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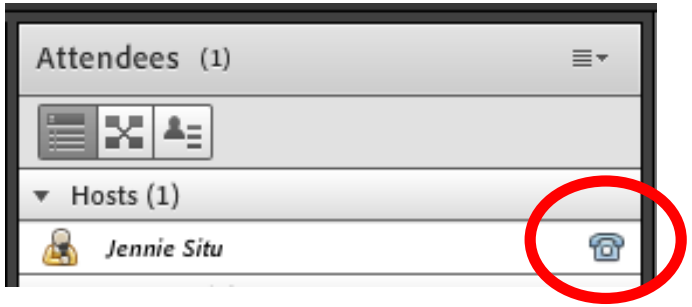

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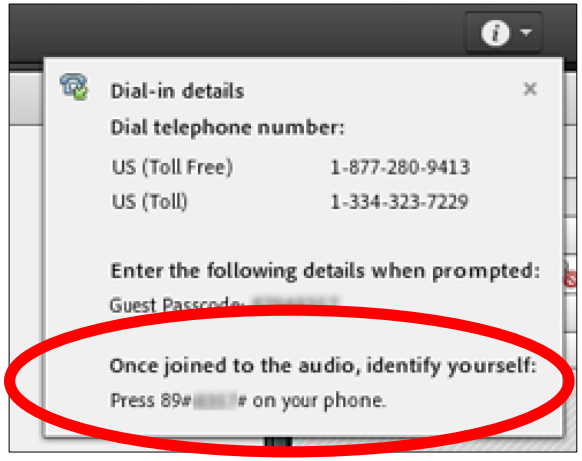

Cohort 4 Learning Action Forum

Sharing Infection Prevention Strategies that Work

Using Audits and Outcomes Data to Drive Change

September 21, 2017

CDC
CENTERS FOR DISEASE CONTROL AND PREVENTION

HRET
HEALTH RESEARCH & EDUCATIONAL TRUST

STRIVE
States Targeting Reduction in Infections via Engagement

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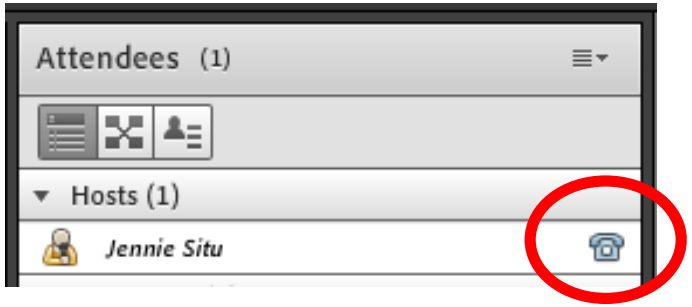

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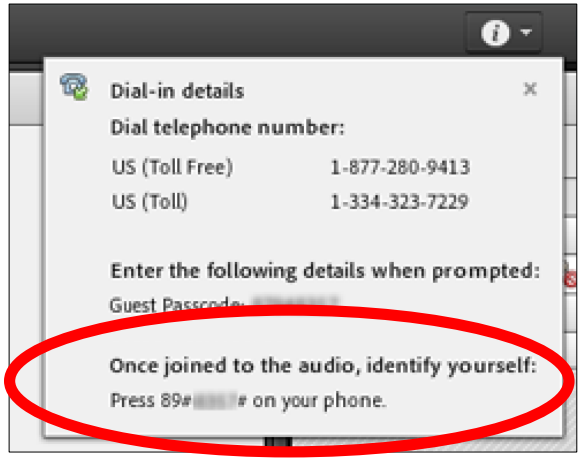


Today's Presenters

Vicki Brinsko, MSN, RN, CIC, FAPIC
Director of Infection Prevention
Vanderbilt University Medical Center

Shelby Lassiter, BSN, RN, CPHQ
Clinical Content Development Lead
American Hospital Association (AHA)/
Health Research and Educational Trust (HRET)

Today's Agenda

- Ask the expert
  - Using Outcome Data to Drive Improvement
  - Using Process and Audits to Drive Improvements
- Upcoming Events and Dates

USING DATA TO DRIVE IMPROVEMENT

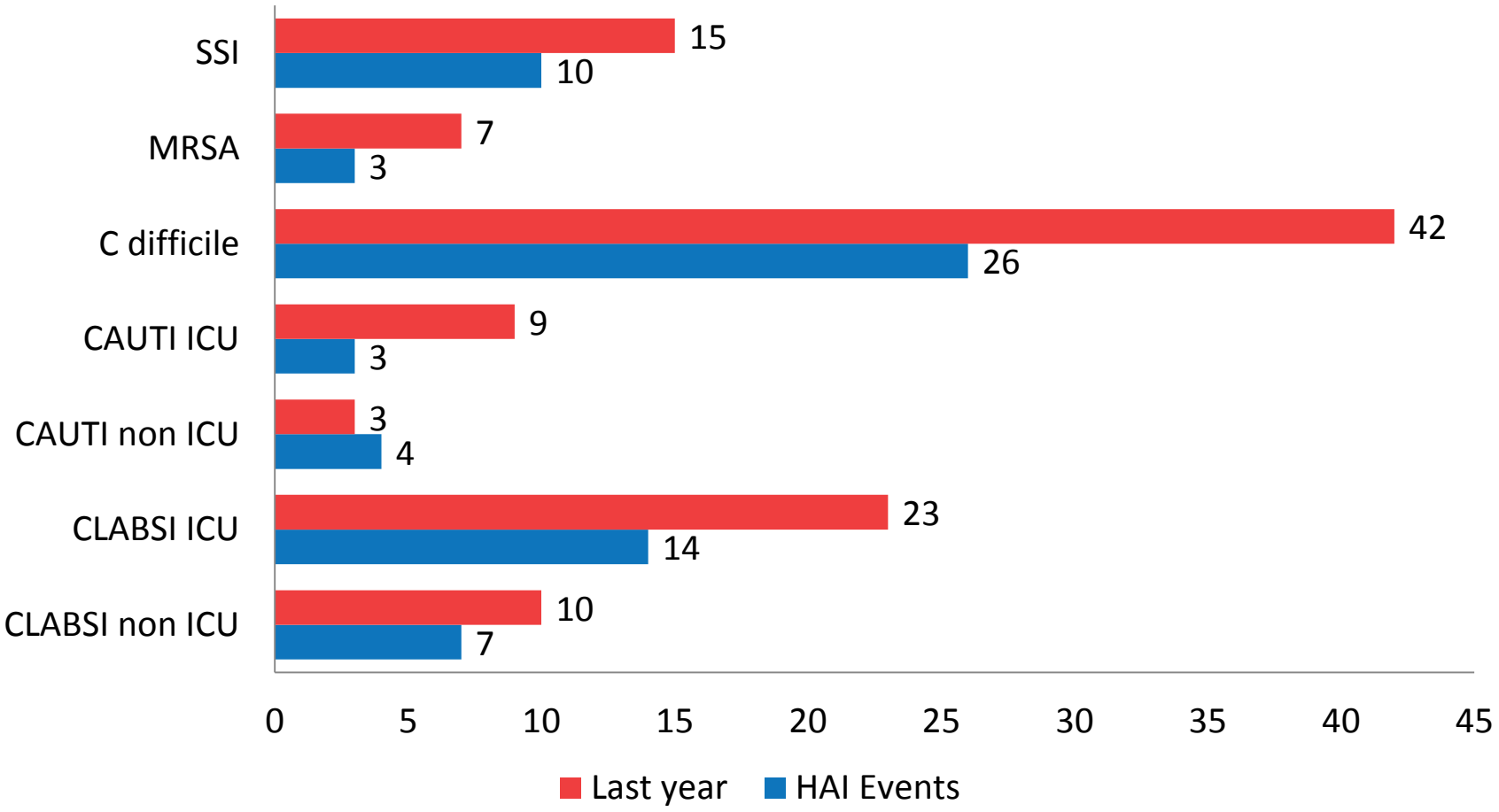
Let's Hear from Participants

Question for Participants

(Please speak up or type your responses into the chat box – all share, all learn.)

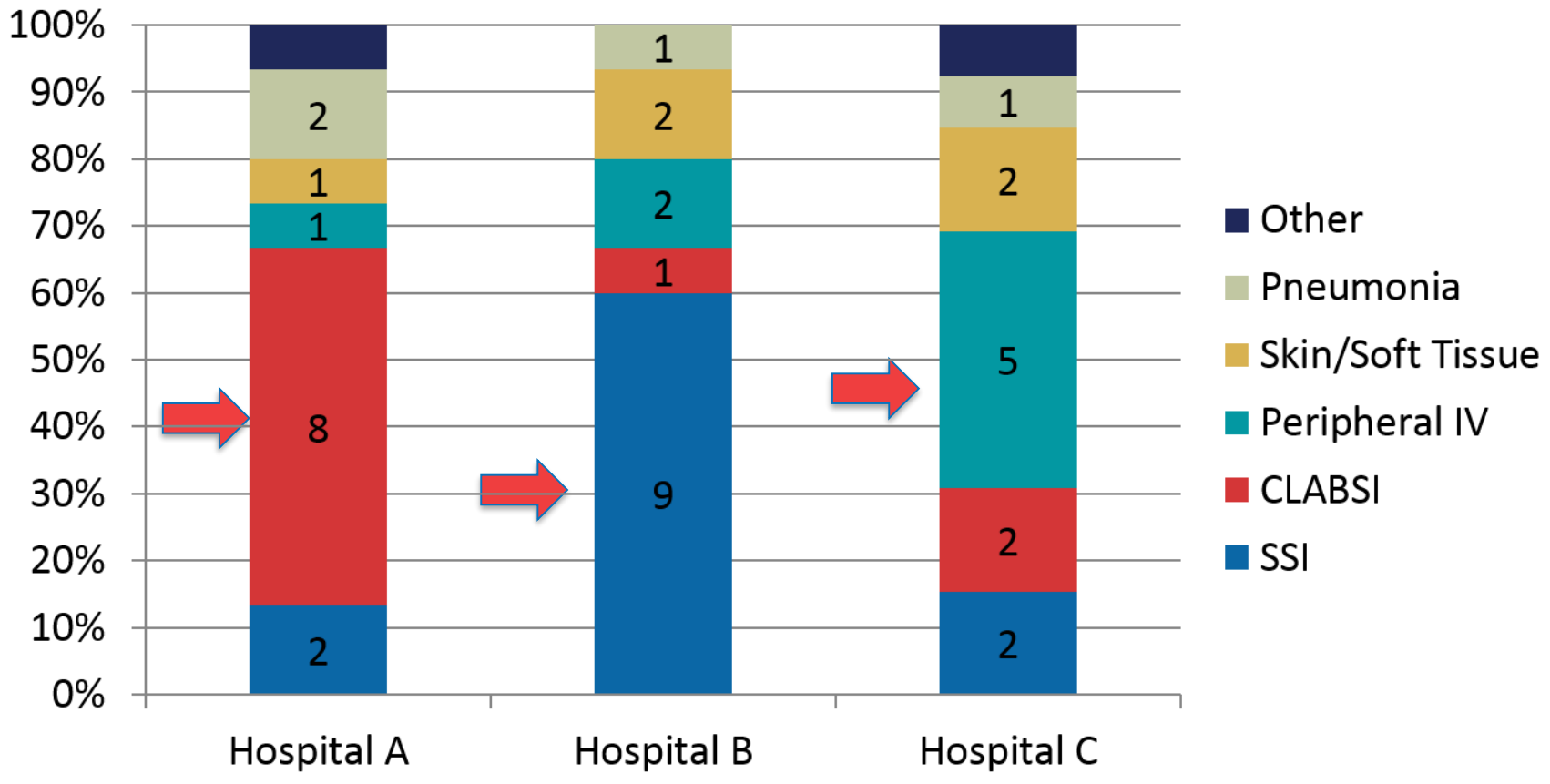
How are you using outcome data to direct your infection prevention intervention focus?

Patient Harm Index



Actual event numbers – not rates or SIRs

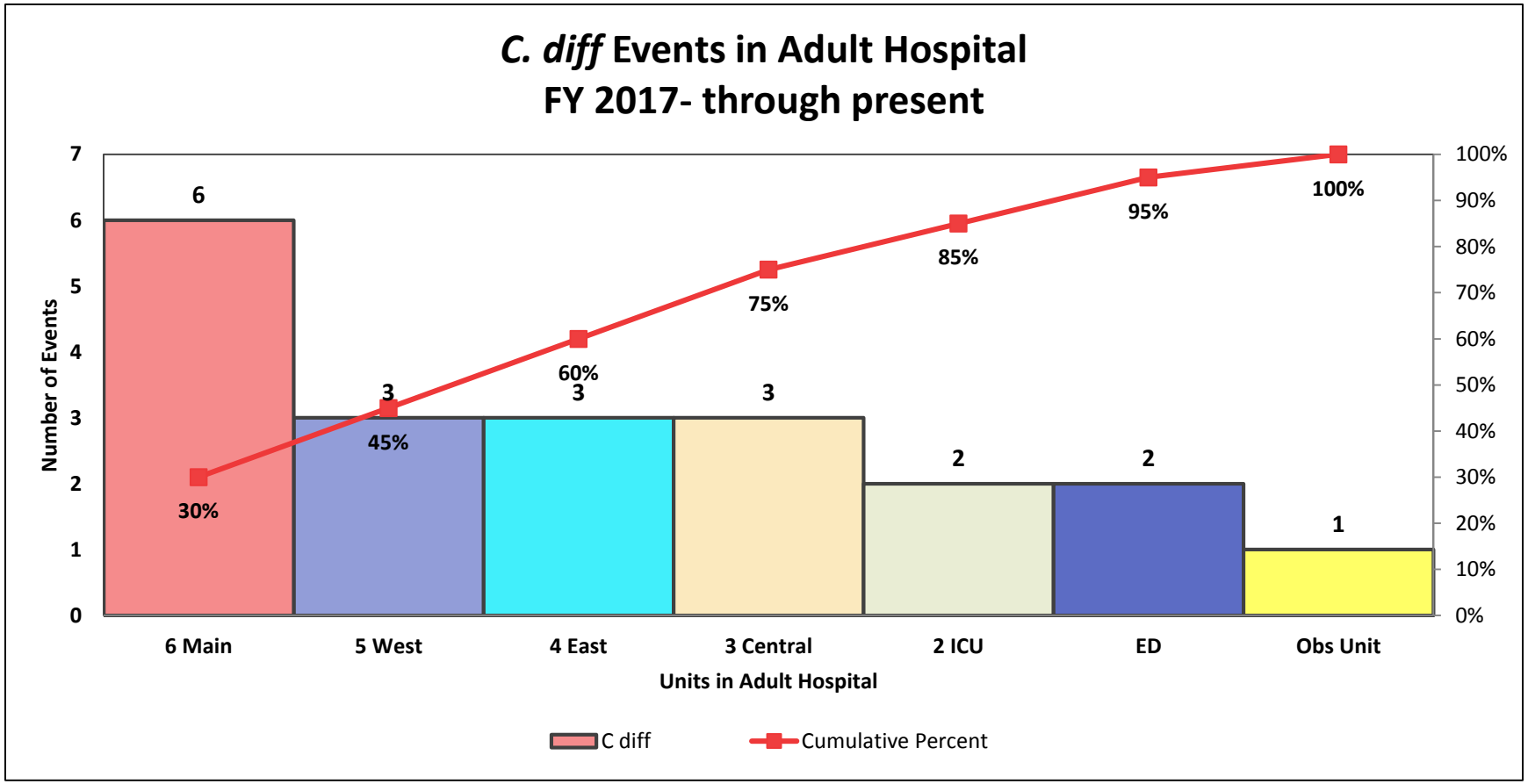
Outcome Data Can Direct Infection Prevention Focus



Line Lists Can Help Highlight Trends

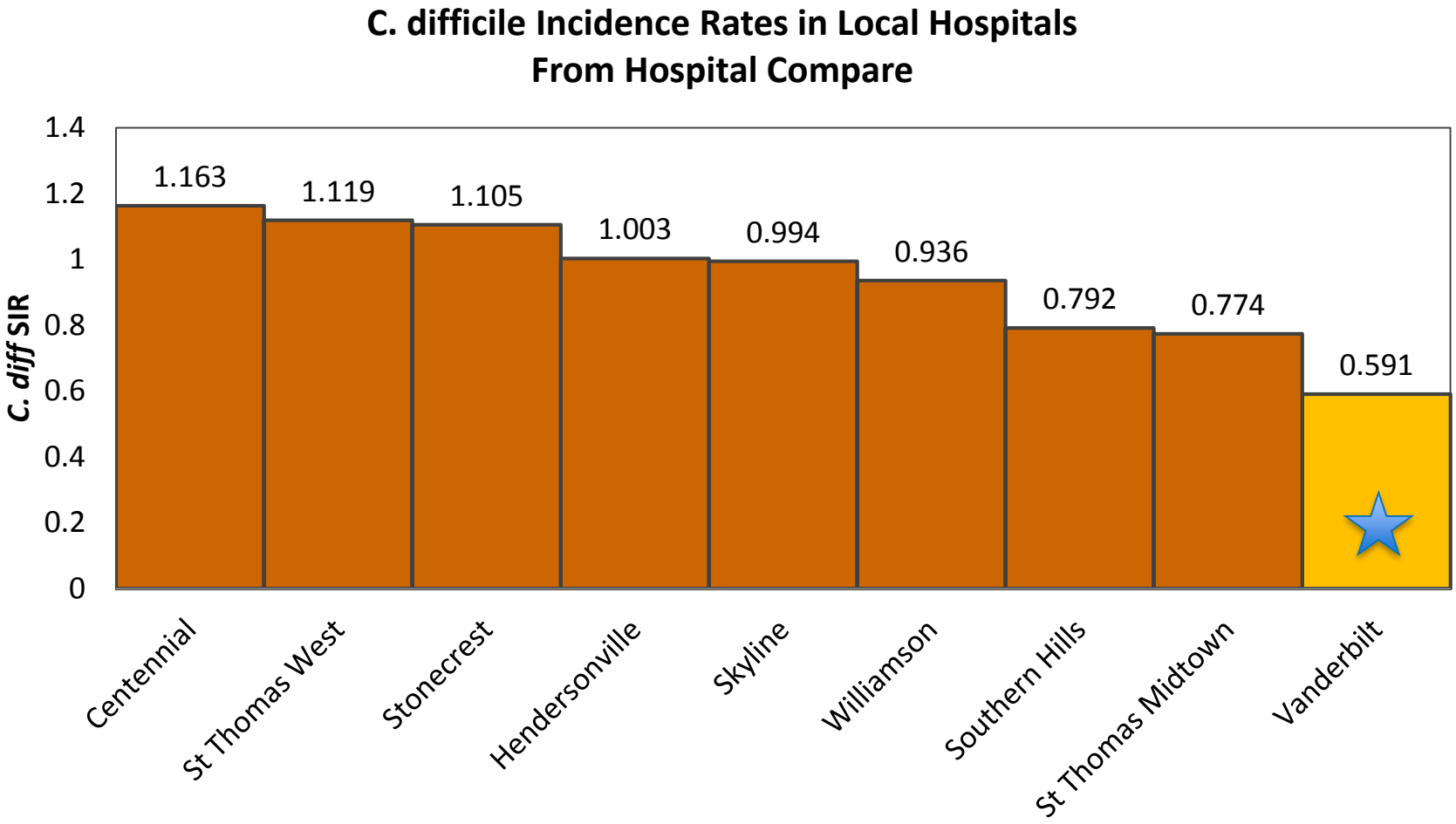
patID	spcOrgTyp	location	outpatient	prevPos	onset	admitDate	locationAdm	specimenS	specimenDa
111	CDIF	ICU	N	N	HO	1/20/2016	ICU	STOOL	1/16/2016
222	CDIF	2ND	N	Y	HO	2/1/2016	2ND	STOOL	2/14/2016
333	CDIF	4TH	N	N	HO	2/10/2016	4TH	STOOL	2/14/2016
444	CDIF	4TH	N	N	HO	2/10/2016	ICU	STOOL	2/16/2016
555	CDIF	2ND	N	N	HO	3/1/2016	2ND	STOOL	3/8/2016
666	CDIF	ICU	N	N	HO	6/10/2016	4TH	STOOL	6/16/2016
777	CDIF	4TH	N	N	HO	2/18/2016	4TH	STOOL	2/23/2016
888	CDIF	ICU	N	N	HO	5/1/2016	ICU	STOOL	5/5/2016
999	CDIF	4TH	N	N	HO	2/1/2016	4TH	STOOL	2/14/2016
113	CDIF	3RD	N	Y	HO	4/2/2016	3RD	STOOL	4/7/2016
223	CDIF	4TH	N	N	HO	2/8/2016	4TH	STOOL	2/14/2016
334	CDIF	4TH	N	N	HO	2/8/2016	4TH	STOOL	2/23/2016
445	CDIF	ICU	N	N	HO	5/12/2016	4TH	STOOL	5/17/2016

Unit Level Reporting



Pull *C. difficile* data by location and month from NHSN

Hospital Compare Status Slide



Let's Hear from Participants

Question for Participants

(Please speak up or type your responses into the chat box – all share, all learn.)

What outcome data are regularly shared with frontline staff? How is it shared?

We All Agree –Data is Powerful!

- Powerful motivator
- Can’t change what you don’t know about
- Learn from data
- Monitor progress to reach goals
- Identify opportunities for improvement
- Celebrate and reward successes
- Demonstrate results to obtain support
- Provide opportunities to build on success
- Upcoming Events and Dates

Using Audits to Monitor Infection Prevention Practices (CBT102)

USING AUDITS AND PROCESS DATA TO DRIVE CHANGE

Let’s Hear from Participants

Questions for Participants

(Please speak up or type your responses into the chat box – all share, all learn.)

What barriers or issues have you encountered with auditing?

The Importance of Process Audits and Feedback

Drive reliability and sustainability through better control of critical processes by:

- Demonstrating continued value for best practice
- Reinforcing accuracy and consistency of practices
- Teaching and reinforcing skills and knowledge
- Measuring compliance to evidence-based protocols
- Illuminating strengths and gaps in best practice to track progress, celebrate strengths and achievements and provide data to fuel continued improvement

Neighborhood Hospital Case Study

Neighborhood Hospital has identified the following:

- PCA Report revealed:
  - Evidence-based processes in place throughout the hospital
  - All staff have been educated and checked off on evidence-based practices
  - Lack of a consistent auditing and feedback process for central line insertions and maintenance throughout the hospital
- Outcome data revealed:
  - CLABSI rates for 2 units (4W and 6E) were > goal and highest SIRs and CADs in the hospital
  - Line listings and root cause analyses (RCAs) on CLABSIs reveal primary organisms are skin bugs and median days between line insertion and CLABSI was 9 days.

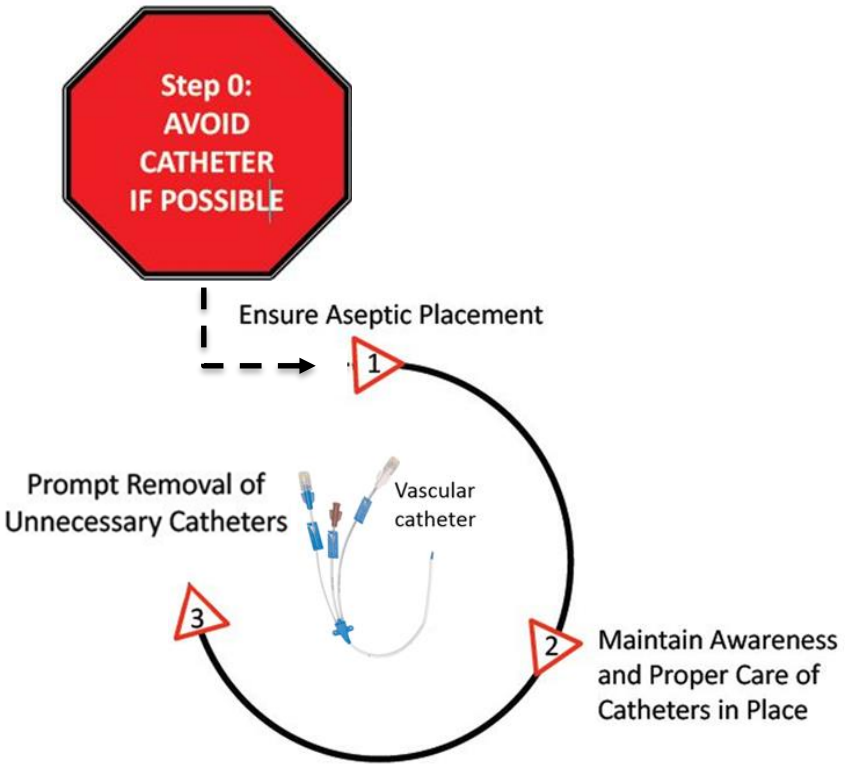
You are this team's coach, what do you think their next steps should be, based on the data?

Think about the Science of Safety…

- People are fallible
- People will drift from best practice
- Safe design principles must be applied to technical and team work
- Science of safety resources:
  - CUSP Learn About the Science of Safety
  - Basic Concepts of Just Culture

Think about What You Know about Evidence-based CLABSI Prevention

Life Cycle of a Central Line



[STRIVE Module: Central Line-Associated Bloodstream Infection (CLABSI): An Introduction (CLABSI101)]

Pathogenesis of CLABSI

Bacteria route of entry:

- **Extraluminal**: Bacteria migrate along external surface of the central line from skin entry site.
  - Often occurs within 7 days of insertion.
- **Intraluminal**: Hub contamination, bacteria migrate along internal surface of the central line.
  - More commonly occurs greater than 7 days after insertion or from intraluminal colonization.
- **Hematogenous Seeding**: Bacteria migrate from another source in the body.
- **Infusate Contamination**: Bacteria enter the central line through the infusate.
  - This is a rare form of bacteria entry.

Connect the Dots to Determine What Needs to be Audited

Neighborhood Hospital's Zero Harm Team decided to:

- Focus on maintenance
- Audit in the two units with the highest rates
  - Examining the process there
  - Reinforcing best practices with staff
  - Focusing finite resources on the largest opportunity
  - Piloting auditing tools and processes to spread to other units

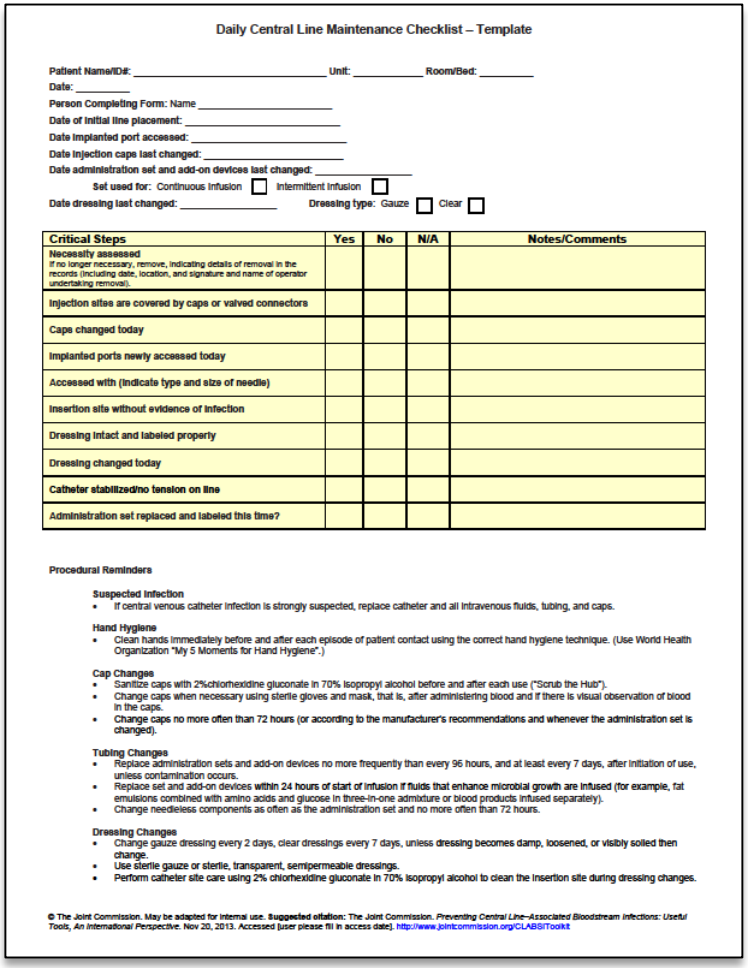
What's Next in Planning an Audit Process?

- What do they want to learn from the audits?
- How will the audits be conducted?
- How frequently?
- Who will conduct the audits?
- How will auditors be trained?
- How and when will feedback be given?
  - Point of care? Aggregated results?
- How long will that process be monitor?

STRIVE Module -Using Audits to Monitor Infection Prevention Practices (CBT102)

What Questions Need to be Answered?

Joint Commission Central Line Maintenance Checklist



Daily Central Line Maintenance Checklist – Template

Patient Name/ID#: _____ Unit: _____ Room/Bed: _____
Date: _____
Person Completing Form: Name _____
Date of initial line placement: _____
Date implanted port accessed: _____
Date injection caps last changed: _____
Date administration set and add-on devices last changed: _____
Set used for: Continuous infusion ☐ Intermittent infusion ☐
Date dressing last changed: _____ Dressing type: Gauze ☐ Clear ☐

Critical Steps	Yes	No	N/A	Notes/Comments
Necessity assessed If no longer necessary, remove, indicating details of removal in the records (including date, location, and signature and name of operator undertaking removal).				
Injection sites are covered by caps or valved connectors				
Caps changed today				
Implanted ports newly accessed today				
Accessed with (indicate type and size of needle)				
Insertion site without evidence of infection				
Dressing intact and labeled properly				
Dressing changed today				
Catheter stabilized/no tension on line				
Administration set replaced and labeled this time?				

Procedural Reminders

Suspected Infection
- If central venous catheter infection is strongly suspected, replace catheter and all intravenous fluids, tubing, and caps.

Hand Hygiene
- Clean hands immediately before and after each episode of patient contact using the correct hand hygiene technique. (Use World Health Organization "My 5 Moments for Hand Hygiene".)

Cap Changes
- Sanitize caps with 2%chlorhexidine gluconate in 70% isopropyl alcohol before and after each use ("Scrub the Hub").
- Change caps when necessary using sterile gloves and mask, that is, after administering blood and if there is visual observation of blood in the caps.
- Change caps no more often than 72 hours (or according to the manufacturer's recommendations and whenever the administration set is changed).

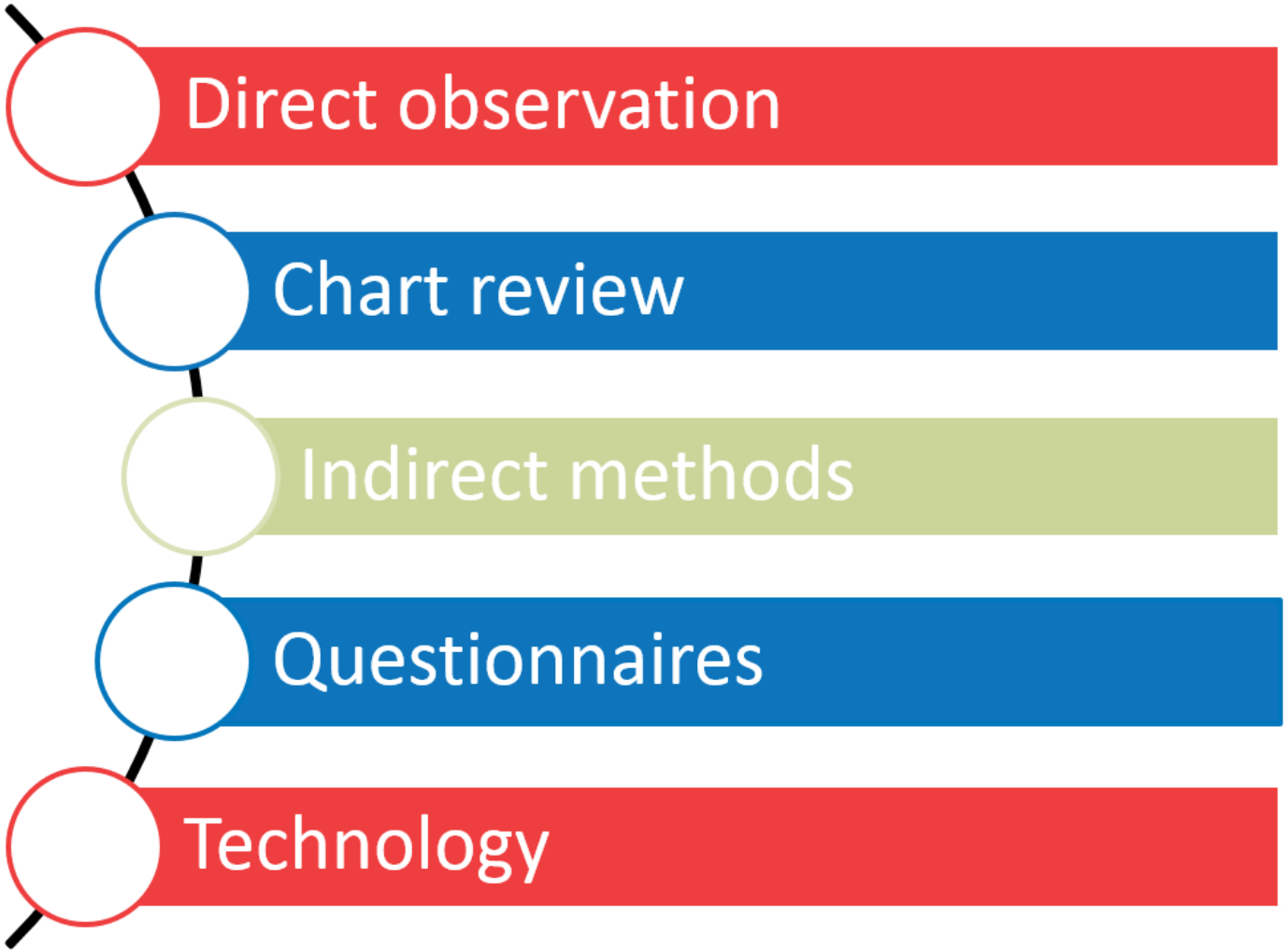
Tubing Changes
- Replace administration sets and add-on devices no more frequently than every 96 hours, and at least every 7 days, after initiation of use, unless contamination occurs.
- Replace set and add-on devices within 24 hours of start of infusion if fluids that enhance microbial growth are infused (for example, fat emulsions combined with amino acids and glucose in three-in-one admixture or blood products infused separately).
- Change needleless components as often as the administration set and no more often than 72 hours.

Dressing Changes
- Change gauze dressing every 2 days, clear dressings every 7 days, unless dressing becomes damp, loosened, or visibly soiled then change.
- Use sterile gauze or sterile, transparent, semipermeable dressings.
- Perform catheter site care using 2% chlorhexidine gluconate in 70% isopropyl alcohol to clean the insertion site during dressing changes.

Develop tool:

- Start with list of questions to be answered
- Limit to only "need to know" information
- Seek examples from other sources
- Revise and create to meet your needs
- Define each data element
- Collaborate with a data analyst
- Train auditors on the technical and socio-adaptive aspects of auditing
- Keep it simple

How Will the Audits be Conducted?

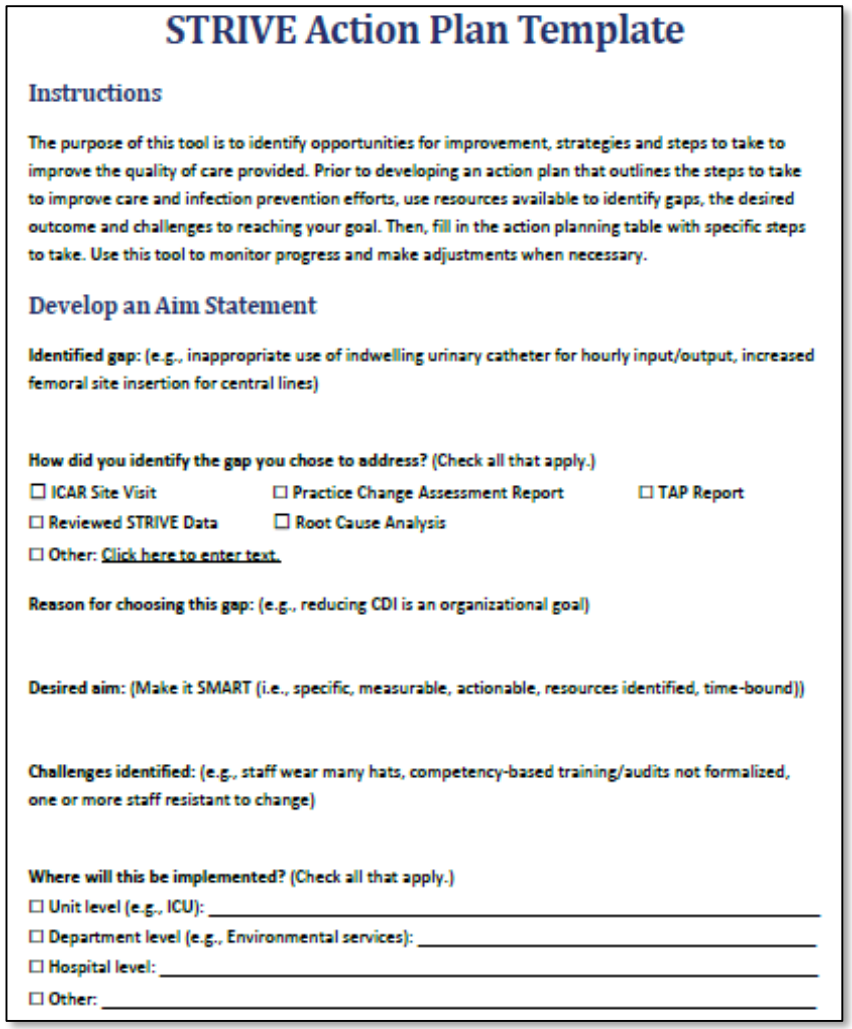


Who Can Do Audits?

- Clerical staff
- EMR/technology technicians
- Educators
- IP liaisons
- Nurse champions
- Finance
- Materials processing
- Students
- Clinical Specialists
- Quality staffs
- Nurses on furlough
- Volunteers
- Vendors
- Physicians
- Others

Tip: Put it in Writing!

- Provides planning structure
- Drives a shared mental model
- Helps identify needed resources
- Serves as an educational and communication tool
- Helps to sustain efforts
- Helps track progression
- Supports accountability



STRIVE Action Plan Template

Instructions

The purpose of this tool is to identify opportunities for improvement, strategies and steps to take to improve the quality of care provided. Prior to developing an action plan that outlines the steps to take to improve care and infection prevention efforts, use resources available to identify gaps, the desired outcome and challenges to reaching your goal. Then, fill in the action planning table with specific steps to take. Use this tool to monitor progress and make adjustments when necessary.

Develop an Aim Statement

Identified gap: (e.g., inappropriate use of indwelling urinary catheter for hourly input/output, increased femoral site insertion for central lines)

How did you identify the gap you chose to address? (Check all that apply.)

☐ ICAR Site Visit ☐ Practice Change Assessment Report ☐ TAP Report
☐ Reviewed STRIVE Data ☐ Root Cause Analysis
☐ Other: Click here to enter text.

Reason for choosing this gap: (e.g., reducing CDI is an organizational goal)

Desired aim: (Make it SMART (i.e., specific, measurable, actionable, resources identified, time-bound))

Challenges identified: (e.g., staff wear many hats, competency-based training/audits not formalized, one or more staff resistant to change)

Where will this be implemented? (Check all that apply.)

☐ Unit level (e.g., ICU): _____
☐ Department level (e.g., Environmental services): _____
☐ Hospital level: _____
☐ Other: _____

Action Plan Example

Identify Steps to Strategize for Improvement

Step	How will this happen? [Be specific and include important steps to make the idea/activity happen.]	Who will make this happen? [Be specific for each task.]	How do I know to move to next step and by when? [What does success look like? How will you track your progress?]	What other information do I need to make this happen?	Tools or resources to use [Webinars, on-demand modules, change package, nurse-driven protocol, checklists, etc. Be specific.]	When will this happen?
1	Monitor CL dressing change processes on 4W and 6E for September and October 2017 by direct observation: a. Development of audit tool by 8/5/17. b. Training of auditors by 9/1/17 c. Audit feedback for week 1 of audit – evaluate need for revisions, revise, implement as indicated by 9/15/17 d. Compile and report results to Zero Harm Team by 11/20/17	Zero Harm Team a. Clinical Educator, CNS, and IP on Zero Harm Team b. Clinical Educator c. Auditors, Clinical Educator, CNS, and IP d. Quality Analyst on Zero Harm Team	Evaluate audit results at 11/20/17 Zero Harm meeting and determine next steps	a. Determine what needs to be learned from this audit. b. How is each audit item defined? c. How will results be calculated and analyzed? d. Who will auditors be? e. What training do auditors need? f. How will training occur?	g. List of questions to be answered by audit h. CL dressing data collection tool based on hospital policy and what needs to be learned i. Operational definitions for each audit item to be evaluated and tallied for reporting j. Database to compile and analyze data	11/20/17 Zero Harm Team meeting

Another Tip: Detail Each Audit Process

Process	Audit Process and Population	Data Collector(s)	Frequency	How Reported
Monitor central line dressing change processes on 4W unit from September through October 2017.	**Process**: Direct observation. **Population**: All patients with central lines undergoing a dressing change during September and October 2017 on Sunday, Tuesday and Thursday for even weeks and Monday, Wednesday and Friday for odd weeks.	4W CLABSI Champion: Polly Purebred, RN; Minnie Mouse, RN for clinical ladder requirements; and weekend charge RNs.	Every dressing change on Sunday, Tuesday and Thursday for even weeks and every Monday, Wednesday and Friday on odd weeks.	**Point of Care**: Auditor will stop process and seek revision if major breach in technique is observed. Otherwise, will conduct a debrief with staff after completion. **Aggregate**: Completed observation tool will be sent to Quality Department by each Friday. Quality Department will aggregate and report percent variance by unit to each step monthly to unit manager and IP. IP and nurse manager will share with 4W staff monthly and Zero Harm Team on 11/20/17.

Let's Hear from Participants

Please share!

(Please speak up or type your responses into the chat box – all share, all learn.)

What tips can you share with your colleagues on auditing HAI processes?

What auditing tools are you using for CAUTI? For CLABSI? For CDI? Hand hygiene?

(Hanskamp-Sebregts M, BMC Health Services Research, 2013; Bryce E, Am J Infect Control, 2007)

Additional Auditing Resources

- Joint Commission CLABSI Toolkit
- AHRQ CAUTI Event Report Tool
- Pennsylvania Patient Safety Authority's CAUTI Prevention Practices
- Pennsylvania Central Line Outcomes and Process Measures Worksheet
- CDC's NHSN Central Line Practices Adherence (CLIP)
- AHRQ CUSP. Identify Defects Through Sensemaking
- TAP Catheter-Associated Urinary Tract Infection (CAUTI) Toolkit Implementation Guide: Links to Example Resources
- WHO Hand Hygiene Tools
- CDC Options for Evaluating Environmental Cleaning
- Reducing C. difficile Infections Toolkit
- **STRIVE Module: Coaching and Training Frontline Health Care Professionals (PPE103)**
- **STRIVE Module: Auditing and Feedback of PPE Use (PPE104)**
- Consult with your STRIVE State Partners
- Please share tools and techniques with your colleagues!!

QUESTIONS?

We Want To Hear From You!!!

Project Next Steps

- Review your PCA Report with your team
- Review on-demand modules on audits
  - Using Audits to Monitor Infection Prevention Practices (CBT102)
  - Hand Hygiene: Education, Monitoring and Feedback (HH102)
  - Auditing and Feedback of PPE Use (PPE104)
  - HAI Specific Auditing Strategies
    - CDI, Monitoring for Compliance and Improvement (CDI104)
    - MRSA Risk Assessment and Monitoring (MRSA102)
    - CLABSI, Maintenance and Removal of Central Venous Catheters (CLABSI104)
    - CAUTI, Indwelling Urinary Catheter Insertion and Maintenance (CAUTI104)
- Reach out to your State Partners for help
- Mark your calendar for the next Learning Action Forum: **Thursday October 19 at 11:00 am CT**

Thank You!

Event Evaluation

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