

**Table 3: Hip Prosthesis (Replacement)
Surgical Site Infection (SSI)
Standardized Infection Ratio (SIR) Tables
January 1, 2008 – November 30, 2008**

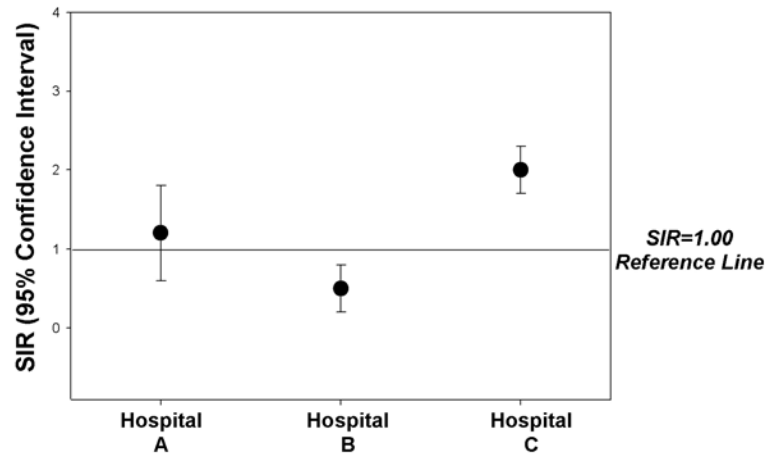
See [Definition of Terms](#) on the [Healthcare Acquired Infections Report](#) website for a more in-depth explanation of Standardized Infection Ratios.

Standardized Infection Ratio: The Standardized Infection Ratio (SIR) is a summary measure used to compare the surgical site infection (SSI) experience among a group of reported procedures to that of a standard population. It is the *observed* number of infections divided by the *expected* number of infections.

For HAI reports, the standard population comes from NHSN data reported from all hospitals using the system. “Expected”^{*} is based on historical data for those procedures at the national level.

Confidence Intervals (CIs)

Because we can never obtain a hospital’s true “population” data (e.g. all patients for all time), we use statistical procedures to “estimate” various measurements using “sample” data. Since estimates have “variability” we use 95% confidence limits (or intervals) to describe the variability around the estimate. The confidence interval (CI) gives us the range within which the TRUE value will fall 95% of the time, assuming that the sample data are reflective of the true population. Below is a graphical example of what CIs would look like if they were in graph form.



Graph Interpretation:

Hospital A: If the 95% confidence interval crosses over the reference line of 1.0, we conclude that the hospital's infection rate is similar (not significantly different) from "expected" (predicted).

Hospital B: If the 95% confidence interval falls completely below the reference line of 1.0, we conclude that the hospital's infection rate is significantly lower than "expected" (predicted).

Hospital C: If the 95% confidence interval falls completely above the reference line of 1.0, we conclude that the hospital's infection rate is significantly higher than "expected" (predicted).

All conclusions are based on the assumption that the hospital's patient population is similar to the NHSN pooled patient population.

***Please note that the "expected" number of infections does not mean that you expect to get an infection when you go into the hospital for surgery. The goal is for the hospital is to prevent all HAIs.**

Table 3
Surgical Site Infection (SSI) Standardized Infection Ratio (SIR)
Reportable Period: January 1, 2008 – November 30, 2008
Procedure: Hip Prosthesis (Replacement)

Upstate Region

Abbeville, Anderson, Cherokee, Greenville, Greenwood, Laurens, Oconee, Pickens, Spartanburg, Union

Hospital	Observed (O) No. of SSI	No. of Procedures ^a	Statistically “Expected” (E) No. of SSI ^b	Hospital SIR = O/E	95% Confidence Interval (CI)		Statistical Interpretation ^c
					Lower	Upper	
Abbeville Area Medical Center	1	15	0.2	5.35	0.13	29.81	Not Different
AnMed Health Medical Center	0	137	2.0	0.00	0.00	1.81	Not Different
Cannon Memorial Hospital	0	10	0.2	0.00	0.00	21.50	Not Different
Greenville Memorial Hospital	5	129	2.4	2.07	0.67	4.82	Not Different
Greer Memorial Hospital	1	87	1.5	0.65	0.02	3.64	Not Different
Hillcrest Memorial Hospital	0	62	0.8	0.00	0.00	4.39	Not Different
Laurens County Healthcare System	5	57	0.9	5.87	1.91	13.71	Higher
Mary Black Memorial Hospital	2	91	1.5	1.31	0.16	4.72	Not Different
Oconee Memorial Hospital	2	90	1.2	1.69	0.20	6.10	Not Different
Palmetto Baptist Medical Center Easley	1	55	0.9	1.08	0.03	6.01	Not Different
Patewood Memorial Hospital	3	207	2.6	1.16	0.24	3.39	Not Different
Self Regional Healthcare	0	201	3.2	0.00	0.00	1.15	Not Different
Spartanburg Regional Medical Center	1	280	4.5	0.22	0.01	1.25	Not Different
St. Francis Downtown	4	113	1.7	2.40	0.65	6.15	Not Different
St. Francis Eastside	5	344	3.9	1.28	0.42	2.99	Not Different
Upstate Carolina Medical Center	0	7	0.1	0.00	0.00	41.13	Not Different
Wallace Thomson Hospital	0	9	0.2	0.00	0.00	23.83	Not Different

- a. Too few procedures performed. Reporting on too few procedures is a risk to patient confidentiality. If there are five (5) or fewer procedures, the report for the number of infections will be deferred until there are more central line days.
- b. Please note that the “expected” number of infections does not mean that you expect to get an infection when you go into the hospital for surgery. The goal is for the hospital is to prevent all HAIs.
- c. SC Hospital SIR Statistical Interpretation (Comparison to the standard population means that the SIR is compared to one (1) where the observed equals the expected (Observed = Expected)
 - Not different = Statistically not different than the standard population
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Table 3
Surgical Site Infection (SSI) Standardized Infection Ratio (SIR)
Reportable Period: January 1, 2008 – November 30, 2008
Procedure: Hip Prosthesis (Replacement)

Midlands Region

Aiken, Allendale, Bamberg, Barnwell, Calhoun, Chester, Chesterfield, Darlington, Dillon, Fairfield, Florence, Kershaw, Lancaster, Lee, Lexington, Marion, Marlboro, Newberry, Orangeburg, Richland, Sumter, York

Hospital	Observed (O) No. of SSI	No. of Procedures ^a	Statistically “Expected” (E) No. of SSI ^b	Hospital SIR = O/E	95% Confidence Interval (CI)		Statistical Interpretation ^c
					Lower	Upper	
Aiken Regional Medical Center	1	95	1.4	0.73	0.02	4.08	Not Different
Carolina Pines Regional Medical Center	1	25	0.4	2.45	0.06	13.64	Not Different
Carolinas Hospital System	0	101	1.6	0.00	0.00	2.31	Not Different
Chester Regional Medical Center	0	6	0.1	0.00	0.00	36.60	Not Different
Chesterfield General Hospital	*	3	*	*	*	*	*
Clarendon Memorial Hospital	0	8	0.1	0.00	0.00	25.41	Not Different
Kershaw County Medical Center	1	69	1.1	0.89	0.02	4.98	Not Different
Lake City Community Hospital	*	4	*	*	*	*	*
Lexington Medical Center	1	178	4.0	0.25	0.01	1.40	Not Different
Marion County Medical Center	0	13	0.3	0.00	0.00	13.66	Not Different
McLeod Medical Center Pee Dee	1	186	4.0	0.25	0.01	1.39	Not Different
Newberry County Memorial Hospital	1	55	0.5	2.14	0.05	11.90	Not Different
Palmetto Health Baptist	0	149	2.0	0.00	0.00	1.86	Not Different

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					Lower	Upper	
Palmetto Health Richland	9	345	5.3	1.70	0.78	3.22	Not Different
Piedmont Medical Center	0	114	1.5	0.00	0.00	2.39	Not Different
Providence Hospital Downtown	0	53	0.9	0.00	0.00	4.32	Not Different
Providence Hospital Northeast	2	339	3.8	0.53	0.06	1.90	Not Different
Regional Medical Center Of Orangeburg/Calhoun Counties	0	60	0.9	0.00	0.00	4.03	Not Different
Springs Memorial Hospital	2	35	0.5	3.69	0.45	13.34	Not Different
Tuomey	2	51	0.8	2.35	0.28	8.50	Not Different

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Surgical Site Infection (SSI) Standardized Infection Ratio (SIR)
Reportable Period: January 1, 2008 – November 30, 2008
Procedure: Hip Prosthesis (Replacement)

Coastal Region

Beaufort, Berkeley, Charleston, Colleton, Dorchester, Georgetown, Hampton, Horry, Jasper, Williamsburg

Hospital	Observed (O) No. of SSI	No. of Procedures ^a	Statistically "Expected" (E) No. of SSI ^b	Hospital SIR = O/E	95% Confidence Interval (CI)		Statistical Interpretation ^c
					Lower	Upper	
Bon Secours St. Francis Xavier Hospital	0	18	0.3	0.00	0.00	13.00	Not Different
Coastal Carolina Medical Center	0	10	0.2	0.00	0.00	15.03	Not Different
Colleton Medical Center	1	23	0.3	3.02	0.08	16.85	Not Different
Conway Medical Center	0	42	0.6	0.00	0.00	5.70	Not Different
East Cooper Regional Medical Center	0	27	0.4	0.00	0.00	9.03	Not Different
Georgetown Memorial Hospital	0	44	0.7	0.00	0.00	5.07	Not Different
Grand Strand Regional Medical Center	1	213	3.4	0.29	0.01	1.62	Not Different
Hampton Regional Medical Center	*	1	*	*	*	*	Not Different
Hilton Head Regional Medical Center	0	54	0.7	0.00	0.00	5.13	Not Different
Loris Healthcare System	0	15	0.3	0.00	0.00	12.38	Not Different
MUSC Medical Center	5	234	3.5	1.41	0.46	3.29	Not Different
Roper Hospital Inc.	10	396	5.1	1.96	0.94	3.60	Not Different
Summerville Medical Center	2	62	1.2	1.62	0.20	5.86	Not Different
Trident Medical Center	2	146	2.6	0.78	0.09	2.82	Not Different

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Hospital	Observed (O) No. of SSI	No. of Procedures ^a	Statistically “Expected” (E) No. of SSI ^b	Hospital SIR = O/E	95% Confidence Interval (CI)		Statistical Interpretation ^c
					Lower	Upper	
Waccamaw Community Hospital	0	93	1.7	0.00	0.00	2.19	Not Different
Grand Strand Regional Medical Center	1	213	3.4	0.29	0.01	1.62	Not Different
Hampton Regional Medical Center	*	1	*	*	*	*	Not Different
Hilton Head Regional Medical Center	0	54	0.7	0.00	0.00	5.13	Not Different
Loris Healthcare System	0	15	0.3	0.00	0.00	12.38	Not Different
MUSC Medical Center	5	234	3.5	1.41	0.46	3.29	Not Different
Roper Hospital Inc.	10	396	5.1	1.96	0.94	3.60	Not Different
Summerville Medical Center	2	62	1.2	1.62	0.20	5.86	Not Different
Trident Medical Center	2	146	2.6	0.78	0.09	2.82	Not Different
Waccamaw Community Hospital	0	93	1.7	0.00	0.00	2.19	Not Different

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