

Hospital Acquired Condition	2018 Events	Anticipated average cost for one case with this event.	\$ Excess Cost	Prior Period Comparison					
				Q1-Q4 2018 Events	Q1-Q4 2019 Events	Event (Reduction)	% Event (Reduction)	\$ Cost (Avoidance)	
CLABSI	0	\$45,814	\$0	0	0	0	0%	\$0	
CAUTI	0	\$896	\$0	0	0	0	0%	\$0	
SSI-Colon	0	\$20,785	\$0	0	4	4	400%	\$83,140	
SSI-Hyst	1	\$20,785	\$20,785	1	0	(1)	-100%	(\$20,785)	
C.difficile	14	\$11,285	\$157,990	14	5	(9)	-64%	(\$101,565)	
MRSA	1	\$27,083	\$27,083	1	1	0	0%	\$0	
<b>Total HAIs</b>	<b>16</b>		<b>\$205,858</b>	<b>16</b>	<b>10</b>	<b>(6)</b>	<b>-38%</b>	<b>(\$39,210)</b>	
<b>All Payer</b>									
(PSI-9) PeriOP Hemorrhage or Hematoma	6	\$26,179	\$157,074	6	2	(4)	-67%	(\$104,716)	
(PSI-10) PO Acute Kidney Injury Requiring Dialysis	4	\$42,600	\$170,400	4	1	(3)	-75%	(\$127,800)	
(PSI-11) PostOP Respiratory Failure	6	\$53,000	\$318,000	6	1	(5)	-83%	(\$265,000)	
(PSI-12) PeriOP PE/DVT	7	\$17,367	\$121,569	7	7	0	0%	\$0	
(PSI-13) PO Sepsis	1	\$48,017	\$48,017	1	4	3	300%	\$144,051	
(PSI-14) PO Wound Dehiscence	0	\$38,141	\$0	0	0	0	0%	\$0	
(PSI-3) Pressure Ulcer	1	\$14,506	\$14,506	1	2	1	100%	\$14,506	
(PSI-6) Iatrogenic Pneumothorax	5	\$17,000	\$85,000	5	0	(5)	-100%	(\$85,000)	
(PSI-8) In Hospital Fall with Hip Fracture	1	\$6,694	\$6,694	1	0	(1)	-100%	(\$6,694)	
(PSI-15) Unrecognized Abdominopelvic Acc Puncture or Laceration	1	\$23,444	\$23,444	1	1	0	0%	\$0	
<b>Total PSI-90 Events</b>	<b>32</b>		<b>\$944,704</b>	<b>32</b>	<b>18</b>	<b>(14)</b>	<b>-44%</b>	<b>(\$430,653)</b>	
<b>Total HAC Events</b>	<b>48</b>		<b>\$1,150,562</b>	<b>48</b>	<b>28</b>	<b>(20)</b>	<b>-42%</b>	<b>(\$469,863)</b>	

**Data Sources:**

HAI - 4Q-4Q2019 Data NHSN as of February 20, 2020 | 1Q2018-3Q2019 Data - CMS Facility, State & National Report - IQR-HAI Data  
 PSI-90 - Midas as of February 20, 2020

**Cost References:**

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Zhan C, M Smith, and D Stryer. "Incidences, Outcomes and Factors Associated with Iatrogenic Pneumothorax in Hospitalized Patients" [abstract]. In: AcademyHealth Annual Research Meeting.; 2004; San Diego, Calif. AcademyHealth. 2004; 21: abstract no. 1862. (a.) "Depending on age and comorbidities, iatrogenic pneumothorax was associated with 4 to 7 excess days in length of stay, between \$17,000 and \$45,000 in excess charges, and 1% to 14% in excess mortality."

Hospital Acquired Infections (NHSN)											
	1Q 2018	2Q 2018	3Q 2018	4Q 2018	CY 2018	1Q 2019	2Q 2019	3Q 2019	4Q 2019	CY 2019	2018 - 2019
<b>Hospital Associated Infection Trends</b>											
Number of Infections	0	0	0	0	0	0	0	0	0	0	0
Number Predicted	0.623	0.451	0.522	0.442	2.038	0.580	0.869	0.794	0.852	3.095	5.133
CLABSI ( 0.361   0.524   0.687 )	No SIR Calc - 0 Inf	No SIR Calc - 0 Inf	No SIR Calc - 0 Inf	No SIR Calc - 0 Inf	0.000	No SIR Calc - 0 Inf	No SIR Calc - 0 Inf	No SIR Calc - 0 Inf	No SIR Calc - 0 Inf	0.000	0.000
Number Device Days	763	554	553	468	2338	616	930	856	918	3320	5658
Number of Infections	0	0	0	0	0	0	0	0	0	0	0
Number Predicted	1.219	0.925	1.047	0.989	4.180	1.044	1.234	1.090	1.176	4.544	8.724
CAUTI ( 0.409   0.592   0.774 )	0.000	No SIR Calc - 0 Inf	0.000	No SIR Calc - 0 Inf	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Number Device Days	1392	1062	1054	992	4500	1044	1239	1096	1180	4559	9059
Number of Infections	0	0	0	0	0	1	0	3	0	4	4
Number Predicted	0.698	0.452	0.473	0.578	2.201	0.440	0.643	0.845	0.729	2.657	4.858
SSI-Colon ( 0.324   0.539   0.754 )	No SIR Calc - 0 Inf	No SIR Calc - 0 Inf	No SIR Calc - 0 Inf	No SIR Calc - 0 Inf	0.000	No SIR Calc - 0 Inf	No SIR Calc - 0 Inf	No SIR Calc - 0 Inf	No SIR Calc - 0 Inf	1.505	0.823
Number of Procedures	24	18	18	20	80	15	24	32	25	96	176
Number of Infections	1	0	0	0	1	0	0	0	0	0	1
Number Predicted	0.051	0.022	0.127	0.081	0.281	0.151	0.079	0.118	0.119	0.467	0.748
SSI Hyst ( 0.000   0.363   0.726 )	No SIR Calc - Inf	No SIR Calc - 0 Inf	No SIR Calc - 0 Inf	No SIR Calc - 0 Inf	No SIR Calc - Inf	No SIR Calc - 0 Inf	No SIR Calc - 0 Inf	No SIR Calc - 0 Inf	No SIR Calc - 0 Inf	No SIR Calc - 0 Inf	No SIR Calc - Inf
Number of Procedures	6	3	12	10	31	15	10	12	14	51	82
Number of Infections	5	3	6	0	14	3	1	1	0	5	19
Number Predicted	5.737	4.469	4.773	2.299	17.278	3.101	3.419	2.861	2.907	12.288	29.566
C. Difficile ( 0.499   0.624   0.748 )	0.872	0.671	1.257	0.000	0.810	0.967	0.292	0.350	0.000	0.407	0.643
Number Patient Days	7997	6308	6066	6000	26371	6755	7588	7244	7587	29174	55545
Number of Infections	0	0	0	1	1	0	0	0	1	1	2
Number Predicted	0.259	0.304	0.301	0.206	1.070	0.227	0.3600	0.449	0.323	1.359	2.429
MRSA ( 0.400   0.582   0.763 )	No SIR Calc - 0 Inf	No SIR Calc - 0 Inf	No SIR Calc - 0 Inf	No SIR Calc - Inf	0.935	No SIR Calc - 0 Inf	No SIR Calc - 0 Inf	No SIR Calc - 0 Inf	No SIR Calc - Inf	0.736	0.823
Number Patient Days	8510	6948	6725	6645	28828	7297	8051	7865	8153	31366	60194

Red - SIR Greater Than Min Goal or No SIR Calculated with Infection(s)  
 (Actual Infections/Predicted Infections)

Yellow - SIR Between Min Goal and Goal  
 (Actual Infections/Predicted Infections)

Blue - SIR Between Goal and Max Goal  
 (Actual Infections/Predicted Infections)

Green - Meets or Exceeds Max Goal or ZERO Infections  
 (Actual Infections/Predicted Infections)

Standardized Infection Ratio (SIR) - Driven by need for a summary measure (replacing multiple rate comparisons) SIR calculations were added to NHSN in October 2010. • SIR adjusts for differences in levels of infection risk in your patients • SIR compares # of HAIs reported by your hospital with the "predicted" # based on NHSN data NHSN data (2015) used for national predicted values

AHRQ Patient Safety Indicators v2019 (PSI-90) - Medicare Claims Only (MIDAS)											
	1Q 2018	2Q 2018	3Q 2018	4Q 2018	CY 2018	1Q 2019	2Q 2019	3Q 2019	4Q 2019	CY 2019	2018 - 2019
<b>Post Operative PSI-90 Components</b>											
Event Trends											
<b>(PSI-9) PeriOP Hemorrhage or Hematoma</b>											
Num # Pts PeriOp Hemorrhage or Hematoma	2	0	0	0	2	0	0	0	0	0	2
Den (Total # of Surgical Discharges)	220	219	220	205	864	213	246	254	249	962	1826
Observed Rate	1 in 110	No Events	No Events	No Events	1 in 432	No Events	No Events	No Events	No Events	No Events	1 in 913
Expected Rate (National - 2.53)	1 in 396	1 in 396	1 in 396	1 in 396	1 in 396	1 in 396	1 in 396	1 in 396	1 in 396	1 in 396	1 in 396
<b>(PSI-10) PO Acute Kidney Injury Requiring Dialysis</b>											
Num (# of PO AKI w/Dialysis)	1	0	3	0	4	0	0	0	1	1	5
Den (Total # of Surgical Discharges)	136	137	162	135	570	133	119	117	132	501	1071
Observed Rate	1 in 136	No Events	1 in 54	No Events	1 in 143	No Events	No Events	No Events	1 in 132	1 in 501	1 in 215
Expected Rate (National 1.35)	1 in 741	1 in 741	1 in 741	1 in 741	1 in 741	1 in 741	1 in 741	1 in 741	1 in 741	1 in 741	1 in 741
<b>(PSI-11) PostOP Respiratory Failure</b>											
Num (# of PO Respiratory Failure)	0	2	1	0	3	0	0	0	0	0	3
Den (Total # of Surgical Discharges)	117	115	122	103	457	112	92	96	110	410	867
Observed Rate	No Events	1 in 58	1 in 122	No Events	1 in 153	No Events	No Events	No Events	No Events	No Events	1 in 289
Expected Rate (National - 7.35)	1 in 137	1 in 137	1 in 137	1 in 137	1 in 137	1 in 137	1 in 137	1 in 137	1 in 137	1 in 137	1 in 137
<b>(PSI-12) PeriOP PE/DVT</b>											
Num (# of PO PE/DVT)	2	2	0	0	4	1	1	2	0	4	8
Den (Total # of Surgical Discharges)	226	233	231	210	900	224	255	262	259	1000	1900
Observed Rate	1 in 113	1 in 117	No Events	No Events	1 in 225	1 in 224	1 in 255	1 in 131	No Events	1 in 250	1 in 238
Expected Rate (National - 3.85)	1 in 260	1 in 260	1 in 260	1 in 260	1 in 260	1 in 260	1 in 260	1 in 260	1 in 260	1 in 260	1 in 260
<b>(PSI-13) PO Sepsis</b>											
Num (# of PO Sepsis Cases)	0	0	1	0	1	0	0	1	1	2	3
Den (Total # of Elective Surgical Discharges)	126	129	154	131	540	126	118	115	131	490	1030
Observed Rate	No Events	No Events	1 in 154	No Events	1 in 540	No Events	No Events	1 in 115	1 in 131	1 in 245	1 in 344
Expected Rate (National - 5.09)	1 in 197	1 in 197	1 in 197	1 in 197	1 in 197	1 in 197	1 in 197	1 in 197	1 in 197	1 in 197	1 in 197
<b>(PSI-14) PO Wound Dehiscence</b>											
Num (# of Wound Reclosures)	0	0	0	0	0	0	0	0	0	0	0
Den (Total # of Abdominopelvic Surgeries)	33	42	37	43	155	35	42	50	59	186	341
Observed Rate	No Events	No Events	No Events	No Events	No Events	No Events	No Events	No Events	No Events	No Events	No Events
Expected Rate (National - 0.95)	1 in 1053	1 in 1053	1 in 1053	1 in 1053	1 in 1053	1 in 1053	1 in 1053	1 in 1053	1 in 1053	1 in 1053	1 in 1053
<b>Non Post Operative PSI-90 Components Event</b>											
<b>(PSI-3) Pressure Ulcer</b>											
Num (# of Stage III or IV Ulcers not POA)	0	0	0	1	1	0	1	0	0	1	2
Den (# of Medical/Surgical Discharges)	673	524	472	464	2133	528	551	539	557	2175	4308
Observed Rate	No Events	No Events	No Events	1 in 464	1 in 2133	No Events	1 in 551	No Events	No Events	1 in 2175	1 in 2154
Expected Rate (National - 0.52)	1 in 1924	1 in 1924	1 in 1924	1 in 1924	1 in 1924	1 in 1924	1 in 1924	1 in 1924	1 in 1924	1 in 1924	1 in 1924
<b>(PSI-6) Iatrogenic Pneumothorax</b>											
Num (# of Iatrogenic Pneumothorax)	1	0	1	1	3	0	0	0	0	0	3
Den (# of Medical/Surgical Discharges)	845	686	689	672	2892	769	845	846	869	3329	6221
Observed Rate	1 in 845	No Events	1 in 689	1 in 672	1 in 964	No Events	No Events	No Events	No Events	No Events	1 in 2074
Expected Rate (National - 0.27)	1 in 3704	1 in 3704	1 in 3704	1 in 3704	1 in 3704	1 in 3704	1 in 3704	1 in 3704	1 in 3704	1 in 3704	1 in 3704
<b>(PSI-8) In Hospital Fall with Hip Fracture</b>											
Num (# Cases Secondary Dx Hip Fracture)	1	0	0	0	1	0	0	0	0	0	1
Den (# of Medical/Surgical Discharges)	753	597	639	588	2577	677	735	724	780	2916	5493
Observed Rate	1 in 753	No Events	No Events	No Events	1 in 2577	No Events	No Events	No Events	No Events	No Events	1 in 5493
Expected Rate (National - 0.11)	1 in 9091	1 in 9091	1 in 9091	1 in 9091	1 in 9091	1 in 9091	1 in 9091	1 in 9091	1 in 9091	1 in 9091	1 in 9091
<b>(PSI-15) Unrecognized Abdominopelvic Accidental Puncture or Laceration</b>											
Num (# of Accidental Punctures/Lacerations)	0	0	0	0	0	1	0	0	0	1	1
Den (# of Cases w/Abdominopelvic Px)	126	111	113	119	469	119	135	136	152	542	1011
Observed Rate	No Events	No Events	No Events	No Events	No Events	1 in 119	No Events	No Events	No Events	1 in 542	1 in 1011
Expected Rate (National - 1.29)	1 in 776	1 in 776	1 in 776	1 in 776	1 in 776	1 in 776	1 in 776	1 in 776	1 in 776	1 in 776	1 in 776

Red - Observed Rate is Higher than the Expected Rate

Yellow - Rate of Incidence Less than Expected Rate but Greater than ZERO

Green - No Events

AHRQ Patient Safety Indicators v2019 (PSI-90) - All Payers (MIDAS)											
Post Operative PSI-90 Components	1Q	2Q	3Q	4Q	CY	1Q	2Q	3Q	4Q	CY	2018 -
Event Trends	2018	2018	2018	2018	2018	2019	2019	2019	2019	2019	2019
<b>(PSI-9) PeriOP Hemorrhage or Hematoma</b>											
Num # Pts PeriOp Hemorrhage or Hematoma	3	2	0	1	6	2	0	0	0	2	8
Den (Total # of Surgical Discharges)	434	420	435	395	1684	399	451	463	472	1785	3469
Observed Rate	1 in 145	1 in 210	No Events	1 in 395	1 in 281	1 in 200	No Events	No Events	No Events	1 in 893	1 in 434
Expected Rate (National - 2.53)	1 in 396	1 in 396	1 in 396	1 in 396	1 in 396	1 in 396	1 in 396	1 in 396	1 in 396	1 in 396	1 in 396
<b>(PSI-10) PO Acute Kidney Injury Requiring Dialysis</b>											
Num (# of PO AKI w/Dialysis)	1	0	3	0	4	0	0	0	1	1	5
Den (Total # of Surgical Discharges)	272	258	296	248	1074	247	208	209	242	906	1980
Observed Rate	1 in 272	No Events	1 in 99	No Events	1 in 269	No Events	No Events	No Events	1 in 242	1 in 906	1 in 396
Expected Rate (National 1.35)	1 in 741	1 in 741	1 in 741	1 in 741	1 in 741	1 in 741	1 in 741	1 in 741	1 in 741	1 in 741	1 in 741
<b>(PSI-11) PostOP Respiratory Failure</b>											
Num (# of PO Respiratory Failure)	0	2	1	3	6	0	0	1	0	1	7
Den (Total # of Surgical Discharges)	231	210	235	198	874	196	173	179	206	754	1628
Observed Rate	No Events	1 in 105	1 in 235	1 in 66	1 in 146	No Events	No Events	1 in 179	No Events	1 in 754	1 in 233
Expected Rate (National - 7.35)	1 in 137	1 in 137	1 in 137	1 in 137	1 in 137	1 in 137	1 in 137	1 in 137	1 in 137	1 in 137	1 in 137
<b>(PSI-12) PeriOP PE/DVT</b>											
Num (# of PO PE/DVT)	3	2	1	1	7	1	2	2	2	7	14
Den (Total # of Surgical Discharges)	442	442	454	403	1741	413	465	478	488	1844	3585
Observed Rate	1 in 148	1 in 221	1 in 454	1 in 403	1 in 249	1 in 413	1 in 233	1 in 239	1 in 244	1 in 264	1 in 257
Expected Rate (National - 3.85)	1 in 260	1 in 260	1 in 260	1 in 260	1 in 260	1 in 260	1 in 260	1 in 260	1 in 260	1 in 260	1 in 260
<b>(PSI-13) PO Sepsis</b>											
Num (# of PO Sepsis Cases)	0	0	1	0	1	0	0	2	2	4	5
Den (Total # of Elective Surgical Discharges)	255	241	280	236	1012	231	198	205	239	873	1885
Observed Rate	No Events	No Events	1 in 280	No Events	1 in 1012	No Events	No Events	1 in 103	1 in 120	1 in 219	1 in 377
Expected Rate (National - 5.09)	1 in 197	1 in 197	1 in 197	1 in 197	1 in 197	1 in 197	1 in 197	1 in 197	1 in 197	1 in 197	1 in 197
<b>(PSI-14) PO Wound Dehiscence</b>											
Num (# of Wound Reclosures)	0	0	0	0	0	0	0	0	0	0	0
Den (Total # of Abdominopelvic Surgeries)	98	115	106	109	428	79	99	131	127	436	864
Observed Rate	No Events	No Events	No Events	No Events	No Events	No Events	No Events	No Events	No Events	No Events	No Events
Expected Rate (National - 0.95)	1 in 1053	1 in 1053	1 in 1053	1 in 1053	1 in 1053	1 in 1053	1 in 1053	1 in 1053	1 in 1053	1 in 1053	1 in 1053
Non Post Operative PSI-90 Components	1Q	2Q	3Q	4Q	CY	1Q	2Q	3Q	4Q	CY	2018 -
Event Trends	2018	2018	2018	2018	2018	2019	2019	2019	2019	2019	2019
<b>Pressure Ulcer (PSI-3)</b>											
Num (# of Stage III or IV Ulcers not POA)	0	0	0	1	1	0	2	0	0	2	3
Den (# of Medical/Surgical Discharges)	1193	960	893	870	3916	946	958	957	961	3822	7738
Observed Rate	No Events	No Events	No Events	1 in 870	1 in 3916	No Events	1 in 479	No Events	No Events	1 in 1911	1 in 2580
Expected Rate (National - 0.52)	1 in 1924	1 in 1924	1 in 1924	1 in 1924	1 in 1924	1 in 1924	1 in 1924	1 in 1924	1 in 1924	1 in 1924	1 in 1924
<b>(PSI-6) Iatrogenic Pneumothorax</b>											
Num (# of Iatrogenic Pneumothorax)	2	0	2	1	5	0	0	0	0	0	5
Den (# of Medical/Surgical Discharges)	1577	1317	1342	1287	5523	1408	1495	1554	1507	5964	11487
Observed Rate	1 in 789	No Events	1 in 671	1 in 1287	1 in 1105	No Events	No Events	No Events	No Events	No Events	1 in 2298
Expected Rate (National - 0.27)	1 in 3704	1 in 3704	1 in 3704	1 in 3704	1 in 3704	1 in 3704	1 in 3704	1 in 3704	1 in 3704	1 in 3704	1 in 3704
<b>(PSI-8) In Hospital Fall with Hip Fracture</b>											
Num (# Cases Secondary Dx Hip Fracture)	1	0	0	0	1	0	0	0	0	0	1
Den (# of Medical/Surgical Discharges)	1406	1171	1233	1140	4950	1251	1303	1356	1364	5274	10224
Observed Rate	1 in 1406	No Events	No Events	No Events	1 in 4950	No Events	No Events	No Events	No Events	No Events	1 in 10224
Expected Rate (National - 0.11)	1 in 9091	1 in 9091	1 in 9091	1 in 9091	1 in 9091	1 in 9091	1 in 9091	1 in 9091	1 in 9091	1 in 9091	1 in 9091
<b>(PSI-15) Unrecognized Abdominopelvic Accidental Puncture or Laceration</b>											
Num (# of Accidental Punctures/Lacerations)	0	0	0	1	1	1	0	0	0	1	2
Den (# of Cases w/Abdominopelvic Px)	257	256	248	248	1009	247	259	294	276	1076	2085
Observed Rate	No Events	No Events	No Events	1 in 248	1 in 1009	1 in 247	No Events	No Events	No Events	1 in 1076	1 in 1043
Expected Rate (National - 1.29)	1 in 776	1 in 776	1 in 776	1 in 776	1 in 776	1 in 776	1 in 776	1 in 776	1 in 776	1 in 776	1 in 776
Red - Observed Rate is Higher than the Expected Rate			Yellow - Rate of Incidence Less than Expected Rate but Greater than ZERO				Green - No Events				