Inpatient Quality Reporting Program

Support Contractor

Hospital Value-Based Purchasing Program

Questions and Answers

Moderator:
Bethany Wheeler, BS
Hospital VBP Program Support Contract Lead, HSAG

Speakers:
Maggie Dudeck, MPH, CPH
Epidemiologist, CDC

Brenda Quint Gable, RHIT, MPA-HH
Quality Specialist, Quality Management, OHSU

Lori Ellingson, MSN, RN, CNS, NEA-BC, AOCN
Division Director, Surgical and Oncological Nursing, OHSU

Ellen Adrian, RN
Nurse Manager of IV Therapy and Apheresis, OHSU

Robin Roach, MS, RN, CIC
Infection Prevention & Control Manager, OHSU

Dan Sabourin, RN, MBA
Director Education Resource Center/Occupational Health and Safety
Lake regional Health System

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Question 1: Lake Regional, what is the cost of the CV Cart?

Answer 1: The carts were a little over $1,000 each; custom colors and made in U.S.A. We only use them to insert lines on the floors. Anesthesia stocks, cleans, and covers them for each use.

Question 2: Lake Regional Hospital, why would you put CVC caps in place if your rate is 0?

Answer 2: A: Fantastic question! After we hit 0 for such a long time, we decided that even 1 CLABSI was too much. However, as you pointed out, it is difficult to convince an outlay of cash for such a small benefit.

Question 3: Dan, is your Central Line Checklist part of the permanent patient chart or are they collected by the Quality department for audits?

Answer 3: Great question! If it were up to me, this document would be a permanent part of the chart. However, at this time, it is not. I hope The Joint Commission makes it a future requirement.

Question 4: What kind of patient safety culture education was done at Lake Regional that led to continuous monitoring, regardless of zero %

Answer 4: We monitored the use of the checklist until it became as routine as taking vital signs. Honestly, this took many months and multiple conversations to make it happen. It was one of our most difficult interventions, but well worth the effort.

Question 5: Lake Regional, do you use the CVC Start carts in your OR for surgical patients?

Answer 5: Good question. We use dedicated stands in those areas instead.

Question 6 Dan from Lake Regional, what is your policy on drawing lab work from central lines? We have found this to be a problem source of CLABSI's, at times.

Answer 6: Yes, we do allow blood draws from central lines. Blood cultures can be easily contaminated, though. We insist on one from CVC and one from peripheral line. That helped tremendously.

Question 7: OHSU, could we have a copy of your tools, espeically the Case Review Form?

Answer 7: Yes, contact Lori Ellingson (ellinglo@ohsu.edu).

Question 8: Can you ask Maggie to talk about a facility HAI SIR –.adding SIR for CLABSI, CAUTI, etc.?

Answer 8: Thank you for your question! Discussion of a "composite" HAI SIR is a bit outside the scope for today's presentation. However, I'm happy to answer your question via email. Please send to nhsn@cdc.gov, and in the subject or body of the email, please specify "Attn: Maggie."

Question 9: Does CMS take into account of p value or 95CI for CLABSI and CAUTI data?

Answer 9: Thank you for your question. CDC submits the 95% CI to CMS for all of the HAI SIR measures.

Question 10: You said you are giving CMS the 95% interval. It's two numbers. How you calculate which one you give?

Answer 10: Thank you for your question. The interval itself is used to determine significance of your hospital's SIR compared to a value of 1 (where 1 is the equivalent of # observed = # expected). In other words, both values in the 95% CI are needed in order to make any conclusions on the significance of the SIR.

Question 11: Maggie, would you please list which HAIs will be affected for the updated baselines, e.g., will SSI baselines be updated?

Answer 11: At a minimum, the new baseline would be applied for CLABSI, CAUTI, SSI, and LabID (MRSA bacteremia and CDI).

Question 12: When will the baseline data will be updated to be more current?

Answer 12: Data reported for 2015 will be used as the new baseline for future SIRs.

Question 13: Can we obtain calendar 2014 national pooled means and SIR percentiles? We want to know how the national performance is trending.

Answer 13: Thank you for the question, Cynthia. Are you referring to data published solely by CDC? If so, we will begin analyzing 2014 data at the beginning of this summer. We most recently published 2013 device-associated rates, as well as 2013 National and State SIRs. The SIRs can be found in the National and State HAI Progress Report: http://www.cdc.gov/hai/progress-report/index.html.

Question 14: Maggie, please clarify, I missed something. What cannot be simply totaled because the ICUs are different; slides eight and nine compared to slides eleven and twelve where totals are used?

Answer 14: The SIRs for each unit cannot be totaled. In addition, a total overall rate should not be calculated using the total # infections and total # device days, as the overall rate would not be a risk-adjusted measure.

Question 15: All presenters, has anyone used alcohol caps (Swabcaps) as an infection prevention strategy

Answer 15: We have not implemented the use of alcohol caps at this point. We have had several discussions about them in our CLABSI prevention

meetings. As of now, there is not strong evidence to support the use of these types of devices in preventing CLABSI, and as the cost is significant, we decided to implement other evidence-based strategies first. We are keeping our eye on new studies regarding the use of the alcohol cap.

Question 16: OHSU, what type of drape did you choose for your custom PICC insertion kit?

Answer 16: We use a full body fenestrated drape and a sterile absorbent drape for under the arm.

Question 17: OHSU, what was included in the 90-day Rapid Plan? Can you share the forms?

Answer 17: The 90-day Rapid Cycle Improvement plan was put together to pull together a multidisciplinary team with the primary focus to put together comprehensive structures and processes to improve our CLABSI rates. The team developed an educational plan for insertion and for care and maintenance, as well as patient education. We attended to the National Patient Safety Goals related to CLABSI prevention. We also assured that nurse managers were getting daily reports out of our electronic medical record so that they could address the need for the line with the providers.

Question 18: OHSU, would you please share your CLABSI Unit Review Form and the Audit Form with the group? Thank you!

Answer 18: The form is attached.

Question 19: OHSU, do you not consider midlines to be central lines? CDC, aren't midlines defined as central lines as of 1/1/15?

Answer 19: The January 2015 CDC Device-Associated Module/BSI defines a central line as an “intravascular catheter that terminates at or close to the heart or in one of the great vessels of the chest.” Midline catheters terminate no further than the axillary vein and so are not considered central venous catheters, as they do not enter into the chest. We treat them as we would a peripheral venous catheter.

Question 20: OHSU, please elaborate on separating CVC and Foley placement.

Answer 20: We used to place central lines in the OR simultaneously with the Foley for time-saving. We were only using a half drape on the chest. As part of the process improvement, we changed this, and [are] now doing Foley placement first and CVC following [a] full body drape.

Question 21: OHSU, what type of patient do you place a midline on versus PICC?

Answer 21: We use the midline catheter – either 18 or 20g, 8–10 cm power injectable. These lines can dwell for up to 29 days. We have had several that have dwelled even longer without complications. We use these in patients who need IV fluids and meds for >6 days that do not require central access.

Question 22: OHSU, what was your policy/procedure for management of patients that use lines for illicit injections? We struggle with this issue, as well.

Answer 22: It is still in draft form and has not received Professional Board approval, so we cannot release it at this time.

Question 23: Oregon, what does #MBI stand for?

Answer 23: Mucosal Barrier Injury, a consequence of interrupting the mucosal barrier post-chemotherapy and bone marrow transplant procedure.

Question 24: Would Oregon be willing to share their *Learning from Defect Tool* (i.e., analysis tool when CLABSI occurs)?

Answer 24: Sure, they are attached.

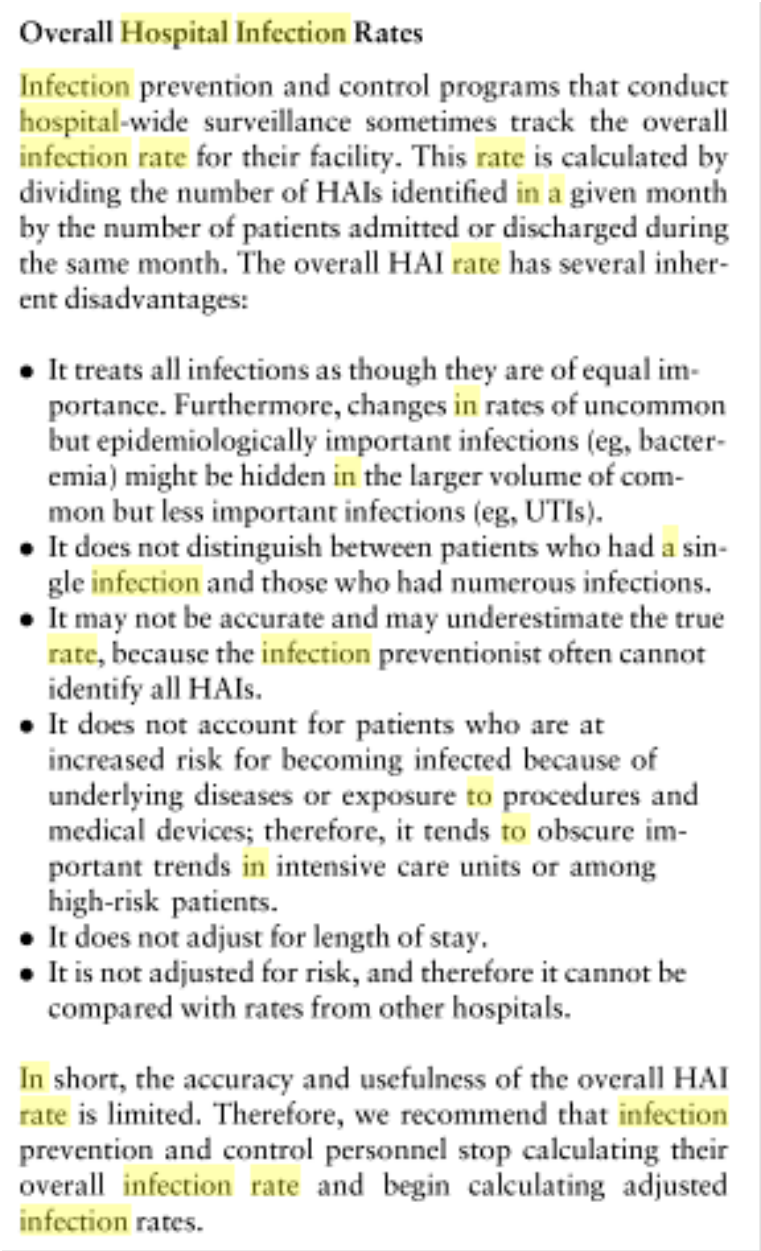
Question 25: OSHC, I've heard that the CHG baths are not really best practice anymore; that it has shown not to make a difference either way. Thoughts?

Answer 25: The literature fairly strongly supports CHG wipe bathing in critical care, as it has been shown to decrease CLABSI, MRSA, [and] VRE. We advocate CHG wipes as a bed bath for all patients with central lines and pre-surgery for targeted patients. We are implementing a patient hygiene standard that includes patient hand hygiene, non-CHG wipes (bath in a bag), CHG wipes for those with line and BMT transplant patients, and showers. Using CHG globally does not make sense. We want to avoid driving CHG resistance.

Question 26: OHSU, our CEO is requesting a "roll-up" of all HAI data into one data point. Is this possible or is there a place to go to find this information?

Answer 26: Well, it is statically not appropriate to roll different HAI rates into one. This was done in the 1980's and early 1990's (e.g., target was 5% infection rate for a hospital). This topic is addressed by TM Perl, Chaiwairth R, Surveillance: An Overview, in E Lautenbach, et al (Ed) Practical Healthcare Epidemiology, 2010 on page 135: Overall Infection Rates. Below is a snip. I highly recommend purchasing this

reference book as many of the current and past infection prevention physician leaders have authored chapters.



Overall Hospital Infection Rates

Infection prevention and control programs that conduct hospital-wide surveillance sometimes track the overall infection rate for their facility. This rate is calculated by dividing the number of HAIs identified in a given month by the number of patients admitted or discharged during the same month. The overall HAI rate has several inherent disadvantages:

- It treats all infections as though they are of equal importance. Furthermore, changes in rates of uncommon but epidemiologically important infections (eg, bacteremia) might be hidden in the larger volume of common but less important infections (eg, UTIs).
- It does not distinguish between patients who had a single infection and those who had numerous infections.
- It may not be accurate and may underestimate the true rate, because the infection preventionist often cannot identify all HAIs.
- It does not account for patients who are at increased risk for becoming infected because of underlying diseases or exposure to procedures and medical devices; therefore, it tends to obscure important trends in intensive care units or among high-risk patients.
- It does not adjust for length of stay.
- It is not adjusted for risk, and therefore it cannot be compared with rates from other hospitals.

In short, the accuracy and usefulness of the overall HAI rate is limited. Therefore, we recommend that infection prevention and control personnel stop calculating their overall infection rate and begin calculating adjusted infection rates.

Question 27: OHSU, what EMR system are you using? Do you have [an] IC Database system?

Answer 27: EPIC – We are implementing TheraDoc at the present time.

Question 28: Do you have any suggestions on how to present HAI data when SIRs are calculated on the VBP items and infection rates are presented on other hospital-acquired events?

Answer 28: The benefit of using the SIR, when available, is that is serves as an appropriate risk-adjusted measure that allows a hospital to see how they are performing "overall" (i.e., for all units, or all procedures), and it takes into account the types of patients receiving care in the hospital, compared to a similar cohort in the national data. However, this is not to say that the SIR completely replaces risk-stratified rates, especially for device-associated infections. Hospitals may wish to review and present SIRs along with rates, as the rates can provide additional information, such as number of device days per unit. In addition, the device-associated rates tables within NHSN provide device-utilization ratios by unit.

Question 29: Given a SIR of 1.41 and a p-value of 0.3612, can we still say there were 41% more infections than expected?

Answer 29: Although the SIR is not statistically significant, this may be an instance when practical significance takes precedence over statistical significance. This would depend on the volume of data (i.e., number of patient days or device days, or number of procedures, depending on the SIR) and how many infections would be prevented if the SIR was less than one.

Question 30: CDC, why is old data used for Baseline? Will it be updated at some time to reflect more current practice?

Answer 30: The baselines for the SIRs have remained constant, due in part to alignment with the HHS Action Plan to Prevent HAIs, which measured progress at a national level using the prescribed baseline data. This allows for measurement since that baseline. In other words, have we seen an X% reduction since 2008. CDC will update the baselines using 2015 data. These updated baselines will be used to calculate future SIRs.

Question 31: CDC, how do we get the facility SIR? I have only been able to get the unit rates.

Answer 31: The facility SIR appears as the first table in the selected SIR output. The SIRs are available within NHSN under the Module and Event type output option folder. For example, the CAUTI SIRs are available from the "Device-associated Module" > "Urinary Catheter-associated UTI" output options folder. For more information about the SIRs in NHSN, please visit: www.cdc.gov/nhsn/PS-Analysis-resources/reference-guides.html.

Question 32: Maggie, will the pooled means ever be updated with more current data?

Answer 32: The pooled means for device-associated infections are updated with each year's worth of data. These pooled means are published in annual reports and are available from: www.cdc.gov/nhsn/dataStat.html. Note, however, that these updated pooled means are not used in the calculation of the SIRs.

Question 33: Maggie, would you please list which HAIs will be affected for the updated baselines, e.g., will SSI baselines be updated?

Answer 33: At a minimum, the baselines will be updated for CLABSI, CAUTI, SSI, and MRSA and CDI LabID FacWideIN surveillance.

Question 34: Maggie, is there any intent to remove MBI from the case reports in the future?

Answer 34: MBI-LCBIs reported to NHSN will be removed from future SIRs that are calculated under the upcoming 2015 baseline.

Question 35: Maggie, will there be separate SIRs calculated for the Medical Surgical (non-ICUs) since we are now doing house wide collection?

Answer 35: NHSN will submit to CMS an ICU-only SIR, as well as an ICU + Ward SIR, for 2015 CLABSI and CAUTI measures. The ICU+Ward SIR will include all ICUs, as well as all locations mapped in NHSN as medical, surgical, or medical/surgical wards. The medical, surgical, and medical/surgical ward locations mapped in NHSN must meet the NHSN definitions for those location types. For more information on the addition of ward-level reporting for CMS, please visit the NHSN CMS Reporting page: www.cdc.gov/nhsn/cms/index.html. For information on how to map the ward locations for CMS reporting, please see the NHSN December 2014 newsletter (pages 6-7): www.cdc.gov/nhsn/PDFs/Newsletters/Newsletter-Dec2014.pdf.

Question 36: Please explain how to interpret SIRs given an insignificant p-value and wide confidence intervals? Thanks.

Answer 36: When the SIR is not statistically significant, this may be an instance when practical significance takes precedence over statistical significance. This would depend on the volume of data (i.e., number of patient days or device days, or number of procedures, depending on the SIR) and how many infections would be prevented if the SIR was less than one.

Question 37: Where can I find the factors that feed into the risk adjustment?

Answer 37: Please see the following list for information on the publications used as the baseline for each of the SIRs:

CLABSI SIRs, Acute care hospitals (ACHs)	**NHSN Annual Report: data summary for 2006–2008, issued December 2009** **Am J Infect Control 2009;37:783-805** **www.cdc.gov/nhsn/PDFs/dataStat/2009NHSNReport.PDF**
CAUTI SIRs, ACHs	NHSN Annual Report: data summary for 2009 Am J Infect Control 2011;39:349-67 www.cdc.gov/nhsn/PDFs/NHSNReport_DataSummaryfor2009.pdf
SSI SIRs *(excluding Complex 30-day SSI SIR for CMS IPPS reporting)*	Improving Risk-Adjusted Measures of Surgical Site Infection for the National Healthcare Safety Network Infect Control Hosp Epidemiol 2011;32(10):970-986 www.cdc.gov/nhsn/PDFs/pscManual/SSI_ModelPaper.pdf
Complex 30-Day SSI SIR for CMS IPPS	NHSN 2006-2008, unpublished data For more information, please see: www.cdc.gov/nhsn/PDFs/FINAL-ACH-SSI-Guidance.pdf
MRSA Blood and CDI FacWideIn LabID SIRs	Risk Adjustment for Healthcare Facility-Onset *C. difficile* and MRSA Bacteremia Laboratory-identified Event Reporting in NHSN Published March 12, 2013 www.cdc.gov/nhsn/PDFs/mrsa-cdi/RiskAdjustment-MRSA-CDI.pdf

Question 38: Lake Regional, has anyone used alcohol caps (Swabcaps) as an infection prevention strategy?

Answer 38: We are looking at a couple of different brands. There is good science to support their use. Maybe it's just me, but I'm a little worried about the caps from a choking hazard perspective.

Question 39: Dan Sabourin, by 'CVC Checklist,' do you mean the CLIP checklist?

Answer 39: Ours is very similar to the CDC recommended list in this link www.cdc.gov/HAI/pdfs/bsi/checklist-for-CLABSI.pdf.

Question 40: Dan, which data mining system are you looking into?

Answer 40: I can't really tout vendors, but we have looked at a few. It's expensive, really expensive! Also, we use an electronic medical record software system that does not get along with other software systems without a pricey interface. How do you plan to use it? We hope to have a data mining system someday that works for *us* rather than *us* working so hard to sift, collate, and interpret the data! This would give us more time to go out and

encourage staff to practice frequent hand hygiene instead of staring at our computer screens all day. In a healthcare world where human resources are shrinking, we have to find affordable technology to improve the entire spectrum of infection prevention surveillance. Perhaps we could all work together to develop a data mining software tool that would allow any hospital in the nation to benefit from its accuracy and convenience.

Question 41: Dan, [I] just saw your CVC insertion checklist. Do you have a maintenance checklist?

Answer 41: No, but that's a fantastic idea!

Question 42: Dan, can you share the education PowerPoint used for the staff to educate on CLABSI prevention?

Answer 42: Yes, the PowerPoint is attached.

Question 43: For Dan, how is the removal of unnecessary central lines supported at Lake Regional?

Answer 43: I've read that this can be problematic. For us it has just always been a part of our culture here, probably because we are a small facility making it easier to manage central line necessity.

Question 44: Does your CLABSI Prevention Champion review necessity of lines?

Answer 44: Not directly, but if the central line is no longer needed, and we can start a good peripheral replacement line, then our Champion helps facilitate this. I'm an old ICU/Stepdown nurse, so I consider central lines among my friends.

Question 45: Lake Regional, what, if anything, did you do about blood culture drawing practices?

Answer 45: This is a great question, the million dollar question actually! Who doesn't struggle with blood culture contamination?

Question 46: How is it that you didn't have one pathogenic contaminant for all those months?

Answer 46: We insist on both a central line draw right alongside with a peripheral draw for CLABSI determination regarding blood cultures. If you don't, you will drive yourself crazy wondering if the chicken came first or the egg did?!

Question 47: Who draws your blood cultures?

Answer 47: Inside the ICU, RNs draw both from the central line and the periphery. Outside the ICU, RNs draw from the central line and either RNs or Phlebotomists draw from the periphery. Once, we thought about putting together an 'All Star Team' for drawing all of our blood cultures, but that's just not practical or feasible. This is one of those areas where you can't let off the gas pedal when training employees to correctly draw blood cultures to minimize contamination risk.

Question 48: You mentioned education on CLABSI prevention January 2011. Who all received this education at Lake Regional?

Answer 48: Back then it was ALL clinical employees. We have this new software called NetLearning, now. It allows us to assign the education module based upon a specific department or job description. So for us, 'Anesthesia–ALL,' 'Laboratory–ALL,' 'Nursing–ALL,' 'Surgery–ALL,' etc.

Question 49: Lake Regional, do you use Biopatch on all of your central lines, and are those included in your dressing change kits?

Answer 49: We do not use Biopatch at Lake Regional. The cost of this product exceeded the benefit. CHG was much cheaper for us and works great!

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