

**Table 3: Adult Surgical Critical Care Units  
Central Line Associated Bloodstream Infection (CLABSI)  
Standardized Infection Ratio (SIR) Table  
July 1, 2007 – November 30, 2008**

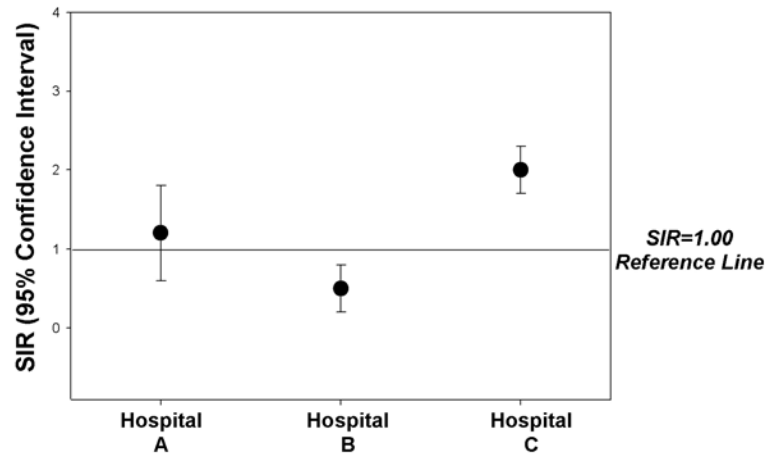
See [Definition of Terms](#) on the [Healthcare Acquired Infections Report](#) website for a more in-depth explanation of Standardized Infection Ratios.

**Standardized Infection Ratio:** The Standardized Infection Ratio (SIR) is a summary measure used to compare the central line associated bloodstream infection (CLABSI) experience among a group of reported locations 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**  
**Central Line Associated Bloodstream Infection (CLABSI) Standardized Infection Ratio (SIR)**  
**Reportable Period: July 1, 2007 – November 30, 2008**  
**Location: Adult Surgical Critical Care Unit**

## Statewide

Hospital	Observed (O) No. of CLABSI	No. of Central Line Days	Statistically “Expected” (E) No. of CLABSI <sup>a</sup>	Hospital SIR = O/E	95% Confidence Interval (CI)		Statistical Interpretation <sup>b</sup>
					Lower	Upper	
<b>Carolinas Hospital System</b>	5	1160	2.67	1.87	0.61	4.37	Not Different
<b>Grand Strand Regional Medical Center</b>	5	1444	3.32	1.51	0.49	3.51	Not Different
<b>McLeod Medical Center – Pee Dee</b>	0	2410	5.54	0.00	0.00	0.67	Lower
<b>Piedmont Medical Center</b>	0	145	0.33	0.00	0.00	11.18	Not Different
<b>Spartanburg Regional Medical Center</b>	6	2943	6.77	0.89	0.33	1.93	Not Different

- a. 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.
- b. 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
  - Lower = Statistically lower than the standard population
  - Higher = Statistically higher than the standard population