

## ORAL ABSTRACTS

**113. Procedure-specific Surgical Site Infection (SSI) Prevalence Widely Varies within Certain NHSN (National Healthcare Safety Network) Surgery Groups**

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**Background.** SSIs are the 3<sup>rd</sup> most common healthcare associated infection. They raise the risk of death, lengthen hospital stays and add to cost. Risk stratification is essential to a successful SSI surveillance program in order to make valid comparisons between hospitals and surgeons. The objective of this study was to determine procedure-specific SSI prevalence within certain NHSN surgery groups.

## Procedure-specific SSI Prevalence

Surgery	Count	SSI count	SSI %	P value (Chi square test)
AMP Upper limb	621	55	8.86	<0.0001
AMP Toe	4394	692	15.75	
AMP Other lower limb	5132	1063	20.71	
BILI Laparoscopic liver	1373	22	1.6	<0.0001
BILI Open liver	1544	166	10.75	
BILI Bile duct	1573	131	8.33	
BILI Pancreas	1130	208	18.41	

continued.

Surgery	Count	SSI count	SSI %	P value (Chi square test)
BRST Mastectomy	5012	122	2.43	<0.0001
BRST Mastectomy and expander/implant	2202	105	4.77	
BRST Reconstruction	1564	91	5.82	
BRST Other	4590	118	2.57	
HER Inguinal/femoral	2813	53	1.88	<0.0001
HER Umbilical	2326	69	2.97	
HER Incisional/other anterior abdominal	8170	504	6.17	

**Methods.** This is a retrospective cohort study using the longitudinal 2009 California State Inpatient Database (SID), part of the Healthcare Cost and Utilization Project. We identified 4 groups of surgical procedures (amputation [AMP], biliary, liver and pancreas [BILI], breast [BRST] and hernia [HER]) in persons aged  $\geq 18$  years as defined by the NHSN classification for SSI surveillance. Each of these 4 groups was classified to more specific categories. 90-day hospital readmissions were identified. SSIs were established using ICD-9-CM diagnosis codes. The Observation period for SSI was censored at time of a subsequent surgery within 90 days.

**Results.** There were 10,147 AMP, 5,620 BILI, 13,368 BRST and 13,309 HER index surgical hospitalizations in 40,044 people. 90-day SSI prevalence for these groups were 17.84%, 9.38%, 2.57% and 4.70%, respectively. See table for more specific procedure SSI prevalence.

**Conclusion.** 90-day SSI prevalence varied widely within certain NHSN categories. Use of procedure-specific SSI rates might be needed for meaningful comparisons between hospitals and surgeons when reporting AMP, BILI, BRST or HER SSIs.

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