

# CATHETER ASSOCIATED URINARY TRACT INFECTION (CAUTI) PREVENTION

Translating Evidence Based  
Strategies Into Practice





# Mission/Vision Statement

- To extend equally to all New Yorkers, regardless of their ability to pay, comprehensive health services of the highest quality in an atmosphere of humane care, dignity and respect.
- To promote and protect, as both innovator and advocate, the health, welfare and safety of the people of the City of New York
- To join with other health workers and with communities in a partnership which will enable each of our institutions to promote and protect health in its fullest sense – the total physical, mental and social well-being of the people.



# Guiding Principles

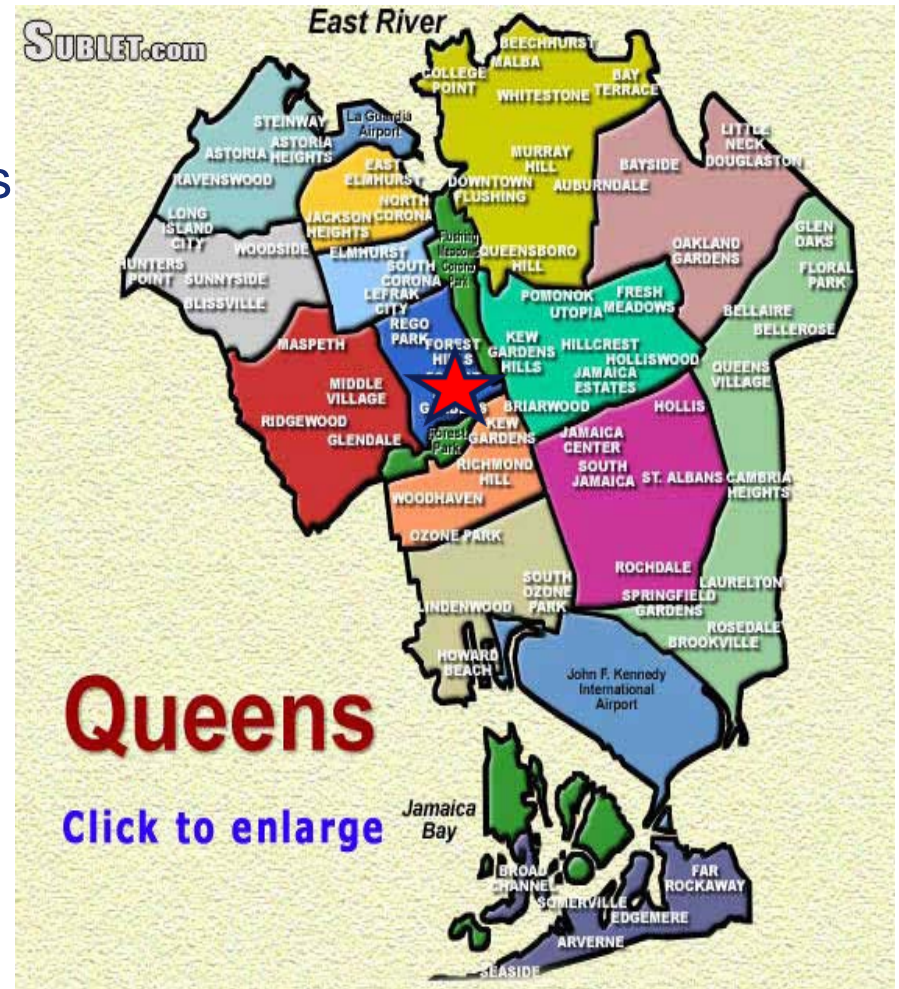
- NYC Health + Hospitals' Guiding Principles reinforce six essential features of our daily work: a patient-centered approach, safety, excellence, cost savings and resource management, teamwork, and employee development. Our Guiding Principles provide a foundation to achieve the “Triple Aim” of better health, better care, and better value.





# Hospital Demographics

- 299 bed full service hospital
- 16 bed ICU, 7 bed Step Down Unit, 131 medical surgical beds  
10 Acute Rehab beds
- 105,000 visits annually to the Emergency Department
- Medical/surgical, specialty and diagnostic inpatient and outpatient services and programs
- Located in Jamaica, Queens County
- An affiliate of the Icahn School of Medicine at Mount Sinai



# CAUTI Team



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Associate Director of Nursing

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Head Nurse/Infection Preventionist

**Maria Leah Cervantes MS, NP-BC, CCRN,**

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**Jincy Joseph, RN, MA, CCRN, NEA-BC**

Associate Director Staff Development

**George T. Martin MD, FACP**

Director

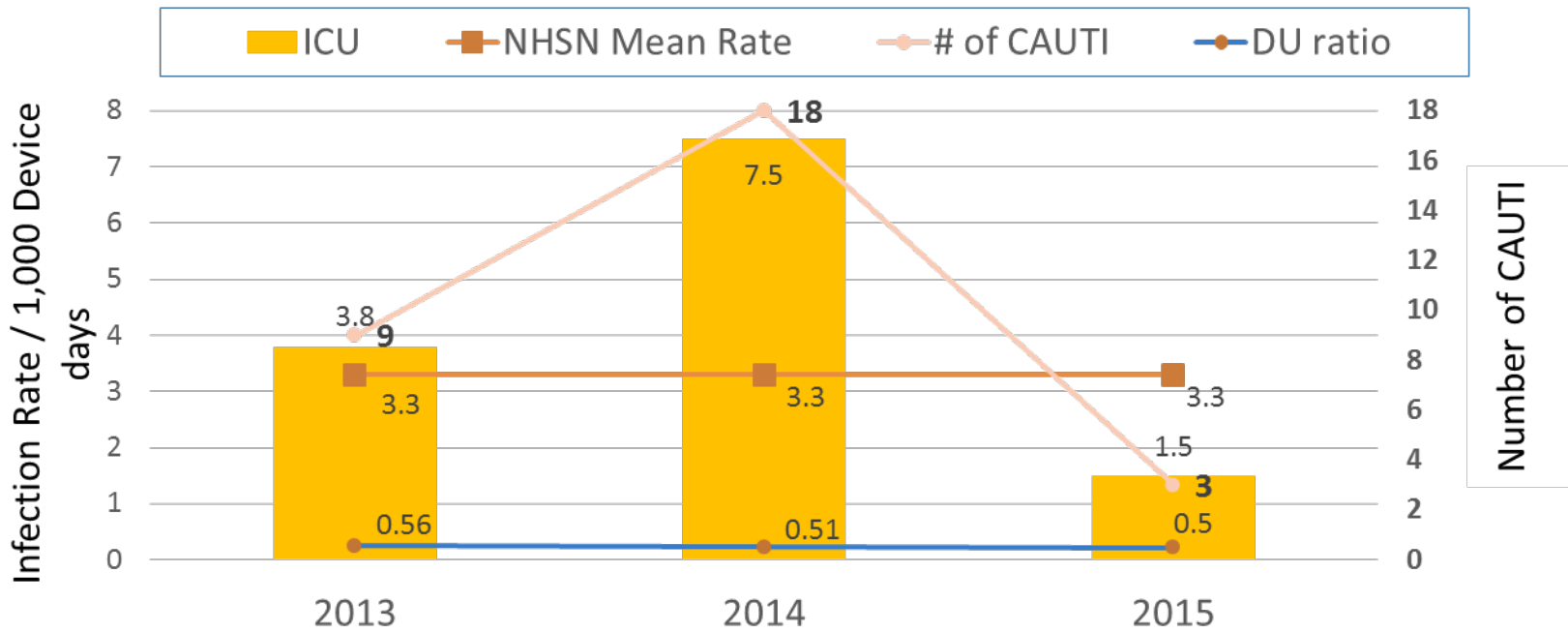
Department of Medicine

# The Dreadful Truth Behind UTI & CAUTI

- Each year, more than 13,000 deaths are associated with UTI's.
- More than 30 million Urinary catheters are inserted annually in the USA which probably contributes to 1 million CAUTI's.
- Secondary Bacteremia causes to Sepsis and Acute Pyelonephritis etc.
- According to Pennsylvania Healthcare cost council, patients with CAUTI were charged \$117,253 compared to 33,260 for patients without CAUTI.

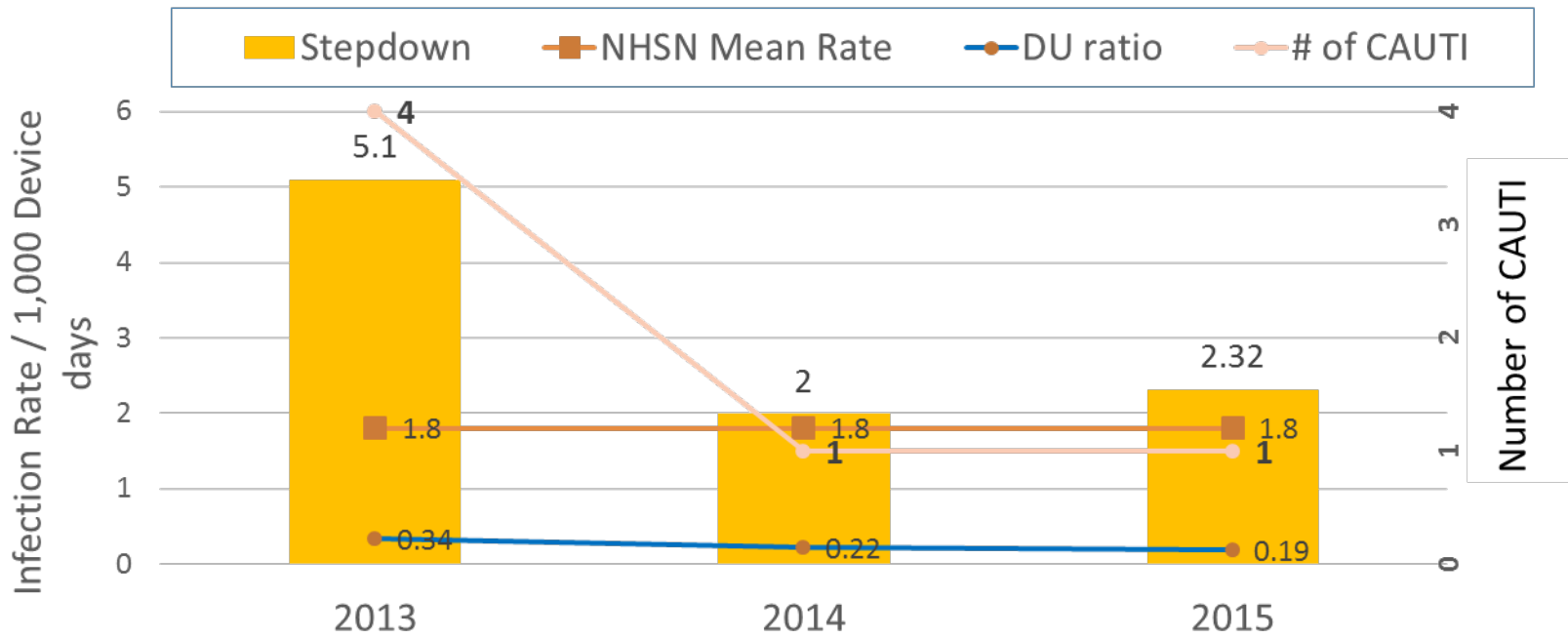


# ICU CAUTI Data

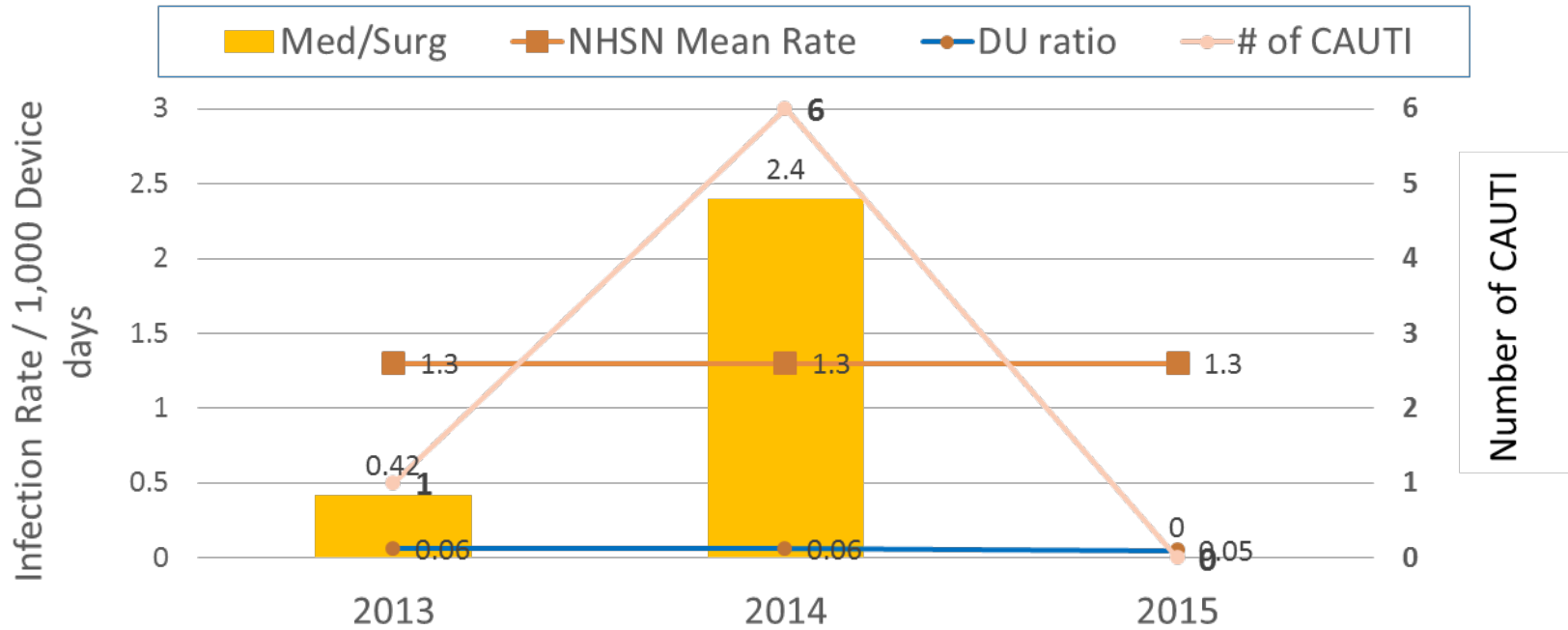




# Stepdown CAUTI Data



# Medical / Surgical CAUTI Data



# Our Process

- Identify Current Practices
- Review Evidence Based and Best Practice
- Identify Gaps
- Review Metrics
- Data Sharing



# Identification of Current Practice Issues

- Root Cause Analysis (RCA) of every CAUTI
  - Multiple practice issues related to Foley insertion and maintenance
- Direct Observation of Catheterization
  - Many inconsistencies in practice
  - Breaks in aseptic techniques



Direct Observation of Aseptic Insertion	% Met	% Not Met
Washes hands	100%	0%
Dons clean gloves	45%	55%
Aseptically opens outer CSR wrap	27%	73%
Places under pad shiny side down	27%	73%
Completes Peri-care using provided castile soap wipes	9%	91%
Removes Soiled Gloves	27%	73%
Completes hand hygiene with provided hand sanitizer gel	18%	82%
Dons sterile gloves maintaining aseptic technique	73%	27%
Places fenestrated drape while maintaining aseptic technique	55%	45%
Removes top tray and place next to bottom tray (keeping on CSR)	73%	27%
Cleanses with PVI circle for male, downward strokes for female	73%	27%
Inserts Foley Aseptically	27%	73%
Overall Aseptic Insertion	18%	82%





# Action Plan for CAUTI Reduction

- Daily White Board Rounds
- Education and training
- Competency for nurses
- CAUTI Champions
- Catheter Insertion Kit
- Bladder scanning



# Indications for Foley Catheter

- Acute urinary retention or bladder outlet obstruction
- Accurately monitor urinary output in critically ill patients
- Perioperative use for selected surgical procedures
- Prolonged effect of epidural anesthesia
- To assist in healing of open sacral or perineal wound
- Surgical patients requiring prolonged immobilization
- Patient/family request for terminally ill patients (Comfort/Palliative) care



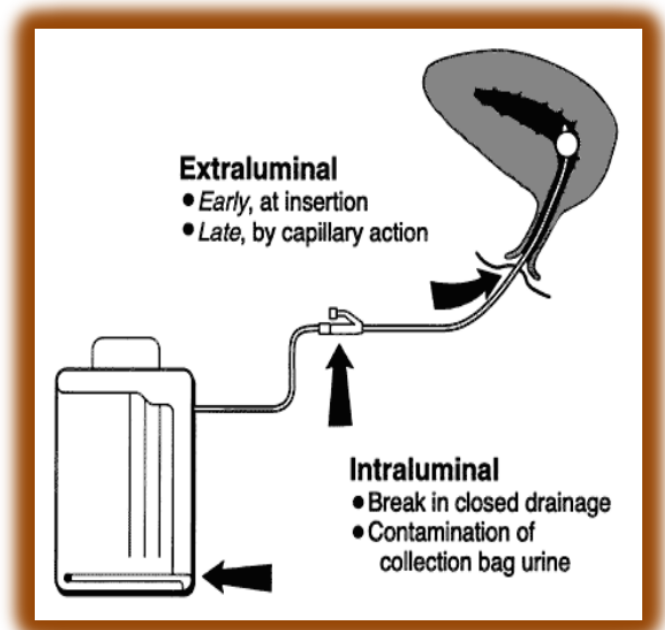
# Use of Foley Insertion Bundle

- Two RNs at bedside (1<sup>st</sup> RN inserts catheter, 2<sup>nd</sup> RN observe practice)
- Insert catheter only for appropriate indications
- Only trained staff will insert and/or maintain catheter
- Insert catheter using insertion kit
- Maintain a closed drainage system
- Prevent obstruction of urine flow
- Practice hand hygiene and standard precautions (CDC HICPAC guidelines)



# Maintenance Bundle

- **Daily justification at White Board Rounds for prompt removal.**
- Use stat lock to secure catheter to prevent irritation of the urethra.
- Maintain an unobstructed flow
- Maintain the drainage bag below the level of the bladder and off the floor
- Perform hand hygiene before and after each patient contact
- Provide individual labeled collection container at the bedside



## Framework based on “SMART” Tools

**S = Specific goals**

**M = Measurable goals**

**A = Achievable goals**

**R = Realistic goals**

**T = Trending goals**

**Tools = Foley Insertion Checklist, Maintenance Bundle Checklist, Record of Devices**



# Additional Prevention Strategies

- Discourage catheter use for Intake and Output outside the Intensive Care Unit
- Use of alternatives to indwelling catheter
  - Daily weights
  - Condom catheters for male patients
  - Implementation of bladder scan algorithm\*
  - Intermittent catheterization



# Catheter Removal

- Bladder Catheter Policy guides timely removal
  - Orders automatically expire after 48 hours
  - Post-operative cases which expire after 24 hours



# Best Practice

- Active Surveillance
- The Indications for the catheter is reviewed every shift
  - RN handoff report include indication, justification and insertion date/time
  - Interdisciplinary team review during daily rounds
    - Is this Foley necessary?
    - Does it meet the required indicator?
    - Was it inserted by Queens Hospital?
      - If not, was it replaced?
    - Unit Manager reviews on a daily basis

*Continuous surveillance and open discussions about indwelling catheters with a TEAM approach.*



# CAUTI Prevention Strategy in the ED

- Interdisciplinary education
- ED champions
- Routine surveillance
- Our ED motto: “JUST SAY NO TO FOLEY” except
  - Retention
  - I & O for critical patients







THANK YOU

