Texas Healthcare Associated Infection (HAI) Reporting and Validation

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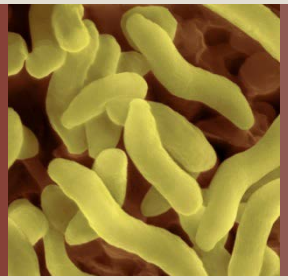
Objectives

1. Overview of Texas Reporting
2. NHSN 2016 Updates & PATOS
3. Historical Data Validation Process
4. New Validation Protocol
5. Q & A

Overview of Texas Reporting



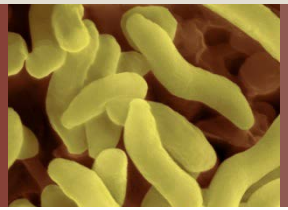
DSHS Reporting Requirements

Central line-associated bloodstream infections (CLABSI) in the following special care settings: adult, pediatric and/or adolescent ICUs & NICUs (Level II/III & Level III Nurseries).

Catheter associated urinary tract infections (CAUTI) in the following special care settings: adult, pediatric and/or adolescent ICUs.

Surgical site infections (SSI)

- CHILDREN'S HOSPITALS: Cardiac procedures, heart transplants, spinal surgery with instrumentation, and VP shunt procedures
- ALL OTHER GENERAL HOSPITALS & ASCs: Colon surgeries, hip & knee arthroplasties, abdominal & vaginal hysterectomies, vascular procedures, and coronary artery bypass grafts



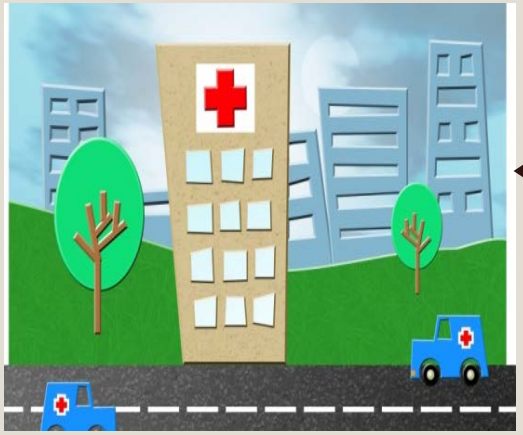
CMS Reporting Requirements

CMS Reporting Program	HAI Event	Reporting Specifications	Reporting Start Date
Hospital Inpatient Quality Reporting (IQR) Program	CLABSI	Adult, Pediatric, and Neonatal ICUs	January 2011
	CAUTI	Adult and Pediatric ICUs	January 2012
	SSI: COLO	Inpatient COLO Procedures	January 2012
	SSI: HYST	Inpatient HYST Procedures	January 2012
	MRSA Bacteremia LabID Event	FacWideIN	January 2013
	C. difficile LabID Event	FacWideIN	January 2013
	Healthcare Personnel Influenza Vaccination	All Inpatient Healthcare Personnel	January 2013
	Medicare Beneficiary Number	All Medicare Patients Reported into NHSN	July 2014
	CLABSI	Adult & Pediatric Medical, Surgical, & Medical/Surgical Wards	January 2015
	CAUTI	Adult & Pediatric Medical, Surgical, & Medical/Surgical Wards	January 2015
Hospital Outpatient Quality Reporting (OQR) Program	Healthc		

CMS Reporting Program	HAI Event	Reporting Specifications	Reporting Start Date
Ambulatory Surgery Centers Quality Reporting (ASCQR) Program	Healthcare Personnel Influenza Vaccination	All Healthcare Personnel	October 2014
PPS-Exempt Cancer Hospital Quality Reporting (PCHQR) Program	CLABSI	All Bedded Inpatient Locations	January 2013
	CAUTI	All Bedded Inpatient Locations	January 2013
	SSI: COLO	Inpatient COLO Procedures	January 2014
	SSI: HYST	Inpatient HYST Procedures	January 2014

HAI Reporting Overview

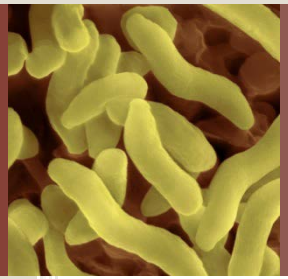
NHSN
National Healthcare Safety Network



Alerts regarding data & reports

View reports & make comments

TEXAS HEALTHCARE SAFETY NETWORK



When Do We Report?

Texas HAI Reporting Deadlines				
Reporting Quarter	**Jan 1 – Mar 31**	**April 1 – June 30**	**July 1 – Sept 30**	**Oct 1 – Dec 31**
Facility Data submission deadline	According to NHSN rules: within 30 days of end of reporting month			
Departmental data reconciliation (DSHS pulls data from NHSN)	1-Jun	1-Sep	1-Dec	1-Mar
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DSHS sends email to facilities to review data summary	NA	15-Oct	NA	15-Apr
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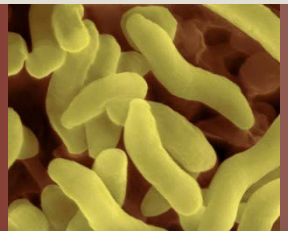
DSHS review of comments: DSHS will review comments by this date	NA	15-Nov	NA	15-May
Public posting of summary: Public Data Display will be posted on a public website	NA	1-Dec	NA	1-Jun



HAI Reports:

http://txhsn.dshs.texas.gov/HCSreports/

Healthcare-associated Infections HAI Elimination

- HAI Home
- HAI Data Home
- Annual Reports
- Acronyms
- Definitions
- Understanding the Data
- Frequently Asked Questions
- Contact Us

Texas Health Care-Associated Infections (HAI) Reports by Healthcare Facility

People can get infections from hospitals, surgery centers or other places that offer health care. This is a big public health problem. A recent survey showed that 722,000 infections (HAIs) occurred in 2011 in the United States. This means that about 4% of hospital patients ended up with at least one infection. All hospitals, clinics and other health care facilities know that stopping HAIs is vital. These HAIs are still a major cause of disease, loss of life and high medical costs. So, laws were put in place to report these infections to the public. There are ways to help manage and prevent them. DSHS created a system to track HAIs. General hospitals and surgery centers are required to report the following HAIs:

- Central line associated bloodstream infections (CLABSIs): These are infections in the blood that happen when a central line (tube that carries medicine and other treatments into a patient's body) is used in a patient.
- Catheter associated urinary tract infections (CAUTIs): These are infections in a patient's urinary tract (often referred to as a urinary tract infection or UTI) after a tube is placed in a patient that allows urine to pass out of the patient.
- Surgical Site Infections (SSIs): These infections happen in a patient's body after the patient has surgery.

To see hospital and surgery center reports, please search below. (Note: Each health care facility reports their own cases and the information is not confirmed by DSHS.)

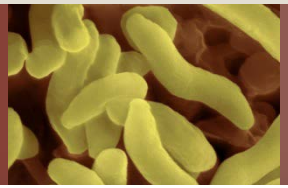
Search for Facility Report

Facility Type ○ Hospital ○ Ambulatory Surgical Center ◉ Both

Facility Name [ ] Help...Facility Name

◉ Name contains this text ○ Name begins with this text

City Name [ ] Help...City Name



HAI Reports

Facility-Specific Health Care Safety Report - Technical Version

Reported by the Texas Department of State Health Services
Time Period: July - December [Final] 2014
Report current as of: 05/04/2015 02:30 PM

Data shown in this report came from the National Healthcare Safety Network (NHSN).

Central Line-Associated Bloodstream Infection (CLABSI) Standardized Infection Ratio (SIR)

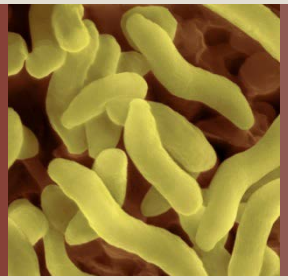
Unit Type	No. of Central Line Days	Number of Infections		SIR and 95% Confidence Interval			SIR Interpretation	No. of CLABSIs that Contributed to the Patient's Death
		Observed	Predicted	SIR	Lower	Upper		
NICU	2533	1	6.622	0.151	0.008	0.745	Fewer — Significantly fewer infections observed than predicted, based on the 2006 - 2008 national baseline	0
ICU	1733	1	2.6	0.385	0.019	1.897	No Different — No significant difference between the number of observed and predicted infections, based on the 2006 - 2008 national baseline	0

* NOTE: The SIR Statistical Interpretation only takes into consideration the SIR values. The facility is responsible for providing any additional explanation regarding deaths and if provided, can be found below in the Facility Comments Section.

Catheter-Associated Urinary Tract Infection (CAUTI) Standardized Infection Ratio (SIR)

Unit Type	No. of Urinary Catheter Days	Number of Infections		SIR and 95% Confidence Interval			SIR Interpretation	No. of CAUTIs that Contributed to the Patient's Death
		Observed	Predicted	SIR	Lower	Upper		
ICU	1850	8	2.22	3.604	1.674	6.843	More — Significantly more infections observed than predicted, based on the 2009 national baseline	0

NHSN Updates 2016

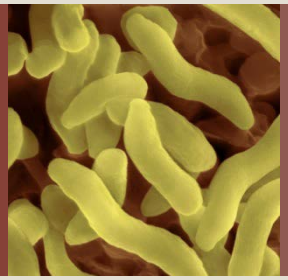


2016 NHSN Updates: Patient Safety Component

- VASC – If pus from the peripheral IV site is positive for a matching organism from the blood during the IWP, it would be an LCBI but not a CLABSI.

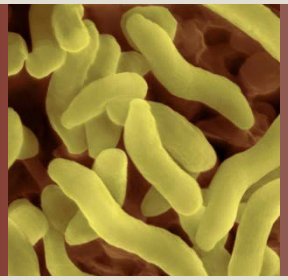
- Exclusion of *Blastomyces, Histoplasma, Coccidioides, Paracoccidioides, Cryptococcus and Pneumocystis from all NHSN definitions.*

- If the date of culture collection is on or after the date the patient is declared brain dead AND the patient is being supported for organ donation purposes, the event should not be reported as an HAI.



2016 NHSN Updates: Patient Safety Component

- Update to Hospital Annual Survey
  - Added questions about MRSA screening and use of topical CHG and/or mupirocin for treating MRSA patients
  - Incorporated “logic” to automatically skip questions that are not applicable based on previously answered questions.

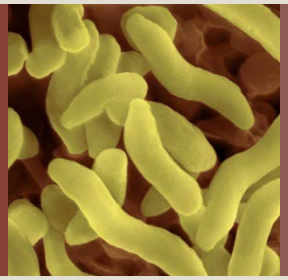


2016 NHSN Updates: Patient Safety Component

- NEW ASC Annual Survey for facilities enrolled in NHSN as Ambulatory Surgery Centers (AMB-SURG)

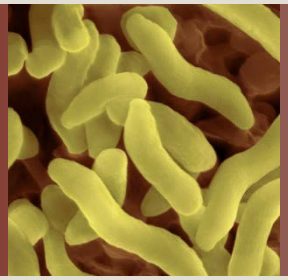
- Added location codes for Acute Care Hospital outpatient ORs and revised OR location codes for AMB-SURG facilities

- ACHs that report CLIP events from outpatient ORs/HOPDs:
  - The field for ‘Date of Insertion’ needs to be completed *before* one assigns an event to a location mapped in a monthly reporting plan.



2016 NHSN Updates: Patient Safety Component

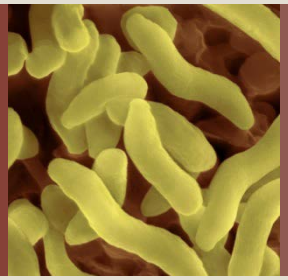
- UTI Event Entry – now able to enter urgency, frequency and dysuria when urinary catheter is “In Place”
  - Instead, pop-up message warning user that risk factors should only be selected if catheter was not in place at the time of the symptom



2016 NHSN Updates: Patient Safety Component

- A new reference guide with instructions to determine when data were first entered or last modified within NHSN.
  - http://www.cdc.gov/nhsn/ps-analysis-resources/reference-guides.html

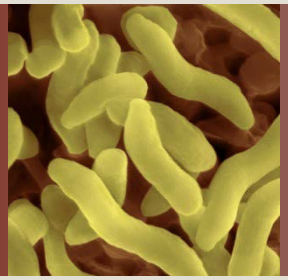
- For details and more information about other NHSN updates go to: http://www.cdc.gov/nhsn/pdfs/newsletters/nhsn-enewsletter_dec-2015_final.pdf



Note about 2015 Re-baseline

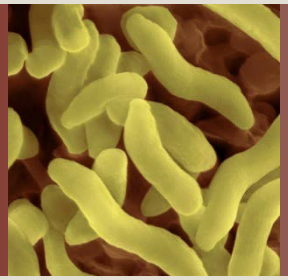
- NHSN will address the following questions/ concerns:
  - Exclusion of MBI-LCBI from future CLABSI rates and SIRs
  - Use of new risk models for CAUTI and CLABSI
  - Updated risk models for SSI SIRs to address PATOS (will be excluded for CMS 30 day SIR)

Present at Time of Surgery (PATOS)



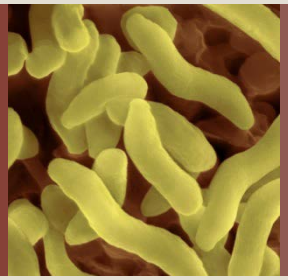
PATOS FAQs

- **QUESTION:** Does the infection found at the time of surgery need to meet NHSN SSI criteria in order to be PATOS?
  - **No.** But there must be “evidence of infection” such as:
    - Abscess
    - Mention of infection in OR note
    - Purulence/pus
    - Septic/feculent peritonitis
    - Ruptured appendix



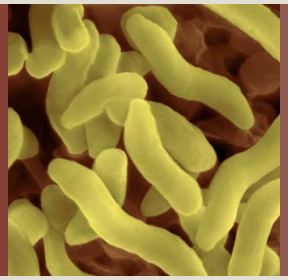
PATOS FAQs

- A positive wound culture alone is not a PATOS
  - Only of cultured from abscess or purulent material. Must have evidence of infection to call it PATOS
- Fecal spillage/nicked bowel is not a PATOS because there was not an active infection at the time of surgery – not enough time for infection to develop



PATOS FAQs

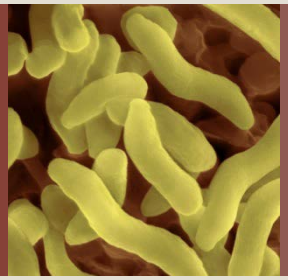
- The following circumstances alone are not PATOS unless found with evidence of infection:
  - Diagnosis of Diverticulitis, Peritonitis or Appendicitis
  - Positive culture or path report from surgical specimen (unless cultured from abscess or purulence)
  - Mention of rupture or perforation (including fecal spillage/nicked bowel)
  - Note of just inflammation, necrosis or gangrene
  - Contaminated trauma cases (e.g. gunshot wound to abdomen)



PATOS FAQs

- **QUESTION:** If during a colon surgery, there was an intraabdominal abscess noted, would any subsequent SSI be considered PATOS?

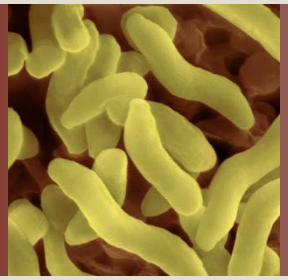
  - **No.** Only SSIs at the same level of infection as the primary infection are considered PATOS. In example, a subsequent Organ Space SSI would be PATOS, but not a superficial SSI.



PATOS FAQs

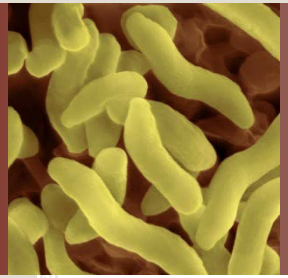
- **QUESTION:** Will PATOS SSIs be counted in SIR for NHSN? For CMS/Texas SIRs?
  - **YES**… for now. **NHSN will review the data for the 2015 re-baselining and determine whether PATOS SSIs should be included in the SIR calculations.** Once the new SIR is available, NHSN will provide users with the ability to calculate their 2015 and 2016 SIRs using the new 2015 baseline, retrospectively.

HAI Data Validation



Data Validation: 2012-2014

- Audit data for 6 month period:
  - H1 (Jan – June)
  - H2 (July – Dec)
- Identify facilities based on Standardized Infection Ratio: If Statistically Significantly High
- 2 Audit Tiers:
  - First Time High SIR – no high SIR for same HAI for previous time period)
  - Subsequent High SIR – high SIR for same HAI for two reporting periods in a row



Data Validation

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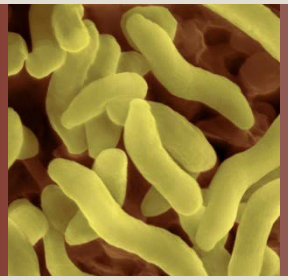
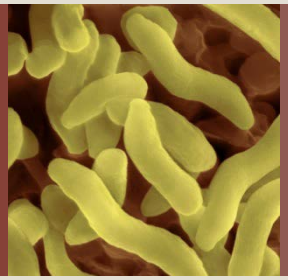


Data Validation: 2012-2014

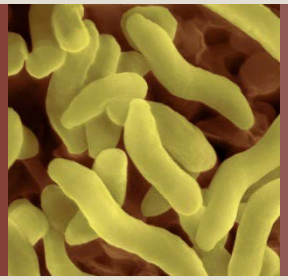
- First Time High SIR (SSI, CLABSI and CAUTI):
  - Purpose: To ensure **facility is applying the CDC definitions correctly** and to verify the number of infections reported to DSHS.
  - Site visits for those facilities with significantly high SIRs to verify data reported meet NHSN HAI criteria
  - Conducted by Contracted Infection Preventionists (IPs)
  - Record Review & IP/Administration staff Interview



Data Validation Results: 2012-2014

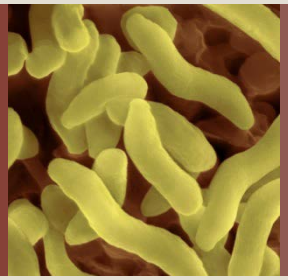
- 97-99% of events were reported accurately. Those responsible for reporting, mostly Infection Preventionists, had a good grasp of requirements and definitions.

- Found that facilities that were audited had very robust IP programs that were good at “finding” and identifying HAIs.



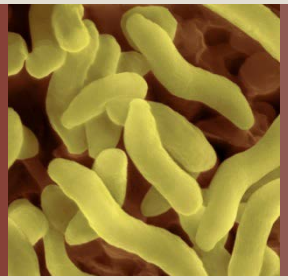
Data Validation: 2012-2014

- Subsequent High SIR Investigations (SSI, CLABSI & CAUTI):
  - Purpose: Once problem has been verified (from first time high SIR audit), **DSHS will aid facilities in prevention efforts** and provide consultation/support as needed.
  - Conducted by CIC certified HAI Epidemiologists
  - Phone consultation to review interventions taken and action plans in place at facility to determine if site visit is warranted
  - If site visit needed, CIC HAI Epidemiologist will come to facility and may perform environmental rounds, interview floor staff, observe procedures/patient care activities, review policies and patient records.



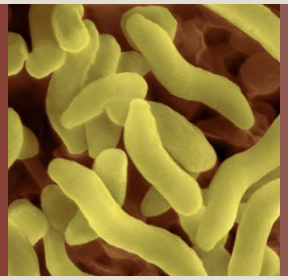
Requested Audit Enhancements

- Identify facilities who may be under-reporting (have no SIR or low SIRs)
- Target education and training to these facilities that need it most
- **Caveat: This type of validation is VERY time and resource intensive.**



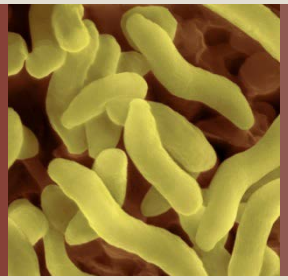
New CLABSI Validation Pilot

- Facility selection process modeled after the NHSN CLABSI Validation Protocol
- CDC recommends targeted validation in order to investigate and correct potential deficiencies in an efficient manner.
- NHSN recommends 21 facilities be chosen via targeted selection and 5% of the remaining facilities selected randomly. For Texas, this is approximately 40 facilities.
  - **During the pilot phase of this protocol:**
    - **8 targeted facilities**
    - **~3-4 (1%) facilities randomly selected facilities will be audited.**
  - **After the pilot, this will be re-evaluated to determine time requirements based on available resources.**



Facility Selection: Details

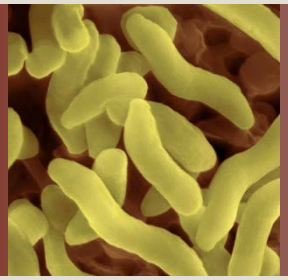
- 6 in the top 33% of facilities with highest number of expected/predicted infections are selected.
  - Top 2 facilities with SIRs above the median
  - Top 2 with SIRs at or below the median, but above 0
  - Top 2 with SIRs = 0
- The top 2 facilities without a calculated SIR that have the largest difference between expected and observed infections.
- 1% of all remaining facilities are randomly selected (~3-4).



Record Selection

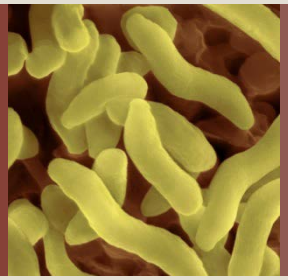
Selected facilities will be required to submit a line list of all positive blood cultures from the given audit period (6 months). Line list should include:

- MRN
- Gender
- DOB
- Admission Date
- NICU/ICU
- Name/Type of ICU (optional)
- Lab Specimen # (optional)
- Specimen Collection Date
- Organism Name



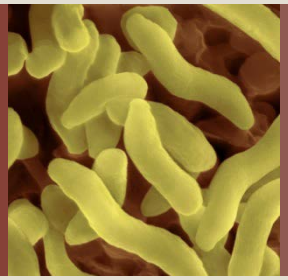
Record Selection

- From the line list, DSHS will select:
  - Up to 20 records of NHSN reported CLABSIs
  - 40 records of unreported candidate CLABSI events
    - 10 from NICU setting (if applicable)
    - 30-40 from adult/pediatric ICUs



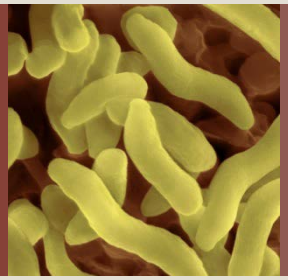
Summary of CLABSI Validation Process

1. Notify facility and request line list of positive blood cultures
2. Select medical records for review and notify facility
3. Select site visit date and send Facility Audit Survey for completion by facility prior to site visit.
4. Notify CEO/Administrator, DSHS Regulatory and Regional/Local Health Departments about upcoming visit
5. Review Facility Audit Survey and perform site visit
   - Introductions/Entrance Interview
   - Partially “Blind” Chart Review
   - Debriefing/Conclusions
6. Send Validation Summary Report to IPs, CEO/Admin and other staff as needed.



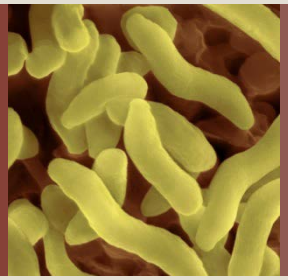
A look ahead…
2016 Validation Overview

- Adapted NHSN Validation for:
  - CLABSI
  - CAUTI
  - SSI
- Potential for Remote EMR Review



Proposed changes to 2nd High SIR Investigations

- TAP reports provided to Regional HAI Epidemiologists:
  - Thi Dang – Region 2/3
  - Anna (Annie) Nutt – Region 4/5N
  - Bobbiejean Garcia – Region 6/5S
  - Sandi Henley – Region 7
  - Jessica Ross – Region 1, 8, 9/10
  - Melba Zambrano – Region 11

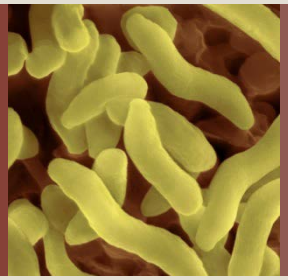


TAP Reports Explained

- In 2015, “TAP Reports”- Targeted Assessment for Prevention (TAP) reports rank orders facilities in order to identify and target those with the greatest need for improvement.

- Ranks facilities by the cumulative attributable difference (CAD), which is the number of infections that must be prevented to achieve a HAI reduction goal.

- Ranking occurs for overall Hospital CAD (highest to lowest) and by unit within the hospital.



Regional HAI Epi Follow-up Actions

- **Regional HAI Epi Follow up may include one or more of the following**:
  - Onsite Consultation/Site Visit
  - Phone Consultation
  - Review of Action Plans
  - Review of previous HAI data
  - Other

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Questions?

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