



Health Care Quality Performance (HCQP) Program

HOSPITAL-ACQUIRED INFECTIONS AND PREVENTION ADVISORY SUBCOMMITTEE

8:00-9:00am, September 14, 2009
HEALTH, Room 302

Goals/Objectives

- To discuss HAI work to date and make policy recommendations for pending and upcoming reports

Voting Members

- | | | |
|---|---|--|
| <input checked="" type="checkbox"/> Utpala Bandy, MD | <input type="checkbox"/> Andrew Komensky, RN | <input checked="" type="checkbox"/> Lee Ann Quinn, RN, BS, CIC |
| <input checked="" type="checkbox"/> Margaret Cornell, MS, RN | <input checked="" type="checkbox"/> Pat Mastors | <input checked="" type="checkbox"/> Janet Robinson, RN, Med, CIC |
| <input checked="" type="checkbox"/> Robert Crausman, MD | <input checked="" type="checkbox"/> Leonard Mermel, DO, ScM | <input checked="" type="checkbox"/> Nancy Vallande, MSM, MT, CIC |
| <input checked="" type="checkbox"/> Marlene Fishman, MPH, CIC | <input checked="" type="checkbox"/> Kathleen O'Connell, RN | <input checked="" type="checkbox"/> Sam Viner-Brown, MS |
| <input checked="" type="checkbox"/> Julie Jefferson, RN, MPH, CIC | <input type="checkbox"/> Harold Picken, MD | |
| <input type="checkbox"/> Diane Kitson-Clark, RN, MSN, CIC | <input type="checkbox"/> Aurora Pop-Vicas, MD | |

Time

Topic/Notes

- | | |
|--------|---|
| 8:00am | <p>Welcome & Meeting Objective
<i>Leonard Mermel, DO, ScM (Co-Chair)</i>
<i>Samara Viner-Brown, MS (Co-Chair)</i></p> <ul style="list-style-type: none"> – Sam conducted roll call. She noted that Gloria Williams is no longer available to participate on the Subcommittee, and will work with Len to identify someone to take her place at future meetings. – Len reviewed the meeting objectives, and recognized Melinda Thomas (guest) for her significant role in obtaining the CDC HAI ARRA grant (below). |
| 8:10am | <p>Administrative Updates
<i>Samara Viner-Brown, MS</i></p> <ul style="list-style-type: none"> – CDC HAI ARRA grant (stimulus funds): <ul style="list-style-type: none"> • Sam shared an update on the grant application discussed at the previous meeting. HEALTH was awarded the planning portion of the grant (Part A) for \$200,000 over 17 months. The first deadline is an HAI plan, due 1/1/10, which will build on the Subcommittee's work and formalize it. – CDC Epidemiology and Laboratory Capacity for Infectious Diseases (ELC) grant: <ul style="list-style-type: none"> • Sam also shared information about a second grant opportunity, due 9/14/09. The grant is part of a larger epidemiology submission through Dr. Bandy's Center, but includes a 12-month, \$150,000 portion dedicated to convening an HAI Collaborative focused on MRSA and C-diff. This work would create a |

Collaborative modeled on the ICU Collaborative, bringing hospitals together to focus on HAI and also providing technical/clinical support for using the NHSN MDRO module to collect and monitor data.

- Dr. Bandy will be advised in November if the grant request is approved, and will inform the Subcommittee at that time.
- Sam suggested lengthening the meeting from 60 to 90 minutes, and decreasing the frequency slightly to approximately monthly; this will ensure that there is sufficient time to review topics completely and identify next steps.
- **Action items:**
 - Update and share the CDC HAI ARRA proposal abstract (Melinda and Sam)
 - Share information about the ELC grant (Sam)
 - Identify and distribute an upcoming meeting schedule (Rosa and Sam)

8:30am

Data Updates

Rosa Baier, MPH

- Rosa provided updates on recent conversations with Dr. John Fulton, who is following up with hospitals (and other providers) on the employee influenza vaccination data. Dr. Fulton emailed the hospitals on Friday with the following:
 - Data collection reminder: Many hospitals have not yet submitted their 2008-2009 flu season data to HEALTH, despite the June deadline.
 - 2009-2010 data collection forms:
- The group discussed the pros/cons of mandating employee influenza vaccination for staff, similar to New York's mandate. Suggestions included making vaccination a condition of employment, including it as part of the credentialing or licensing process, etc.
- **Recommendation:** Sam and Rosa will carry forward the Subcommittee's recommendation that HEALTH begin determining how to mandate employee influenza vaccination. A first step might be mandatory declination reporting.
- Rosa also indicated that a new quarter of SCIP data are now available on Hospital Compare, and the SCIP reports on HEALTH's Web site will be updated accordingly. As with all recurring reports, the first reports are shared with the Subcommittee and Steering Committee for preview prior to publication; subsequent reports are updated and posted automatically on the Web site.

8:40am

CLABSI Graphs

Rosa Baier, MPH

- The Program has not previously reported incidence rates. As discussed previously, the methods for comparing providers' incidence are different from those used for prevalence measures. For example, we look at minimum *numerator* sizes, not minimum denominator sizes.
- As a result, Rachel Voss conducted an environmental scan, and determined that Len's suggestion (per the CDC) of reporting incidence rates using Standardized Incidence Ratios (SIRs) and Confidence Intervals (CIs) was consistent with other states' efforts. Some states use symbols to categorize scores.
- The Hospital Subcommittee recently approved a similar method for the Hospital-Acquired Pressure Ulcer Report (due this week), which combines the use of SIRs, 90% CIs, and diamonds (similar to other Program reports). Rosa suggested adapting the

same methodology here, for consistency between hospital reports. The group reviewed a sample ICU table (there would be one per ICU type) and Technical Page.

- The group discussed how to indicate what the overall goal is—i.e., that CLABSI are ‘never events’ and should be at 0%—and also how best to describe the “expected” rates in consumer-friendly language (6th grade reading level).
- **Recommendation:** The group approved the draft report format, with several suggested edits that will be incorporated into the preview version distributed prior to posting on HEALTH’s Web site.
- **Action items:**
 - Add language reflecting what the rates should be (Rosa)
 - Modify the 2nd footnote to reference national benchmark cases (Rosa)
 - Distribute the populated data report for preview, when the remaining Q2 2009 data are received from two outstanding hospitals (Rosa)
 - Research when the national benchmarks are updated (Rachel)
 - Amend the draft press release to include the CLABSI reports (Sam)

8:55am

Action Items & Next Steps

Leonard Mermel, DO, ScM

Samara Viner-Brown, MS

- Please see above action items.
- The next meeting will devote time to MRSA measure development, with the hope that a lengthened meeting will better facilitate discussion and decision making.
- **Next meeting:** To be scheduled



Health Care Quality Performance (HCQP) Program

CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS (CLABSI)

Data Report
April-June 2009

Hospital-acquired CLABSIs for Intensive Care Units (ICUs) are [reported on the Department of Health’s \(HEALTH’s\) Web site](#) as part of the HCQP Program’s hospital reporting work. You can learn more about the measures—including their data source, how the rates and diamonds are calculated, and why this information is important—by reading the [Technical Page](#). With questions about a hospital’s performance, please contact the hospital directly by clicking on each hospital’s name.

The diamonds show you how hospitals compare to one another

Figure X: CLABSI Rate Among [Type of ICU]

Hospital ICU (Alphabetical)	CLABSI (Number)	Rate* (Percent)	Standardized Incidence Ratio (SIR) [†]	Diamonds [§]
Hospital A	X	X%	X.X	◆◆
Hospital B	X	X%	X.X	◆◆
Hospital C	X	X%	X.X	◆◆
Hospital D	X	X%	X.X	◆◆

* Incidence for the 3-month time frame included in this report

† Compares the number of CLABSI to what is mathematically “expected.” Scores below 1.0 are less (better) than expected and scores above 1.0 are higher (worse) than expected.

§ Assigned based on how different each hospital’s SIR is from 1.0, which is what is “expected”:

- ◆◆◆ Better than expected
- ◆◆ About the same as expected
- ◆ Worse than expected

The statistical methods are described in the [Technical Page](#).



Health Care Quality Performance (HCQP) Program

CENTRAL LINE ASSOCIATED BLOODSTREAM INFECTIONS (CLABSI) RATES

Technical Page

The CLABSI rates are [reported on the Department of Health's \(HEALTH's\) Web site](#) as part of the HCQP Program's Hospital-Acquired Infections work. The information on this page provides additional details about the measure, including its data source, how it is calculated, and why it is important.

Data Source

Rhode Island hospitals collect information about their CLABSI rates for each intensive care unit (ICU) and share it with the Department of Health for reporting. Many Rhode Island hospitals have been collecting this information for several years as part of Rhode Island's ICU Collaborative. The rates are based on bloodstream infections that occur in the intensive care unit (ICU). For CLABSI rates, *lower* numbers are better.

Measure Calculation

The information in this section is for people who want details about the data calculations. For each hospital, two numbers are calculated: (1) CLABSI incidence, and (2) a Standardized Incidence Ratio (SIR). Only the SIR is included in the public report, but incidence is needed to calculate each hospital's SIR.

1. **CLABSI incidence** is calculated as follows:

$$\text{Rate} = \frac{(\text{patients who develop a CLABSI})}{(\text{number of central line days})} \times 1,000$$

The number of patients who develop a CLABSI is the **numerator**. The number of central line days (the number of days when patients could have developed an infection) is the **denominator**. The **incidence rate** is the numerator divided by the denominator multiplied by 1,000. Each hospital's rate is compared to the rates of other ICUs nationally that provide similar care using SIRs (below and p. 2). If there are too few central line days in the denominator, no rate is calculated for that ICU.

2. If there is a national comparison for a hospital ICU type, incidence rates are used to calculate **SIRs**, which are:

$$\text{SIR} = \frac{(\text{observed cases})}{(\text{expected cases})}$$

The **observed cases** are the number of CLABSIs (incidence rate numerator) and the **expected cases** are the number we expect to see if the average national CLABSI incidence rate for that ICU type is applied to each hospital ICU's patient population (the incidence rate's denominator). *Lower* scores are better. A SIR score less than 1.0 means the incidence is better than expected.

For hospitals with SIRs calculated, each hospital's SIR is included in the public report and helps to determine its diamond category (see p. 2).

Diamond Categories

The diamond categories help you understand how each hospital's incidence (SIR score) compares to its expected incidence (which is determined based on the average performance of ICUs nationally that provide similar care):

- ◆ Worse than expected
- ◆◆ About the same as expected
- ◆◆◆ Better than expected

These categories are determined mathematically to ensure that the differences are meaningful. In detailed terms, this means that hospitals with either one diamond (◆) or three diamonds (◆◆◆) have CLABSI incidence rates that are “statistically significantly different” from their expected rates.

If there is no national comparison for a hospital ICU type, then neither a SIR nor diamonds are calculated.

Diamond Calculation

The information in this section is for people who want statistical details about the diamond calculations. The diamond categories are determined based on hospitals’ SIRs (see p. 1). A SIR less than 1.0 means the hospital’s rate is lower (better) than expected; a SIR greater than 1.0 is higher (worse) than expected. The margin of error, or “90% confidence interval,” determines whether each SIR is meaningfully different from 1.0. Diamonds are assigned as follows:

- One diamond (◆): If the SIR falls above 1.0 (is worse than expected) AND its margin of error, or “90% confidence interval,” does not include 1.0, then the hospital has one diamond.
- Two diamonds (◆◆): If the 90% confidence interval for the score includes the Rhode Island average, then the hospital’s score is not accurate enough to categorize it as better or worse than other hospitals. The hospital has two diamonds.
- Three diamonds (◆◆◆): If the SIR falls below 1.0 (is better than expected) AND its margin of error, or “90% confidence interval,” does not include 1.0, then the hospital has three diamonds. **Note:** The exception is when the hospital does not have any CLABSIs (where 0 is the best performance). When this occurs, a hospital is automatically given three diamonds.

Measure Information [\(adapted from the National Healthcare Safety Network\)](#)

Measure	Why is this information important?
Central Line Associated Bloodstream Infection (CLABSI) Incidence and SIR score	<p>This measures primary bloodstream infections in patients that had a central line placed within (less than) 48 hours before the development of the infection. Central line infections are important because they are the most common bloodstream infections. These infections can harm patients and also because CLABSIs are considered reasonably preventable with proper care of patients’ central lines.</p> <p>For the CLABSI SIR, which compares actual incidence to what is “expected,” <i>lower</i> scores are better. A SIR score less than 1.0 means the incidence is better than expected.</p>

Definitions

Word or Phrase	What does this mean?
Bloodstream infection	A bloodstream infection occurs when bacteria enter patients’ blood, for example through their central line.
Central line	A “central line” is a special kind of IV or flexible tube that connects directly to a patient’s heart or a major blood vessel. It can be used to draw blood or give patients medication or nutrition.
Intensive Care Unit (ICU)	A hospital unit that cares for critically ill patients.
Rate	A score that reflects new (hospital-acquired) infections over a period of time; for the CLABSI infection rates, three months.