) contusion with open intracranial wound, with loss of consciousness of unspecified duration		
851.19	Cortex (cerebral) contusion with open intracranial wound, with concussion, unspecified	S06.330A	Contusion and laceration of cerebrum, unspecified, without loss of consciousness, initial encounter

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
851.19	Cortex (cerebral) contusion with open intracranial wound, with concussion, unspecified	S06.339A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of unspecified duration, initial encounter
851.19	Cortex (cerebral) contusion with open intracranial wound, with concussion, unspecified		
851.20	Cortex (cerebral) laceration without mention of open intracranial wound, unspecified state of consciousness	S06.330A	Contusion and laceration of cerebrum, unspecified, without loss of consciousness, initial encounter
851.21	Cortex (cerebral) laceration without mention of open intracranial wound, with no loss of consciousness	S06.330A	Contusion and laceration of cerebrum, unspecified, without loss of consciousness, initial encounter
851.22	Cortex (cerebral) laceration without mention of open intracranial wound, with brief [less than one hour] loss of consciousness	S06.331A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 30 minutes or less, initial encounter
851.23	Cortex (cerebral) laceration without mention of open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.333A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
851.24	Cortex (cerebral) laceration without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.335A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
851.25	Cortex (cerebral) laceration without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.336A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
851.26	Cortex (cerebral) laceration without mention of open intracranial wound, with loss of consciousness of unspecified duration	S06.339A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of unspecified duration, initial encounter
851.29	Cortex (cerebral) laceration without mention of open intracranial wound, with concussion, unspecified	S06.330A	Contusion and laceration of cerebrum, unspecified, without loss of consciousness, initial encounter
851.29	Cortex (cerebral) laceration without mention of open intracranial wound, with concussion, unspecified	S06.339A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of unspecified duration, initial encounter
851.30	Cortex (cerebral) laceration with open intracranial wound, unspecified state of consciousness	S06.330A	Contusion and laceration of cerebrum, unspecified, without loss of consciousness, initial encounter
851.30	Cortex (cerebral) laceration with open intracranial wound, unspecified state of consciousness		
851.31	Cortex (cerebral) laceration with open intracranial wound, with no loss of consciousness	S06.330A	Contusion and laceration of cerebrum, unspecified, without loss of consciousness, initial encounter
851.31	Cortex (cerebral) laceration with open intracranial wound, with no loss of consciousness		

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
851.32	Cortex (cerebral) laceration with open intracranial wound, with brief [less than one hour] loss of consciousness	S06.331A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 30 minutes or less, initial encounter
851.32	Cortex (cerebral) laceration with open intracranial wound, with brief [less than one hour] loss of consciousness	S06.332A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 31 minutes to 59 minutes, initial encounter
851.32	Cortex (cerebral) laceration with open intracranial wound, with brief [less than one hour] loss of consciousness		
851.33	Cortex (cerebral) laceration with open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.333A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
851.33	Cortex (cerebral) laceration with open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.334A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 6 hours to 24 hours, initial encounter
851.33	Cortex (cerebral) laceration with open intracranial wound, with moderate [1-24 hours] loss of consciousness		
851.34	Cortex (cerebral) laceration with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.335A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
851.34	Cortex (cerebral) laceration with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level		
851.35	Cortex (cerebral) laceration with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.336A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
851.35	Cortex (cerebral) laceration with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.337A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
851.35	Cortex (cerebral) laceration with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.338A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
851.35	Cortex (cerebral) laceration with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level		
851.36	Cortex (cerebral) laceration with open intracranial wound, with loss of consciousness of unspecified duration	S06.339A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of unspecified duration, initial encounter

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
851.36	Cortex (cerebral) laceration with open intracranial wound, with loss of consciousness of unspecified duration		
851.39	Cortex (cerebral) laceration with open intracranial wound, with concussion, unspecified	S06.330A	Contusion and laceration of cerebrum, unspecified, without loss of consciousness, initial encounter
851.39	Cortex (cerebral) laceration with open intracranial wound, with concussion, unspecified		
851.40	Cerebellar or brain stem contusion without mention of open intracranial wound, unspecified state of consciousness	S06.370A	Contusion, laceration, and hemorrhage of cerebellum without loss of consciousness, initial encounter
851.40	Cerebellar or brain stem contusion without mention of open intracranial wound, unspecified state of consciousness	S06.380A	Contusion, laceration, and hemorrhage of brainstem without loss of consciousness, initial encounter
851.41	Cerebellar or brain stem contusion without mention of open intracranial wound, with no loss of consciousness	S06.370A	Contusion, laceration, and hemorrhage of cerebellum without loss of consciousness, initial encounter
851.41	Cerebellar or brain stem contusion without mention of open intracranial wound, with no loss of consciousness	S06.380A	Contusion, laceration, and hemorrhage of brainstem without loss of consciousness, initial encounter
851.42	Cerebellar or brain stem contusion without mention of open intracranial wound, with brief [less than one hour] loss of consciousness	S06.371A	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness of 30 minutes or less, initial encounter
851.42	Cerebellar or brain stem contusion without mention of open intracranial wound, with brief [less than one hour] loss of consciousness	S06.372A	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness of 31 minutes to 59 minutes, initial encounter
851.42	Cerebellar or brain stem contusion without mention of open intracranial wound, with brief [less than one hour] loss of consciousness	S06.381A	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness of 30 minutes or less, initial encounter
851.42	Cerebellar or brain stem contusion without mention of open intracranial wound, with brief [less than one hour] loss of consciousness	S06.382A	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness of 31 minutes to 59 minutes, initial encounter
851.43	Cerebellar or brain stem contusion without mention of open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.373A	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
851.43	Cerebellar or brain stem contusion without mention of open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.374A	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness of 6 hours to 24 hours, initial encounter
851.43	Cerebellar or brain stem contusion without mention of open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.383A	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
851.43	Cerebellar or brain stem contusion without mention of open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.384A	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness of 6 hours to 24 hours, initial encounter

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
851.44	Cerebellar or brain stem contusion without mention of open intracranial wound, with prolonged [more than 24 hours] loss consciousness and return to pre-existing conscious level	S06.375A	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
851.44	Cerebellar or brain stem contusion without mention of open intracranial wound, with prolonged [more than 24 hours] loss consciousness and return to pre-existing conscious level	S06.385A	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
851.45	Cerebellar or brain stem contusion without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.376A	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
851.45	Cerebellar or brain stem contusion without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.377A	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
851.45	Cerebellar or brain stem contusion without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.378A	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
851.45	Cerebellar or brain stem contusion without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.386A	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
851.45	Cerebellar or brain stem contusion without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.387A	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
851.45	Cerebellar or brain stem contusion without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.388A	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
851.46	Cerebellar or brain stem contusion without mention of open intracranial wound, with loss of consciousness of unspecified duration	S06.379A	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness of unspecified duration, initial encounter
851.46	Cerebellar or brain stem contusion without mention of open intracranial wound, with loss of consciousness of unspecified duration	S06.389A	Contusion, laceration, and hemorrhage of brainstem with loss of

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
			consciousness of unspecified duration, initial encounter
851.49	Cerebellar or brain stem contusion without mention of open intracranial wound, with concussion, unspecified	S06.370A	Contusion, laceration, and hemorrhage of cerebellum without loss of consciousness, initial encounter
851.49	Cerebellar or brain stem contusion without mention of open intracranial wound, with concussion, unspecified	S06.380A	Contusion, laceration, and hemorrhage of brainstem without loss of consciousness, initial encounter
851.50	Cerebellar or brain stem contusion with open intracranial wound, unspecified state of consciousness	S06.370A	Contusion, laceration, and hemorrhage of cerebellum without loss of consciousness, initial encounter
851.50	Cerebellar or brain stem contusion with open intracranial wound, unspecified state of consciousness	S06.380A	Contusion, laceration, and hemorrhage of brainstem without loss of consciousness, initial encounter
851.50	Cerebellar or brain stem contusion with open intracranial wound, unspecified state of consciousness		
851.51	Cerebellar or brain stem contusion with open intracranial wound, with no loss of consciousness	S06.370A	Contusion, laceration, and hemorrhage of cerebellum without loss of consciousness, initial encounter
851.51	Cerebellar or brain stem contusion with open intracranial wound, with no loss of consciousness	S06.380A	Contusion, laceration, and hemorrhage of brainstem without loss of consciousness, initial encounter
851.51	Cerebellar or brain stem contusion with open intracranial wound, with no loss of consciousness		
851.52	Cerebellar or brain stem contusion with open intracranial wound, with brief [less than one hour] loss of consciousness	S06.371A	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness of 30 minutes or less, initial encounter
851.52	Cerebellar or brain stem contusion with open intracranial wound, with brief [less than one hour] loss of consciousness	S06.372A	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness of 31 minutes to 59 minutes, initial encounter
851.52	Cerebellar or brain stem contusion with open intracranial wound, with brief [less than one hour] loss of consciousness	S06.381A	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness of 30 minutes or less, initial encounter
851.52	Cerebellar or brain stem contusion with open intracranial wound, with brief [less than one hour] loss of consciousness	S06.382A	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness of 31 minutes to 59 minutes, initial encounter
851.52	Cerebellar or brain stem contusion with open intracranial wound, with brief [less than one hour] loss of consciousness		
851.53	Cerebellar or brain stem contusion with open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.373A	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
851.53	Cerebellar or brain stem contusion with open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.374A	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness of 6 hours to 24 hours, initial encounter



<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
851.53	Cerebellar or brain stem contusion with open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.383A	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
851.53	Cerebellar or brain stem contusion with open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.384A	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness of 6 hours to 24 hours, initial encounter
851.53	Cerebellar or brain stem contusion with open intracranial wound, with moderate [1-24 hours] loss of consciousness		
851.54	Cerebellar or brain stem contusion with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.375A	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
851.54	Cerebellar or brain stem contusion with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.385A	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
851.54	Cerebellar or brain stem contusion with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level		
851.55	Cerebellar or brain stem contusion with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.376A	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
851.55	Cerebellar or brain stem contusion with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.377A	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
851.55	Cerebellar or brain stem contusion with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.378A	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
851.55	Cerebellar or brain stem contusion with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.386A	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
851.55	Cerebellar or brain stem contusion with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.387A	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness of any duration with death due to brain injury prior to

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
			regaining consciousness, initial encounter
851.55	Cerebellar or brain stem contusion with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.388A	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
851.55	Cerebellar or brain stem contusion with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level		
851.56	Cerebellar or brain stem contusion with open intracranial wound, with loss of consciousness of unspecified duration	S06.379A	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness of unspecified duration, initial encounter
851.56	Cerebellar or brain stem contusion with open intracranial wound, with loss of consciousness of unspecified duration	S06.389A	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness of unspecified duration, initial encounter
851.56	Cerebellar or brain stem contusion with open intracranial wound, with loss of consciousness of unspecified duration		
851.59	Cerebellar or brain stem contusion with open intracranial wound, with concussion, unspecified	S06.370A	Contusion, laceration, and hemorrhage of cerebellum without loss of consciousness, initial encounter
851.59	Cerebellar or brain stem contusion with open intracranial wound, with concussion, unspecified	S06.380A	Contusion, laceration, and hemorrhage of brainstem without loss of consciousness, initial encounter
851.59	Cerebellar or brain stem contusion with open intracranial wound, with concussion, unspecified		
851.60	Cerebellar or brain stem laceration without mention of open intracranial wound, unspecified state of consciousness	S06.370A	Contusion, laceration, and hemorrhage of cerebellum without loss of consciousness, initial encounter
851.60	Cerebellar or brain stem laceration without mention of open intracranial wound, unspecified state of consciousness	S06.380A	Contusion, laceration, and hemorrhage of brainstem without loss of consciousness, initial encounter
851.61	Cerebellar or brain stem laceration without mention of open intracranial wound, with no loss of consciousness	S06.370A	Contusion, laceration, and hemorrhage of cerebellum without loss of consciousness, initial encounter
851.61	Cerebellar or brain stem laceration without mention of open intracranial wound, with no loss of consciousness	S06.380A	Contusion, laceration, and hemorrhage of brainstem without loss of consciousness, initial encounter
851.62	Cerebellar or brain stem laceration without mention of open intracranial wound, with brief [less than 1 hour] loss of consciousness	S06.371A	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness of 30 minutes or less, initial encounter
851.62	Cerebellar or brain stem laceration without mention of open intracranial wound, with brief [less than 1 hour] loss of consciousness	S06.372A	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness of 31 minutes to 59 minutes, initial encounter

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
851.62	Cerebellar or brain stem laceration without mention of open intracranial wound, with brief [less than 1 hour] loss of consciousness	S06.381A	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness of 30 minutes or less, initial encounter
851.62	Cerebellar or brain stem laceration without mention of open intracranial wound, with brief [less than 1 hour] loss of consciousness	S06.382A	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness of 31 minutes to 59 minutes, initial encounter
851.63	Cerebellar or brain stem laceration without mention of open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.373A	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
851.63	Cerebellar or brain stem laceration without mention of open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.374A	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness of 6 hours to 24 hours, initial encounter
851.63	Cerebellar or brain stem laceration without mention of open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.383A	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
851.63	Cerebellar or brain stem laceration without mention of open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.384A	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness of 6 hours to 24 hours, initial encounter
851.64	Cerebellar or brain stem laceration without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.375A	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
851.64	Cerebellar or brain stem laceration without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.385A	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
851.65	Cerebellar or brain stem laceration without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.376A	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
851.65	Cerebellar or brain stem laceration without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.377A	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
851.65	Cerebellar or brain stem laceration without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.378A	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
851.65	Cerebellar or brain stem laceration without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.386A	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
851.65	Cerebellar or brain stem laceration without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.387A	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
851.65	Cerebellar or brain stem laceration without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.388A	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
851.66	Cerebellar or brain stem laceration without mention of open intracranial wound, with loss of consciousness of unspecified duration	S06.379A	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness of unspecified duration, initial encounter
851.66	Cerebellar or brain stem laceration without mention of open intracranial wound, with loss of consciousness of unspecified duration	S06.389A	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness of unspecified duration, initial encounter
851.69	Cerebellar or brain stem laceration without mention of open intracranial wound, with concussion, unspecified	S06.370A	Contusion, laceration, and hemorrhage of cerebellum without loss of consciousness, initial encounter
851.69	Cerebellar or brain stem laceration without mention of open intracranial wound, with concussion, unspecified	S06.380A	Contusion, laceration, and hemorrhage of brainstem without loss of consciousness, initial encounter
851.70	Cerebellar or brain stem laceration with open intracranial wound, unspecified state of consciousness	S06.370A	Contusion, laceration, and hemorrhage of cerebellum without loss of consciousness, initial encounter
851.70	Cerebellar or brain stem laceration with open intracranial wound, unspecified state of consciousness	S06.380A	Contusion, laceration, and hemorrhage of brainstem without loss of consciousness, initial encounter
851.70	Cerebellar or brain stem laceration with open intracranial wound, unspecified state of consciousness		
851.71	Cerebellar or brain stem laceration with open intracranial wound, with no loss of consciousness	S06.370A	Contusion, laceration, and hemorrhage of cerebellum without loss of consciousness, initial encounter
851.71	Cerebellar or brain stem laceration with open intracranial wound, with no loss of consciousness	S06.380A	Contusion, laceration, and hemorrhage of brainstem without loss of consciousness, initial encounter
851.71	Cerebellar or brain stem laceration with open intracranial wound, with no loss of consciousness		
851.72	Cerebellar or brain stem laceration with open intracranial wound, with brief [less than one hour] loss of consciousness	S06.371A	Contusion, laceration, and hemorrhage of cerebellum with loss of

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
			consciousness of 30 minutes or less, initial encounter
851.72	Cerebellar or brain stem laceration with open intracranial wound, with brief [less than one hour] loss of consciousness	S06.372A	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness of 31 minutes to 59 minutes, initial encounter
851.72	Cerebellar or brain stem laceration with open intracranial wound, with brief [less than one hour] loss of consciousness	S06.381A	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness of 30 minutes or less, initial encounter
851.72	Cerebellar or brain stem laceration with open intracranial wound, with brief [less than one hour] loss of consciousness	S06.382A	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness of 31 minutes to 59 minutes, initial encounter
851.72	Cerebellar or brain stem laceration with open intracranial wound, with brief [less than one hour] loss of consciousness		
851.73	Cerebellar or brain stem laceration with open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.373A	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
851.73	Cerebellar or brain stem laceration with open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.374A	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness of 6 hours to 24 hours, initial encounter
851.73	Cerebellar or brain stem laceration with open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.383A	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
851.73	Cerebellar or brain stem laceration with open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.384A	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness of 6 hours to 24 hours, initial encounter
851.73	Cerebellar or brain stem laceration with open intracranial wound, with moderate [1-24 hours] loss of consciousness		
851.74	Cerebellar or brain stem laceration with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.375A	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
851.74	Cerebellar or brain stem laceration with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.385A	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
851.74	Cerebellar or brain stem laceration with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level		
851.75	Cerebellar or brain stem laceration with open intracranial wound, with prolonged [more than	S06.376A	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness greater than 24 hours

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
	24 hours] loss of consciousness without return to pre-existing conscious level		without return to pre-existing conscious level with patient surviving, initial encounter
851.75	Cerebellar or brain stem laceration with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.377A	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
851.75	Cerebellar or brain stem laceration with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.378A	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
851.75	Cerebellar or brain stem laceration with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.386A	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
851.75	Cerebellar or brain stem laceration with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.387A	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
851.75	Cerebellar or brain stem laceration with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.388A	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
851.75	Cerebellar or brain stem laceration with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level		
851.76	Cerebellar or brain stem laceration with open intracranial wound, with loss of consciousness of unspecified duration	S06.379A	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness of unspecified duration, initial encounter
851.76	Cerebellar or brain stem laceration with open intracranial wound, with loss of consciousness of unspecified duration	S06.389A	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness of unspecified duration, initial encounter
851.76	Cerebellar or brain stem laceration with open intracranial wound, with loss of consciousness of unspecified duration		
851.79	Cerebellar or brain stem laceration with open intracranial wound, with concussion, unspecified	S06.370A	Contusion, laceration, and hemorrhage of cerebellum without loss of consciousness, initial encounter

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
851.79	Cerebellar or brain stem laceration with open intracranial wound, with concussion, unspecified	S06.380A	Contusion, laceration, and hemorrhage of brainstem without loss of consciousness, initial encounter
851.79	Cerebellar or brain stem laceration with open intracranial wound, with concussion, unspecified		
851.80	Other and unspecified cerebral laceration and contusion, without mention of open intracranial wound, unspecified state of consciousness	S06.330A	Contusion and laceration of cerebrum, unspecified, without loss of consciousness, initial encounter
851.81	Other and unspecified cerebral laceration and contusion, without mention of open intracranial wound, with no loss of consciousness	S06.310A	Contusion and laceration of right cerebrum without loss of consciousness, initial encounter
851.81	Other and unspecified cerebral laceration and contusion, without mention of open intracranial wound, with no loss of consciousness	S06.320A	Contusion and laceration of left cerebrum without loss of consciousness, initial encounter
851.81	Other and unspecified cerebral laceration and contusion, without mention of open intracranial wound, with no loss of consciousness	S06.330A	Contusion and laceration of cerebrum, unspecified, without loss of consciousness, initial encounter
851.82	Other and unspecified cerebral laceration and contusion, without mention of open intracranial wound, with brief [less than one hour] loss of consciousness	S06.311A	Contusion and laceration of right cerebrum with loss of consciousness of 30 minutes or less, initial encounter
851.82	Other and unspecified cerebral laceration and contusion, without mention of open intracranial wound, with brief [less than one hour] loss of consciousness	S06.312A	Contusion and laceration of right cerebrum with loss of consciousness of 31 minutes to 59 minutes, initial encounter
851.82	Other and unspecified cerebral laceration and contusion, without mention of open intracranial wound, with brief [less than one hour] loss of consciousness	S06.321A	Contusion and laceration of left cerebrum with loss of consciousness of 30 minutes or less, initial encounter
851.82	Other and unspecified cerebral laceration and contusion, without mention of open intracranial wound, with brief [less than one hour] loss of consciousness	S06.322A	Contusion and laceration of left cerebrum with loss of consciousness of 31 minutes to 59 minutes, initial encounter
851.82	Other and unspecified cerebral laceration and contusion, without mention of open intracranial wound, with brief [less than one hour] loss of consciousness	S06.331A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 30 minutes or less, initial encounter
851.82	Other and unspecified cerebral laceration and contusion, without mention of open intracranial wound, with brief [less than one hour] loss of consciousness	S06.332A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 31 minutes to 59 minutes, initial encounter
851.83	Other and unspecified cerebral laceration and contusion, without mention of open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.313A	Contusion and laceration of right cerebrum with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
851.83	Other and unspecified cerebral laceration and contusion, without mention of open	S06.314A	Contusion and laceration of right cerebrum with loss of consciousness of 6 hours to 24 hours, initial encounter

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
	intracranial wound, with moderate [1-24 hours] loss of consciousness		
851.83	Other and unspecified cerebral laceration and contusion, without mention of open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.323A	Contusion and laceration of left cerebrum with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
851.83	Other and unspecified cerebral laceration and contusion, without mention of open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.324A	Contusion and laceration of left cerebrum with loss of consciousness of 6 hours to 24 hours, initial encounter
851.83	Other and unspecified cerebral laceration and contusion, without mention of open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.333A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
851.83	Other and unspecified cerebral laceration and contusion, without mention of open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.334A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 6 hours to 24 hours, initial encounter
851.84	Other and unspecified cerebral laceration and contusion, without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.315A	Contusion and laceration of right cerebrum with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
851.84	Other and unspecified cerebral laceration and contusion, without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.325A	Contusion and laceration of left cerebrum with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
851.84	Other and unspecified cerebral laceration and contusion, without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.335A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
851.85	Other and unspecified cerebral laceration and contusion, without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.316A	Contusion and laceration of right cerebrum with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
851.85	Other and unspecified cerebral laceration and contusion, without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.317A	Contusion and laceration of right cerebrum with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
851.85	Other and unspecified cerebral laceration and contusion, without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.318A	Contusion and laceration of right cerebrum with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
851.85	Other and unspecified cerebral laceration and contusion, without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.326A	Contusion and laceration of left cerebrum with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter



<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
851.85	Other and unspecified cerebral laceration and contusion, without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.327A	Contusion and laceration of left cerebrum with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
851.85	Other and unspecified cerebral laceration and contusion, without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.328A	Contusion and laceration of left cerebrum with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
851.85	Other and unspecified cerebral laceration and contusion, without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.336A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
851.85	Other and unspecified cerebral laceration and contusion, without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.337A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
851.85	Other and unspecified cerebral laceration and contusion, without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.338A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
851.86	Other and unspecified cerebral laceration and contusion, without mention of open intracranial wound, with loss of consciousness of unspecified duration	S06.319A	Contusion and laceration of right cerebrum with loss of consciousness of unspecified duration, initial encounter
851.86	Other and unspecified cerebral laceration and contusion, without mention of open intracranial wound, with loss of consciousness of unspecified duration	S06.329A	Contusion and laceration of left cerebrum with loss of consciousness of unspecified duration, initial encounter
851.86	Other and unspecified cerebral laceration and contusion, without mention of open intracranial wound, with loss of consciousness of unspecified duration	S06.339A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of unspecified duration, initial encounter
851.89	Other and unspecified cerebral laceration and contusion, without mention of open intracranial wound, with concussion, unspecified	S06.330A	Contusion and laceration of cerebrum, unspecified, without loss of consciousness, initial encounter
851.90	Other and unspecified cerebral laceration and contusion, with open intracranial wound, unspecified state of consciousness	S06.330A	Contusion and laceration of cerebrum, unspecified, without loss of consciousness, initial encounter
851.90	Other and unspecified cerebral laceration and contusion, with open intracranial wound, unspecified state of consciousness		
851.91	Other and unspecified cerebral laceration and contusion, with open intracranial wound, with no loss of consciousness	S06.330A	Contusion and laceration of cerebrum, unspecified, without loss of consciousness, initial encounter
851.91	Other and unspecified cerebral laceration and contusion, with open intracranial wound, with no loss of consciousness		

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
851.92	Other and unspecified cerebral laceration and contusion, with open intracranial wound, with brief [less than one hour] loss of consciousness	S06.331A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 30 minutes or less, initial encounter
851.92	Other and unspecified cerebral laceration and contusion, with open intracranial wound, with brief [less than one hour] loss of consciousness	S06.332A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 31 minutes to 59 minutes, initial encounter
851.92	Other and unspecified cerebral laceration and contusion, with open intracranial wound, with brief [less than one hour] loss of consciousness		
851.93	Other and unspecified cerebral laceration and contusion, with open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.333A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
851.93	Other and unspecified cerebral laceration and contusion, with open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.334A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 6 hours to 24 hours, initial encounter
851.93	Other and unspecified cerebral laceration and contusion, with open intracranial wound, with moderate [1-24 hours] loss of consciousness		
851.94	Other and unspecified cerebral laceration and contusion, with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.335A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
851.94	Other and unspecified cerebral laceration and contusion, with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level		
851.95	Other and unspecified cerebral laceration and contusion, with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.336A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
851.95	Other and unspecified cerebral laceration and contusion, with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.337A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
851.95	Other and unspecified cerebral laceration and contusion, with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.338A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
851.95	Other and unspecified cerebral laceration and contusion, with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level		

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
851.96	Other and unspecified cerebral laceration and contusion, with open intracranial wound, with loss of consciousness of unspecified duration	S06.339A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of unspecified duration, initial encounter
851.96	Other and unspecified cerebral laceration and contusion, with open intracranial wound, with loss of consciousness of unspecified duration		
851.99	Other and unspecified cerebral laceration and contusion, with open intracranial wound, with concussion, unspecified	S06.330A	Contusion and laceration of cerebrum, unspecified, without loss of consciousness, initial encounter
851.99	Other and unspecified cerebral laceration and contusion, with open intracranial wound, with concussion, unspecified		
852.00	Subarachnoid hemorrhage following injury without mention of open intracranial wound, unspecified state of consciousness	S06.6X0A	Traumatic subarachnoid hemorrhage without loss of consciousness, initial encounter
852.01	Subarachnoid hemorrhage following injury without mention of open intracranial wound, with no loss of consciousness	S06.6X0A	Traumatic subarachnoid hemorrhage without loss of consciousness, initial encounter
852.02	Subarachnoid hemorrhage following injury without mention of open intracranial wound, with brief [less than one hour] loss of consciousness	S06.6X1A	Traumatic subarachnoid hemorrhage with loss of consciousness of 30 minutes or less, initial encounter
852.02	Subarachnoid hemorrhage following injury without mention of open intracranial wound, with brief [less than one hour] loss of consciousness	S06.6X2A	Traumatic subarachnoid hemorrhage with loss of consciousness of 31 minutes to 59 minutes, initial encounter
852.03	Subarachnoid hemorrhage following injury without mention of open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.6X3A	Traumatic subarachnoid hemorrhage with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
852.03	Subarachnoid hemorrhage following injury without mention of open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.6X4A	Traumatic subarachnoid hemorrhage with loss of consciousness of 6 hours to 24 hours, initial encounter
852.04	Subarachnoid hemorrhage following injury without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.6X5A	Traumatic subarachnoid hemorrhage with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
852.05	Subarachnoid hemorrhage following injury without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.6X6A	Traumatic subarachnoid hemorrhage with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
852.05	Subarachnoid hemorrhage following injury without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.6X7A	Traumatic subarachnoid hemorrhage with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
852.05	Subarachnoid hemorrhage following injury without mention of open intracranial wound, with prolonged [more than 24 hours] loss of	S06.6X8A	Traumatic subarachnoid hemorrhage with loss of consciousness of any duration with death due to other cause

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
	consciousness without return to pre-existing conscious level		prior to regaining consciousness, initial encounter
852.06	Subarachnoid hemorrhage following injury without mention of open intracranial wound, with loss of consciousness of unspecified duration	S06.6X9A	Traumatic subarachnoid hemorrhage with loss of consciousness of unspecified duration, initial encounter
852.09	Subarachnoid hemorrhage following injury without mention of open intracranial wound, with concussion, unspecified	S06.6X0A	Traumatic subarachnoid hemorrhage without loss of consciousness, initial encounter
852.09	Subarachnoid hemorrhage following injury without mention of open intracranial wound, with concussion, unspecified	S06.6X9A	Traumatic subarachnoid hemorrhage with loss of consciousness of unspecified duration, initial encounter
852.10	Subarachnoid hemorrhage following injury with open intracranial wound, unspecified state of consciousness	S06.6X0A	Traumatic subarachnoid hemorrhage without loss of consciousness, initial encounter
852.11	Subarachnoid hemorrhage following injury with open intracranial wound, with no loss of consciousness	S06.6X0A	Traumatic subarachnoid hemorrhage without loss of consciousness, initial encounter
852.11	Subarachnoid hemorrhage following injury with open intracranial wound, with no loss of consciousness		
852.12	Subarachnoid hemorrhage following injury with open intracranial wound, with brief [less than one hour] loss of consciousness	S06.6X1A	Traumatic subarachnoid hemorrhage with loss of consciousness of 30 minutes or less, initial encounter
852.12	Subarachnoid hemorrhage following injury with open intracranial wound, with brief [less than one hour] loss of consciousness	S06.6X2A	Traumatic subarachnoid hemorrhage with loss of consciousness of 31 minutes to 59 minutes, initial encounter
852.12	Subarachnoid hemorrhage following injury with open intracranial wound, with brief [less than one hour] loss of consciousness		
852.13	Subarachnoid hemorrhage following injury with open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.6X3A	Traumatic subarachnoid hemorrhage with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
852.13	Subarachnoid hemorrhage following injury with open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.6X4A	Traumatic subarachnoid hemorrhage with loss of consciousness of 6 hours to 24 hours, initial encounter
852.13	Subarachnoid hemorrhage following injury with open intracranial wound, with moderate [1-24 hours] loss of consciousness		
852.14	Subarachnoid hemorrhage following injury with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.6X5A	Traumatic subarachnoid hemorrhage with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
852.14	Subarachnoid hemorrhage following injury with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level		
852.15	Subarachnoid hemorrhage following injury with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.6X6A	Traumatic subarachnoid hemorrhage with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
852.15	Subarachnoid hemorrhage following injury with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.6X7A	Traumatic subarachnoid hemorrhage with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
852.15	Subarachnoid hemorrhage following injury with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.6X8A	Traumatic subarachnoid hemorrhage with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
852.15	Subarachnoid hemorrhage following injury with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level		
852.16	Subarachnoid hemorrhage following injury with open intracranial wound, with loss of consciousness of unspecified duration	S06.6X9A	Traumatic subarachnoid hemorrhage with loss of consciousness of unspecified duration, initial encounter
852.16	Subarachnoid hemorrhage following injury with open intracranial wound, with loss of consciousness of unspecified duration		
852.19	Subarachnoid hemorrhage following injury with open intracranial wound, with concussion, unspecified	S06.6X0A	Traumatic subarachnoid hemorrhage without loss of consciousness, initial encounter
852.19	Subarachnoid hemorrhage following injury with open intracranial wound, with concussion, unspecified	S06.6X9A	Traumatic subarachnoid hemorrhage with loss of consciousness of unspecified duration, initial encounter
852.19	Subarachnoid hemorrhage following injury with open intracranial wound, with concussion, unspecified		
852.20	Subdural hemorrhage following injury without mention of open intracranial wound, unspecified state of consciousness	S06.5X0A	Traumatic subdural hemorrhage without loss of consciousness, initial encounter
852.21	Subdural hemorrhage following injury without mention of open intracranial wound, with no loss of consciousness	S06.5X0A	Traumatic subdural hemorrhage without loss of consciousness, initial encounter
852.22	Subdural hemorrhage following injury without mention of open intracranial wound, with brief [less than one hour] loss of consciousness	S06.5X1A	Traumatic subdural hemorrhage with loss of consciousness of 30 minutes or less, initial encounter
852.22	Subdural hemorrhage following injury without mention of open intracranial wound, with brief [less than one hour] loss of consciousness	S06.5X2A	Traumatic subdural hemorrhage with loss of consciousness of 31 minutes to 59 minutes, initial encounter
852.23	Subdural hemorrhage following injury without mention of open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.5X3A	Traumatic subdural hemorrhage with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
852.23	Subdural hemorrhage following injury without mention of open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.5X4A	Traumatic subdural hemorrhage with loss of consciousness of 6 hours to 24 hours, initial encounter
852.24	Subdural hemorrhage following injury without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.5X5A	Traumatic subdural hemorrhage with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
852.25	Subdural hemorrhage following injury without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.5X6A	Traumatic subdural hemorrhage with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
852.25	Subdural hemorrhage following injury without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.5X7A	Traumatic subdural hemorrhage with loss of consciousness of any duration with death due to brain injury before regaining consciousness, initial encounter
852.25	Subdural hemorrhage following injury without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.5X8A	Traumatic subdural hemorrhage with loss of consciousness of any duration with death due to other cause before regaining consciousness, initial encounter
852.26	Subdural hemorrhage following injury without mention of open intracranial wound, with loss of consciousness of unspecified duration	S06.5X9A	Traumatic subdural hemorrhage with loss of consciousness of unspecified duration, initial encounter
852.29	Subdural hemorrhage following injury without mention of open intracranial wound, with concussion, unspecified	S06.5X0A	Traumatic subdural hemorrhage without loss of consciousness, initial encounter
852.29	Subdural hemorrhage following injury without mention of open intracranial wound, with concussion, unspecified	S06.5X9A	Traumatic subdural hemorrhage with loss of consciousness of unspecified duration, initial encounter
852.30	Subdural hemorrhage following injury with open intracranial wound, unspecified state of consciousness	S06.5X0A	Traumatic subdural hemorrhage without loss of consciousness, initial encounter
852.30	Subdural hemorrhage following injury with open intracranial wound, unspecified state of consciousness		
852.31	Subdural hemorrhage following injury with open intracranial wound, with no loss of consciousness	S06.5X0A	Traumatic subdural hemorrhage without loss of consciousness, initial encounter
852.31	Subdural hemorrhage following injury with open intracranial wound, with no loss of consciousness		
852.32	Subdural hemorrhage following injury with open intracranial wound, with brief [less than one hour] loss of consciousness	S06.5X1A	Traumatic subdural hemorrhage with loss of consciousness of 30 minutes or less, initial encounter
852.32	Subdural hemorrhage following injury with open intracranial wound, with brief [less than one hour] loss of consciousness	S06.5X2A	Traumatic subdural hemorrhage with loss of consciousness of 31 minutes to 59 minutes, initial encounter
852.32	Subdural hemorrhage following injury with open intracranial wound, with brief [less than one hour] loss of consciousness		
852.33	Subdural hemorrhage following injury with open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.5X3A	Traumatic subdural hemorrhage with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
852.33	Subdural hemorrhage following injury with open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.5X4A	Traumatic subdural hemorrhage with loss of consciousness of 6 hours to 24 hours, initial encounter

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
852.33	Subdural hemorrhage following injury with open intracranial wound, with moderate [1-24 hours] loss of consciousness		
852.34	Subdural hemorrhage following injury with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.5X5A	Traumatic subdural hemorrhage with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
852.34	Subdural hemorrhage following injury with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level		
852.35	Subdural hemorrhage following injury with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.5X6A	Traumatic subdural hemorrhage with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
852.35	Subdural hemorrhage following injury with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.5X7A	Traumatic subdural hemorrhage with loss of consciousness of any duration with death due to brain injury before regaining consciousness, initial encounter
852.35	Subdural hemorrhage following injury with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.5X8A	Traumatic subdural hemorrhage with loss of consciousness of any duration with death due to other cause before regaining consciousness, initial encounter
852.35	Subdural hemorrhage following injury with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level		
852.36	Subdural hemorrhage following injury with open intracranial wound, with loss of consciousness of unspecified duration	S06.5X9A	Traumatic subdural hemorrhage with loss of consciousness of unspecified duration, initial encounter
852.36	Subdural hemorrhage following injury with open intracranial wound, with loss of consciousness of unspecified duration		
852.39	Subdural hemorrhage following injury with open intracranial wound, with concussion, unspecified	S06.5X0A	Traumatic subdural hemorrhage without loss of consciousness, initial encounter
852.39	Subdural hemorrhage following injury with open intracranial wound, with concussion, unspecified	S06.5X9A	Traumatic subdural hemorrhage with loss of consciousness of unspecified duration, initial encounter
852.39	Subdural hemorrhage following injury with open intracranial wound, with concussion, unspecified		
852.40	Extradural hemorrhage following injury without mention of open intracranial wound, unspecified state of consciousness	S06.4X0A	Epidural hemorrhage without loss of consciousness, initial encounter
852.41	Extradural hemorrhage following injury without mention of open intracranial wound, with no loss of consciousness	S06.4X0A	Epidural hemorrhage without loss of consciousness, initial encounter

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
852.42	Extradural hemorrhage following injury without mention of open intracranial wound, with brief [less than 1 hour] loss of consciousness	S06.4X1A	Epidural hemorrhage with loss of consciousness of 30 minutes or less, initial encounter
852.42	Extradural hemorrhage following injury without mention of open intracranial wound, with brief [less than 1 hour] loss of consciousness	S06.4X2A	Epidural hemorrhage with loss of consciousness of 31 minutes to 59 minutes, initial encounter
852.43	Extradural hemorrhage following injury without mention of open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.4X3A	Epidural hemorrhage with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
852.43	Extradural hemorrhage following injury without mention of open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.4X4A	Epidural hemorrhage with loss of consciousness of 6 hours to 24 hours, initial encounter
852.44	Extradural hemorrhage following injury without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.4X5A	Epidural hemorrhage with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
852.45	Extradural hemorrhage following injury without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.4X6A	Epidural hemorrhage with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
852.45	Extradural hemorrhage following injury without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.4X7A	Epidural hemorrhage with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
852.45	Extradural hemorrhage following injury without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.4X8A	Epidural hemorrhage with loss of consciousness of any duration with death due to other causes prior to regaining consciousness, initial encounter
852.46	Extradural hemorrhage following injury without mention of open intracranial wound, with loss of consciousness of unspecified duration	S06.4X9A	Epidural hemorrhage with loss of consciousness of unspecified duration, initial encounter
852.49	Extradural hemorrhage following injury without mention of open intracranial wound, with concussion, unspecified	S06.4X0A	Epidural hemorrhage without loss of consciousness, initial encounter
852.49	Extradural hemorrhage following injury without mention of open intracranial wound, with concussion, unspecified	S06.4X9A	Epidural hemorrhage with loss of consciousness of unspecified duration, initial encounter
852.50	Extradural hemorrhage following injury with open intracranial wound, unspecified state of consciousness	S06.4X0A	Epidural hemorrhage without loss of consciousness, initial encounter
852.50	Extradural hemorrhage following injury with open intracranial wound, unspecified state of consciousness		



<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
852.51	Extradural hemorrhage following injury with open intracranial wound, with no loss of consciousness	S06.4X0A	Epidural hemorrhage without loss of consciousness, initial encounter
852.51	Extradural hemorrhage following injury with open intracranial wound, with no loss of consciousness		
852.52	Extradural hemorrhage following injury with open intracranial wound, with brief [less than one hour] loss of consciousness	S06.4X1A	Epidural hemorrhage with loss of consciousness of 30 minutes or less, initial encounter
852.52	Extradural hemorrhage following injury with open intracranial wound, with brief [less than one hour] loss of consciousness	S06.4X2A	Epidural hemorrhage with loss of consciousness of 31 minutes to 59 minutes, initial encounter
852.52	Extradural hemorrhage following injury with open intracranial wound, with brief [less than one hour] loss of consciousness		
852.53	Extradural hemorrhage following injury with open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.4X3A	Epidural hemorrhage with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
852.53	Extradural hemorrhage following injury with open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.4X4A	Epidural hemorrhage with loss of consciousness of 6 hours to 24 hours, initial encounter
852.53	Extradural hemorrhage following injury with open intracranial wound, with moderate [1-24 hours] loss of consciousness		
852.54	Extradural hemorrhage following injury with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.4X5A	Epidural hemorrhage with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
852.54	Extradural hemorrhage following injury with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level		
852.55	Extradural hemorrhage following injury with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.4X6A	Epidural hemorrhage with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
852.55	Extradural hemorrhage following injury with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.4X7A	Epidural hemorrhage with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
852.55	Extradural hemorrhage following injury with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.4X8A	Epidural hemorrhage with loss of consciousness of any duration with death due to other causes prior to regaining consciousness, initial encounter
852.55	Extradural hemorrhage following injury with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level		

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
852.56	Extradural hemorrhage following injury with open intracranial wound, with loss of consciousness of unspecified duration	S06.4X9A	Epidural hemorrhage with loss of consciousness of unspecified duration, initial encounter
852.56	Extradural hemorrhage following injury with open intracranial wound, with loss of consciousness of unspecified duration		
852.59	Extradural hemorrhage following injury with open intracranial wound, with concussion, unspecified	S06.4X0A	Epidural hemorrhage without loss of consciousness, initial encounter
852.59	Extradural hemorrhage following injury with open intracranial wound, with concussion, unspecified	S06.4X9A	Epidural hemorrhage with loss of consciousness of unspecified duration, initial encounter
852.59	Extradural hemorrhage following injury with open intracranial wound, with concussion, unspecified		
853.00	Other and unspecified intracranial hemorrhage following injury without mention of open intracranial wound, unspecified state of consciousness	S06.360A	Traumatic hemorrhage of cerebrum, unspecified, without loss of consciousness, initial encounter
853.01	Other and unspecified intracranial hemorrhage following injury without mention of open intracranial wound, with no loss of consciousness	S06.340A	Traumatic hemorrhage of right cerebrum without loss of consciousness, initial encounter
853.01	Other and unspecified intracranial hemorrhage following injury without mention of open intracranial wound, with no loss of consciousness	S06.350A	Traumatic hemorrhage of left cerebrum without loss of consciousness, initial encounter
853.01	Other and unspecified intracranial hemorrhage following injury without mention of open intracranial wound, with no loss of consciousness	S06.360A	Traumatic hemorrhage of cerebrum, unspecified, without loss of consciousness, initial encounter
853.02	Other and unspecified intracranial hemorrhage following injury without mention of open intracranial wound, with brief [less than one hour] loss of consciousness	S06.341A	Traumatic hemorrhage of right cerebrum with loss of consciousness of 30 minutes or less, initial encounter
853.02	Other and unspecified intracranial hemorrhage following injury without mention of open intracranial wound, with brief [less than one hour] loss of consciousness	S06.342A	Traumatic hemorrhage of right cerebrum with loss of consciousness of 31 minutes to 59 minutes, initial encounter
853.02	Other and unspecified intracranial hemorrhage following injury without mention of open intracranial wound, with brief [less than one hour] loss of consciousness	S06.351A	Traumatic hemorrhage of left cerebrum with loss of consciousness of 30 minutes or less, initial encounter
853.02	Other and unspecified intracranial hemorrhage following injury without mention of open intracranial wound, with brief [less than one hour] loss of consciousness	S06.352A	Traumatic hemorrhage of left cerebrum with loss of consciousness of 31 minutes to 59 minutes, initial encounter
853.02	Other and unspecified intracranial hemorrhage following injury without mention of open intracranial wound, with brief [less than one hour] loss of consciousness	S06.361A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of 30 minutes or less, initial encounter
853.02	Other and unspecified intracranial hemorrhage following injury without mention	S06.362A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
	of open intracranial wound, with brief [less than one hour] loss of consciousness		of 31 minutes to 59 minutes, initial encounter
853.03	Other and unspecified intracranial hemorrhage following injury without mention of open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.343A	Traumatic hemorrhage of right cerebrum with loss of consciousness of 1 hours to 5 hours 59 minutes, initial encounter
853.03	Other and unspecified intracranial hemorrhage following injury without mention of open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.344A	Traumatic hemorrhage of right cerebrum with loss of consciousness of 6 hours to 24 hours, initial encounter
853.03	Other and unspecified intracranial hemorrhage following injury without mention of open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.353A	Traumatic hemorrhage of left cerebrum with loss of consciousness of 1 hours to 5 hours 59 minutes, initial encounter
853.03	Other and unspecified intracranial hemorrhage following injury without mention of open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.354A	Traumatic hemorrhage of left cerebrum with loss of consciousness of 6 hours to 24 hours, initial encounter
853.03	Other and unspecified intracranial hemorrhage following injury without mention of open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.363A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of 1 hours to 5 hours 59 minutes, initial encounter
853.03	Other and unspecified intracranial hemorrhage following injury without mention of open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.364A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of 6 hours to 24 hours, initial encounter
853.04	Other and unspecified intracranial hemorrhage following injury without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.345A	Traumatic hemorrhage of right cerebrum with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
853.04	Other and unspecified intracranial hemorrhage following injury without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.355A	Traumatic hemorrhage of left cerebrum with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
853.04	Other and unspecified intracranial hemorrhage following injury without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.365A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
853.05	Other and unspecified intracranial hemorrhage following injury without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.346A	Traumatic hemorrhage of right cerebrum with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
853.05	Other and unspecified intracranial hemorrhage following injury without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.347A	Traumatic hemorrhage of right cerebrum with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
853.05	Other and unspecified intracranial hemorrhage following injury without mention	S06.348A	Traumatic hemorrhage of right cerebrum with loss of consciousness of

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
	of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level		any duration with death due to other cause prior to regaining consciousness, initial encounter
853.05	Other and unspecified intracranial hemorrhage following injury without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.356A	Traumatic hemorrhage of left cerebrum with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
853.05	Other and unspecified intracranial hemorrhage following injury without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.357A	Traumatic hemorrhage of left cerebrum with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
853.05	Other and unspecified intracranial hemorrhage following injury without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.358A	Traumatic hemorrhage of left cerebrum with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
853.05	Other and unspecified intracranial hemorrhage following injury without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.366A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
853.05	Other and unspecified intracranial hemorrhage following injury without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.367A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
853.05	Other and unspecified intracranial hemorrhage following injury without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.368A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
853.06	Other and unspecified intracranial hemorrhage following injury without mention of open intracranial wound, with loss of consciousness of unspecified duration	S06.349A	Traumatic hemorrhage of right cerebrum with loss of consciousness of unspecified duration, initial encounter
853.06	Other and unspecified intracranial hemorrhage following injury without mention of open intracranial wound, with loss of consciousness of unspecified duration	S06.359A	Traumatic hemorrhage of left cerebrum with loss of consciousness of unspecified duration, initial encounter
853.06	Other and unspecified intracranial hemorrhage following injury without mention of open intracranial wound, with loss of consciousness of unspecified duration	S06.369A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of unspecified duration, initial encounter
853.09	Other and unspecified intracranial hemorrhage following injury without mention of open intracranial wound, with concussion, unspecified	S06.360A	Traumatic hemorrhage of cerebrum, unspecified, without loss of consciousness, initial encounter
853.09	Other and unspecified intracranial hemorrhage following injury without mention of open intracranial wound, with concussion, unspecified	S06.369A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of unspecified duration, initial encounter

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
853.10	Other and unspecified intracranial hemorrhage following injury with open intracranial wound, unspecified state of consciousness	S06.360A	Traumatic hemorrhage of cerebrum, unspecified, without loss of consciousness, initial encounter
853.10	Other and unspecified intracranial hemorrhage following injury with open intracranial wound, unspecified state of consciousness		
853.11	Other and unspecified intracranial hemorrhage following injury with open intracranial wound, with no loss of consciousness	S06.360A	Traumatic hemorrhage of cerebrum, unspecified, without loss of consciousness, initial encounter
853.11	Other and unspecified intracranial hemorrhage following injury with open intracranial wound, with no loss of consciousness		
853.12	Other and unspecified intracranial hemorrhage following injury with open intracranial wound, with brief [less than one hour] loss of consciousness	S06.361A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of 30 minutes or less, initial encounter
853.12	Other and unspecified intracranial hemorrhage following injury with open intracranial wound, with brief [less than one hour] loss of consciousness	S06.362A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of 31 minutes to 59 minutes, initial encounter
853.12	Other and unspecified intracranial hemorrhage following injury with open intracranial wound, with brief [less than one hour] loss of consciousness		
853.13	Other and unspecified intracranial hemorrhage following injury with open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.363A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of 1 hours to 5 hours 59 minutes, initial encounter
853.13	Other and unspecified intracranial hemorrhage following injury with open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.364A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of 6 hours to 24 hours, initial encounter
853.13	Other and unspecified intracranial hemorrhage following injury with open intracranial wound, with moderate [1-24 hours] loss of consciousness		
853.14	Other and unspecified intracranial hemorrhage following injury with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.365A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
853.14	Other and unspecified intracranial hemorrhage following injury with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level		
853.15	Other and unspecified intracranial hemorrhage following injury with open intracranial wound, with prolonged [more than	S06.366A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness greater than 24 hours without return to

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
	24 hours] loss of consciousness without return to pre-existing conscious level		pre-existing conscious level with patient surviving, initial encounter
853.15	Other and unspecified intracranial hemorrhage following injury with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.367A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
853.15	Other and unspecified intracranial hemorrhage following injury with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.368A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
853.15	Other and unspecified intracranial hemorrhage following injury with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level		
853.16	Other and unspecified intracranial hemorrhage following injury with open intracranial wound, with loss of consciousness of unspecified duration	S06.369A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of unspecified duration, initial encounter
853.16	Other and unspecified intracranial hemorrhage following injury with open intracranial wound, with loss of consciousness of unspecified duration		
853.19	Other and unspecified intracranial hemorrhage following injury with open intracranial wound, with concussion, unspecified	S06.360A	Traumatic hemorrhage of cerebrum, unspecified, without loss of consciousness, initial encounter
853.19	Other and unspecified intracranial hemorrhage following injury with open intracranial wound, with concussion, unspecified	S06.369A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of unspecified duration, initial encounter
853.19	Other and unspecified intracranial hemorrhage following injury with open intracranial wound, with concussion, unspecified		
854.00	Intracranial injury of other and unspecified nature without mention of open intracranial wound, unspecified state of consciousness	S06.890A	Other specified intracranial injury without loss of consciousness, initial encounter
854.01	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with no loss of consciousness	S06.1X0A	Traumatic cerebral edema without loss of consciousness, initial encounter
854.01	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with no loss of consciousness	S06.2X0A	Diffuse traumatic brain injury without loss of consciousness, initial encounter
854.01	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with no loss of consciousness	S06.300A	Unspecified focal traumatic brain injury without loss of consciousness, initial encounter
854.01	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with no loss of consciousness	S06.810A	Injury of right internal carotid artery, intracranial portion, not elsewhere classified without loss of consciousness, initial encounter

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
854.01	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with no loss of consciousness	S06.820A	Injury of left internal carotid artery, intracranial portion, not elsewhere classified without loss of consciousness, initial encounter
854.01	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with no loss of consciousness	S06.890A	Other specified intracranial injury without loss of consciousness, initial encounter
854.01	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with no loss of consciousness	S06.9X0A	Unspecified intracranial injury without loss of consciousness, initial encounter
854.02	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with brief [less than one hour] loss of consciousness	S06.1X1A	Traumatic cerebral edema with loss of consciousness of 30 minutes or less, initial encounter
854.02	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with brief [less than one hour] loss of consciousness	S06.1X2A	Traumatic cerebral edema with loss of consciousness of 31 minutes to 59 minutes, initial encounter
854.02	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with brief [less than one hour] loss of consciousness	S06.2X1A	Diffuse traumatic brain injury with loss of consciousness of 30 minutes or less, initial encounter
854.02	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with brief [less than one hour] loss of consciousness	S06.2X2A	Diffuse traumatic brain injury with loss of consciousness of 31 minutes to 59 minutes, initial encounter
854.02	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with brief [less than one hour] loss of consciousness	S06.301A	Unspecified focal traumatic brain injury with loss of consciousness of 30 minutes or less, initial encounter
854.02	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with brief [less than one hour] loss of consciousness	S06.302A	Unspecified focal traumatic brain injury with loss of consciousness of 31 minutes to 59 minutes, initial encounter
854.02	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with brief [less than one hour] loss of consciousness	S06.811A	Injury of right internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness of 30 minutes or less, initial encounter
854.02	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with brief [less than one hour] loss of consciousness	S06.812A	Injury of right internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness of 31 minutes to 59 minutes, initial encounter
854.02	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with brief [less than one hour] loss of consciousness	S06.821A	Injury of left internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness of 30 minutes or less, initial encounter
854.02	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with brief [less than one hour] loss of consciousness	S06.822A	Injury of left internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness of 31 minutes to 59 minutes, initial encounter

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
854.02	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with brief [less than one hour] loss of consciousness	S06.891A	Other specified intracranial injury with loss of consciousness of 30 minutes or less, initial encounter
854.02	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with brief [less than one hour] loss of consciousness	S06.892A	Other specified intracranial injury with loss of consciousness of 31 minutes to 59 minutes, initial encounter
854.02	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with brief [less than one hour] loss of consciousness	S06.9X1A	Unspecified intracranial injury with loss of consciousness of 30 minutes or less, initial encounter
854.02	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with brief [less than one hour] loss of consciousness	S06.9X2A	Unspecified intracranial injury with loss of consciousness of 31 minutes to 59 minutes, initial encounter
854.03	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.1X3A	Traumatic cerebral edema with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
854.03	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.1X4A	Traumatic cerebral edema with loss of consciousness of 6 hours to 24 hours, initial encounter
854.03	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.2X3A	Diffuse traumatic brain injury with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
854.03	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.2X4A	Diffuse traumatic brain injury with loss of consciousness of 6 hours to 24 hours, initial encounter
854.03	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.303A	Unspecified focal traumatic brain injury with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
854.03	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.304A	Unspecified focal traumatic brain injury with loss of consciousness of 6 hours to 24 hours, initial encounter
854.03	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.813A	Injury of right internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
854.03	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.814A	Injury of right internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness of 6 hours to 24 hours, initial encounter
854.03	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.823A	Injury of left internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness of



<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
			1 hour to 5 hours 59 minutes, initial encounter
854.03	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.824A	Injury of left internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness of 6 hours to 24 hours, initial encounter
854.03	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.893A	Other specified intracranial injury with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
854.03	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.894A	Other specified intracranial injury with loss of consciousness of 6 hours to 24 hours, initial encounter
854.03	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.9X3A	Unspecified intracranial injury with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
854.03	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.9X4A	Unspecified intracranial injury with loss of consciousness of 6 hours to 24 hours, initial encounter
854.04	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.1X5A	Traumatic cerebral edema with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
854.04	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.2X5A	Diffuse traumatic brain injury with loss of consciousness greater than 24 hours with return to pre-existing conscious levels, initial encounter
854.04	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.305A	Unspecified focal traumatic brain injury with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
854.04	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.815A	Injury of right internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
854.04	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.825A	Injury of left internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
854.04	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with prolonged [more than 24 hours]	S06.895A	Other specified intracranial injury with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
	loss of consciousness and return to pre-existing conscious level		
854.04	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.9X5A	Unspecified intracranial injury with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
854.05	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.1X6A	Traumatic cerebral edema with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
854.05	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.1X7A	Traumatic cerebral edema with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
854.05	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.1X8A	Traumatic cerebral edema with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
854.05	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.2X6A	Diffuse traumatic brain injury with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
854.05	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.2X7A	Diffuse traumatic brain injury with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
854.05	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.2X8A	Diffuse traumatic brain injury with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
854.05	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.306A	Unspecified focal traumatic brain injury with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
854.05	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.307A	Unspecified focal traumatic brain injury with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
854.05	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.308A	Unspecified focal traumatic brain injury with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
854.05	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.816A	Injury of right internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
854.05	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.817A	Injury of right internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
854.05	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.818A	Injury of right internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
854.05	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.826A	Injury of left internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
854.05	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.827A	Injury of left internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
854.05	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.828A	Injury of left internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
854.05	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.896A	Other specified intracranial injury with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
854.05	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.897A	Other specified intracranial injury with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
854.05	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.898A	Other specified intracranial injury with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
854.05	Intracranial injury of other and unspecified nature without mention of open intracranial	S06.9X6A	Unspecified intracranial injury with loss of consciousness greater than 24 hours

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
	wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level		without return to pre-existing conscious level with patient surviving, initial encounter
854.05	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.9X7A	Unspecified intracranial injury with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
854.05	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.9X8A	Unspecified intracranial injury with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter
854.06	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with loss of consciousness of unspecified duration	S06.1X9A	Traumatic cerebral edema with loss of consciousness of unspecified duration, initial encounter
854.06	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with loss of consciousness of unspecified duration	S06.2X9A	Diffuse traumatic brain injury with loss of consciousness of unspecified duration, initial encounter
854.06	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with loss of consciousness of unspecified duration	S06.309A	Unspecified focal traumatic brain injury with loss of consciousness of unspecified duration, initial encounter
854.06	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with loss of consciousness of unspecified duration	S06.819A	Injury of right internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness of unspecified duration, initial encounter
854.06	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with loss of consciousness of unspecified duration	S06.829A	Injury of left internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness of unspecified duration, initial encounter
854.06	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with loss of consciousness of unspecified duration	S06.899A	Other specified intracranial injury with loss of consciousness of unspecified duration, initial encounter
854.06	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with loss of consciousness of unspecified duration	S06.9X9A	Unspecified intracranial injury with loss of consciousness of unspecified duration, initial encounter
854.09	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with concussion, unspecified	S06.890A	Other specified intracranial injury without loss of consciousness, initial encounter
854.09	Intracranial injury of other and unspecified nature without mention of open intracranial wound, with concussion, unspecified		
854.10	Intracranial injury of other and unspecified nature with open intracranial wound, unspecified state of consciousness	S06.890A	Other specified intracranial injury without loss of consciousness, initial encounter
854.10	Intracranial injury of other and unspecified nature with open intracranial wound, unspecified state of consciousness		

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
854.11	Intracranial injury of other and unspecified nature with open intracranial wound, with no loss of consciousness	S06.890A	Other specified intracranial injury without loss of consciousness, initial encounter
854.11	Intracranial injury of other and unspecified nature with open intracranial wound, with no loss of consciousness		
854.12	Intracranial injury of other and unspecified nature with open intracranial wound, with brief [less than one hour] loss of consciousness	S06.891A	Other specified intracranial injury with loss of consciousness of 30 minutes or less, initial encounter
854.12	Intracranial injury of other and unspecified nature with open intracranial wound, with brief [less than one hour] loss of consciousness	S06.892A	Other specified intracranial injury with loss of consciousness of 31 minutes to 59 minutes, initial encounter
854.12	Intracranial injury of other and unspecified nature with open intracranial wound, with brief [less than one hour] loss of consciousness		
854.13	Intracranial injury of other and unspecified nature with open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.893A	Other specified intracranial injury with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter
854.13	Intracranial injury of other and unspecified nature with open intracranial wound, with moderate [1-24 hours] loss of consciousness	S06.894A	Other specified intracranial injury with loss of consciousness of 6 hours to 24 hours, initial encounter
854.13	Intracranial injury of other and unspecified nature with open intracranial wound, with moderate [1-24 hours] loss of consciousness		
854.14	Intracranial injury of other and unspecified nature with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level	S06.895A	Other specified intracranial injury with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter
854.14	Intracranial injury of other and unspecified nature with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness and return to pre-existing conscious level		
854.15	Intracranial injury of other and unspecified nature with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.896A	Other specified intracranial injury with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter
854.15	Intracranial injury of other and unspecified nature with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.897A	Other specified intracranial injury with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter
854.15	Intracranial injury of other and unspecified nature with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level	S06.898A	Other specified intracranial injury with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
854.15	Intracranial injury of other and unspecified nature with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness without return to pre-existing conscious level		
854.16	Intracranial injury of other and unspecified nature with open intracranial wound, with loss of consciousness of unspecified duration	S06.899A	Other specified intracranial injury with loss of consciousness of unspecified duration, initial encounter
854.16	Intracranial injury of other and unspecified nature with open intracranial wound, with loss of consciousness of unspecified duration		
854.19	Intracranial injury of other and unspecified nature with open intracranial wound, with concussion, unspecified	S06.890A	Other specified intracranial injury without loss of consciousness, initial encounter
854.19	Intracranial injury of other and unspecified nature with open intracranial wound, with concussion, unspecified	S06.899A	Other specified intracranial injury with loss of consciousness of unspecified duration, initial encounter
854.19	Intracranial injury of other and unspecified nature with open intracranial wound, with concussion, unspecified		
950.0	Optic nerve injury	S04.011A	Injury of optic nerve, right eye, initial encounter
950.0	Optic nerve injury	S04.012A	Injury of optic nerve, left eye, initial encounter
950.0	Optic nerve injury	S04.019A	Injury of optic nerve, unspecified eye, initial encounter
950.2	Injury to optic pathways	S04.031A	Injury of optic tract and pathways, right side, initial encounter
950.2	Injury to optic pathways	S04.032A	Injury of optic tract and pathways, left side, initial encounter
950.2	Injury to optic pathways	S04.039A	Injury of optic tract and pathways, unspecified side, initial encounter
950.3	Injury to visual cortex	S04.041A	Injury of visual cortex, right side, initial encounter
950.3	Injury to visual cortex	S04.042A	Injury of visual cortex, left side, initial encounter
950.3	Injury to visual cortex	S04.049A	Injury of visual cortex, unspecified side, initial encounter
950.9	Injury to unspecified optic nerve and pathways	S04.019A	Injury of optic nerve, unspecified eye, initial encounter
997.02	Iatrogenic cerebrovascular infarction or hemorrhage	G97.31	Intraoperative hemorrhage and hematoma of a nervous system organ or structure complicating a nervous system procedure
997.02	Iatrogenic cerebrovascular infarction or hemorrhage	G97.32	Intraoperative hemorrhage and hematoma of a nervous system organ or structure complicating other procedure
997.02	Iatrogenic cerebrovascular infarction or hemorrhage	I97.810	Intraoperative cerebrovascular infarction during cardiac surgery
997.02	Iatrogenic cerebrovascular infarction or hemorrhage	I97.811	Intraoperative cerebrovascular infarction during other surgery

<b>ICD-9 Code</b>	<b>ICD-9 Description</b>	<b>ICD-10 Code</b>	<b>ICD-10 Description</b>
997.02	iatrogenic cerebrovascular infarction or hemorrhage	I97.820	Postprocedural cerebrovascular infarction following cardiac surgery
997.02	iatrogenic cerebrovascular infarction or hemorrhage	I97.821	Postprocedural cerebrovascular infarction following other surgery
998.11	Hemorrhage complicating a procedure	G97.31	Intraoperative hemorrhage and hematoma of a nervous system organ or structure complicating a nervous system procedure
998.11	Hemorrhage complicating a procedure	G97.32	Intraoperative hemorrhage and hematoma of a nervous system organ or structure complicating other procedure
998.11	Hemorrhage complicating a procedure	G97.51	Postprocedural hemorrhage of a nervous system organ or structure following a nervous system procedure
998.11	Hemorrhage complicating a procedure	G97.52	Postprocedural hemorrhage of a nervous system organ or structure following other procedure
998.12	Hematoma complicating a procedure	G97.31	Intraoperative hemorrhage and hematoma of a nervous system organ or structure complicating a nervous system procedure
998.12	Hematoma complicating a procedure	G97.32	Intraoperative hemorrhage and hematoma of a nervous system organ or structure complicating other procedure
998.12	Hematoma complicating a procedure	G97.61	Postprocedural hematoma of a nervous system organ or structure following a nervous system procedure
998.12	Hematoma complicating a procedure	G97.62	Postprocedural hematoma of a nervous system organ or structure following other procedure
V12.54	Personal history of transient ischemic attack (TIA), and cerebral infarction without residual deficits	Z86.73	Personal history of transient ischemic attack (TIA), and cerebral infarction without residual deficits
V15.52	Personal history of traumatic brain injury	Z87.820	Personal history of traumatic brain injury
V41.6	Problems with swallowing and mastication	R13.10	Dysphagia, unspecified

**ICD/CPT procedure codes or procedure-related diagnosis codes  
Neurovascular Procedure**

<b>Procedure Code</b>	<b>Description</b>
39.51	Clipping of aneurysm
39.52	Other repair of aneurysm
39.53	Repair of arteriovenous fistula
39.72	Endovascular (total) embolization or occlusion of head and neck vessels
39.75	Endovascular embolization or occlusion of vessel(s) of head or neck using bare coils
39.76	Endovascular embolization or occlusion of vessel(s) of head or neck using bioactive coils

<b>Procedure Code</b>	<b>Description</b>
39.79	Other endovascular procedures on other vessels
03LG3DZ	Occlusion of Intracranial Artery with Intraluminal Device, Percutaneous Approach
03LK3DZ	Occlusion of Right Internal Carotid Artery with Intraluminal Device, Percutaneous Approach
03LL3DZ	Occlusion of Left Internal Carotid Artery with Intraluminal Device, Percutaneous Approach
03LP3DZ	Occlusion of Right Vertebral Artery with Intraluminal Device, Percutaneous Approach
03LQ3DZ	Occlusion of Left Vertebral Artery with Intraluminal Device, Percutaneous Approach
03VG0BZ	Restriction of Intracranial Artery with Bioactive Intraluminal Device, Open Approach
03VG0CZ	Restriction of Intracranial Artery with Extraluminal Device, Open Approach
03VG0DZ	Restriction of Intracranial Artery with Intraluminal Device, Open Approach
03VG0ZZ	Restriction of Intracranial Artery, Open Approach
03VG3BZ	Restriction of Intracranial Artery with Bioactive Intraluminal Device, Percutaneous Approach
03VG3CZ	Restriction of Intracranial Artery with Extraluminal Device, Percutaneous Approach
03VG3DZ	Restriction of Intracranial Artery with Intraluminal Device, Percutaneous Approach
03VG3ZZ	Restriction of Intracranial Artery, Percutaneous Approach
03VG4BZ	Restriction of Intracranial Artery with Bioactive Intraluminal Device, Percutaneous Endoscopic Approach
03VG4CZ	Restriction of Intracranial Artery with Extraluminal Device, Percutaneous Endoscopic Approach
03VG4DZ	Restriction of Intracranial Artery with Intraluminal Device, Percutaneous Endoscopic Approach
03VG4ZZ	Restriction of Intracranial Artery, Percutaneous Endoscopic Approach
03VH0BZ	Restriction of Right Common Carotid Artery with Bioactive Intraluminal Device, Open Approach
03VH0CZ	Restriction of Right Common Carotid Artery with Extraluminal Device, Open Approach
03VH0DZ	Restriction of Right Common Carotid Artery with Intraluminal Device, Open Approach
03VH0ZZ	Restriction of Right Common Carotid Artery, Open Approach
03VH3BZ	Restriction of Right Common Carotid Artery with Bioactive Intraluminal Device, Percutaneous Approach
03VH3CZ	Restriction of Right Common Carotid Artery with Extraluminal Device, Percutaneous Approach
03VH3DZ	Restriction of Right Common Carotid Artery with Intraluminal Device, Percutaneous Approach
03VH3ZZ	Restriction of Right Common Carotid Artery, Percutaneous Approach
03VH4BZ	Restriction of Right Common Carotid Artery with Bioactive Intraluminal Device, Percutaneous Endoscopic Approach
03VH4CZ	Restriction of Right Common Carotid Artery with Extraluminal Device, Percutaneous Endoscopic Approach
03VH4DZ	Restriction of Right Common Carotid Artery with Intraluminal Device, Percutaneous Endoscopic Approach
03VH4ZZ	Restriction of Right Common Carotid Artery, Percutaneous Endoscopic Approach
03VJ0BZ	Restriction of Left Common Carotid Artery with Bioactive Intraluminal Device, Open Approach
03VJ0CZ	Restriction of Left Common Carotid Artery with Extraluminal Device, Open Approach
03VJ0DZ	Restriction of Left Common Carotid Artery with Intraluminal Device, Open Approach
03VJ0ZZ	Restriction of Left Common Carotid Artery, Open Approach
03VJ3BZ	Restriction of Left Common Carotid Artery with Bioactive Intraluminal Device, Percutaneous Approach
03VJ3CZ	Restriction of Left Common Carotid Artery with Extraluminal Device, Percutaneous Approach
03VJ3DZ	Restriction of Left Common Carotid Artery with Intraluminal Device, Percutaneous Approach
03VJ3ZZ	Restriction of Left Common Carotid Artery, Percutaneous Approach
03VJ4BZ	Restriction of Left Common Carotid Artery with Bioactive Intraluminal Device, Percutaneous Endoscopic Approach
03VJ4CZ	Restriction of Left Common Carotid Artery with Extraluminal Device, Percutaneous Endoscopic Approach



<b>Procedure Code</b>	<b>Description</b>
03VJ4DZ	Restriction of Left Common Carotid Artery with Intraluminal Device, Percutaneous Endoscopic Approach
03VJ4ZZ	Restriction of Left Common Carotid Artery, Percutaneous Endoscopic Approach
03VK0BZ	Restriction of Right Internal Carotid Artery with Bioactive Intraluminal Device, Open Approach
03VK0CZ	Restriction of Right Internal Carotid Artery with Extraluminal Device, Open Approach
03VK0DZ	Restriction of Right Internal Carotid Artery with Intraluminal Device, Open Approach
03VK0ZZ	Restriction of Right Internal Carotid Artery, Open Approach
03VK3BZ	Restriction of Right Internal Carotid Artery with Bioactive Intraluminal Device, Percutaneous Approach
03VK3CZ	Restriction of Right Internal Carotid Artery with Extraluminal Device, Percutaneous Approach
03VK3DZ	Restriction of Right Internal Carotid Artery with Intraluminal Device, Percutaneous Approach
03VK3ZZ	Restriction of Right Internal Carotid Artery, Percutaneous Approach
03VK4BZ	Restriction of Right Internal Carotid Artery with Bioactive Intraluminal Device, Percutaneous Endoscopic Approach
03VK4CZ	Restriction of Right Internal Carotid Artery with Extraluminal Device, Percutaneous Endoscopic Approach
03VK4DZ	Restriction of Right Internal Carotid Artery with Intraluminal Device, Percutaneous Endoscopic Approach
03VK4ZZ	Restriction of Right Internal Carotid Artery, Percutaneous Endoscopic Approach
03VL0BZ	Restriction of Left Internal Carotid Artery with Bioactive Intraluminal Device, Open Approach
03VL0CZ	Restriction of Left Internal Carotid Artery with Extraluminal Device, Open Approach
03VL0DZ	Restriction of Left Internal Carotid Artery with Intraluminal Device, Open Approach
03VL0ZZ	Restriction of Left Internal Carotid Artery, Open Approach
03VL3BZ	Restriction of Left Internal Carotid Artery with Bioactive Intraluminal Device, Percutaneous Approach
03VL3CZ	Restriction of Left Internal Carotid Artery with Extraluminal Device, Percutaneous Approach
03VL3DZ	Restriction of Left Internal Carotid Artery with Intraluminal Device, Percutaneous Approach
03VL3ZZ	Restriction of Left Internal Carotid Artery, Percutaneous Approach
03VL4BZ	Restriction of Left Internal Carotid Artery with Bioactive Intraluminal Device, Percutaneous Endoscopic Approach
03VL4CZ	Restriction of Left Internal Carotid Artery with Extraluminal Device, Percutaneous Endoscopic Approach
03VL4DZ	Restriction of Left Internal Carotid Artery with Intraluminal Device, Percutaneous Endoscopic Approach
03VL4ZZ	Restriction of Left Internal Carotid Artery, Percutaneous Endoscopic Approach
03VM0BZ	Restriction of Right External Carotid Artery with Bioactive Intraluminal Device, Open Approach
03VM0CZ	Restriction of Right External Carotid Artery with Extraluminal Device, Open Approach
03VM0DZ	Restriction of Right External Carotid Artery with Intraluminal Device, Open Approach
03VM0ZZ	Restriction of Right External Carotid Artery, Open Approach
03VM3BZ	Restriction of Right External Carotid Artery with Bioactive Intraluminal Device, Percutaneous Approach
03VM3CZ	Restriction of Right External Carotid Artery with Extraluminal Device, Percutaneous Approach
03VM3DZ	Restriction of Right External Carotid Artery with Intraluminal Device, Percutaneous Approach
03VM3ZZ	Restriction of Right External Carotid Artery, Percutaneous Approach
03VM4BZ	Restriction of Right External Carotid Artery with Bioactive Intraluminal Device, Percutaneous Endoscopic Approach
03VM4CZ	Restriction of Right External Carotid Artery with Extraluminal Device, Percutaneous Endoscopic Approach
03VM4DZ	Restriction of Right External Carotid Artery with Intraluminal Device, Percutaneous Endoscopic Approach
03VM4ZZ	Restriction of Right External Carotid Artery, Percutaneous Endoscopic Approach
03VN0BZ	Restriction of Left External Carotid Artery with Bioactive Intraluminal Device, Open Approach

<b>Procedure Code</b>	<b>Description</b>
03VN0CZ	Restriction of Left External Carotid Artery with Extraluminal Device, Open Approach
03VN0DZ	Restriction of Left External Carotid Artery with Intraluminal Device, Open Approach
03VN0ZZ	Restriction of Left External Carotid Artery, Open Approach
03VN3BZ	Restriction of Left External Carotid Artery with Bioactive Intraluminal Device, Percutaneous Approach
03VN3CZ	Restriction of Left External Carotid Artery with Extraluminal Device, Percutaneous Approach
03VN3DZ	Restriction of Left External Carotid Artery with Intraluminal Device, Percutaneous Approach
03VN3ZZ	Restriction of Left External Carotid Artery, Percutaneous Approach
03VN4BZ	Restriction of Left External Carotid Artery with Bioactive Intraluminal Device, Percutaneous Endoscopic Approach
03VN4CZ	Restriction of Left External Carotid Artery with Extraluminal Device, Percutaneous Endoscopic Approach
03VN4DZ	Restriction of Left External Carotid Artery with Intraluminal Device, Percutaneous Endoscopic Approach
03VN4ZZ	Restriction of Left External Carotid Artery, Percutaneous Endoscopic Approach
03VP0BZ	Restriction of Right Vertebral Artery with Bioactive Intraluminal Device, Open Approach
03VP0CZ	Restriction of Right Vertebral Artery with Extraluminal Device, Open Approach
03VP0DZ	Restriction of Right Vertebral Artery with Intraluminal Device, Open Approach
03VP0ZZ	Restriction of Right Vertebral Artery, Open Approach
03VP3BZ	Restriction of Right Vertebral Artery with Bioactive Intraluminal Device, Percutaneous Approach
03VP3CZ	Restriction of Right Vertebral Artery with Extraluminal Device, Percutaneous Approach
03VP3DZ	Restriction of Right Vertebral Artery with Intraluminal Device, Percutaneous Approach
03VP3ZZ	Restriction of Right Vertebral Artery, Percutaneous Approach
03VP4BZ	Restriction of Right Vertebral Artery with Bioactive Intraluminal Device, Percutaneous Endoscopic Approach
03VP4CZ	Restriction of Right Vertebral Artery with Extraluminal Device, Percutaneous Endoscopic Approach
03VP4DZ	Restriction of Right Vertebral Artery with Intraluminal Device, Percutaneous Endoscopic Approach
03VP4ZZ	Restriction of Right Vertebral Artery, Percutaneous Endoscopic Approach
03VQ0BZ	Restriction of Left Vertebral Artery with Bioactive Intraluminal Device, Open Approach
03VQ0CZ	Restriction of Left Vertebral Artery with Extraluminal Device, Open Approach
03VQ0DZ	Restriction of Left Vertebral Artery with Intraluminal Device, Open Approach
03VQ0ZZ	Restriction of Left Vertebral Artery, Open Approach
03VQ3BZ	Restriction of Left Vertebral Artery with Bioactive Intraluminal Device, Percutaneous Approach
03VQ3CZ	Restriction of Left Vertebral Artery with Extraluminal Device, Percutaneous Approach
03VQ3DZ	Restriction of Left Vertebral Artery with Intraluminal Device, Percutaneous Approach
03VQ3ZZ	Restriction of Left Vertebral Artery, Percutaneous Approach
03VQ4BZ	Restriction of Left Vertebral Artery with Bioactive Intraluminal Device, Percutaneous Endoscopic Approach
03VQ4CZ	Restriction of Left Vertebral Artery with Extraluminal Device, Percutaneous Endoscopic Approach
03VQ4DZ	Restriction of Left Vertebral Artery with Intraluminal Device, Percutaneous Endoscopic Approach
03VQ4ZZ	Restriction of Left Vertebral Artery, Percutaneous Endoscopic Approach

**Valve Procedure**  
**Open Valve replacement**

<b>Code</b>	<b>Description</b>
<b>Mitral</b>	
35.24	Open and other replacement of mitral valve
02RG0JZ	Replacement of Mitral Valve with Synth Sub, Open Approach
02RG3JZ	Replacement of Mitral Valve with Synth Sub, Perc Approach
02RG4JZ	Replace of Mitral Valve with Synth Sub, Perc Endo Approach
35.23	Open and other replacement of mitral valve with tissue graft
02RG07Z	Replacement of Mitral Valve with Autol Sub, Open Approach
02RG08Z	Replacement of Mitral Valve with Zooplastic, Open Approach
02RG0KZ	Replacement of Mitral Valve with Nonaut Sub, Open Approach
33430	Replacement, mitral valve, with cardiopulmonary bypass
<b>Aortic</b>	
33405	Replacement, aortic valve, with cardiopulmonary bypass; with prosthetic valve other than homograft or stentless valve
33406	Replacement, aortic valve, with cardiopulmonary bypass; with allograft valve (freehand)
33410	Replacement, aortic valve, with cardiopulmonary bypass; with stentless tissue valve
33411	Replacement, aortic valve; with aortic annulus enlargement, noncoronary sinus
33412	Replacement, aortic valve; with transventricular aortic annulus enlargement (Konno procedure)
33413	Replacement, aortic valve; by translocation of autologous pulmonary valve with allograft replacement of pulmonary valve (Ross procedure)
35.21	Open and other replacement of aortic valve with tissue graft
02RF07Z	Replacement of Aortic Valve with Autol Sub, Open Approach
02RF08Z	Replacement of Aortic Valve with Zooplastic, Open Approach
02RF0KZ	Replacement of Aortic Valve with Nonaut Sub, Open Approach
35.22	Open and other replacement of aortic valve
02RF0JZ	Replacement of Aortic Valve with Synth Sub, Open Approach
02RF4JZ	Replace of Aortic Valve with Synth Sub, Perc Endo Approach
<b>Other</b>	
33465	Replacement, tricuspid valve, with cardiopulmonary bypass
33475	Replacement, pulmonary valve
35.25	Open and other replacement of pulmonary valve with tissue graft
02RH07Z	Replacement of Pulmonary Valve with Autol Sub, Open Approach
02RH08Z	Replacement of Pulm Valve with Zooplastic, Open Approach
02RH0KZ	Replacement of Pulm Valve with Nonaut Sub, Open Approach
35.27	Open and other replacement of tricuspid valve with tissue graft
02RJ07Z	Replacement of Tricuspid Valve with Autol Sub, Open Approach
02RJ08Z	Replacement of Tricusp Valve with Zooplastic, Open Approach
02RJ0KZ	Replacement of Tricuspid Valve with Nonautologous Tissue Substitute, Open Approach
35.26	Open and other replacement of pulmonary valve
02RH0JZ	Replacement of Pulmonary Valve with Synth Sub, Open Approach
02RH4JZ	Replacement of Pulm Valve with Synth Sub, Perc Endo Approach
35.28	Open and other replacement of tricuspid valve
02RJ0JZ	Replacement of Tricuspid Valve with Synth Sub, Open Approach
02RJ4JZ	Replace of Tricusp Valve with Synth Sub, Perc Endo Approach
<b>Indicating valve replacement</b>	
33496	Repair of non-structural prosthetic valve dysfunction with cardiopulmonary bypass (separate procedure)
<b>ICD9 dx</b>	
996.02	Mechanical complication due to heart valve prosthesis
996.61	Infection and inflammatory reaction due to cardiac device, implant, and graft
V43.3	Heart valve replaced by other means
V42.2	Heart valve replaced by transplant
996.71	Other complications due to heart valve prosthesis

Code	Description
<b>Mitral</b>	
<b>ICD10 dx</b>	
T82.0x	Mechanical complication of heart valve prosthesis
T82.22x	Mechanical complication of biological heart valve graft
T82.6x	Infection and inflammatory reaction due to cardiac valve prosthesis
Z95.2	Presence of prosthetic heart valve
Z95.3	Presence of xenogenic heart valve

## TAVR

33361	Transcatheter aortic valve replacement (TAVR/TAVI) with prosthetic valve; percutaneous femoral artery approach
33362	Transcatheter aortic valve replacement (TAVR/TAVI) with prosthetic valve; open femoral artery approach
33363	Transcatheter aortic valve replacement (TAVR/TAVI) with prosthetic valve; open axillary artery approach
33364	Transcatheter aortic valve replacement (TAVR/TAVI) with prosthetic valve; open iliac artery approach
33365	Transcatheter aortic valve replacement (TAVR/TAVI) with prosthetic valve; transaortic approach (eg, median sternotomy, mediastinotomy)
33366	Transcatheter aortic valve replacement (TAVR/TAVI) with prosthetic valve; transapical exposure (eg, left thoracotomy)
33367	Transcatheter aortic valve replacement (TAVR/TAVI) with prosthetic valve; cardiopulmonary bypass support with percutaneous peripheral arterial and venous cannulation (eg, femoral vessels) (List separately in addition to code for primary procedure)
33368	Transcatheter aortic valve replacement (TAVR/TAVI) with prosthetic valve; cardiopulmonary bypass support with open peripheral arterial and venous cannulation (eg, femoral, iliac, axillary vessels) (List separately in addition to code for primary procedure)
33369	Transcatheter aortic valve replacement (TAVR/TAVI) with prosthetic valve; cardiopulmonary bypass support with central arterial and venous cannulation (eg, aorta, right atrium, pulmonary artery) (List separately in addition to code for primary procedure)
0257T	Implantation of catheter-delivered prosthetic aortic heart valve; open thoracic approach (eg, transapical, transventricular)
0258T	Transthoracic cardiac exposure (eg, sternotomy, thoracotomy, subxiphoid) for catheter-delivered aortic valve replacement; without cardiopulmonary bypass
0259T	Transthoracic cardiac exposure (eg, sternotomy, thoracotomy, subxiphoid) for catheter-delivered aortic valve replacement; with cardiopulmonary bypass
0262T	implantation of catheter-delivered prosthetic pulmonary valve, endovascular approach
0318T	Implantation of catheter-delivered prosthetic aortic heart valve, open thoracic approach, (eg, transapical, other than transaortic)
35.05	Endovascular replacement of aortic valve
02RF37Z	Replacement of Aortic Valve with Autol Sub, Perc Approach
02RF38Z	Replacement of Aortic Valve with Zooplastic, Perc Approach
02RF3JZ	Replacement of Aortic Valve with Synth Sub, Perc Approach
02RF3KZ	Replacement of Aortic Valve with Nonaut Sub, Perc Approach
X2RF332	Replace Aort Valve w Zoopl Rapid Depl, Perc, New Tech 2
02RF47Z	Replace of Aortic Valve with Autol Sub, Perc Endo Approach
02RF48Z	Replace of Aortic Valve with Zooplastic, Perc Endo Approach
02RF4KZ	Replacement of Aortic Valve with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach
35.06	Transapical replacement of aortic valve
02RF37H	Replace Aortic Valve w Autol Sub, Transap, Perc

02RF38H	Replace Aortic Valve w Zooplastic, Transap, Perc
02RF3JH	Replace Aortic Valve w Synth Sub, Transap, Perc
02RF3KH	Replace Aortic Valve w Nonaut Sub, Transap, Perc
35.07	Endovascular replacement of pulmonary valve
02RH37Z	Replacement of Pulmonary Valve with Autol Sub, Perc Approach
02RH38Z	Replacement of Pulm Valve with Zooplastic, Perc Approach
02RH3JZ	Replacement of Pulmonary Valve with Synth Sub, Perc Approach
02RH3KZ	Replacement of Pulm Valve with Nonaut Sub, Perc Approach
35.08	Transapical replacement of pulmonary valve
02RH37H	Replace of Pulm Valve with Autol Sub, Transap, Perc Approach
02RH38H	Replace Pulm Valve w Zooplastic, Transap, Perc
02RH3JH	Replace of Pulm Valve with Synth Sub, Transap, Perc Approach
02RH3KH	Replace Pulm Valve w Nonaut Sub, Transap, Perc
02RH47Z	Replacement of Pulm Valve with Autol Sub, Perc Endo Approach
02RH48Z	Replace of Pulm Valve with Zooplastic, Perc Endo Approach
02RH4KZ	Replace of Pulm Valve with Nonaut Sub, Perc Endo Approach
35.09	Endovascular replacement of unspecified heart valve
02RG37H	Replace Mitral Valve w Autol Sub, Transap, Perc
02RG37Z	Replacement of Mitral Valve with Autologous Tissue Substitute, Percutaneous Approach
02RG38H	Replace Mitral Valve w Zooplastic, Transap, Perc
02RG38Z	Replacement of Mitral Valve with Zooplastic Tissue, Percutaneous Approach
02RG3JH	Replace Mitral Valve w Synth Sub, Transap, Perc
02RG3KH	Replace Mitral Valve w Nonaut Sub, Transap, Perc
02RG3KZ	Replacement of Mitral Valve with Nonaut Sub, Perc Approach
02RJ47Z	Replace of Tricuspid Valve with Autol Sub, Perc Endo Approach
02RJ48Z	Replace of Tricuspid Valve with Zooplastic, Perc Endo Approach
02RJ4KZ	Replace of Tricuspid Valve with Nonaut Sub, Perc Endo Approach
02RG4KZ	Replace of Mitral Valve with Nonaut Sub, Perc Endo Approach
02RG47Z	Replacement of Mitral Valve with Autologous Tissue Substitute, Percutaneous Endoscopic Approach
02RG48Z	Replacement of Mitral Valve with Zooplastic Tissue, Percutaneous Endoscopic Approach
33418	Transcatheter mitral valve repair, percutaneous approach, including transseptal puncture when performed; initial prosthesis
33419	Transcatheter mitral valve repair, percutaneous approach, including transseptal puncture when performed; additional prosthesis(es) during same session (List separately in addition to code for primary procedure)

### Open heart repair

Code	Description
<b>Mitral valve</b>	
33422	Valvotomy, mitral valve; open heart, with cardiopulmonary bypass
33425	Valvuloplasty, mitral valve, with cardiopulmonary bypass;
33426	Valvuloplasty, mitral valve, with cardiopulmonary bypass; with prosthetic ring
33427	Valvuloplasty, mitral valve, with cardiopulmonary bypass; radical reconstruction, with or without ring
35.12	Open heart valvuloplasty of mitral valve without replacement
027G04Z	Dilate Mitral Valve w Drug-elut Intralum, Open
027G0DZ	Dilation of Mitral Valve with Intralum Dev, Open Approach
027G0ZZ	Dilation of Mitral Valve, Open Approach
02NG0ZZ	Release Mitral Valve, Open Approach
02QG0ZZ	Repair Mitral Valve, Open Approach
02QG3ZZ	Repair Mitral Valve, Percutaneous Approach
02QG4ZZ	Repair Mitral Valve, Percutaneous Endoscopic Approach

<b>Code</b>	<b>Description</b>
<b>Mitral valve</b>	
02CG0ZZ	Extirpation of Matter from Mitral Valve, Open Approach
02UG0JZ	Supplement Mitral Valve with Synthetic Substitute, Open Approach
<b>Aortic valve</b>	
35.11	Open heart valvuloplasty of aortic valve without replacement
027F0ZZ	Dilation of Aortic Valve, Open Approach
02NF0ZZ	Release Aortic Valve, Open Approach
02QF0ZZ	Repair Aortic Valve, Open Approach
02UF0JZ	Supplement Aortic Valve with Synthetic Substitute, Open Approach
33400	Valvuloplasty, aortic valve; open, with cardiopulmonary bypass
33401	Valvuloplasty, aortic valve; open, with inflow occlusion
33403	Valvuloplasty, aortic valve; using transventricular dilation, with cardiopulmonary bypass
33864	Ascending aorta graft, with cardiopulmonary bypass with valve suspension, with coronary reconstruction and valve-sparing aortic root remodeling (eg, David Procedure, Yacoub Procedure)
<b>Pulmonary or tricuspid valve, or unspecified</b>	
35.13	Open heart valvuloplasty of pulmonary valve without replacement
027H0ZZ	Dilation of Pulmonary Valve, Open Approach
02NH0ZZ	Release Pulmonary Valve, Open Approach
02QH0ZZ	Repair Pulmonary Valve, Open Approach
35.14	Open heart valvuloplasty of tricuspid valve without replacement
027J0ZZ	Dilation of Tricuspid Valve, Open Approach
02NJ0ZZ	Release Tricuspid Valve, Open Approach
02QJ0ZZ	Repair Tricuspid Valve, Open Approach
35.33	Annuloplasty
02UH0JZ	Supplement Pulmonary Valve with Synthetic Substitute, Open Approach
02UJ0JZ	Supplement Tricuspid Valve with Synthetic Substitute, Open Approach
02R94KZ	Replace Chordae Tendineae w Nonaut Sub, Perc Endo
33460	Valvectomy, tricuspid valve, with cardiopulmonary bypass
33463	Valvuloplasty, tricuspid valve; without ring insertion
33464	Valvuloplasty, tricuspid valve; with ring insertion
33474	Valvotomy, pulmonary valve, open heart, with cardiopulmonary bypass
33417	Aortoplasty (gusset) for supraaortic stenosis
33468	Tricuspid valve repositioning and plication for Ebstein anomaly
33496	Repair of non-structural prosthetic valve dysfunction with cardiopulmonary bypass (separate procedure)
33600	Closure of atrioventricular valve (mitral or tricuspid) by suture or patch
33602	Closure of semilunar valve (aortic or pulmonary) by suture or patch

### **Percutaneous heart repair**

<b>Code</b>	<b>Description</b>
<b>Mitral valve</b>	
33420	Valvotomy, mitral valve; closed heart
92987	Percutaneous balloon valvuloplasty; mitral valve
35.02	Closed heart valvotomy, mitral valve
02NG3ZZ	Release Mitral Valve, Percutaneous Approach
02CG3ZZ	Extirpation of Matter from Mitral Valve, Perc Approach
02CG4ZZ	Extirpation of Matter from Mitral Valve, Perc Endo Approach
02NG4ZZ	Release Mitral Valve, Percutaneous Endoscopic Approach
35.97	Percutaneous mitral valve repair with implant
02UG3JZ	Supplement Mitral Valve with Synthetic Substitute, Percutaneous Approach
027G3ZZ	Dilation of Mitral Valve, Percutaneous Approach

<b>Code</b>	<b>Description</b>
<b>Mitral valve</b>	
<b>Aortic valve</b>	
35.01	Closed heart valvotomy, aortic valve
02NF4ZZ	Release Aortic Valve, Percutaneous Endoscopic Approach
02CF4ZZ	Extirpation of Matter from Aortic Valve, Perc Endo Approach
02CF3ZZ	Extirpation of Matter from Aortic Valve, Perc Approach
02NF3ZZ	Release Aortic Valve, Percutaneous Approach
027F3ZZ	Dilation of Aortic Valve, Percutaneous Approach
<b>Pulmonary or tricuspid valve</b>	
35.00	Closed heart valvotomy, unspecified valve
35.03	Closed heart valvotomy, pulmonary valve
02CH3ZZ	Extirpation of Matter from Pulmonary Valve, Perc Approach
02NH3ZZ	Release Pulmonary Valve, Percutaneous Approach
02NH4ZZ	Release Pulmonary Valve, Percutaneous Endoscopic Approach
02CH4ZZ	Extirpation of Matter from Pulm Valve, Perc Endo Approach
35.04	Closed heart valvotomy, tricuspid valve
02CJ3ZZ	Extirpation of Matter from Tricuspid Valve, Perc Approach
02CJ4ZZ	Extirpation of Matter from Tricusp Valve, Perc Endo Approach
02NJ3ZZ	Release Tricuspid Valve, Percutaneous Approach
02NJ4ZZ	Release Tricuspid Valve, Percutaneous Endoscopic Approach
33470	Valvotomy, pulmonary valve, closed heart; transventricular
33471	Valvotomy, pulmonary valve, closed heart; via pulmonary artery
33477	Transcatheter pulmonary valve implantation, percutaneous approach, including pre-stenting of the valve delivery site, when performed
35.96	Percutaneous balloon valvuloplasty
027H3ZZ	Dilation of Pulmonary Valve, Percutaneous Approach
027J3ZZ	Dilation of Tricuspid Valve, Percutaneous Approach

### Cardiovascular Procedure

<b>Code</b>	<b>Description</b>
37.34	atrial fibrillation ablation
0210093	CABG
0210099	CABG
021009W	CABG
02100A8	CABG
02100A9	CABG
02100AW	CABG
02100KW	CABG
02100Z3	CABG
02100Z9	CABG
0211093	CABG
0211099	CABG
021109W	CABG
02110AW	CABG
02110Z9	CABG
02111ZZ	CABG
0212099	CABG
021209W	CABG
02120A3	CABG
0213093	CABG
021309W	CABG
02132	CABG

<b>Code</b>	<b>Description</b>
0213T	CABG
36.1	CABG
36.10	CABG
36.11	CABG
36.12	CABG
36.13	CABG
36.14	CABG
36.15	CABG
36.16	CABG
36.19	CABG
36.22	CABG
36.23	CABG
01925	Carotid revascularization
031H0KK	Carotid revascularization
031J0KK	Carotid revascularization
031J0ZK	Carotid revascularization
037K3DZ	Carotid revascularization
33889	Carotid revascularization
33891	Carotid revascularization
34001	Carotid revascularization
35301	Carotid revascularization
35390	Carotid revascularization
35509	Carotid revascularization
35601	Carotid revascularization
35606	Carotid revascularization
35626	Carotid revascularization
35693	Carotid revascularization
35694	Carotid revascularization
35695	Carotid revascularization
37205	Carotid revascularization
37206	Carotid revascularization
37207	Carotid revascularization
37208	Carotid revascularization
37215	Carotid revascularization
37216	Carotid revascularization
37236	Carotid revascularization
37237	Carotid revascularization
37600	Carotid revascularization
61613	Carotid revascularization
61700	Carotid revascularization
61703	Carotid revascularization
61705	Carotid revascularization
61710	Carotid revascularization
G8348	Carotid revascularization
025T3ZZ	Destruction of Left Pulmonary Vein, Percutaneous Approach
025S3ZZ	Destruction of Right Pulmonary Vein, Percutaneous Approach
38.12	Endarterectomy, other vessels of head and neck
88.57	Other and unspecified coronary arteriography
0270346	PCI
027034Z	PCI
0270356	PCI
027035Z	PCI



<b>Code</b>	<b>Description</b>
027036Z	PCI
027037Z	PCI
02703DZ	PCI
02703EZ	PCI
02703GZ	PCI
02703Z6	PCI
02703ZZ	PCI
027044Z	PCI
02704ZZ	PCI
0271346	PCI
027134Z	PCI
027135Z	PCI
027136Z	PCI
027137Z	PCI
02713DZ	PCI
02713ZZ	PCI
027234Z	PCI
027236Z	PCI
0272376	PCI
027334Z	PCI
02733ZZ	PCI
36.0	PCI
36.01	PCI
36.02	PCI
36.03	PCI
36.04	PCI
36.05	PCI
36.06	PCI
36.07	PCI
36.09	PCI
00.63	Percutaneous insertion of carotid artery stent
00.66	PTCA
35.52	Repair of atrial septal defect with prosthesis, closed technique
93580	Under Repair Procedures of Structural Heart Defect

## Data S2. Development of the natural language processing algorithm

The NLP algorithms for extracting id-WMD grading and id-CBI location were developed based on our prior system under the ESPRESSO project<sup>15</sup>. The infrastructure of the NLP system was an open-source NLP pipeline MedTaggerIE<sup>45</sup>, which was developed using an open-source unstructured information management architecture-based information extraction framework<sup>46</sup>. The pipeline separates task-specific NLP knowledge engineering (i.e., id-CBI location) from the generic routine NLP, which enables words and phrases containing clinical information to be directly defined by subject matter experts (e.g., neurologists and radiologists). To enhance research reproducibility and transparency, we released the NLP system under the Open Health Natural Language Processing Consortium.

The gold standard corpus for the evaluation of the NLP system was established through a standard corpus annotation process<sup>47</sup>. Two trained radiology residents (AOR, KN) manually reviewed 932 radiology reports randomly stratified by the presence of id-CBIs and id-WMDs from the Mayo Clinic, Tufts Medical Center (TMC) and Kaiser Permanent Southern California (KPSC) EHRs. The annotation was conducted using a previously validated annotation guideline and scheme<sup>47, 16</sup>. The gold standard dataset was equally split into two subsets including 466 training and 466 test. We followed an iterative training and refining process<sup>48</sup> to develop the id-WMD grading and id-CBI location algorithms. Briefly, a prototype system was applied to the training data. Error cases were manually reviewed by a neurologist (LYL) at TMC. Keywords were manually curated through an iteratively refining process until all issues were resolved. The NLP algorithm achieved F scores of 0.86 and 0.89 in id-CBI and id-WMD on 490 reports from KPSC when it was initially implemented. After retraining on those reports, the F scores were enhanced to 0.90 and 0.91, respectively, on a separate test dataset (n = 490) (Data S3). On the blinded test data, the final system yielded 0.953 for id-CBI location and 0.884 for id-WMD grading in f1-score, respectively. F1-score is a well-established metric in the information retrieval and machine learning community that measures both positive predictive value (precision) and sensitivity (recall) of the imbalanced test object<sup>49</sup>. The detailed breakdown of each class can be found in Data S4 and Data S5. False cases on the test data were further refined and corrected prior to the final system deployment.

### Data S3. Performance Evaluation of id-CBI and id-WMD on KPSC data

	F1-score	Sensitivity	Specificity	PPV	NPV
id-CBI	0.90	0.92	0.99	0.89	0.99
id-WMD	0.91	0.96	0.93	0.87	0.98

### Data S4. 4 × 4 Contingency Table of id-CBI Location

		NLP				
		Lacunar Subcortical	Cortical Juxtacortical	Both	No mention	Total
Annotation	Lacunar Subcortical	40	0	0	4	44
	Cortical Juxtacortical	2	8	0	7	17
	Both	1	0	0	0	1
	No mention	8	0	0	396	404
	Total	51	8	0	407	466

### Data S5. 4 x 4 Contingency Table of id-WMD Grading

		NLP				
		Mild	Moderate	Severe	No mention	Total
Annotation	Mild	265	3	3	14	285
	Moderate	4	67	4	7	82
	Severe	1	0	17	0	18
	No mention	13	3	2	63	81
	Total	283	73	26	84	466

## Data S6. ICD-9 and ICD-10 codes to define dementia

### ICD codes used to define dementia

ICD 9 codes and Descriptions	
290.0	Senile dementia, uncomplicated
290.10	Presenile dementia, uncomplicated
290.11	Presenile dementia with delirium
290.12	Presenile dementia with delusional features
290.13	Presenile dementia with depressive features
290.20	Senile dementia with delusional features
290.21	Senile dementia with depressive features
290.3	Senile dementia with delirium
290.40	Vascular dementia, uncomplicated
290.41	Vascular dementia, with delirium
290.42	Vascular dementia, with delusions
290.43	Vascular dementia, with depressed mood
294.20	Dementia, unspecified, without behavioral disturbance
331.0	Alzheimer's disease
ICD10 Codes and Descriptions	
<i>F03.90</i>	<i>Unspecified dementia without behavioral disturbance</i>
<i>F01.50</i>	<i>Vascular dementia without behavioral disturbance</i>
<i>F01.51</i>	<i>Vascular dementia with behavioral disturbance</i>
<i>G30.0</i>	<i>Alzheimer's disease with early onset</i>
<i>G30.1</i>	<i>Alzheimer's disease with late onset</i>
<i>G30.8</i>	<i>Other Alzheimer's disease</i>
<i>G30.9</i>	<i>Alzheimer's disease, unspecified</i>

### Cognitive enhancement medications to define dementia.

Generic	Brand
Donepezil	Aricept
Galantamine	Razadyne
Memantine	Namenda
Rivastigmine	Exelon
Memantine + Donepezil	Namzaric

**Table S1. Top twenty indications (ICD codes) for index scans and associated reasons for visit**

<b>Scan indications</b>	<b>No. patients</b>	<b>Reasons for visit*</b>	<b>No. patients</b>
Headache or facial pain	42910	Dizziness, vertigo, or syncope	39074
Dizziness, vertigo, or syncope	20811	Headache and facial pain	34172
Ear or hearing issue	14265	Head trauma or fall	26057
Stroke risk factor †	11081	Consultation or requested services (nonspecific)	13937
Head trauma or fall	9243	Ear or hearing issue	10962
Sensory abnormality (tactile)	5734	Routine visit or annual physical exam	9114
Neoplasm (metastatic or primary neurological)	4818	Followup after hospitalization or testing	8221
Gait abnormality or imbalance	3620	Sensory abnormality (tactile)	7144
Abnormal hormone levels	3330	Constitutional symptoms (nonspecific)	6500
Abnormal movements	3210	Chest symptom	6492
Constitutional symptoms (nonspecific)	2038	Other pain complaint	5233
Mood disorder	1881	Problem with blood pressure	4804
Neck pain	1563	Weakness	4771
Limb weakness	1433	Radiology procedure	4362
Vision disturbance or eye symptom	1371	Vision disturbance or eye symptom	2968
Screening (nonspecific)	1274	Abdominal symptom	2036
Facial movement abnormality	1217	Neck pain	1807
Sinus disease	1025	Problems with blood sugar	1649
Abnormal smell or taste	823	Abnormal movements	1493
Sleep disorder	776	Gait abnormality or imbalance	1429

Scan indication was missing for 116,591 patients. Reason for visit was missing for 15,066 patients.

\* First reason was identified for "Reason for visit".

+ Stroke risk factor includes ICD codes for traditional stroke risk factors including atrial fibrillation, diabetes mellitus, hypertension, hyperlipidemia, and atherosclerosis (of the head, neck, or chest arteries).

**Table S2. Crude and adjusted effects on dementia risk for other risk factors in model**

	HR	95% CI
<b>Crude</b>		
Age group (reference <70 years)	14.99	(14.15, 15.69)
Sex (reference=Female)	0.93	(0.89, 0.97)
Race/ ethnicity (reference=Non-Hispanic)		
Asian and Pacific Islander	0.55	(0.52, 0.59)
African American	0.97	(0.92, 1.02)
Hispanic	0.61	(0.58, 0.64)
Multiple/Other/Unknown	0.46	(0.38, 0.57)
Atrial fibrillation (AF)	3.13	(2.97, 3.30)
Carotid atherosclerosis	2.56	(2.26, 2.91)
Congestive heart failure (CHF)	3.11	(2.93, 3.30)
Coronary artery disease (CAD)	2.37	(2.27, 2.48)
Diabetes mellitus (DM)	1.59	(1.53, 1.65)
Hypercholesterolemia (HC)	1.58	(1.51, 1.64)
Hypertension (HTN)	3.34	(3.18, 3.51)
Peripheral arterial disease (PAD)	2.96	(2.79, 3.13)
Tobacco use (ever)	1.27	(1.22, 1.31)
Systolic blood pressure	1.02	(1.02, 1.02)
Statin	1.67	(1.61, 1.73)
Antiplatelet	1.60	(1.49, 1.72)
Depression	1.28	(1.22, 1.33)
Exercise (hour/per week)	0.89	(0.88, 0.90)
BMI (kg/m <sup>2</sup> )	0.92	(0.92, 0.92)
MRI (reference=CT)	0.51	(0.49, 0.54)
id-CBI	2.91	(2.75, 3.07)
id-WMD	3.72	(3.58, 3.86)
<b>Adjusted</b>		
Sex (reference=Female)	1.07	(1.03, 1.11)
Race/ ethnicity (reference=Non-Hispanic)		
Asian and Pacific Islander	0.60	(0.56, 0.65)
African American	1.10	(1.04, 1.16)
Hispanic	0.86	(0.82, 0.90)
Multiple/Other/Unknown	0.88	(0.71, 1.09)
Atrial fibrillation (AF)	1.25	(1.18, 1.32)
Carotid atherosclerosis	1.01	(0.89, 1.15)
Congestive heart failure (CHF)	1.26	(1.18, 1.35)
Coronary artery disease (CAD)	1.10	(1.05, 1.15)
Diabetes mellitus (DM)	1.23	(1.18, 1.29)
Hypercholesterolemia (HC)	0.96	(0.91, 1.01)
Hypertension (HTN)	1.40	(1.33, 1.48)
Peripheral arterial disease (PAD)	1.24	(1.16, 1.31)
Tobacco use (ever)	0.99	(0.95, 1.03)
Systolic blood pressure	1.00	(1.00, 1.01)
Statin	1.01	(0.96, 1.05)
Antiplatelet	1.00	(0.92, 1.07)
Depression	1.41	(1.36, 1.49)
Exercise (hour/per week)	0.92	(0.91, 0.93)
BMI (kg/m <sup>2</sup> )	0.94	(0.93, 0.94)
id-CBI		
Age<70 years	2.02	(1.70, 2.41)
Age≥70 years	1.22	(1.15, 1.30)
id-WMD		
MRI, Age<70	2.28	(1.99, 2.62)
MRI, Age≥70	1.48	(1.32, 1.66)
CT, Age<70	2.87	(2.58, 3.19)
CT, Age≥70	1.87	(1.79, 1.95)

id-CBI:incidentally-discovered covert brain infarction; id-WMD:incidentally-discovered white matter disease

**Table S3. Dementia\* incidence rate defined by one ICD diagnose code, overall and in subgroups (n= 241,050)**

Patient Characteristics	Patients with id-CBI (n=11,328)			Patient with id-WMD (n=69,931)			Patients with both id-CBI and id-WMD (n=6,284)			Patients without id-CBI or id-WMD		
	Avg f/u, yrs	No. events	Incidence rate (95% CI)	Avg f/u, yrs	No. events	Incidence rate (95% CI)	Avg f/u, yrs	No. events	Incidence rate (95% CI)	Avg f/u, yrs	No. events	Incidence rate (95% CI)
All	4.26	1,696	35.2 (33.5,36.9)	4.06	7,937	27.9 (27.3,28.6)	3.87	1,202	49.4 (46.7,52.3)	4.45	5,411	7.3 (7.1,7.5)
Age group (yrs)												
50-59	4.61	31	3.9 (2.7,5.5)	4.40	85	1.5 (1.2,1.8)	4.40	12	5.2 (2.8,8.8)	4.42	262	0.7 (0.7,0.8)
60-69	4.67	149	10.7 (9.1,12.5)	4.33	673	7.7 (7.1,8.3)	4.28	91	15.5 (12.6,19.0)	4.54	1,067	4.4 (4.2,4.7)
70-79	4.47	589	35.8 (33.0,38.8)	4.14	2,869	32.0 (30.9,33.2)	4.14	397	42.9 (38.8,47.3)	4.55	2,227	19.3 (18.5,20.1)
80+	3.35	927	93.8 (87.9,100.0)	3.29	4,310	87.3 (84.7,90.0)	3.21	702	101.8 (94.4,109.5)	3.83	1,855	59.7 (57.0,62.4)
Sex												
Female	4.46	1,022	35.5 (33.4,37.7)	4.17	5,114	28.8 (28.0,29.6)	4.05	719	50.0 (46.4,53.7)	4.55	3,455	7.4 (7.2,7.7)
Male	3.98	674	34.7 (32.1,37.4)	3.90	2,823	26.6 (25.6,27.6)	3.64	483	48.6 (44.4,53.1)	4.29	1,956	7.1 (6.8,7.5)
Race/ethnicity												
Non-Hisp. White	4.17	890	39.3 (36.8,41.9)	4.07	4,477	30.8 (29.9,31.7)	3.82	667	54.1 (50.2,58.4)	4.53	2,636	8.9 (8.6,9.3)
Asian/PI	4.58	135	23.5 (19.8,27.7)	4.26	648	19.0 (17.5,20.5)	4.09	88	31.3 (25.3,38.4)	4.69	462	5.0 (4.5,5.5)
African Am.	4.36	304	42.5 (37.9,47.5)	4.10	1,129	35.2 (33.2,37.3)	3.86	206	59.0 (51.4,67.5)	4.72	783	8.9 (8.3,9.5)
Hispanic	4.26	355	29.1 (26.2,32.2)	3.98	1,629	23.5 (22.4,24.6)	3.95	235	42.7 (37.5,48.4)	4.25	1,487	5.9 (5.6,6.2)
Other †	3.20	12	28.0 (15.3,47.4)	3.30	54	16.5 (12.5,21.4)	2.66	6	29.6 (10.9,64.5)	3.54	43	4.1 (3.0,5.5)
Imaging Modality												
CT	4.22	1,494	39.1 (37.2,41.2)	3.79	6,285	44.9 (43.8,46.0)	3.73	1,029	61.4 (57.7,65.2)	4.45	4,949	8.1 (7.9,8.3)
MRI	4.39	202	20.1 (17.5,23.1)	4.36	1,652	11.5 (10.9,12.0)	4.23	173	22.8 (19.6,26.4)	4.46	462	3.6 (3.3,3.9)

id-CBI:incidentally-discovered covert brain infarction; id-WMD:incidentally-discovered white matter disease; PI:Pacific islander

\* Dementia was defined by one diagnostic code regardless of medication dispensing.

† Multiple, other or unknown race/ethnicity.

**Table S4. Dementia\* incidence rate in patients without antithrombotic medications/indications†, overall and in subgroups (n= 187,533)**

Patient Characteristics	Patients with id-CBI (n=7,241)			Patient with id-WMD (n=48,977)			Patients with both id-CBI and id-WMD disease (n=3,757)			Patients without id-CBI or id-WMD(n= 135,072)		
	Avg f/u, yrs	No. events	Incidence rate (95% CI)	Avg f/u, yrs	No. events	Incidence rate (95% CI)	Avg f/u, yrs	No. events	Incidence rate (95% CI)	Avg f/u, yrs	No. events	Incidence rate (95% CI)
All	4.49	772	23.8 (22.1,25.5)	4.22	3,804	18.4 (17.8,19.0)	4.08	529	34.5 (31.7,37.6)	4.48	2,803	4.6 (4.5,4.8)
Age group (yrs)												
50-59	4.60	19	2.9 (1.8,4.5)	4.43	47	0.9 (0.7,1.2)	4.39	8	4.4 (1.9,8.6)	4.43	142	0.5 (0.4,0.5)
60-69	4.78	76	7.4 (5.8,9.1)	4.38	392	5.7 (5.2,6.3)	4.34	48	11.3 (8.4,14.9)	4.57	625	3.2 (3.0,3.5)
70-79	4.64	283	27.8 (24.7,31.2)	4.27	1,483	24.7 (23.4,25.9)	4.23	183	33.5 (28.9,38.6)	4.62	1,200	14.9 (14.0,15.7)
80+	3.72	394	71.3 (64.6,78.7)	3.51	1,882	68.8 (65.7,71.9)	3.54	290	76.4 (67.9,85.5)	4.04	836	45.7 (42.7,48.9)
Sex												
Female	4.67	499	24.7 (22.6,27.0)	4.30	2,592	19.5 (18.8,20.3)	4.24	340	35.9 (32.3,39.9)	4.56	1,863	4.8 (4.6,5.0)
Male	4.21	273	22.2 (19.7,25.0)	4.09	1,212	16.4 (15.5,17.3)	3.85	189	32.2 (27.9,37.1)	4.35	940	4.3 (4.0,4.6)
Race/ethnicity												
Non-Hisp. white	4.49	376	25.5 (23.0,28.2)	4.28	2,021	20.0 (19.1,20.8)	4.11	286	38.0 (33.8,42.6)	4.59	1,293	5.6 (5.3,5.9)
Asian/PI	4.73	67	16.1 (12.6,20.3)	4.35	371	13.7 (12.4,15.2)	4.23	42	21.1 (15.4,28.2)	4.72	261	3.3 (2.9,3.7)
African Am.	4.64	141	30.6 (25.9,36.0)	4.30	533	23.7 (21.8,25.8)	4.12	90	42.7 (34.6,52.3)	4.78	386	5.5 (5.0,6.1)
Hispanic	4.37	179	20.7 (17.8,23.9)	4.08	847	15.8 (14.8,16.9)	4.03	106	29.8 (24.6,35.9)	4.27	833	3.9 (3.6,4.1)
Other‡	3.01	9	27.6 (12.6,52.5)	3.26	32	12.0 (8.4,16.8)	2.31	5	35.5 (11.5,82.9)	3.51	30	3.3 (2.3,4.6)
Imaging Modality												
CT	4.49	669	26.6 (24.6,28.7)	3.99	2,892	31.8 (30.7,33.0)	3.95	441	44.7 (40.7,49.0)	4.49	2,521	5.1 (4.9,5.3)
MRI	4.48	103	14.1 (11.5,17.0)	4.42	912	7.9 (7.4,8.4)	4.33	88	16.1 (13.0,19.8)	4.47	282	2.5 (2.2,2.8)

id-CBI:incidentally-discovered covert brain infarction; id-WMD:incidentally-discovered white matter disease; PI:Pacific islander

\* Dementia was defined by two ICD diagnostic codes or one diagnostic code and one medication dispensing.

† Excluded patients diagnosed with (1) any history of atrial fibrillation, moderate to severe valvopathy, MI, CAD and CHF, (2) DVT/PE within one year, or (3) received oral anticoagulation medication or antiplatelets within one year.

‡ Multiple, other or unknown race/ethnicity.



**Table S5. Dementia\* incidence rate in patients whose follow-up was longer than 1 year, overall and in subgroups (n= 209,780)**

Patient characteristics	Patients with id-CBI (n=9,705)			Patient with id-WMD (n=59,794)			Patients with both id-CBI and id-WMD disease (n=5,281)			Patients without id-CBI or id-WMD(n= 145,562)		
	Avg f/u, yrs	No. events	Incidence rate (95% CI)	Avg f/u, yrs	No. events	Incidence rate (95% CI)	Avg f/u, yrs	No. events	Incidence rate (95% CI)	Avg f/u, yrs	No. events	Incidence rate (95% CI)
All	4.08	1,177	29.7 (28.0,31.4)	3.86	5,510	23.9 (23.3,24.5)	3.72	836	42.6 (39.8,45.5)	4.19	3,930	6.4 (6.3,6.7)
Age group (yrs)												
50-59	4.53	22	3.3 (2.1,4.9)	4.17	50	1.1 (0.8,1.4)	4.42	10	5.2 (2.5,9.6)	4.18	145	0.5 (0.4,0.6)
60-69	4.44	98	8.4 (6.9,10.2)	4.11	486	6.8 (6.2,7.4)	4.09	57	11.9 (9.1,15.2)	4.26	772	3.9 (3.6,4.1)
70-79	4.26	414	30.3 (27.5,33.4)	3.90	2,096	28.7 (27.5,29.9)	3.96	275	36.4 (32.3,40.9)	4.23	1,695	17.7 (16.9,18.6)
80+	3.19	643	83.0 (76.8,89.6)	3.15	2,878	74.8 (72.1,77.5)	3.04	494	92.4 (84.5,100.8)	3.62	1,318	52.6 (49.8,55.5)
Sex												
Female	4.24	731	30.6 (28.5,32.9)	3.94	3,577	24.6 (23.8,25.5)	3.88	512	43.6 (40.0,47.6)	4.27	2,522	6.5 (6.3,6.8)
Male	3.86	446	28.3 (25.8,31.0)	3.72	1,933	22.6 (21.6,23.6)	3.50	324	41.0 (36.7,45.6)	4.04	1,408	6.3 (6.0,6.6)
Race/ethnicity												
Non-Hisp. white	4.02	626	33.7 (31.2,36.4)	3.87	3,110	26.3 (25.4,27.3)	3.67	474	47.8 (43.7,52.3)	4.25	1,920	7.8 (7.5,8.2)
Asian/PI	4.40	93	19.4 (15.8,23.7)	3.96	453	16.2 (14.8,17.8)	3.91	60	26.2 (20.2,33.5)	4.35	342	4.4 (4.0,4.9)
African Am.	4.20	205	34.6 (30.1,39.5)	3.95	765	29.2 (27.2,31.3)	3.77	137	48.4 (40.8,57.0)	4.46	568	7.7 (7.1,8.4)
Hispanic	4.04	244	24.3 (21.4,27.5)	3.76	1,147	20.5 (19.3,21.7)	3.76	161	36.1 (30.9,42.0)	4.00	1,074	5.2 (4.9,5.5)
Other†	3.09	9	27.5 (12.6,52.1)	3.32	35	13.8 (9.8,19.0)	2.63	4	27.2 (7.4,69.6)	3.47	26	3.2 (2.1,4.6)
Imaging Modality												
CT	4.04	1,033	33.0 (31.0,35.0)	3.60	4,278	38.1 (37.0,39.3)	3.56	708	52.7 (49.0,56.7)	4.18	3,586	7.1 (6.9,7.4)
MRI	4.25	144	17.4 (14.7,20.4)	4.13	1,232	10.4 (9.8,11.0)	4.10	128	20.6 (17.3,24.4)	4.21	344	3.2 (2.9,3.6)

id-CBI: incidentally-discovered covert brain infarction; id-WMD: incidentally-discovered white matter disease; PI: Pacific islander

\* Dementia was defined by two ICD diagnostic codes or one diagnostic code and one medication dispensing.

† Multiple, other or unknown race/ethnicity.

**Table S6. Crude and adjusted hazard ratios (HR) for dementia by incidentally-discovered covert brain infarction (id-CBI) and incidentally-discovered white matter disease (id-WMD) for patients with follow up longer than 1 year (n=209,780)**

	HR	95% CI
<b>Crude</b>		
id-CBI	2.83	(2.66, 3.01)
id-WMD	3.53	(3.39, 3.68)
<b>Adjusted (varied by age and modality)*</b>		
id-CBI		
Age<70 years	1.97	(1.64, 2.38)
Age≥70 years	1.22	(1.14, 1.30)
id-WMD		
MRI, age<70	2.27	(1.96, 2.63)
MRI, age≥70	1.50	(1.33, 1.69)
CT, age<70	2.71	(2.42, 3.04)
CT, age≥70	1.79	(1.71, 1.88)

\* The multivariable model included age, sex, race/ethnicity, atrial fibrillation, carotid atherosclerosis, congestive heart failure, coronary artery disease, diabetes mellitus, hypercholesterolemia, hypertension, peripheral arterial disease, ever tobacco use, mean systolic blood pressure in one year, antiplatelet use, statin use, depression, exercise (hour/per week), BMI (kg/m<sup>2</sup>), modality, age\*CBI, age\*id-WMD, and modality\*id-WMD. Crude and adjusted HRs of all other risk factors included in the model are not shown.

**Table S7. Incidence rate and crude and adjusted hazard ratios (HR) of incidentally-discovered white matter disease (id-WMD) and risk of dementia by severity and modality (n=241,050)**

Modality and WMD Severity	Number of patients	Average f/u, years	Number of events	Incidence rate/1,000 person years (95% CI)	Crude HR (95% CI)	Adjusted HR* (95% CI)
<b>MRI</b>						
none (ref)	29,451	4.48	403	3.1 (2.8, 3.4)	1.00	1.00
mild WMD	20,610	4.31	621	7.0 (6.5, 7.6)	2.30 (2.03, 2.60)	1.41 (1.25, 1.60)
moderate WMD	5,568	4.41	368	15.0 (13.5, 16.6)	4.91 (4.26, 5.66)	2.03 (1.76, 2.34)
severe WMD	1,768	4.72	179	21.5 (18.5, 24.8)	6.98 (5.85, 8.32)	2.32 (1.94, 2.76)
not specified	5,082	4.48	222	9.7 (8.5, 11.1)	3.19 (2.70, 3.75)	1.67 (1.41, 1.96)
<b>CT</b>						
none	141,668	4.47	4,454	7.0 (6.8, 7.2)	2.31 (2.08, 2.55)	1.58 (1.42, 1.75)
mild	20,162	3.98	2,304	28.7 (27.5, 29.9)	9.51 (8.56, 10.57)	2.62 (2.36, 2.92)
moderate	3,724	3.46	791	61.4 (57.2, 65.7)	20.59 (18.26, 23.21)	4.16 (3.68, 4.70)
severe	1,959	3.46	435	64.1 (58.3, 70.4)	21.49 (18.77, 24.61)	4.11 (3.58, 4.72)
not specified	11,058	3.69	1,777	43.6 (41.6, 45.6)	14.51 (13.02, 16.17)	3.40 (3.04, 3.79)

\* Adjusting for age group, sex, race/ethnicity, atrial fibrillation, carotid atherosclerosis, congestive heart failure, coronary artery disease, diabetes mellitus, hypercholesterolemia, hypertension, peripheral arterial disease, ever tobacco use, mean systolic blood pressure in one year, antiplatelet use, statin use, depression, exercise (hour/per week), BMI (kg/m<sup>2</sup>), and incidentally-discovered CBI.

**Figure S1. Cohort Diagram**

