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Physicians' Self-Reported Knowledge and Behaviors Related to Prescribing Opioids for Chronic Pain and Diagnosing Opioid Use Disorder, DocStyles, 2020

Kathleen R. Ragan-Burnett, MSPH,[1] C. Robinette Curtis, MD,[1] Kristine M. Schmit, MD,[1] Christina A. Mikosz, MD,[1] Lyna Z. Schieber, MD,[1] Gery P. Guy Jr, PhD,[1] Tamara M. Haegerich, PhD[2]

Introduction: In 2016, the Centers for Disease Control and Prevention released the Guideline for Prescribing Opioids for Chronic Pain (2016 Centers for Disease Control and Prevention Guideline) to improve opioid prescribing while minimizing associated risks. This analysis sought to understand guideline-concordant knowledge and self-reported practices among primary care physicians.

Methods: Data from Spring DocStyles 2020, a cross-sectional, web-based survey of practicing U.S. physicians, were analyzed in 2022 and 2023. Demographic, knowledge, and practice characteristics of primary care physicians overall (N=1,007) and among specific subsets—(1) primary care physicians who provided care for patients with chronic pain (n=600), (2) primary care physicians who did not provide care for patients with chronic pain (n=337), and (3) primary care physicians who reported not obtaining or seeking a buprenorphine waiver (n=624)—were examined.

Results: A majority of physicians (72.6%) were unable to select a series of options consistent with diagnostic criteria for opioid use disorder; of those physicians, almost half (47.9%) reported treating at least 1 patient with medications for opioid use disorder. A minority of physicians (17.5%) reported having a buprenorphine prescribing waiver. Among physicians who prescribed opioids for chronic pain (88.5%), 54.4% concurrently prescribed benzodiazepines. About one third (33.5%) reported not taking patients with chronic pain.

Conclusions: There were critical practice gaps among primary care physicians related to 2016 Centers for Disease Control and Prevention Guideline topics. Increasing knowledge of the Centers for Disease Control and Prevention's opioid prescribing recommendations can benefit physician practice, patient outcomes, and public health strategies in addressing the opioid overdose crisis and implementing safer and more effective pain care.

INTRODUCTION

In 2022, an estimated 8.5 million people aged ≥12 years in the U.S. misused prescription pain relievers in the past year, and an estimated 5.6 million people had a past-year prescription pain reliever use disorder.[1] There were over 107,000 overdose deaths in the U.S. in 2023; among these, approximately 13,000 involved a

From the [1]Division of Overdose Prevention, National Center for Injury Prevention and Control, Centers for Disease Control and Prevention, Atlanta, Georgia; and [2]National Institute on Drug Abuse, NIH, Bethesda, Maryland

Address correspondence to: Kathleen R. Ragan-Burnett, MSPH, Centers for Disease Control and Prevention, 4770 Buford Highway Northeast, MS S-106, Atlanta GA 30341. E-mail: xwy3@cdc.gov.

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prescription opioid.[2] Although opioid prescribing has been declining since 2012, opioids remain a common treatment for pain and continue to be dispensed at a rate of 39.5 prescriptions per 100 persons in 2022.[3] Opioids are often prescribed for pain management; however, long-term opioid therapy, particularly with higher opioid doses, is associated with increased risk for opioid misuse, addiction, and overdose.[4–6]

In 2016, the Centers for Disease Control and Prevention (CDC) released its first national clinical recommendations, the *CDC Guideline for Prescribing Opioids for Chronic Pain* (2016 CDC Guideline), intended for primary care clinicians (PCPs) with the goals of improving opioid prescribing for pain while minimizing risks (e.g., opioid use disorder [OUD], overdose, and death) for patients aged ≥18 years with chronic pain outside of active cancer treatment, palliative care, and end-of-life care.[7] The 2016 CDC Guideline, focused on primary care settings, provided guidance on (1) when to initiate or continue opioids; (2) opioid selection, dosage, duration, follow-up, and discontinuation; and (3) assessing risk and addressing harms of opioid use.[7] Recommendations included offering evidence-based treatment for OUD when indicated, including medications for OUD (MOUDs); offering naloxone to mitigate risk; avoiding prescribing opioid pain medication and benzodiazepines concurrently; and reviewing controlled substance prescription history using prescription drug monitoring programs (PDMPs).[7] This guideline has been associated with substantial reductions in opioid prescribing, including number of prescription fills,[8] days' supply,[9] dosage,[9,10] concurrent opioid/benzodiazepine prescribing,[10] and increases in nonopioid pain medication prescribing.[11]

Although the 2016 CDC Guideline recommended active patient participation in care plans; that interventions should be tailored for patients; and that in some cases, opioids might be appropriate, some reported that policies and clinician practices were inconsistent with 2016 CDC Guideline recommendations such as inflexible application of dosage and duration recommendations, rapid tapering, and dismissal of patients from practice, resulting in patient harm.[12] Of particular concern were practices such as forced tapers that result in withdrawal, destabilization, or opioid seeking from illicit sources and lack of treatment for OUD when identified.[13] Furthermore, although the 2016 CDC Guideline recommended offering MOUD for OUD when indicated, a 2019 national survey of family, internal, and general medicine physicians revealed that only 20.2% expressed interest in treating patients with OUD, and few reported prescribing buprenorphine or having interest in obtaining a waiver to prescribe, a requirement at the time.[14] Buprenorphine is a partial agonist opioid that is approved for treatment of pain and OUD, has less overdose risk than other opioids, is associated with improved outcomes and reduced mortality, and can be prescribed in the same medical settings as opioid analgesics for pain.[15] Although the 36% increase in buprenorphine prescriptions dispensed from 2016 to 2021 is promising, further increases are needed to meet the volume of patient need.[15]

This analysis sought to highlight knowledge and self-reported practices related to the 2016 CDC Guideline[7] by examining PCP knowledge of the recommendations, implementation of guideline-concordant care practices, and potential barriers to adherence. These findings can inform education, training, and practice of clinicians to close clinical care gaps and leverage evolving policies critical to addressing the ongoing national drug overdose crisis.

METHODS

Study Population

Clinicians in practice for at least 3 years actively seeing patients in the U.S. in an individual, group, or hospital practice were surveyed through DocStyles from March 23 to April 16, 2020. DocStyles is a cross-sectional, web-based panel survey commissioned by Porter Novelli Public Services[16] (PNPS) and conducted through SERMO[17] (a global market research company). A total of 2,650 health professionals were invited to participate to reach target quotas of 1,000 family practitioners and internists (defined by PNPS as PCP) and 250 of selected specialty audiences (obstetricians/gynecologists, pediatricians, and nurse practitioners/physician assistants). SERMO's Global Medical panelists are verified using a double opt-in sign-up process with telephone confirmation at the place of work. The survey was voluntary, and respondents could exit at any time. Honorariums of $40−$60 were paid to respondents for completing the survey on the basis of the number of questions they were asked to complete.

Data are only reported from PCPs, the intended audience of the 2016 CDC Guideline, in this study. PNPS does not collect the specialty in which nurse practitioners or physician assistants work and did not field questions specific to pediatrician opioid prescribing and OUD management. The overall response rate was 67% for PCPs.

Measures

The Spring DocStyles 2020 survey instrument was developed by PNPS with technical guidance provided by federal public health agencies and other nonprofit and

for-profit clients. The full DocStyles survey contained 115 questions designed to provide insight into demographic, practice, and work characteristics and clinicians' attitudes and counseling behaviors regarding a variety of health issues and to assess their use and trust of available health information sources. Clinicians were asked a series of 32 questions to assess current practices around management of chronic pain and knowledge and practices related to 2016 CDC Guideline recommendations and barriers to guideline implementation. This study was exempt from CDC IRB review.

Statistical Analysis

Descriptive analyses were conducted using SAS, Version 9.4, in 2022 and 2023. The authors generated percentages for demographic, knowledge, and practice characteristics among PCPs overall (N=1,007) and among PCP subsets, including (1) PCPs who provided care for patients with chronic pain in the last year (n=600); (2) PCPs who reported that they do not provide care for patients with chronic pain (n=337); and (3) PCPs who reported not obtaining or seeking a buprenorphine waiver (n=624) at the time of the DocStyles survey in 2020, a special waiver required at the time to prescribe buprenorphine for the treatment of OUD.[18] Given the relatively small sample size and no a priori hypotheses about physician characteristics that would be associated with differences in knowledge, practices, or barriers, statistical differences between subgroups were not assessed.

RESULTS

Of the 1,007 PCP respondents, 438 were family practitioners, and 569 were internists (Table 1). Physicians were primarily male (73.6%); were non-Hispanic or Latino (94.9%), White (64.1%), and Asian (25.3%); and worked in a group outpatient practice (68.3%) rather than in individual outpatient (14.7%) or inpatient (17.0%) settings. Over half (59.6%) reported providing care for patients with chronic pain in the last year (Table 2). Physicians identified conferences, journals, and internet sites as the most common sources of continuing medical education in the year prior to survey completion.

Nearly two thirds (61.2%) of physicians reported being knowledgeable or very knowledgeable about the 2016 CDC Guideline, with a greater proportion of family practitioners being knowledgeable than internists (68.0% vs 55.9%, respectively) (Table 2). A majority of physicians (72.6%) were unable to select the correct response to identify the current diagnostic criteria for OUD according to DSM-5; of those physicians, almost half (47.9%) reported providing treatment with MOUD (or referring to a methadone treatment program) to at least 1 patient over the past year. Over half reported checking a PDMP before initially prescribing an opioid (54.1%) or before every opioid prescription or renewal (54.4%). Fewer than a third of physicians reported prescribing naloxone in circumstances recommended by the 2016 CDC Guideline, and 41.2% reported that they do not prescribe naloxone. A minority of physicians (17.5%) reported having a buprenorphine prescribing waiver. Almost all (98.8%) physicians reported recommending nonopioid therapies (Table 3). Among 600 physicians who provided care for chronic pain in the last year, 531 (88.5%) reported prescribing opioids for chronic pain. Over half (54.4%) of them concurrently prescribed benzodiazepines. Among PCPs who provided care for chronic pain but did not prescribe opioids, commonly endorsed reasons included concerns about potential patient harm (72.5%), liability (55.1%), and the belief that opioids are not effective for chronic pain (42.0%).

About one third (33.5%) of physicians reported not taking patients with chronic pain into their practice during the past year, varying from 24.0% among family practitioners to 40.8% among internists (Table 2). Common explanations included that their practice has a specific focus that does not relate to chronic pain (39.5%), concerns about liability (39.2%), concerns about patient harm (38.9%), lack of enjoyment in taking care of patients with chronic pain (32.6%), and concerns about oversight or regulation (28.8%) (Table 3). The most common barriers to nonpharmacologic treatments among physicians who treated patients with chronic pain included insurance or prior authorization barriers (64.7%), copays (56.8%), costs for devices (48.3%), and lack of nearby services or transportation (41.7%).

When physicians were asked about concerns that led to patients with chronic pain no longer being seen in their practice during the past year, medication history (70.5%), other evidence or report of receipt of multiple prescriptions (60.9%), violation of a treatment agreement (60.6%), and patient's overdose or serious adverse event risk (51.9%) were each endorsed by over half of physicians. Lower percentages of physicians reported concerns about positive urine drug test results (49.0%) or OUD (46.3%) (Table 3).

The most common reason for not obtaining a buprenorphine waiver was a preference for referring patients with OUD to other services (58.5%) (Table 3). About one fourth of physicians endorsed each of the following other reasons: concern about patients misusing, diverting, or selling the medication (28.5%); concern about time constraints (23.9%); lack of available mental health/psychosocial support (26.4%); concern about malpractice issues or legal action (25.6%); and lack of confidence in the clinic's ability to manage patients with OUD

Table 1. Characteristics of Responding Primary Care Physicians, DocStyles, 2020

Physician characteristic	Family practitioner	Internist	Total
Total	438	569	1,007
Sex			
Female	129 (29.45)	137 (24.08)	266 (26.42)
Male	309 (70.55)	432 (75.92)	741 (73.58)
Age (years)			
18–29	5 (1.14)	15 (2.64)	20 (1.99)
30–39	118 (26.94)	178 (31.28)	296 (29.39)
40–49	145 (33.11)	180 (31.63)	325 (32.27)
50–59	106 (24.20)	114 (20.04)	220 (21.85)
≥60	64 (14.61)	82 (14.41)	146 (14.5)
Ethnicity			
Hispanic or Latino	21 (4.79)	30 (5.27)	51 (5.06)
Not Hispanic or Latino	417 (95.21)	539 (94.73)	956 (94.94)
Race			
White	305 (69.63)	340 (59.75)	645 (64.05)
Black or African American	16 (3.65)	15 (2.64)	31 (3.08)
Asian	88 (20.09)	167 (29.35)	255 (25.32)
Native Hawaiian or other Pacific Islander	3 (0.68)	4 (0.70)	7 (0.70)
American Indian or Alaskan Native	2 (0.46)	2 (0.35)	4 (0.4)
Two or more races	14 (3.20)	15 (2.64)	29 (2.88)
Other race	10 (2.28)	26 (4.57)	36 (3.57)
Main work setting			
Individual outpatient practice	71 (16.21)	77 (13.53)	148 (14.7)
Group outpatient practice	350 (79.91)	338 (59.40)	688 (68.32)
Inpatient practice	17 (3.88)	154 (27.07)	171 (16.98)
Years of practice			
3–4	30 (6.85)	41 (7.21)	71 (7.05)
5–8	70 (15.98)	117 (20.56)	187 (18.57)
9–14	81 (18.49)	139 (24.43)	220 (21.85)
15–19	86 (19.63)	92 (16.17)	178 (17.68)
≥20	171 (39.04)	180 (31.63)	351 (34.86)
Region			
Northeast	94 (21.46)	144 (25.31)	238 (23.63)
Midwest	115 (26.26)	125 (21.97)	240 (23.83)
South	145 (33.11)	183 (32.16)	328 (32.57)
West	84 (19.18)	117 (20.56)	201 (19.96)
Patient population			
Infants, children, and adolescents (aged ≤17 years)	399 (91.10)	219 (38.49)	618 (61.37)
Young persons (aged 18–26 years)	420 (95.89)	519 (91.21)	939 (93.25)
Adults (aged 27–64 years)	430 (98.17)	561 (98.59)	991 (98.41)
Adults (aged >65 years)	421 (96.12)	559 (98.24)	980 (97.32)

(26.3%). About one fifth (21.3%) indicated that they did not perceive a need in their patient population or community.

DISCUSSION

Results from this 2020 DocStyles survey indicate that there were critical knowledge or self-reported practice gaps among PCPs in topics addressed in the 2016 CDC Guideline. Gaps include those related to offering or arranging evidence-based treatment for patients with OUD, offering naloxone to mitigate risk, using caution when prescribing opioid pain medication and benzodiazepines concurrently, and reviewing controlled substance prescription history using PDMPs. Increasing knowledge of evidence-based opioid prescribing

Table 2. Physician Knowledge/Behaviors in Chronic Pain Treatment and OUD, DocStyles, 2020

Physician characteristic	Family practitioner	Internist	Total
Total	438	569	1,007
Self-assessed reported knowledge of 2016 CDC Guideline			
Very knowledgeable or knowledgeable	298 (68.04)	318 (55.89)	616 (61.17)
Somewhat or not at all knowledgeable	140 (31.96)	251 (44.11)	391 (38.83)
Knowledge of DSM-5 diagnostic criteria for opioid use disorder[a]			
Identified single response with correct criteria	124 (28.31)	152 (26.71)	276 (27.41)
Did not identify correct criteria	314 (71.69)	417 (73.29)	731 (72.59)
Selected *all of the above*, which included correct and incorrect responses	256 (81.53)	336 (80.58)	592 (80.98)
Selected only incorrect responses	58 (18.47)	81 (19.42)	139 (19.02)
Reported providing treatment using MOUD to ≥1 patient over past year[b]	166 (52.87)	184 (44.12)	350 (47.88)
Sources used to pursue continuing medical education during the past year[c]			
Conferences	287 (65.5)	404 (71.0)	691 (68.61)
Journals	312 (71.2)	369 (64.9)	681 (67.63)
Internet sites	280 (63.9)	356 (62.6)	636 (63.16)
Government health agencies (e.g., CDC, NIH)	189 (43.2)	211 (37.1)	400 (39.72)
Medical podcasts	158 (36.1)	188 (33.0)	346 (34.36)
Classes	122 (27.9)	144 (25.3)	266 (26.42)
CD-ROM	18 (4.1)	33 (5.8)	51 (5.06)
Something else	27 (6.2)	36 (6.3)	63 (6.26)
Have not done any CME in past year	6 (1.4)	7 (1.2)	13 (1.30)
Checked a PDMP for the purpose of assessing patients' medication histories and use of controlled substances[c]			
Before initially prescribing an opioid	275 (62.79)	270 (47.45)	545 (54.1)
Before every opioid prescription or renewal	281 (64.16)	267 (46.92)	548 (54.4)
Once every 3 months after starting opioid	115 (26.26)	131 (23.02)	246 (24.43)
Once a year after starting opioid	39 (8.90)	45 (7.91)	84 (8.34)
Only if/when I suspect misuse	63 (14.38)	115 (20.21)	178 (17.68)
Never check PDMPs for this purpose	21 (4.79)	82 (14.41)	103 (10.23)
Prescribed naloxone when. . .[c]			
Initially prescribing an opioid to any patient	65 (14.84)	84 (14.76)	149 (14.80)
Prescribing 50 MME per day to any patient	130 (29.68)	154 (27.07)	284 (28.20)
Prescribing an opioid to patients with a history of overdose or SUD	146 (33.33)	179 (31.46)	325 (32.27)
Prescribing an opioid to patients with depression or anxiety	68 (15.53)	79 (13.88)	147 (14.60)
Prescribing an opioid to patients also taking benzodiazepines	97 (22.15)	111 (19.51)	208 (20.66)
Prescribing an opioid to patients with signs or symptoms of OUD	131 (29.91)	138 (24.25)	269 (26.71)
Patients request naloxone (for themselves or for a family member)	161 (36.76)	144 (25.31)	305 (30.28)
Other circumstances for prescribing	57 (13.0)	59 (10.4)	116 (11.52)
Don't prescribe naloxone	162 (37.0)	253 (44.5)	415 (41.21)
Provided care for patients with chronic pain during the past year			
Yes	304 (69.4)	296 (52.0)	600 (59.58)
No, but I take patients with chronic pain	29 (6.6)	41 (7.2)	70 (6.95)
No, refer or don't take patients with chronic pain	105 (23.97)	232 (40.77)	337 (33.47)

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Table 2. Physician Knowledge/Behaviors in Chronic Pain Treatment and OUD, DocStyles, 2020 (*continued*)

Physician characteristic	Family practitioner	Internist	Total
Obtained waiver to prescribe buprenorphine			
Yes	92 (21.01)	84 (14.76)	176 (17.48)
I'm planning/in the process of obtaining	27 (6.16)	42 (7.38)	69 (6.85)
I'm undecided about obtaining a waiver or I do not have or plan to obtain a waiver	283 (64.61)	341 (59.93)	624 (61.97)
This is the first I have heard of the waiver	36 (8.22)	102 (17.93)	138 (13.70)

[a]Respondents were asked to select the best answer from the following question and response options: *Which of the following is/are consistent with current diagnostic criteria for opioid use disorder*? (1) Intentionally using opioids differently than as prescribed 1 or more times within a 12-month period; (2) illegal use of opioids 1 or more times within a 12-month period; (3) a problematic pattern of opioid use leading to clinically significant impairment or distress, as manifested by symptoms such as craving and tolerance, occurring within a 12-month period (correct answer); (4) the first and second answers; (5) all of the above; and (6) none of the above.
[b]Includes providing treatment using buprenorphine, naltrexone, or methadone (or referring to a methadone treatment program/clinic).
[c]Data do not add to 100% because respondents were instructed to select all response choices that apply.
CDC, Centers for Disease Control and Prevention; CD-ROM, compact disc read-only memory; CME, continuing medical education; MME, morphine milligram equivalent; MOUD, medication for opioid use disorder; OUD, opioid use disorder; PDMP, prescription drug monitoring program; SUD, substance use disorder.

Table 3. Barriers for Treatment of Chronic Pain and Opioid Use Disorder, DocStyles, 2020

Physician-endorsed attitudes and behaviors	Family practitioner	Internist	Total
Provided care for patients with chronic pain during the past year	304 (100.00)	296 (100.00)	600 (100.00)
Recommended nonopioid therapies			
Yes	301 (99.01)	292 (98.65)	593 (98.83)
Did not recommend or don't remember	3 (0.99)	4 (1.35)	7 (1.17)
Barriers to nonpharmacologic treatments for chronic pain[a]			
Insurance or prior authorization barriers	191 (62.8)	197 (66.6)	388 (64.67)
Copays for services	188 (61.8)	153 (51.7)	341 (56.83)
Costs for devices	154 (50.7)	136 (46.0)	290 (48.33)
Lack of nearby services or transportation	124 (40.8)	126 (42.6)	250 (41.67)
Other barriers	71 (23.4)	69 (23.3)	140 (23.33)
No barriers	38 (12.5)	39 (13.2)	77 (12.83)
Use of opioid medications to treat chronic pain			
Prescribed opioids	279 (91.78)	252 (85.14)	531 (88.50)
Coprescribed with benzodiazepines	157 (56.3)	132 (52.4)	289 (54.43)
Did not coprescribe with benzodiazepines/not sure	122 (43.7)	120 (47.6)	242 (45.57)
Don't remember, not in last year, or don't prescribe	25 (8.22)	44 (14.86)	69 (11.50)
Reasons did not prescribe opioids to treat chronic pain[a]			
Concerns about liability	15 (60.00)	23 (52.30)	38 (55.07)
Concern about oversight or regulation	10 (40.00)	11 (25.00)	21 (30.43)
Limitations/challenges with insurance coverage	1 (4.00)	3 (6.80)	4 (5.80)
Concerns about potential patient harm	19 (76.00)	31 (70.50)	50 (72.46)
Limits on MME that can be prescribed	0	3 (6.80)	3 (4.35)
Institutional or other quality measures	5 (20.00)	5 (11.40)	10 (14.49)
Belief that opioids are not effective for chronic pain	11 (44.00)	18 (40.90)	29 (42.03)
PDMP requirements	5 (20.00)	11 (25.0)	16 (23.19)
Other reasons not listed	1 (4.00)	4 (9.10)	5 (7.25)
Informed patient could no longer provide care for them because you had concerns about prescribing opioids for their chronic pain management during the past year			
No/don't recall	122 (40.1)	143 (48.3)	265 (44.17)
Yes[a]	182 (59.87)	153 (51.69)	335 (55.83)
Concern about medication history	122 (67.03)	114 (74.51)	236 (70.45)
Evidence of multiple prescriptions	116 (63.74)	88 (57.52)	204 (60.90)
Patient's overdose or serious adverse event risk	86 (47.25)	88 (57.52)	174 (51.94)

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Table 3. Barriers for Treatment of Chronic Pain and Opioid Use Disorder, DocStyles, 2020 (*continued*)

Physician-endorsed attitudes and behaviors	Family practitioner	Internist	Total
Violation of treatment agreement	120 (65.93)	83(54.25)	203 (60.60)
Positive urine drug test results	102 (56.04)	62 (40.52)	164 (48.96)
Concern patient may have opioid use disorder	82 (45.05)	73 (47.71)	155 (46.27)
Concern about patient's family member's overdose or serious adverse event risk	50 (27.5)	56 (36.6)	106 (31.64)
Patient referred to treatment for opioid use disorder	47 (25.8)	48 (31.4)	95 (28.36)
Transitioning to other behavioral health care	30 (16.5)	23 (15.0)	53 (15.82)
Concern about fraudulent activity	52 (28.6)	48 (31.4)	100 (29.85)
Persistent patterns of missed appointments	63 (34.6)	40 (26.1)	103 (30.75)
Other disruptive behavior	61 (33.5)	46 (30.1)	107 (31.94)
Other reasons	7 (3.9)	4 (2.6)	11 (3.28)
Reasons did not provide care for patients with chronic pain during the past year[a]	105 (100.00)	232 (100.00)	337 (100.00)
Concerns about liability	40 (38.10)	92 (39.66)	132 (39.17)
Concern about oversight or regulation	38 (36.19)	59 (25.43)	97 (28.78)
Limitations/challenges with insurance coverage	10 (9.5)	24 (10.3)	34 (10.09)
Concerns about potential patient harm	45 (42.86)	86 (37.07)	131 (38.87)
Limits on MME that can be prescribed	13 (12.4)	21 (9.1)	34 (10.09)
Institutional or other quality measures	20 (19.1)	27 (11.6)	47 (13.95)
Practice doesn't relate to chronic pain	39 (37.14)	94 (40.52)	133 (39.47)
Don't enjoy taking care of patients with chronic pain	25 (23.81)	85 (36.64)	110 (32.64)
Other reasons not listed	9 (8.6)	33 (14.2)	42 (12.46)
Reasons for not obtaining or seeking a buprenorphine waiver[a]	283 (100.00)	341 (100.00)	624 (100.00)
Concern about buprenorphine safety/effectiveness	29 (10.3)	28 (8.2)	57 (9.13)
Concern about misuse/diversion	86 (30.39)	92 (26.98)	178 (28.53)
Concern about time constraints	77 (27.2)	72 (21.1)	149 (23.88)
Lack of available mental health/psychosocial support	79 (27.92)	86 (25.22)	165 (26.44)
Resistance from practice staff and/or partners	34 (12.0)	25 (7.3)	59 (9.46)
Concern about DEA action or risk to licensure	56 (19.8)	73 (21.4)	129 (20.67)
Concern about malpractice issues or legal action	82 (29.0)	78 (22.9)	160 (25.64)
Pharmacist unwillingness to dispense	16 (5.7)	18 (5.3)	34 (5.45)
Lack of confidence in clinic's ability to manage OUD	85 (30.04)	79 (23.17)	164 (26.28)
Inadequate reimbursement for services	38 (13.4)	24 (7.0)	62 (9.94)
Prefer to refer to other external treatment services	159 (56.18)	206 (60.41)	365 (58.49)
I don't perceive a patient/community need	41 (14.49)	92 (26.98)	133 (21.31)
Other reason(s)	21 (7.4)	13 (3.8)	34 (5.45)

[a]Data do not add to 100% because respondents were instructed to select all response choices that apply.
DEA, Drug Enforcement Administration; OUD, opioid use disorder; PDMP, prescription drug monitoring program.

recommendations can benefit physician practice, patient outcomes, and public health strategies in addressing the drug overdose crisis and implementing safer and more effective pain care.

OUD is a chronic, relapsing disorder from which people can recover.[19] Nearly three quarters of the PCPs surveyed in this study did not select the correct diagnostic criteria[20] for OUD; among these respondents, 81% selected *all of the above*, an option that included the correct response and 2 incorrect response options. The incorrect options described behaviors that might be observed in people with OUD but were not specified in OUD diagnostic criteria. A lack of awareness of the diagnostic criteria might result in over or underdiagnosis of OUD and missed opportunities for provision of clinically appropriate care that could prevent opioid overdoses and save lives. When OUD is identified, clinicians should offer or arrange for patients to receive evidence-based treatment with MOUD, such as buprenorphine.[7] At the time of the DocStyles survey in 2020, a special waiver was required to prescribe buprenorphine for the treatment of OUD,[18] and less than a fifth of physicians in the sample reported obtaining one. The Mainstreaming Addiction Treatment Act[18] in 2023 removed this prescribing requirement so that,

if permitted by applicable state law, practitioners with a current Drug Enforcement Administration registration, including Schedule III authority, may now prescribe buprenorphine for OUD in their practice without patient limits. However, additional training and practice changes may be needed to enhance buprenorphine prescribing given the reservations noted by physicians in this sample—specifically, concern about buprenorphine diversion, time constraints, Drug Enforcement Administration action, legal action, lack of confidence in clinic to manage OUD, and not perceiving patient need. External coaching of clinicians in a learning collaborative format holds promise as one strategy to increase capacity for and use of buprenorphine to treat OUD.[21]

Naloxone is a life-saving medication that, when administered promptly, can quickly reverse the effects of an opioid overdose.[22] Unfortunately, only a third or less of all PCPs reported prescribing naloxone to patients who are prescribed ≥50 morphine milligram equivalent per day or when prescribing an opioid to patients with a history of overdose, with depression or anxiety, also taking benzodiazepines, with signs or symptoms of OUD, or who request it, practices recommended by the 2016 CDC Guideline. In 2023, the Food and Drug Administration approved 3 different naloxone and other opioid overdose reversal agents, including 2 naloxone products, for use without a prescription.[23,24] This policy change could enhance accessibility to these life-saving medications by consumers; however, prescribing by clinicians still remains an important option. A strong recommendation from a trusted clinician has been shown to impact acceptance of other public health interventions[25] and might help bolster dispensing and purchase. Public health professionals and health systems can also support awareness and use of naloxone and other opioid overdose reversal agents through strategies, including education and communication about their availability and by connecting people to community-based harm-reduction efforts.

The 2016 CDC Guideline recommended that clinicians avoid prescribing opioids and benzodiazepines concurrently whenever possible,[7] yet in the survey, about half of PCPs who treated patients with chronic pain and prescribed opioids reported coprescribing with benzodiazepines. Although PCPs in the survey could have been exercising caution in line with recommendations, percentages of clinicians reporting coprescribing appeared to be higher than average, signaling an opportunity for improvement. On a national level, coprescribing among commercially insured and Medicare Advantage patients with chronic pain was reported to be around 23%−25% from 2014−2018, with decreases evident after the 2016 CDC Guideline release.[26] Ongoing clinical trials hold potential for unravelling treatments for pain, anxiety, and depression that can assist with management of comorbid conditions as an alternative to pharmaceutical options.[27]

PDMP data should be reviewed before every opioid prescription,[7] but only around half of surveyed PCPs who treated patients with chronic pain and prescribed opioids reported checking the PDMP before initially prescribing an opioid or before every opioid prescription or upon renewal. Around one fifth reported that they check only when misuse is suspected, and 10% reported that they never checked the PDMP. Integration of the PDMP with the electronic health record can assist with PDMP checking.[28,29]

CDC recommendations indicate that in some situations, opioids might be appropriate, regardless of previous therapies used.[7] Patients have reported concerns about continuing access to opioids.[30] Of surveyed physicians who provided care for patients with chronic pain, 89% reported prescribing opioids to treat chronic pain. Among physicians who provided care for patients with chronic pain but did not prescribe opioids, reasons for not prescribing included concerns about liability (55%), concerns about oversight or regulation (30%), and concerns about potential patient harm (72%). Among physicians who did not provide care for chronic pain, reasons for not providing care also included concerns about liability (39%) and oversight or regulation (29%). However, a minority of PCPs (39%) who did not provide care for patients with chronic pain endorsed potential patient harm concerns as a reason. An equal proportion of PCPs reported the physician's practice not relating to chronic pain as a reason for not providing care for patients with chronic pain. Because almost one third of PCPs who did not provide care for patients with chronic pain endorsed not doing so because they do not enjoy it, future analyses exploring the implications of PCPs choosing not to provide care for specific populations are warranted to better identify and understand other potential barriers to care.

Slightly over half of PCPs who provided care for patients with chronic pain informed 1 or more patients that they could no longer provide care owing to concern about opioid prescribing, with the preponderance of concerns due to medication history, multiple prescriptions, concerns about overdose, or violation of treatment agreement. In 2022, CDC released an updated guideline for prescribing opioids for pain: *2022 CDC Clinical Practice Guideline for Prescribing Opioids for Pain* (2022 CDC Guideline).[31] Both the 2016 CDC Guideline and the updated 2022 CDC Guideline[7,31] emphasize that clinicians should not dismiss patients from their practice

and that doing so can adversely affect patient safety; clinicians should ensure access to flexible, tailored, person-centered care so that patients and clinicians can work together toward effective pain care. Health system interventions that address stigma through information provision, skill building, participatory learning, and policy change might hold promise for improving clinician comfort in providing multimodal and multidisciplinary approaches for pain and addiction.[32]

Nonopioid therapies are preferred for chronic pain.[7] Almost all clinicians who provided care for patients with chronic pain reported recommending nonopioid therapies. However, barriers to nonpharmacologic treatments were common, with primary barriers being insurance or cost related. Addressing inconsistent insurance coverage and utilization management strategies for use of nonpharmacologic therapies might serve to enhance access to and use of such approaches.[33]

Limitations

There were a number of limitations to this study. First, the Porter Novelli DocStyles survey was fielded in the spring of 2020 at the start of the coronavirus disease 2019 (COVID-19) pandemic. It is unknown how survey issuance during the time of a public health emergency influenced data collection. Second, owing to the small sample size and study methodology, the physicians responding to the DocStyles survey may not be representative of all family and internal medicine practitioners, thus limiting the generalizability of the findings. Third, the nature of the survey questions did not allow for an exploration of knowledge and practices of nurse practitioners and physician assistants. Fourth, the survey format of this research had limited ability to obtain nuanced detail about concordance with recommendations contained in the 2016 CDC Guideline. Fifth, owing to survey space constraints, questions were limited to the treatment of chronic pain. Finally, since survey administration in 2020, the 2022 CDC Guideline was released, and several policy changes influencing prescribing behavior and provision of treatment for OUD may raise questions about the contemporary relevance of the findings. However, although new policy changes pertaining to buprenorphine and naloxone may lead to further improvements in harm reduction and addiction treatment, many of the barriers noted by physicians to implementing guideline-concordant care are likely to remain pertinent.

CONCLUSIONS

The findings in this study indicate that opportunities remain to educate clinicians on evidence-based opioid prescribing to decrease opioid-related risks and advance comprehensive pain care. CDC updated its guideline in 2022[31] to reflect new evidence and a greater emphasis on the critical importance of evidence-based recommendations that support flexible, tailored, patient-centered care. Although new state and federal policy action has the potential to enhance guideline-recommended practices, there remains a need to implement complementary strategies to increase care quality. Strategies that hold promise include PDMP—electronic health record integration, clinician coaching, stigma interventions, enhanced insurance coverage for nonpharmacologic treatments, and clinical trials to identify effective treatment strategies for comorbid conditions. Furthermore, electronic clinical decision support and academic detailing can serve to alert and encourage clinicians to implement comprehensive recommended actions for specific patient needs.[34–37]

To assist clinicians with understanding and implementing the 2022 CDC Guideline, CDC developed new self-paced, interactive training modules eligible for continuing education credits at no cost; these modules are hosted on a new overdose prevention website for healthcare professionals designed to disseminate content that is actionable, accurate, and easy to understand.[38,39] Additional continuing education is available in addiction medicine (e.g., treatment of substance use disorders, specific treatment options, effective communication, and care coordination).[40] Training and focused, coordinated outreach will assist clinicians in implementing recommendations with guiding principles for equitable and accessible care, thereby improving pain, function, and quality of life for people living with pain. Although prescription opioids no longer drive the national overdose epidemic, ensuring evidence-based pain care and linkages to care for OUD are important strategies for reducing preventable overdose deaths.

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CREDIT AUTHOR STATEMENT

Kathleen R. Ragan-Burnett: Conceptualization, Writing - original draft, Writing - review & editing. C. Robinette Curtis: Conceptualization, Formal analysis, Methodology, Validation, Writing - original draft, Writing - review & editing. Kristine M. Schmit: Writing - original draft, Writing - review & editing. Christina A. Mikosz: Writing - review & editing. Lyna Z. Schieber: Formal analysis, Validation, Writing - review & editing. Gery P. Guy: Conceptualization, Methodology, Writing - review & editing. Tamara M. Haegerich: Conceptualization, Methodology, Writing - original draft, Writing - review & editing.

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