

Engaging Clinicians in CAUTI Prevention: Tales from the Trenches

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Catheter-Associated Urinary Tract Infection (CAUTI)

- UTI causes ~ 35% of hospital-acquired infections
- Most due to urinary catheters
- ~20% of inpatients are catheterized
- Leads to increased morbidity and healthcare costs
- CMS no longer reimburses for the additional costs of hospital-acquired CAUTI

Satisfaction survey of 100 catheterized VA patients:

- 42% found the indwelling catheter to be uncomfortable
- 48% stated that it was painful
- 61% noted that it restricted their ADLs
- 2 patients provided unsolicited comments that their catheter “hurt like hell”

(Saint et al. JAGS 1999)

How Can We Implement Changes to
Reduce Indwelling Catheter Use?

A Technical Solution: Timely Removal of Indwelling Catheters

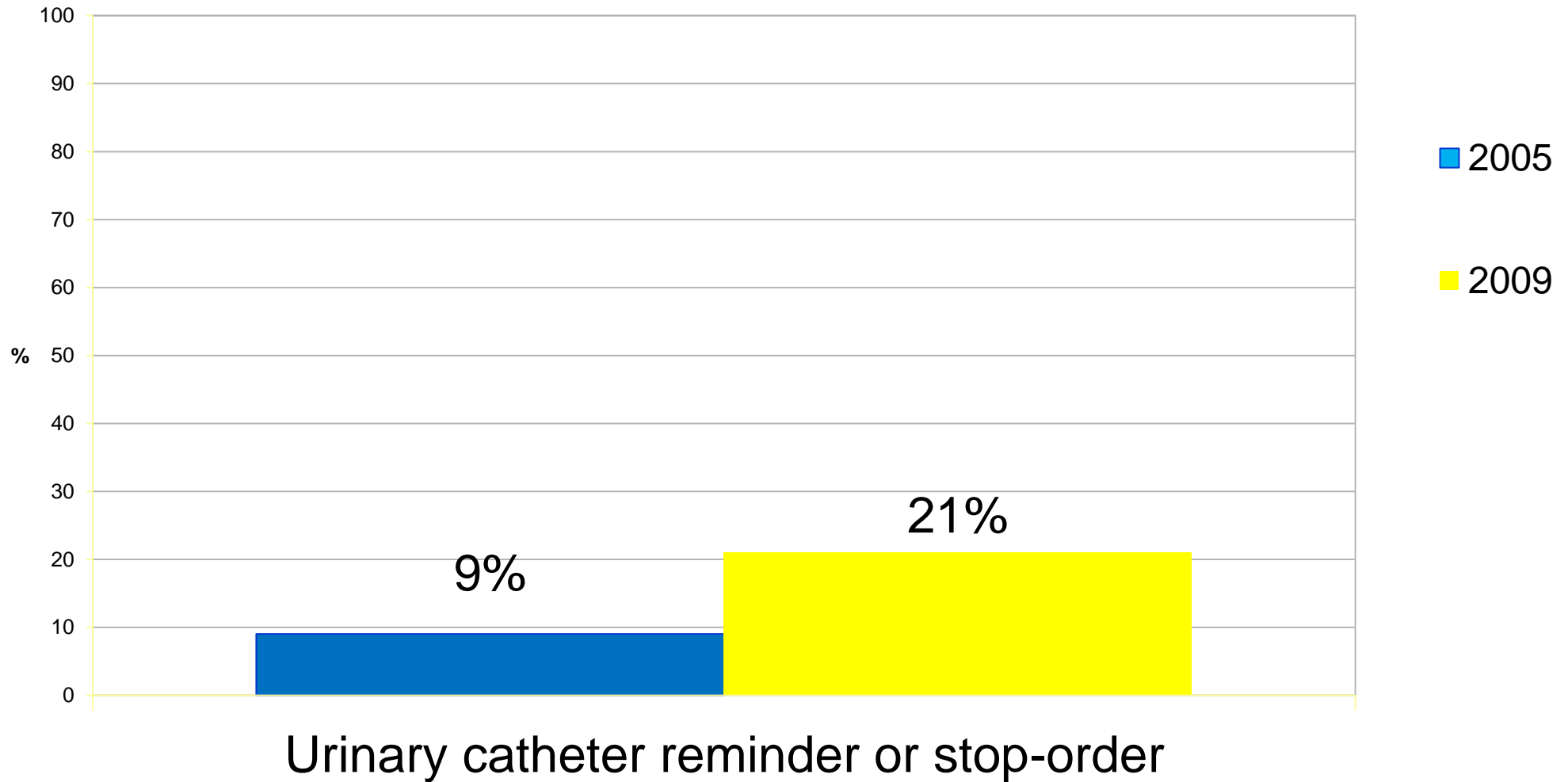
- 14 studies have evaluated urinary catheter reminders and stop-orders (written, computerized, nurse-initiated)
 - Significant reduction in catheter use (~2.5 days)
 - Significant reduction in infection (~50%)
 - No evidence of harm (ie, re-insertion)

(Meddings J et al. Clin Infect Dis 2010)

Regularly Using to Prevent CAUTI: 2005 vs. 2009

U.S. National Data

(Krein et al. J Gen Intern Med 2011)



Implementing Change



*Across the
State of Michigan*



At Home

Hospital Outcomes Program of Excellence (HOPE)

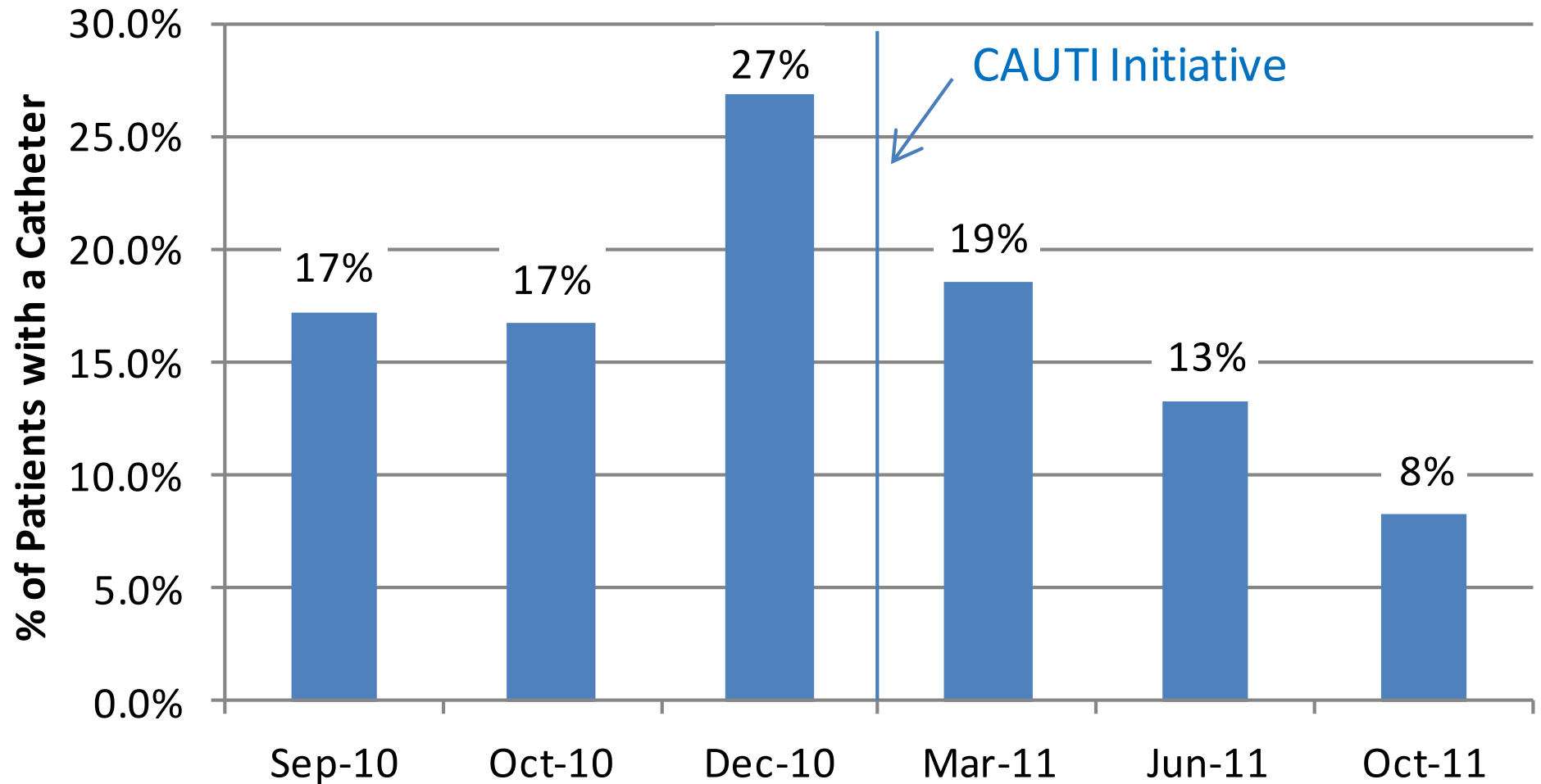
(<http://va-hope.org>)

- Systems redesign grant to Ann Arbor VAMC
- Behavioral lab for interventions to improve quality and efficiency of care
- CAUTI prevention one of many initiatives: nurse-initiated reminder



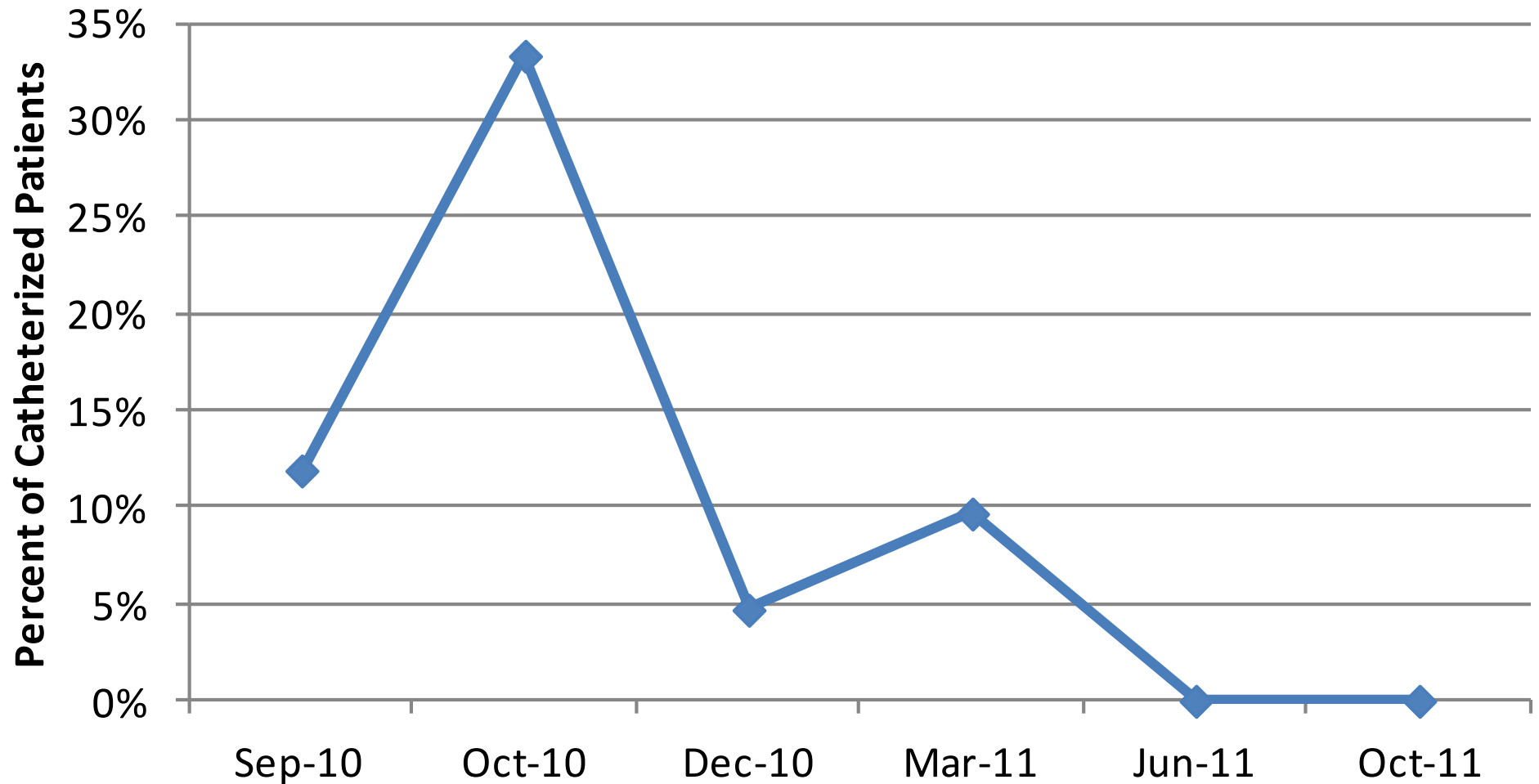
Prevalence of Urinary Catheters

Urinary Catheter Point Prevalence



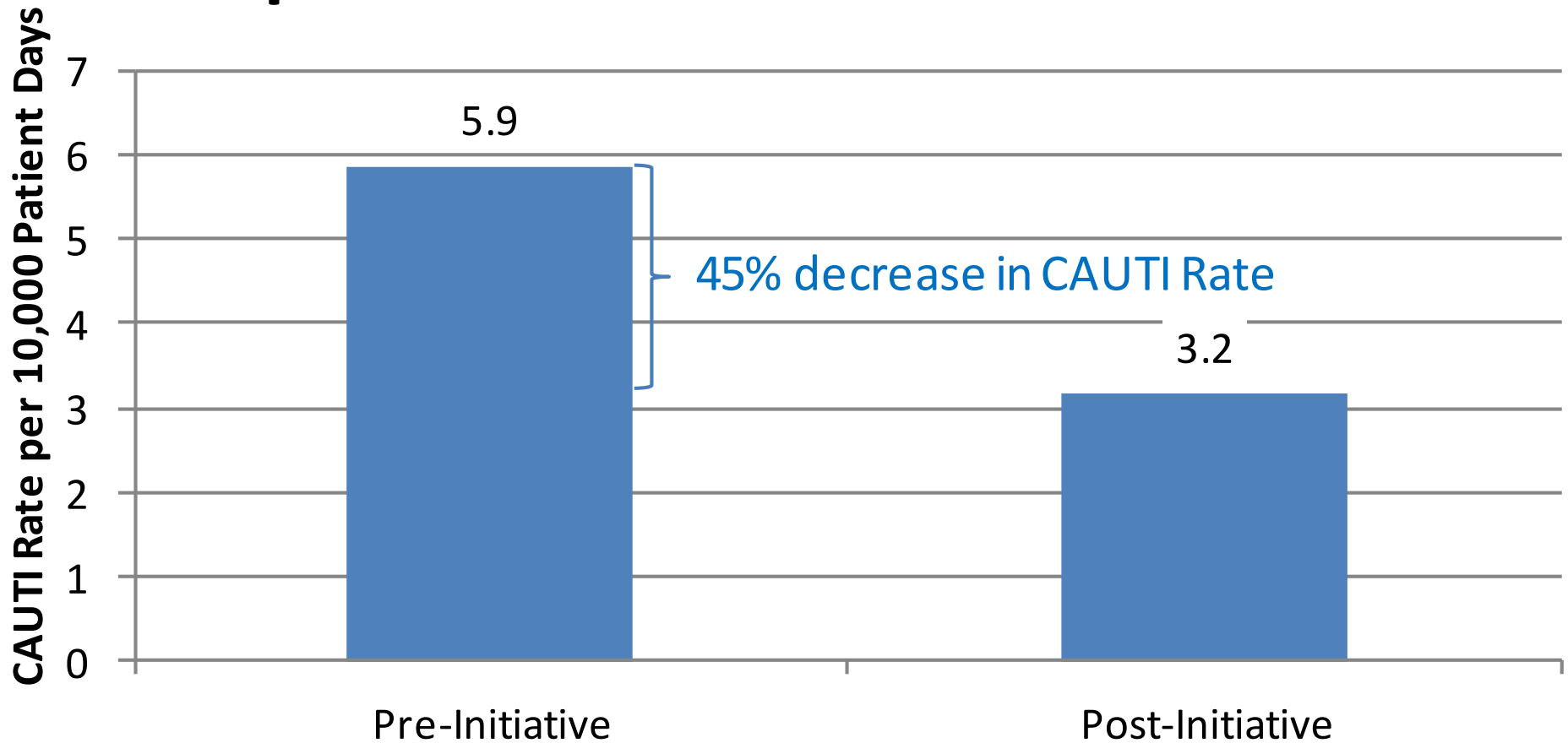
Indication for Catheter Placement

Patients with Foley Not Indicated



CAUTI Rate

Average CAUTI Rate Before and After Implementation of CAUTI Initiative



A key ingredient for success is figuring out how to engage the clinicians in your hospital.

Outline

- CAUTI & Timely Removal of the Catheter
- Engaging Clinicians
- Future Directions

Physicians...

(Following slides courtesy of Dr. Fakhri)

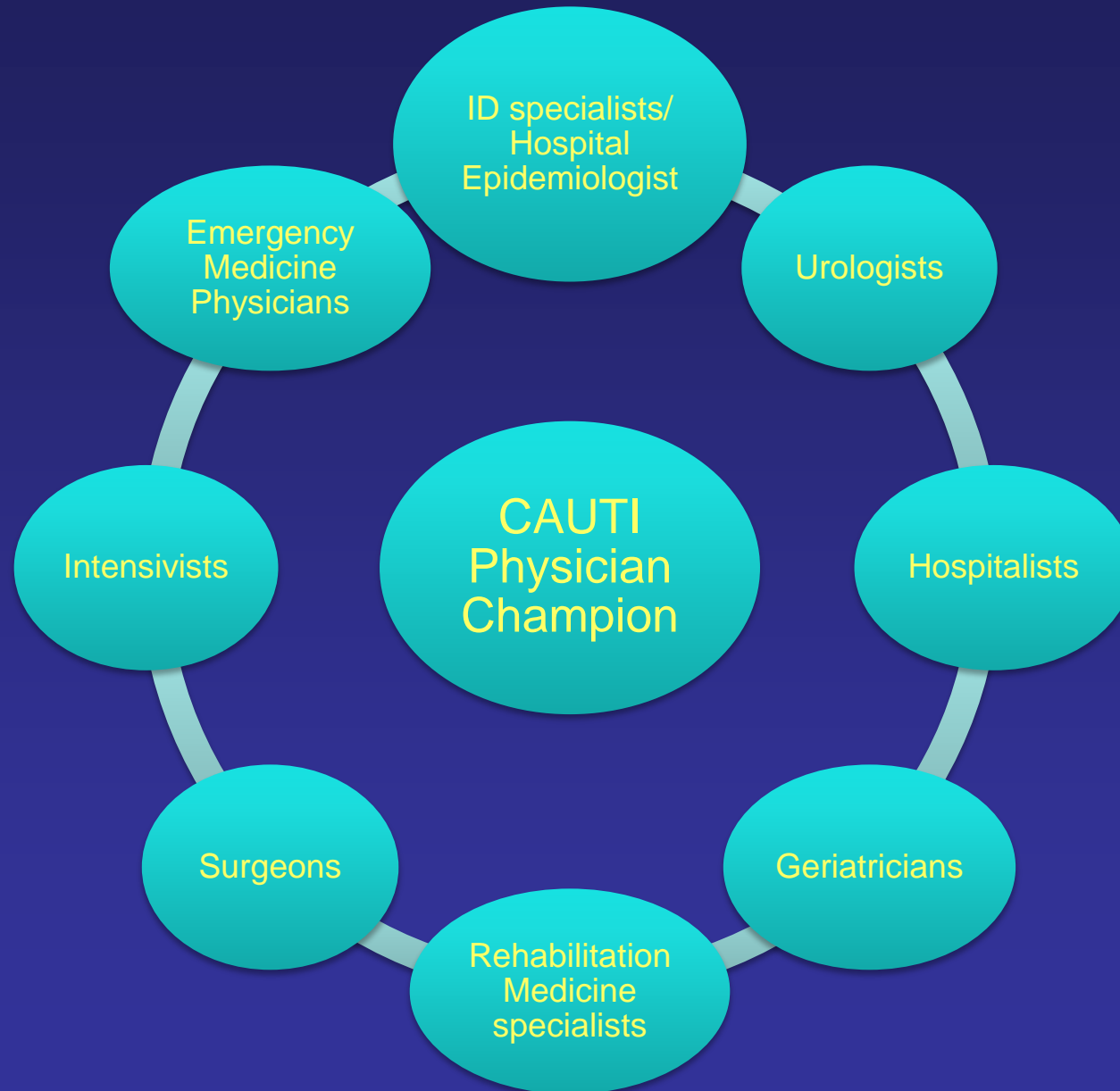
- Play a significant role in shaping care in the hospital
- Tend to be fairly autonomous; may not be employed by the hospital
- Primarily interested in treating illness – typically not trained to focus on improving safety and preventing harm
- Likely unaware of safety efforts in the hospital; most have limited time to volunteer for supporting the safety agenda
- Change may not be readily embraced

How to Engage Physicians?

(James Reinertsen, IHI innovation Series White Paper, 2007)

1. Develop a common purpose (patient safety, efficiency)
2. View physicians as partners (not barriers)
3. Identify physician champions early
4. Standardize evidence-based processes
5. Provide support from leadership for the efforts of the physician champion

The Physician Champion & Physician Supporters



Physician Supporters: Reasons for Them to Support the Champion (or Become One...)

Infectious Disease Specialists	Urologists
<ul style="list-style-type: none">• Reduce CAUTI• Reduce antibiotic use• Reduce potential of increased resistance and <i>Clostridium difficile</i> disease	<ul style="list-style-type: none">• Reduce trauma (mechanical complications):<ol style="list-style-type: none">1. Meatal and urethral injury2. Hematuria
Hospitalists	Geriatricians
<ul style="list-style-type: none">• Infectious and mechanical complications• Potential catheter complications prolonging length of stay• Often salaried physicians with incentives based on hospital-based quality and efficiency	<ul style="list-style-type: none">• Many elderly are frail• Urinary catheters are placed more commonly in elderly inappropriately• Urinary catheters increase immobility and deconditioning

Physician Supporters: Reasons for Them to Support the Champion (or Become One...)

Rehabilitation Specialists	Surgeons
<ul style="list-style-type: none">• The urinary catheter reduces mobility in patients: “one-point restraint”• Rapid recovery (improvement in ambulation) may be hampered by the catheter	<ul style="list-style-type: none">• Surgical Care Improvement Project: Remove catheters by postop day 1 or 2• Inappropriate urinary catheter use may negatively affect the surgeon’s profile• Risk of infection and trauma related to the catheter
Intensivists	Emergency Medicine physicians
<ul style="list-style-type: none">• Intensivists can support the evaluation of catheter need before transfer out of the ICU	<ul style="list-style-type: none">• Up to half of the patients are admitted through the emergency department (ED)• Inappropriate urinary catheter placement is common in the ED• Promoting appropriate placement of urinary catheters in the ED will reduce inappropriate use hospital-wide

How to Engage Nurses?

1. Develop a common purpose (patient safety)
2. View nurses as partners (not barriers)
3. Identify nurse champions early
4. Standardize evidence-based processes (and make the right thing to do, the easy thing to do)
5. Provide support from leadership for the efforts of the nurse champion

Attention to Urinary Catheters: Workload

- Nursing workload can be an issue ...
- A nurse: "...convenience unfortunately is a high priority ...especially with urinary catheters...the workload will be increased if you have to take [patients] to the bathroom or you have to change their bed a little more often"

(Saint et al. Infect Cont Hosp Epid 2008)

Overcoming Barriers

- Nurse buy-in is key to success
- A physician administrator: “Because the nurses on the geriatrics unit wanted to have their patients regain mobility...they viewed mobility as very important ...versus the other units where the nurses didn’t necessarily feel that was a real goal..”
- A nurse champion is critically important!

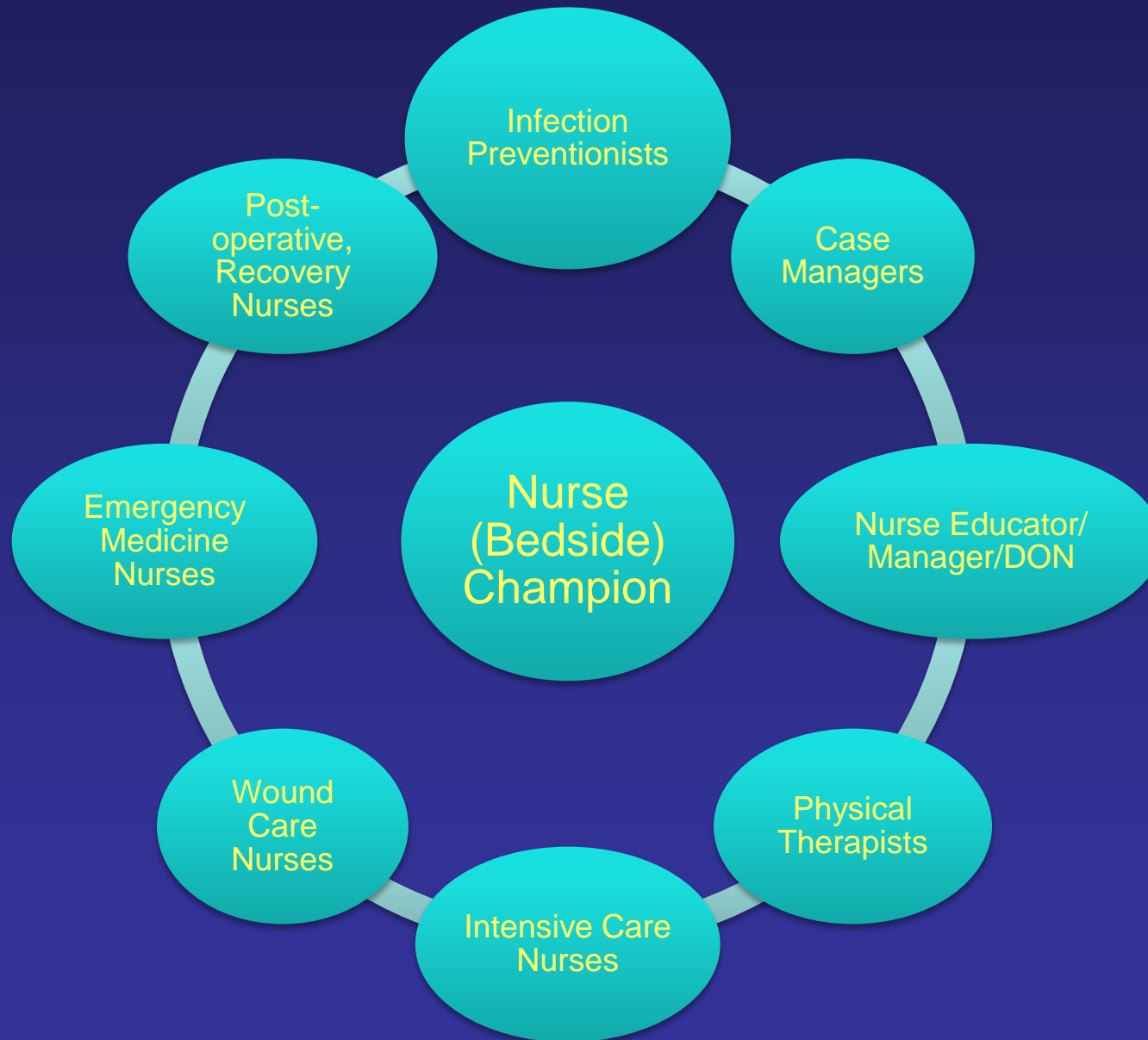
Identifying the “Champion”

Successful champions tend to be intrinsically motivated and enthusiastic about the practices they promote

“I have a certain stature in this hospital...People know that I’m very passionate about patient care so...I get positive reinforcement from them...they’re happy to see me...because ...they know that I’m thinking about what’s best for the patient...”

(Damschroder et al., Qual and Safety in Healthcare 2009)

The Bedside Nurse...and Supporters



Nurse Supporters: Reasons for Them to Support the Champion

Infection preventionists	Case managers
<ul style="list-style-type: none">• Reduce CAUTI• Reduce antibiotic use• Reduce potential of increased resistance and <i>Clostridium difficile</i> disease	<ul style="list-style-type: none">• Less complications (mechanical or infectious) = lower cost• Early removal of catheter may reduce length of stay
Nurse educator/ Unit manager/Director of nursing (DON)	Physical therapists
<ul style="list-style-type: none">• Leader and supporter to the bedside nurse• Makes appropriate urinary catheter use a priority and a safety issue• Helps to address any barriers encountered by the bedside nurse	<ul style="list-style-type: none">• The urinary catheter reduces mobility in patients: “one-point restraint”• Rapid recovery (improvement in ambulation) may be hampered by the catheter

Nurse Supporters: Reasons for Them to Support the Champion

Intensive care unit (ICU) nurses	Wound care nurses
<ul style="list-style-type: none">• A significant opportunity is present upon transfer from the ICU to discontinue no longer needed urinary catheters• ICU nurse may evaluate catheter need before transfer out of the unit and discontinue unnecessary catheters	<ul style="list-style-type: none">• Urinary catheter use increases immobility, which in turn results in an increased risk of pressure ulcers• Wound care nurses may help in advising the bedside nurse on methods to reduce skin breakdown in patients with incontinence without using urinary catheters
Emergency medicine nurse	Post-operative recovery nurses
<ul style="list-style-type: none">• Up to half of the patients are admitted through the emergency department (ED)• Inappropriate urinary catheter placement is common in the ED• Promoting appropriate placement of urinary catheters in the ED will reduce inappropriate use hospital-wide	<ul style="list-style-type: none">• Urinary catheters are commonly placed preoperatively for fluid management• Post-operative recovery nurses evaluate the catheter for continued need and promptly remove unnecessary catheters

Putting it All Together: Key Roles and Responsibilities

Role or Responsibility	Example of Personnel to Consider
Project coordinator	Infection preventionist, quality manager, nurse manager
Nurse champion (engage nursing personnel)	Nurse educator, unit manager, charge nurse, staff nurse
Physician champion (engage medical personnel)	Urologist, ID physician, hospital epidemiologist, hospitalist
Data collection, monitoring, reporting	Infection preventionist, quality manager, Utilization manager

(Modified from www.catheterout.org)

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The Future...

- Sustainability
- Mindfulness

A Dilemma

- Much of what we do in healthcare – especially in the hospital – is reflexive
 - If a patient is hypoxemic: we give oxygen
 - Low BP: IV fluids
 - Positive blood cultures: antibiotics
 - Frequency, urgency, and dysuria: dx UTI

A Dilemma

- These rote responses are usually helpful
- However, this reflex-like approach can lead to problems
 - Pt sick enough to be admitted from the ED:
Foley catheter
 - Asymptomatic catheterized patient has a
“dirty” urine: antibiotics

One Possible Solution: “Medical Mindfulness”

Outline

- ✓ CAUTI & Timely Removal of the Catheter
- ✓ Engaging Clinicians
- ✓ Future Directions