Healthcare-Associated Infection Prevention Program: CAUTI Collaborative

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Mission of the FDOH HAI Program

Utilize surveillance-guided, evidence-based prevention strategies through collaboration among public and private entities to reduce healthcare-associated infections in people who interact with Florida's healthcare system.

Catheter-Associated Urinary Tract Infections

- UTIs are the most common healthcare-associated infection with 80% attributed to an indwelling catheter. [1]
- 12%-16% of hospital inpatients will have a urinary catheter at some time during their hospital stay. [2]
- 13,000 deaths per year are attributable to UTI (mortality rate 2.3%). [3]
- Each CAUTI is estimated to cost $758 with >560,000 occurring per year. ($758 x 560,000 = approx. $425 million) [4]
- An estimated 17%-69% of CAUTI may be preventable, which translates to 380,000 infections and 9,000 deaths prevented per year. [5]

CAUTI Collaborative Terminal Objectives

By December 31, 2011 participating hospitals will:

- **Reduce CAUTIs and CAUTIs rates by 25% from baseline or to zero in one or more units.**
- **Have a 50% reduction in device utilization ratio (urinary catheter days/patient days) x 100 in one or more units.**

By December 31, 2011 participating skilled nursing facilities (SNF) will:

- **Decrease incidence of CAUTI by 10% from baseline during the first 30 days of admission to participating SNFs.**
- **Have a 10% reduction in catheter use within 48 hours of admission to participating SNFs as determined by (# patients with catheter in place >48 hours after admission/# patients admitted with an indwelling catheter in place) x 100.**

CAUTI Collaborative Overview

- Will include both hospitals and SNFs.
  - 10+ of each
  - Foster a relationship between SNFs and acute care facilities

- Consists of 2 Phases:
  - Develop and standardize data collection and reporting, and establish baseline measurement
  - Implement evidence-based prevention strategies. Conduct data validation study (FDOH)

Month	Period
August 2010 September 2010	Enrollment Period (will extent into October if needed)
October 2010 - March 2011	Baseline Measurement Period
April 2011 May 2011 June 2011	Implementation Period
July 2011 - December 2011	Outcome Measurement Period

Focus for Phase 1: Data Collection

- Consistent use and application of the National Healthcare Safety Network (NHSN) CAUTI case definitions.
- Standardize methods of surveillance, data collection, and reporting.
  - NHSN for acute care facilities (FDOH User Group)
  - FDOH CAUTI data collection form for SNFs
- Develop aggregate reporting templates.
- Conduct administrative data validation (ongoing).

National Healthcare Safety Network

- NHSN is a voluntary, web-based system run by CDC for reporting healthcare-associated events and processes.
- It has 4 main components:
  - Patient Safety
  - Healthcare Personnel Safety
  - Biovigilance
  - Research & Development
- Purposes of NHSN
  1. Collect data from a sample of U.S. healthcare facilities to permit valid estimation of the magnitude of adverse events among patients and healthcare personnel.
  2. Promote adherence to practices known to reduce infection risk.
  3. Analyze and report collected data to permit recognition of trends.

Patient Safety Component

- **Device-Associated Module**
  - Central line-associated bloodstream infection
  - Catheter-associated urinary tract infection
  - Ventilator-associated pneumonia
  - Dialysis incident
- **Procedure-Associated Module**
  - Surgical site infection
  - Post-procedure pneumonia
- **MDRO & CDAD Module**
  - Multi-drug resistant organism
  - MRSA
  - *C. difficile* infection [CDI]

Phase 2: Implementation of Evidence-Based Prevention Strategies

1. Insert catheters only for appropriate indications.
2. Implement and promote alternatives to indwelling urinary catheterization.
3. Perform hand hygiene in compliance with CDC/WHO.
4. Provide education on proper insertion and maintenance.
5. Limit insertion of catheters to trained personnel.
6. Insert catheters using aseptic technique and sterile equipment.

Evidence-based Prevention Strategies (cont'd)

7. Secure catheter to prevent movement and urethral traction.
8. Maintain closed drainage system.
9. Maintain unobstructed urine flow.
10. Remove catheter within 48 hours following surgical procedure or document reason for extended use. (SCIP #9)
11. Remove unnecessary catheters.
12. Do not clean the peri-urethral area with antiseptics as routine hygiene is appropriate.

What is provided by FDOH?

Training:

- **NHSN – Getting Started (hospitals)**
- **Data collection procedures for both hospitals and skilled nursing facilities (NHSN & Excel files)**
- **NHSN CAUTI Case Definition**
- **CAUTI Evidence-based Prevention Strategies**
- **Indwelling Urinary Catheter Insertion, Care, and Removal**

What is provided by FDOH?

Tools

- Website
  - http://www.doh.state.fl.us/disease_ctrl/epi/HAI/HAI.html
- Checklists
- Algorithms
- Posters & quick reference signs
- NHSN User Guide
- Materials to promote change towards improving patient safety
- Assistance with data analysis and standardized reporting

What is provided by FDOH?

Site Visits

- **Hands-on NHSN training**
  - Completion of facility set-up
  - Module set-up
  - Conferring rights to FDOH user group

- **Individual facility consultation**
  - Review Pre-assessment
  - Program customization

- **Assistance on the implementation of prevention strategies***
  - Additional staff training

** These services may be provided by FDOH staff, through partnerships with FPIC, or through vendor contract.*

To join the collaborative your facility must.....

- Demonstrate senior leadership (C-Suite) support by signing a letter of commitment agreeing to the following:
  - Submit baseline and monthly CAUTI data.
  - Participate in site visits with FDOH staff, training, and monthly activities.
  - Join the FDOH NHSN user group (hospitals).
  - Implement improvement tools for collaborative.
- Identify a project team that includes: team leader (e.g., IP or quality lead), clinical champion (R.N. or M.D.), and a senior leader.
- Identify a unit team that is responsible for ensuring the implementation of CAUTI prevention strategies in the designated unit (e.g., a nurse manager, staff nurse, and patient tech).
- Complete NHSN enrollment and install digital certificates (hospitals).
- Complete pre-assessment tool.

Required Activities

- CAUTI data submitted via NHSN/Excel by the 15th of each month.
- Monthly Collaboration Calls
  - Aggregate reporting
  - Coaching
  - Round table
- Monthly CAUTI team/unit staff meeting
  - Current infection rate versus rate for previous two months.
  - Case review for at least one CAUTI to identify opportunities for improvement.
  - Reinforce prevention strategies.
- CAUTI “rounds”
  - Assess each catheterized patient daily using CAUTI quick reference checklist.
  - Document reason for catheter use.
  - If patient no longer meets indications, actions should be taken to remove the catheter.

CAUTION!

Count to 10 before you cath.

1. Insert catheters only for appropriate indications.
2. Consider using alternatives to indwelling urethral catheterization.
3. Perform hand hygiene!
4. Have you been trained? Insertion of catheters is limited to trained personnel.
5. Insert catheters using aseptic technique and sterile equipment.
6. Properly secure catheter after insertion.
7. Maintain a closed drainage system.
8. Maintain unobstructed urine flow.
9. Do not clean the periurethral area with antiseptics. Routine hygiene is appropriate.
10. Assess daily! Remove unnecessary catheters or document reason for extended use.

	2 months ago	Last month	This month
CAUTI rate			

Number of infections/1000 catheter days = CAUTI rate

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Eliminate CAUTI:

One infection at a time

Appropriate Indications: *Does this patient need the catheter?*

- Ensure patient meets appropriate indications for catheter use and document reason.
- Consider alternatives to indwelling urethral catheterization.

Hand hygiene: *It starts with the hands.*

- Sanitize hands thoroughly with an alcohol-based hand rub or soap and water before and after catheter insertion or manipulation.

Insertion Technique: *Pay attention to detail.*

- Use sterile equipment including, sterile gloves, drape, sponges, and appropriate antiseptic solution.
- Use aseptic technique to insert catheter. If aseptic technique is broken, replace catheter and collecting system aseptically with sterile equipment.
- Use a single-use packet of lubricant jelly for insertion for each patient.
- Secure catheter to prevent movement and urethral traction.

Catheter maintenance: *Keep it neat.*

- Keep collection bag below level of the bladder at all times.
- Check tubing frequently for kinking.
- Keep drainage bag off the floor.
- Empty the collecting bag regularly.
- Maintain a closed-drainage system.

Catheter care: *Keep it clean.*

- Perform perineal care daily and after each bowel movement.

Catheter removal: *Get it out!*

- Assess patient daily for catheter need.
- Take steps to remove catheter when patient no longer meets indications.

Examples of Appropriate Indications for Indwelling Urethral Catheter Use

Patient has acute urinary retention or bladder outlet obstruction.

Need for accurate measurements of urinary output in critically ill patients.

Perioperative use for selected surgical procedures:

- *Patients undergoing urologic surgery or other surgery on contiguous structures of the genitourinary tract*
- *Anticipated prolonged duration of surgery (catheters inserted for this reason should be removed in PACU)*
- *Patients anticipated to receive large-volume infusions or diuretics during surgery*
- *Need for intraoperative monitoring of urinary output*

To assist in healing of open sacral or perineal wounds in incontinent patients.

Patient requires prolonged immobilization (e.g., potentially unstable thoracic or lumbar spine, multiple traumatic injuries such as pelvic fractures).

To improve comfort for end of life care if needed.

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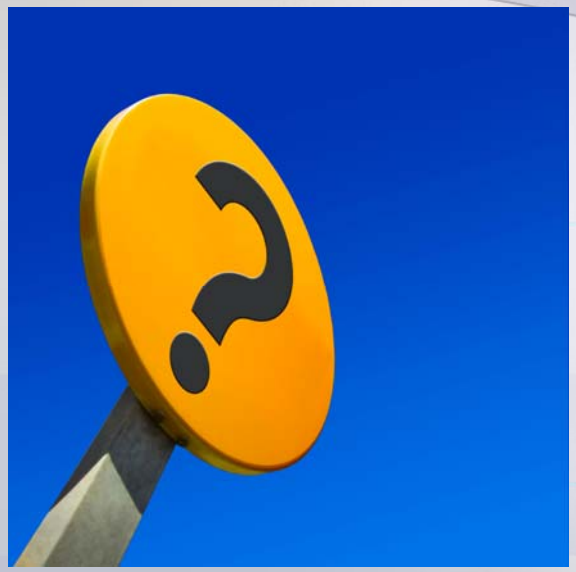
Questions or Comments?



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