On the CUSP: STOP CAUTI

Teamwork & Reducing CAUTI in the Emergency Department

Indiana HEN

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Objectives

- Understand how teamwork improves health care outcomes
- Learn teamwork theory
- Apply teamwork and culture change theory to decreasing CAUTI in the Emergency Department

Project Overview

Project Goals for CAUTI are to:

1. reduce mean CAUTI rates in participating clinical units by 25 percent; and
2. improve safety culture as evidenced by improved teamwork and communication by employing CUSP methodology.

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Positive Outcomes of Effective Teamwork on Health Care

- Reduced length of stay
- Higher quality of care
- Better patient outcomes
- Greater ability to meet family member needs
- Improved patient experience with care scores
- Lower nurse turnover

Shortell SM, Marstellar JA, Lin M et al. The role of perceived team effectiveness in improving chronic illness care. *Med Care* 2004 Nov; 42:1040-1048.

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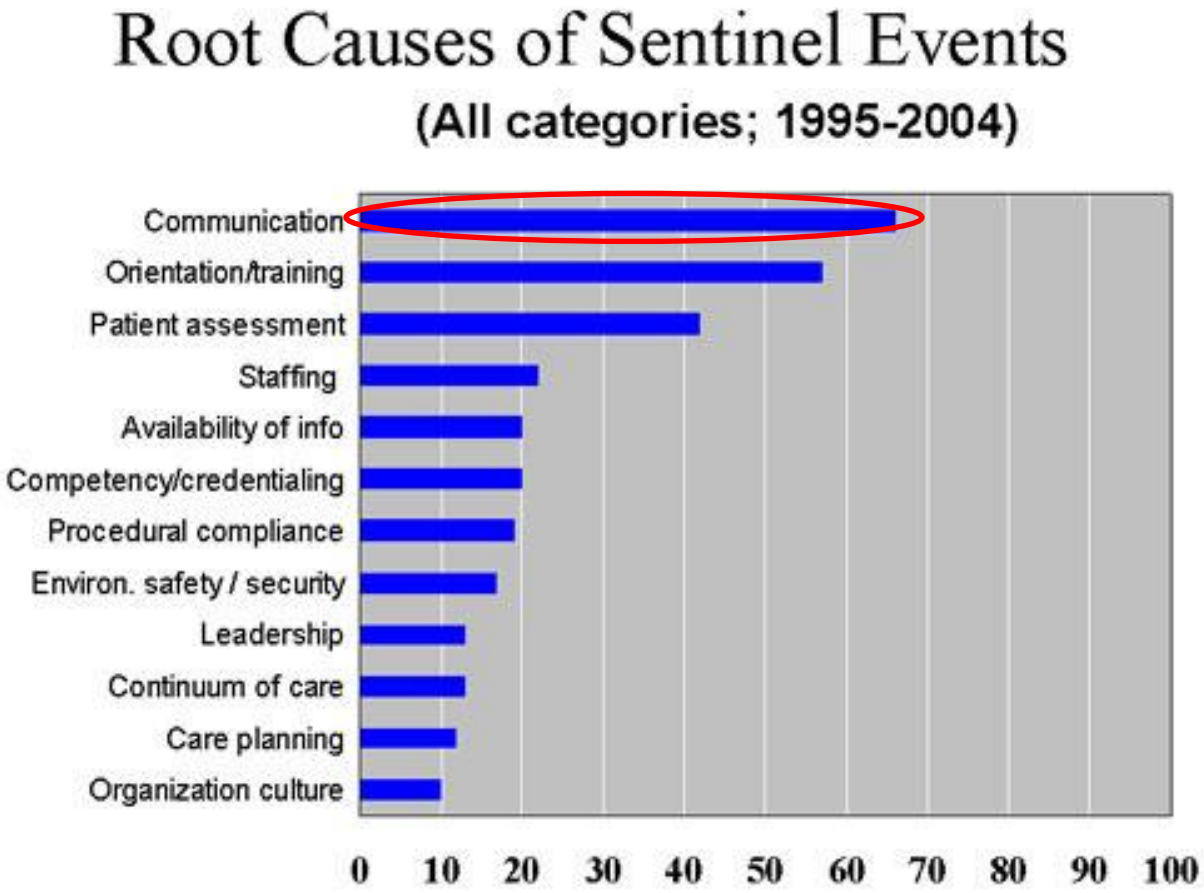
Communication in Health Care



Coordination of Care

AHRQ Agency for Healthcare Research and Quality
Advancing Excellence in Health Care

Can We Talk? Priorities for Patient Care Differed Among Health Care Providers

Table 2. Percentage of health care providers who could identify the other in the morning; and percentage reporting that they had spoken with other health care providers about the care of the patient by mid-afternoon

Physician reported discussing patient with RN	48.9
RN reported discussing patient with physician	51.9
RN reported discussing patient with PCT	92.7
PCT reported discussing patient with RN	90.3
Physician could name RN	22.8
RN could name physician	42.3

RN = registered nurse
PCT = patient care technician

Table 4. Proportion of patient cases where the health care providers agreed on priorities for patient care

	Agreement (%)		
	Full	Partial	None
RN/MD priorities	12.7	57.4	29.9
PCT/RN priorities	7.3	54.2	38.5
PCT/RN/MD priorities	3.5	31.2	65.3

Bradley Evanoff, Patricia Potter, Laurie Wolf, Deborah Grayson, Clay Dunagan, Stuart Boxerman

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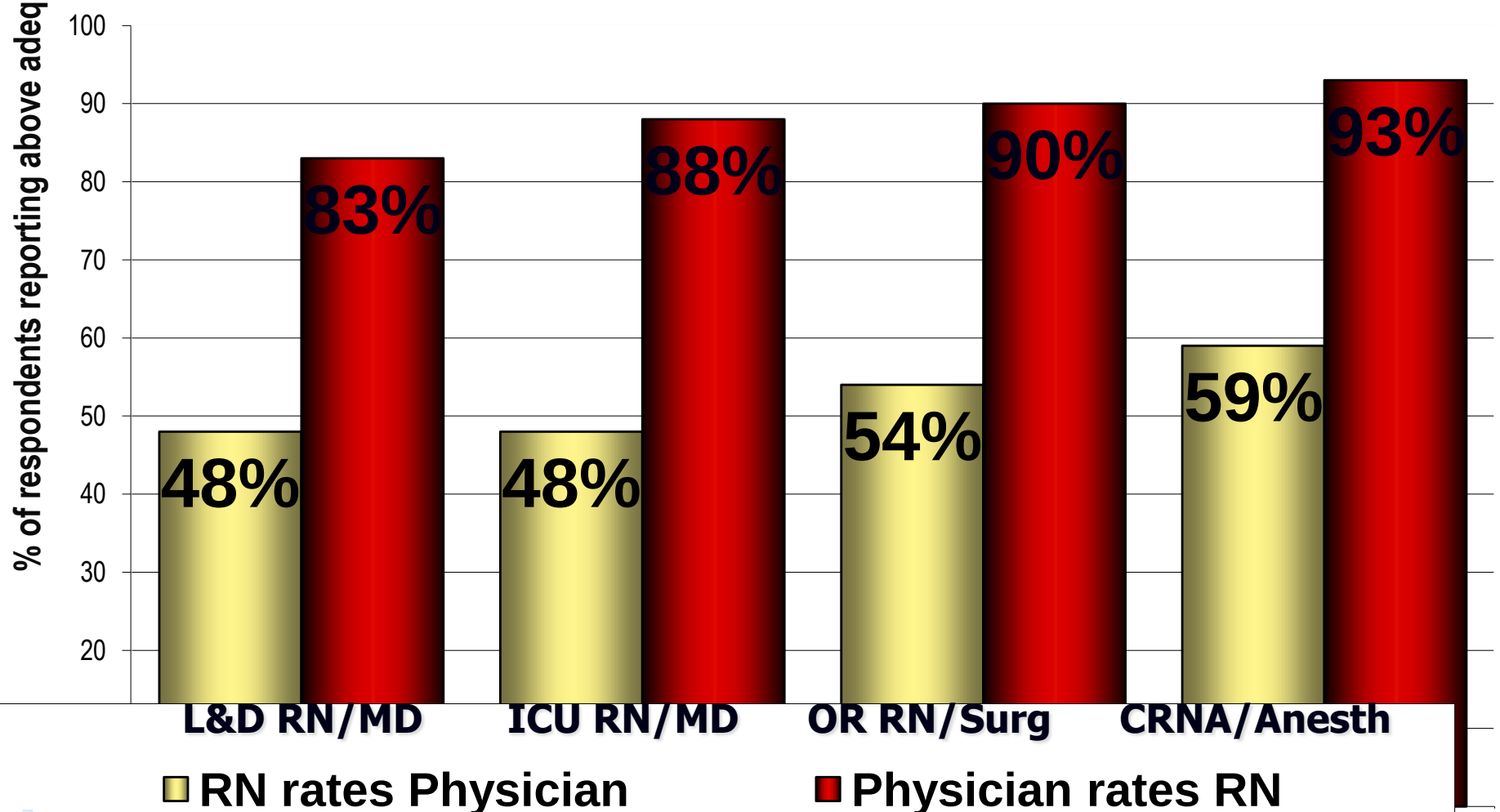
Physicians and RN Collaboration

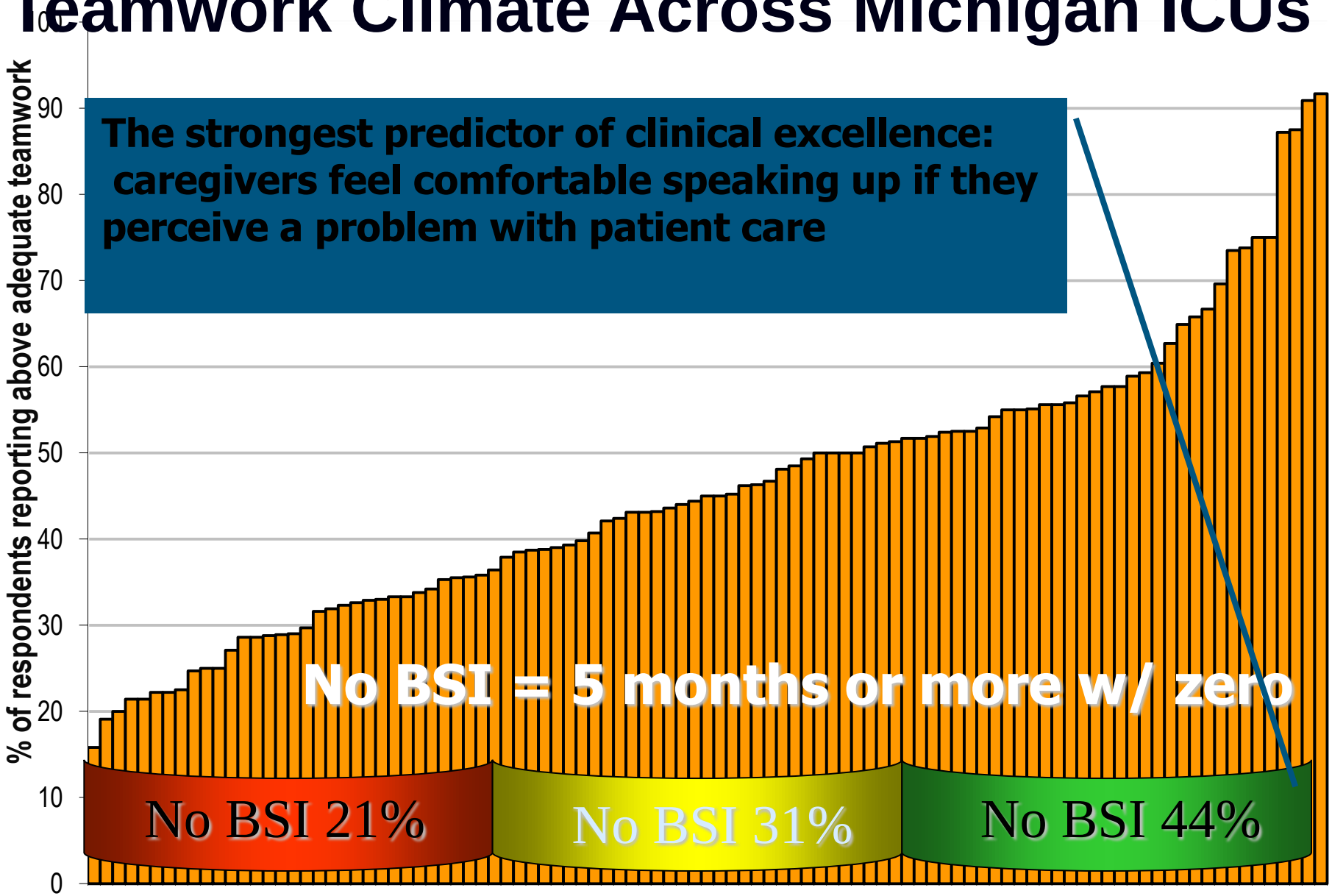


Teamwork Disconnect

MD: Good teamwork means the nurse does what I say

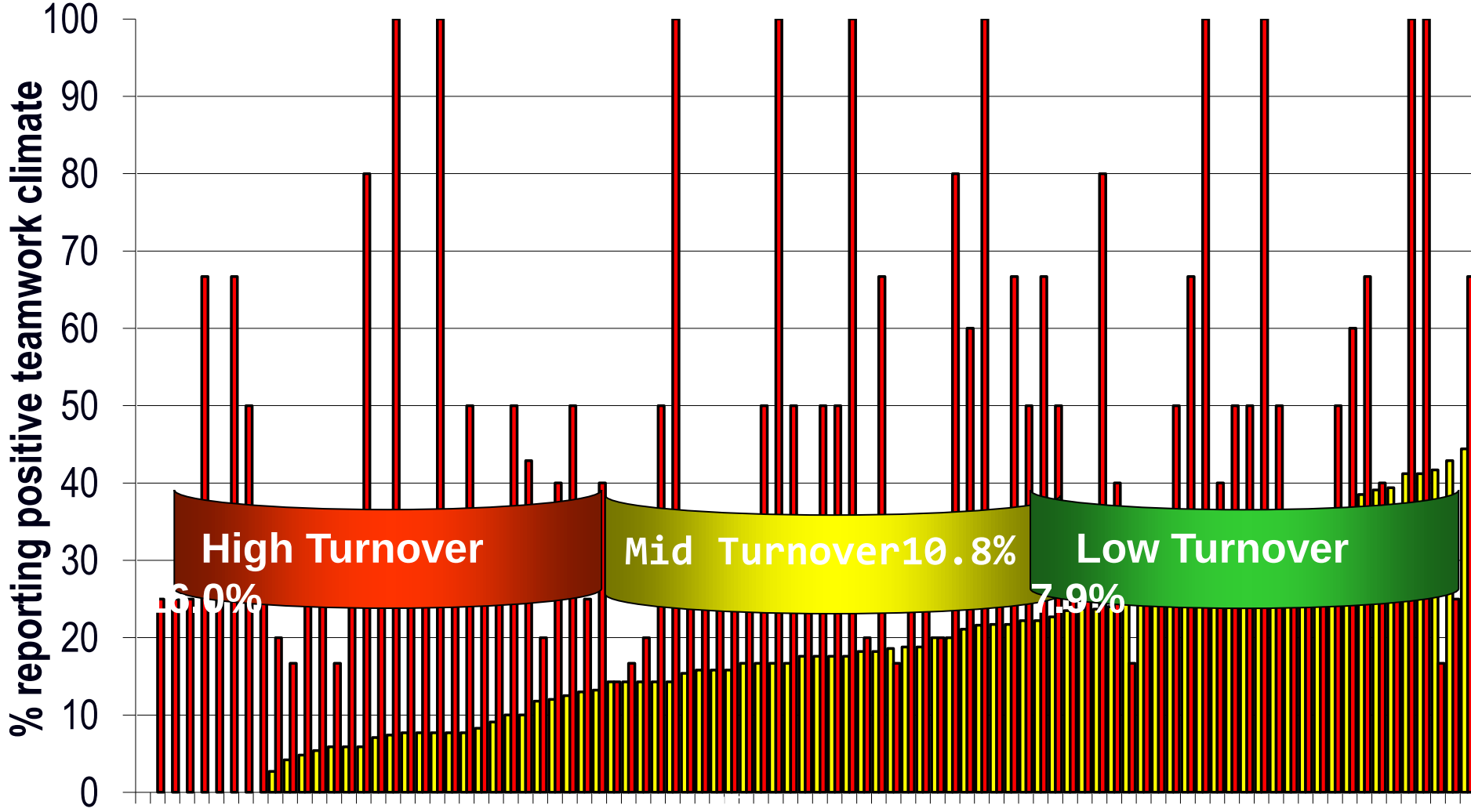
RN: Good teamwork means I am asked for my input

Teamwork Climate Across Michigan ICUs



Health Services Research, 2006;41(4 Part II):1599.

TEAMWORK CLIMATE & ANNUAL NURSE TURNOVER



Barriers

"Frankly, our health care professionals are not trained to be team members, they are trained to be individual heroes."

- John Troussaint, MD
President and CEO
ThedaCare, Inc.

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Exercise

Think of a high performing team you have either been a part of or witnessed in action.

High Performance Teams

Trivia

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What is the name of this team?

A. The Fantastic Four
B. The X-Men
C. The Avengers
D. The Super Friends

ON THE CUSP: STOP HAI

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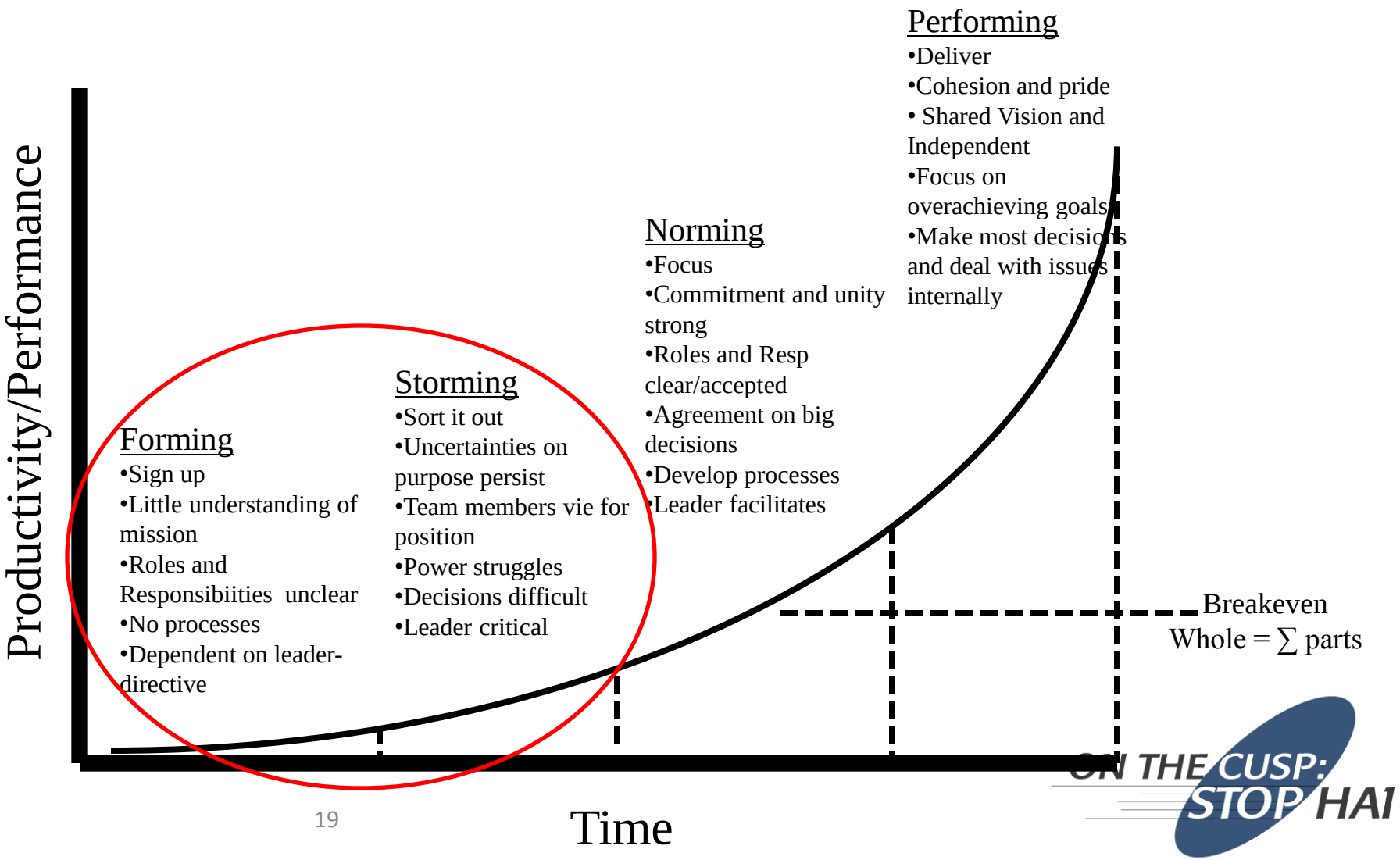
Characteristics

- Common Purpose
- Clear Roles
- Accepted Leadership
- Effective Processes
- Solid Relationships
- Excellent Communication

Thiel D. A process to build high performance teams. 2007

Stages of Team Development



Common Purpose

- Clear
- Relevant
- Achievable
- Significant
- Urgent

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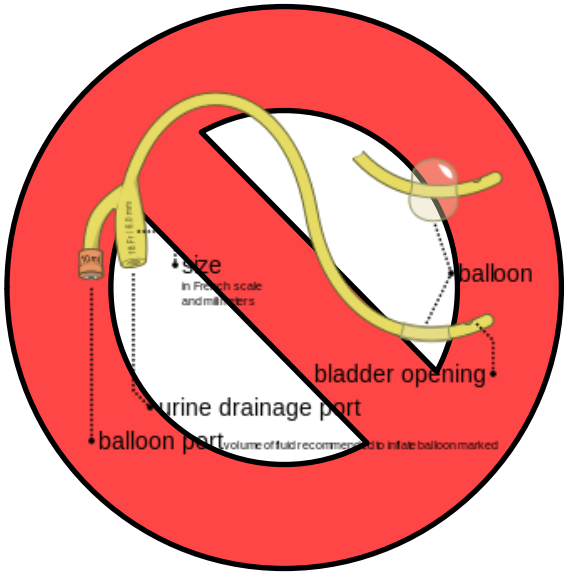
What is our purpose?



Clear

Relevant

Achievable

Significant

Urgent

Thiel D. A process to build high performance teams. 2007

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Clear Roles

- Design
- Division
- Deployment
- Discussion

Thiel D. A process to build high performance teams. 2007

Key Roles and Responsibilities to Prevent CAUTI

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

Accepted Leadership

- Appreciate collective intelligence
- Believe in the power of diversity
- See leadership as a service

Thiel D. A process to build high performance teams. 2007

Quiz

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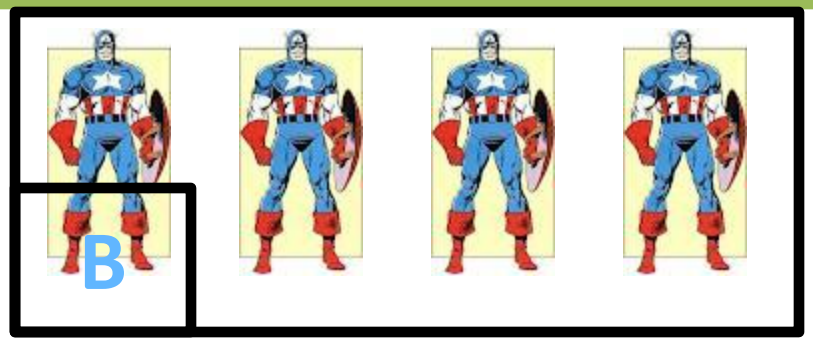
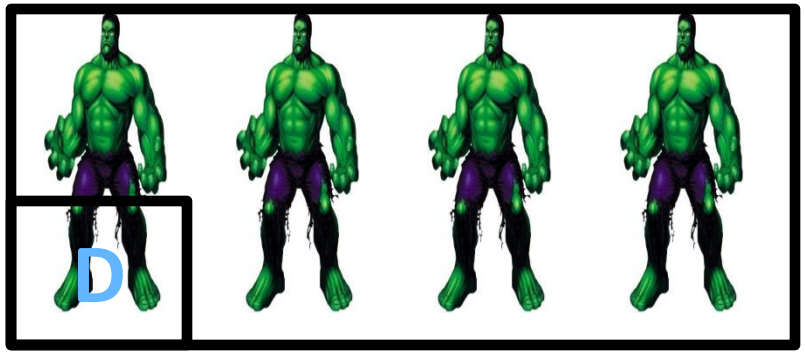
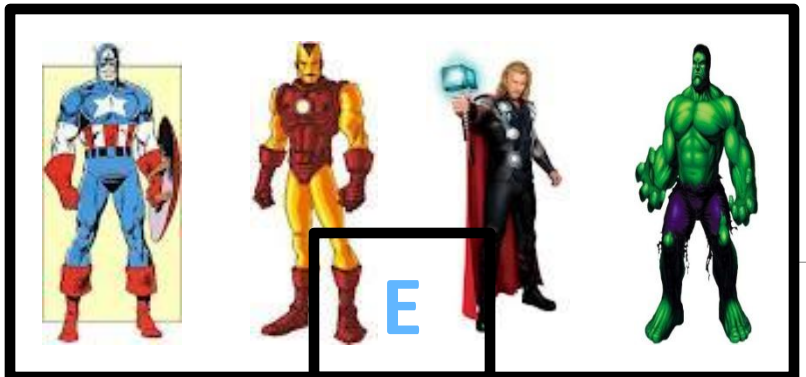
Which team would you pick to defend Earth?







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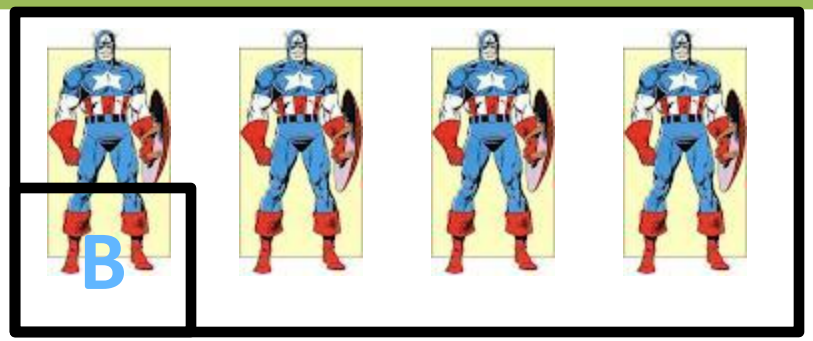

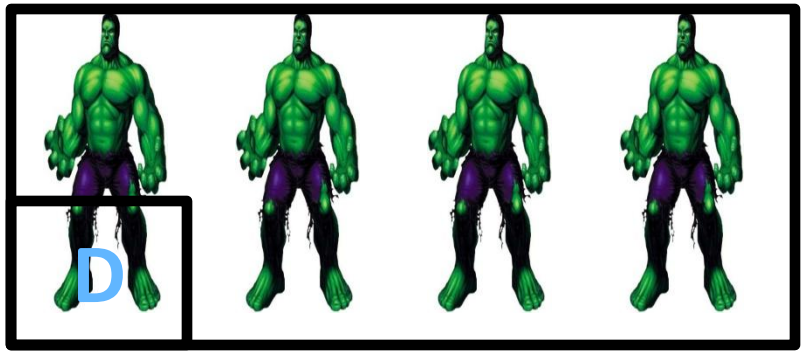

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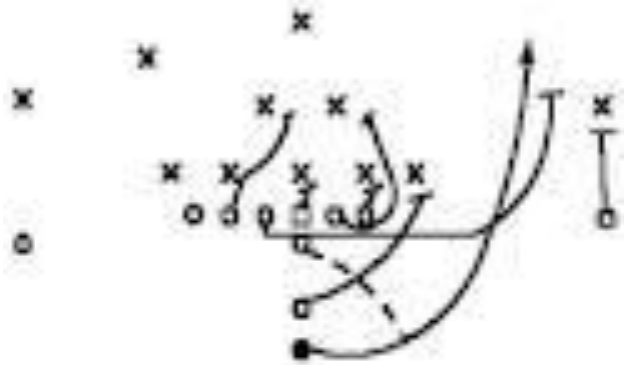
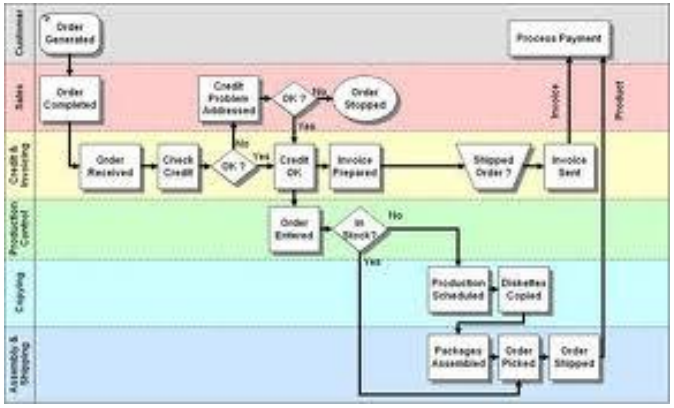
Effective Processes

- Working Processes
- Thinking Processes





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Excellent Communication

- Fast
- Clear
- Timely
- Accurate
- Straight Talk

H U D D L E

I PASS the BATON

SBAR

Read Back

SAIF-IR

S O A P

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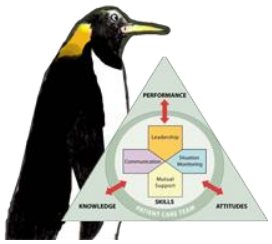
Four Key Components of Effective Communication[1]

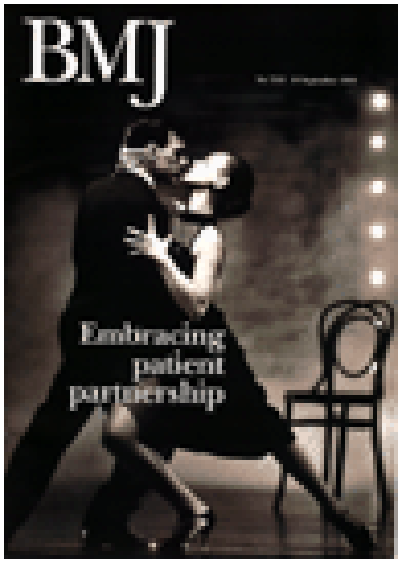
- Complete
- Clear
- Brief
- Timely



As seen in TeamSTEPPS®

Solid Relationships

- Trust
- Acceptance
- Understanding
- Respect
- Courtesy



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Which is the “sine qua non” of solid relationships?

- Trust
- Acceptance
- Understanding
- Respect
- Courtesy

“Simply put, trust means **confidence**. The opposite of trust – distrust – is **suspicion**.”

Stephen MR Covey
The Speed of Trust

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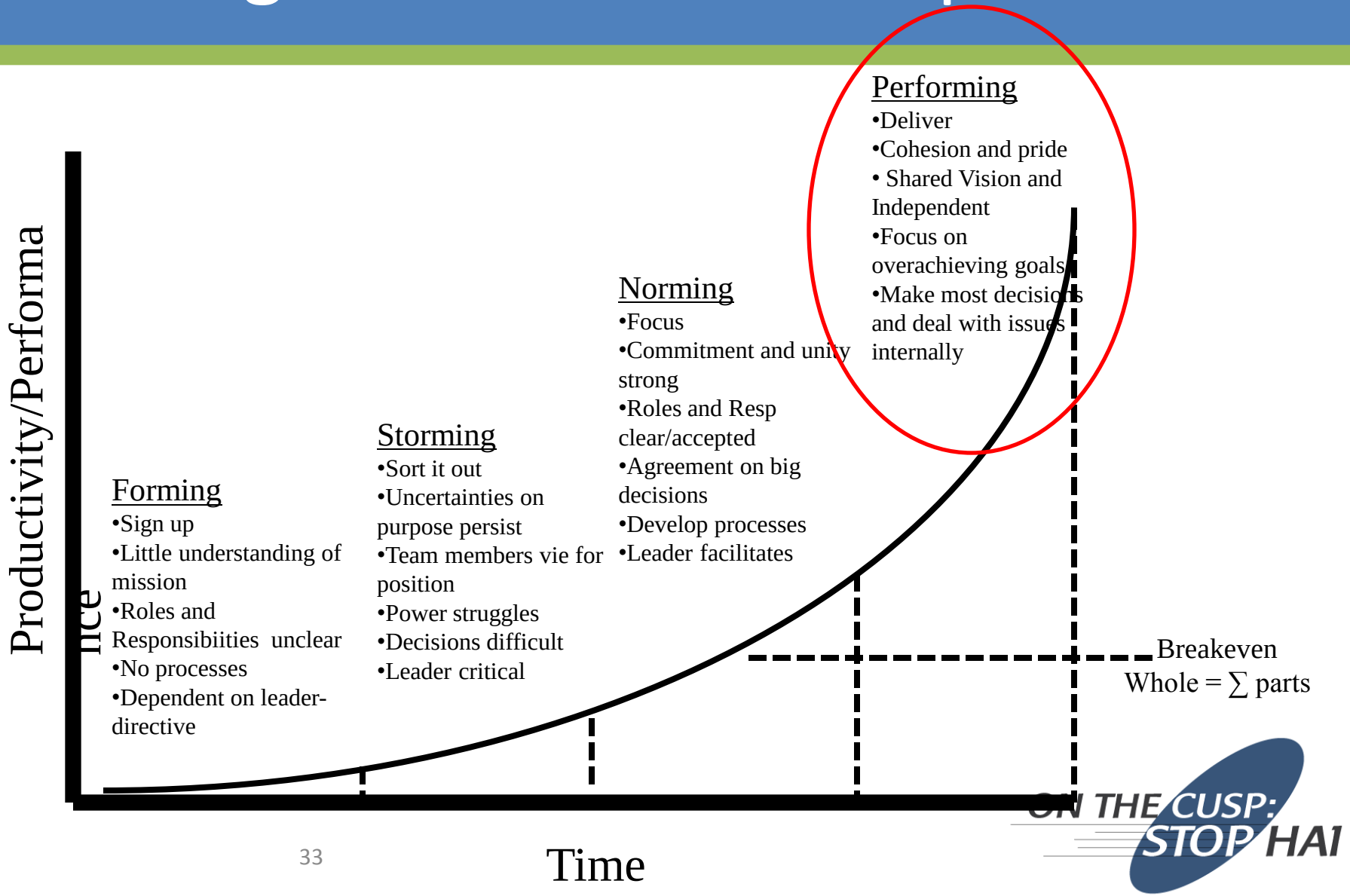
Stages of Team Development



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Katzenbach *et al.*: *The Wisdom of Teams*, HarperBusiness, 2003

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The CAUTI Emergency Department Improvement Intervention

What is the *On the CUSP: STOP CAUTI* ED Improvement Intervention?

- Expanding the reach of the *On the CUSP: STOP CAUTI* national collaborative
- Instilling a culture of partnership between emergency departments and in-patient units
- Broadening exposure to national experts

✓ Emergency Nurses Association (ENA)

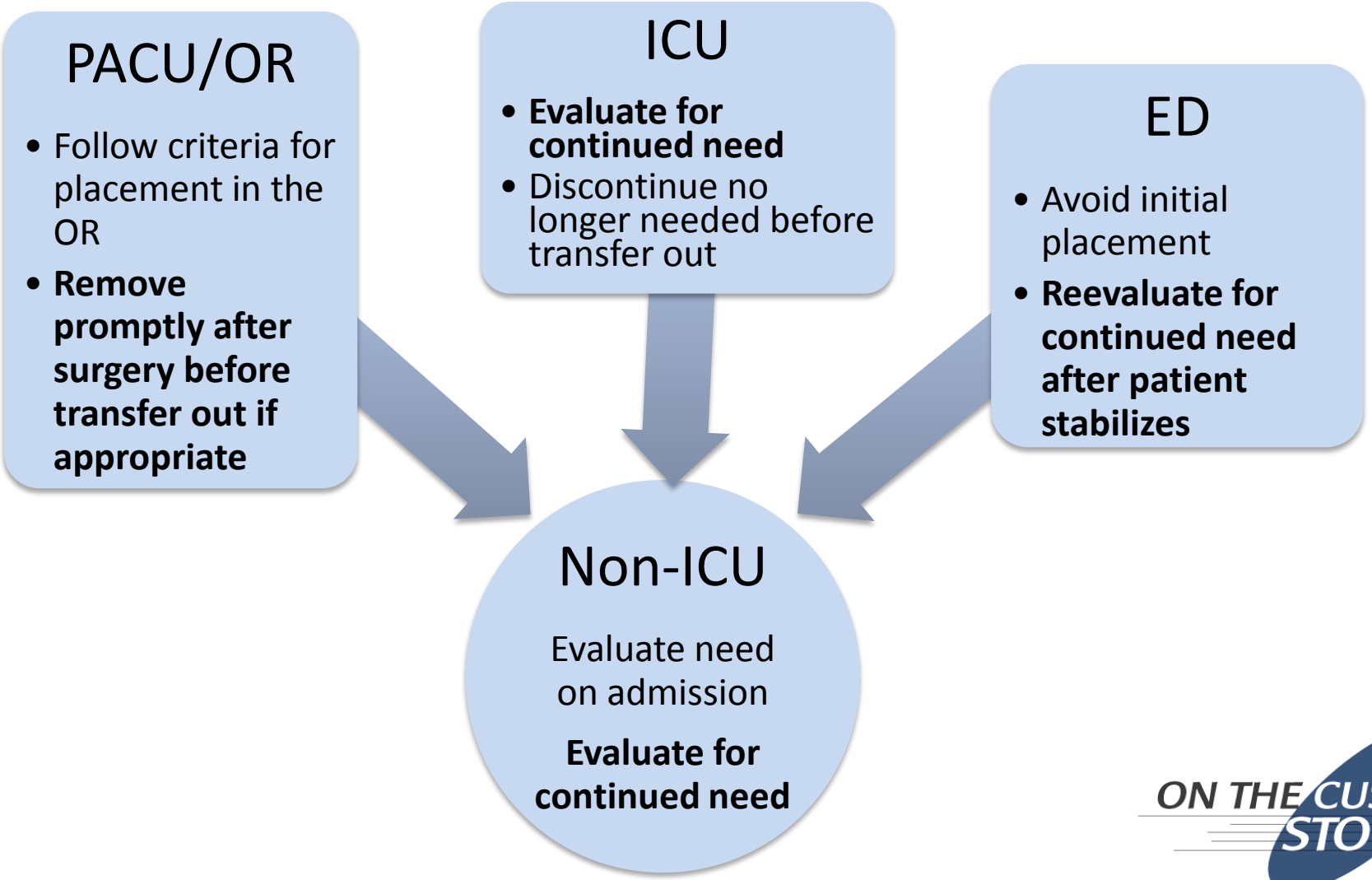
✓ American College of Emergency Physicians (ACEP)

ED Improvement Intervention

Goals: Best practice techniques for CAUTI Prevention

- Technical change (Process):
  - ✓ Determine catheter appropriateness
    - Preventing unnecessary placement
    - Promoting compliance with institutional guidelines
  - ✓ Promoting proper insertion techniques
- Culture change (CUSP):
  - ✓ Teamwork and communication amongst frontline staff
  - ✓ Identify nurse and physician champions for leadership and buy-in
  - ✓ Collaboration with in-patient units

Opportunities for Improvement: Multi-disciplinary and Multi-departmental Efforts



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CAUTI Culture in the ED

CAUTI

Indications
- Orders
- HICPAC

Insertion and Maintenance
- Technique
- Competency

Removal
- Process
- Structure

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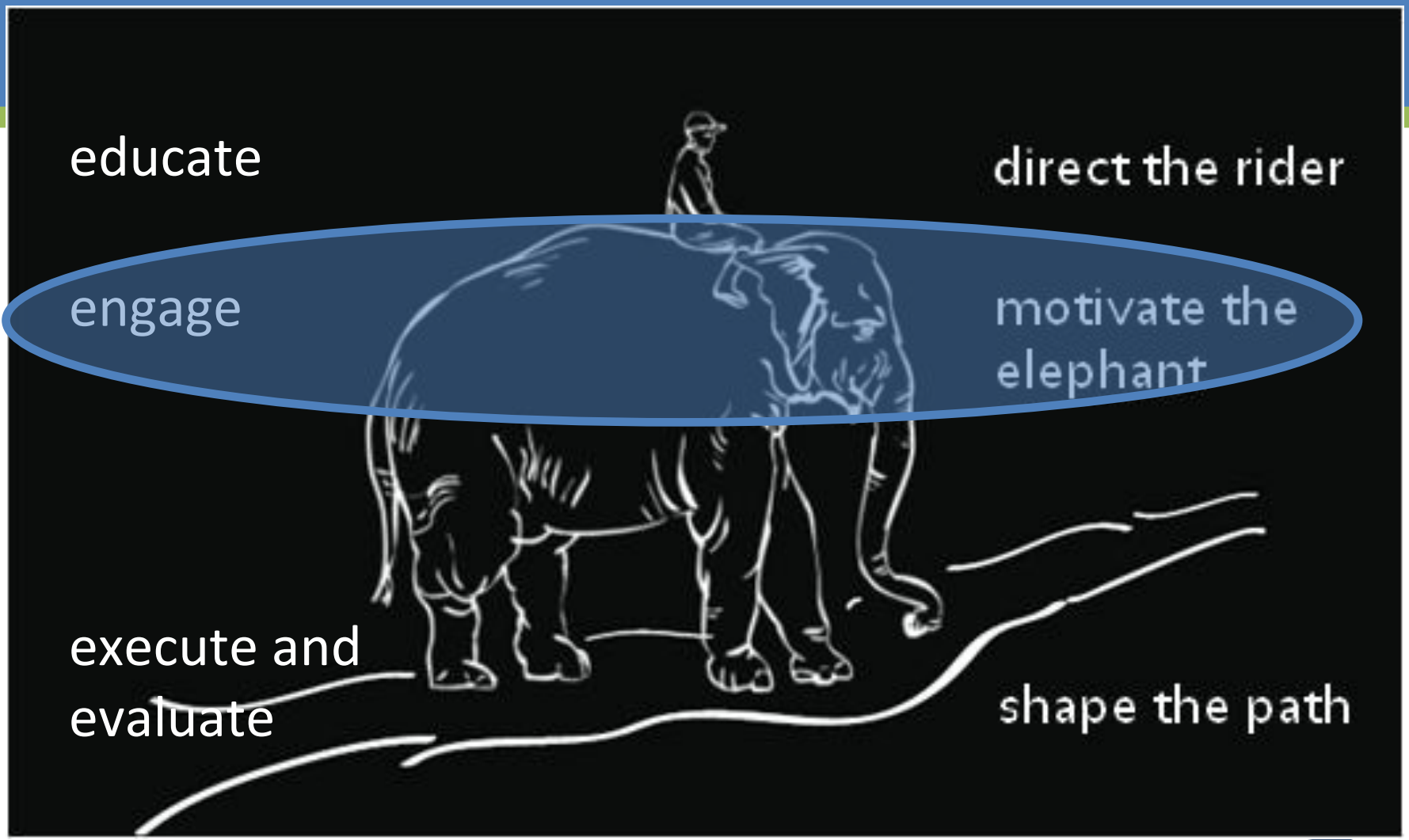
Can you get people to start behaving in a new way?



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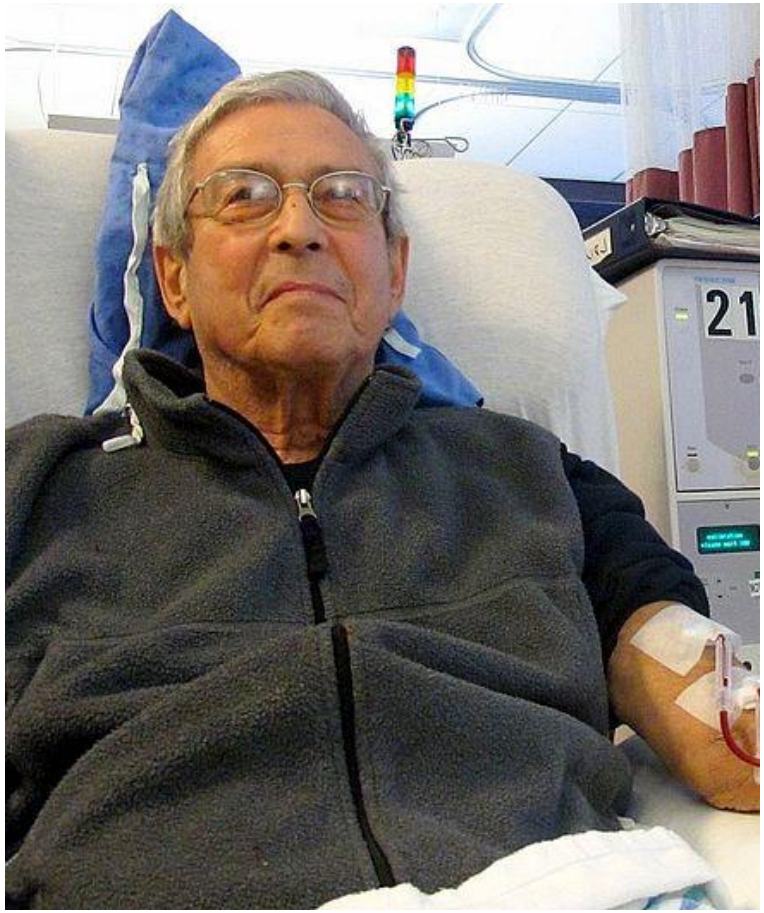
Case Scenario



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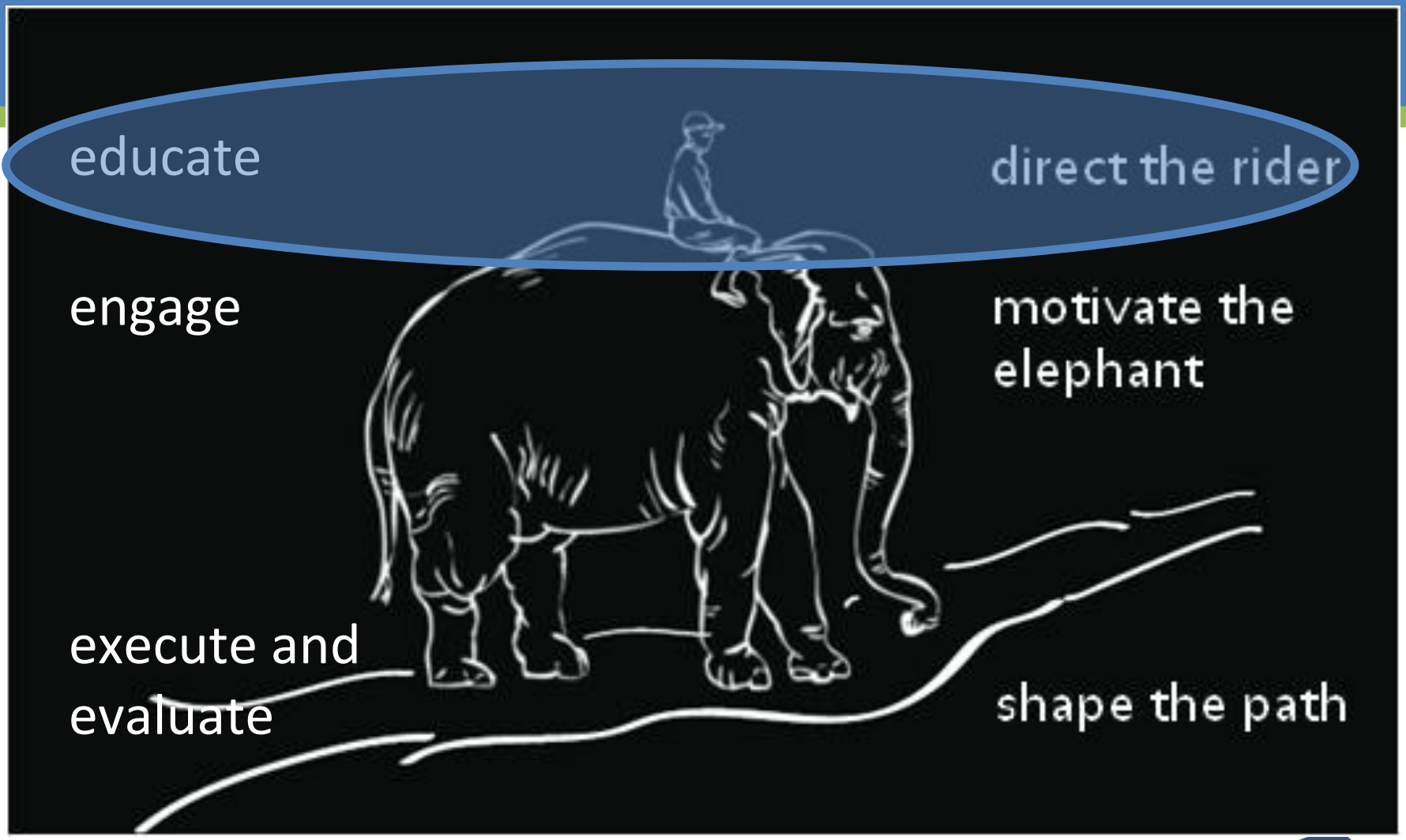
CAUTI effects

- ↑ mortality by OR 1.99
- ↑ ICU LOS by 12 days
- ↑ non-ICU LOS by 21 days

Crit Care Med. 2011 May;39(5):1167-73.
Relationship of catheter-associated urinary tract infection to mortality and length of stay in critically ill patients: a systematic review and meta-analysis of observational studies.
Chant C[1], Smith OM, Marshall JC, Friedrich JO.

Can you get people to start behaving in a new way?



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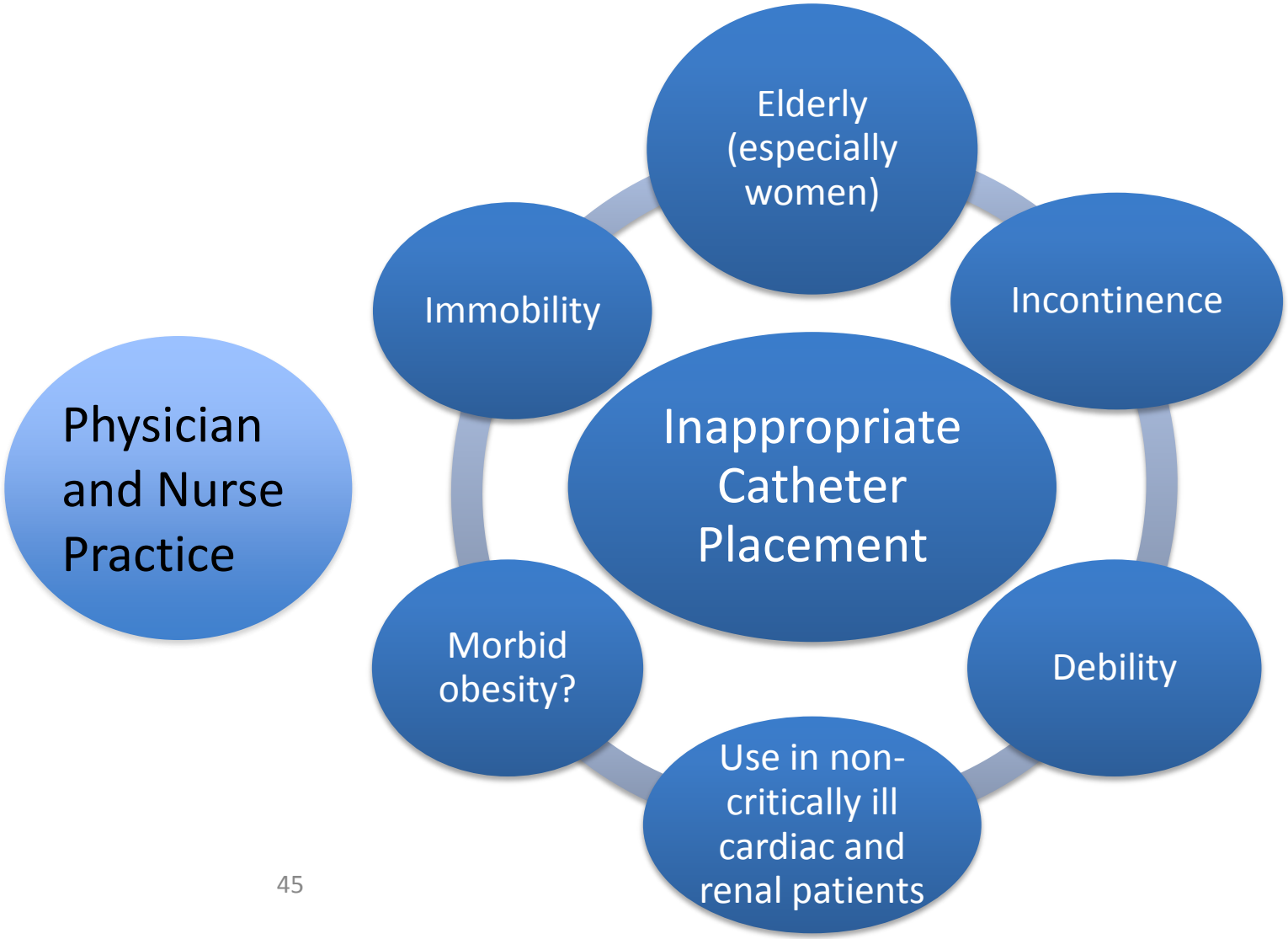
Appropriate Indications for Indwelling Urinary Catheter Use

Appropriate Indications
Patient has acute urinary retention or obstruction
Need for accurate measurements of urinary output in *critically ill* patients.
Perioperative use for selected procedures: •urologic surgery or other surgery on contiguous structures of genitourinary tract, •anticipated prolonged surgery duration (removed in post-anesthesia unit), •anticipated to receive large-volume infusions or diuretics in surgery, •operative patients with urinary incontinence, •need to intraoperative monitoring of urinary output.
To assist in healing of open sacral or perineal wounds in incontinent patients.
Requires prolonged immobilization (e.g., potentially unstable thoracic or lumbar spine)
To improve comfort for end of life care if needed.

Gould C, et al. Infect Control Hosp Epidemiol 2010;31:319-26.

Common Conditions where the UC is Placed Inappropriately



Common Patterns of ED Urinary Catheter Misuse

- Measuring urine output in stable patients
  - CHF
- Assessing bladder volume
  - Urinary retention from spinal injury
- Protocolized care for trauma
- Incontinence without open sacral or perineal wounds
- Pre-operative
- Mental status
  - Delirium
  - Dementia
- Existing catheter use

Issues to Clarify

- A chronic indwelling UC present on admission to the ED would not be counted as placed in the ED (even if the catheter is changed there).
- Some patients have a UC upon admission, prior to presentation to the ED (for example, obstructive uropathy). Again, these may represent appropriate indications for utilization, but would not be counted as originally placed in the ED.

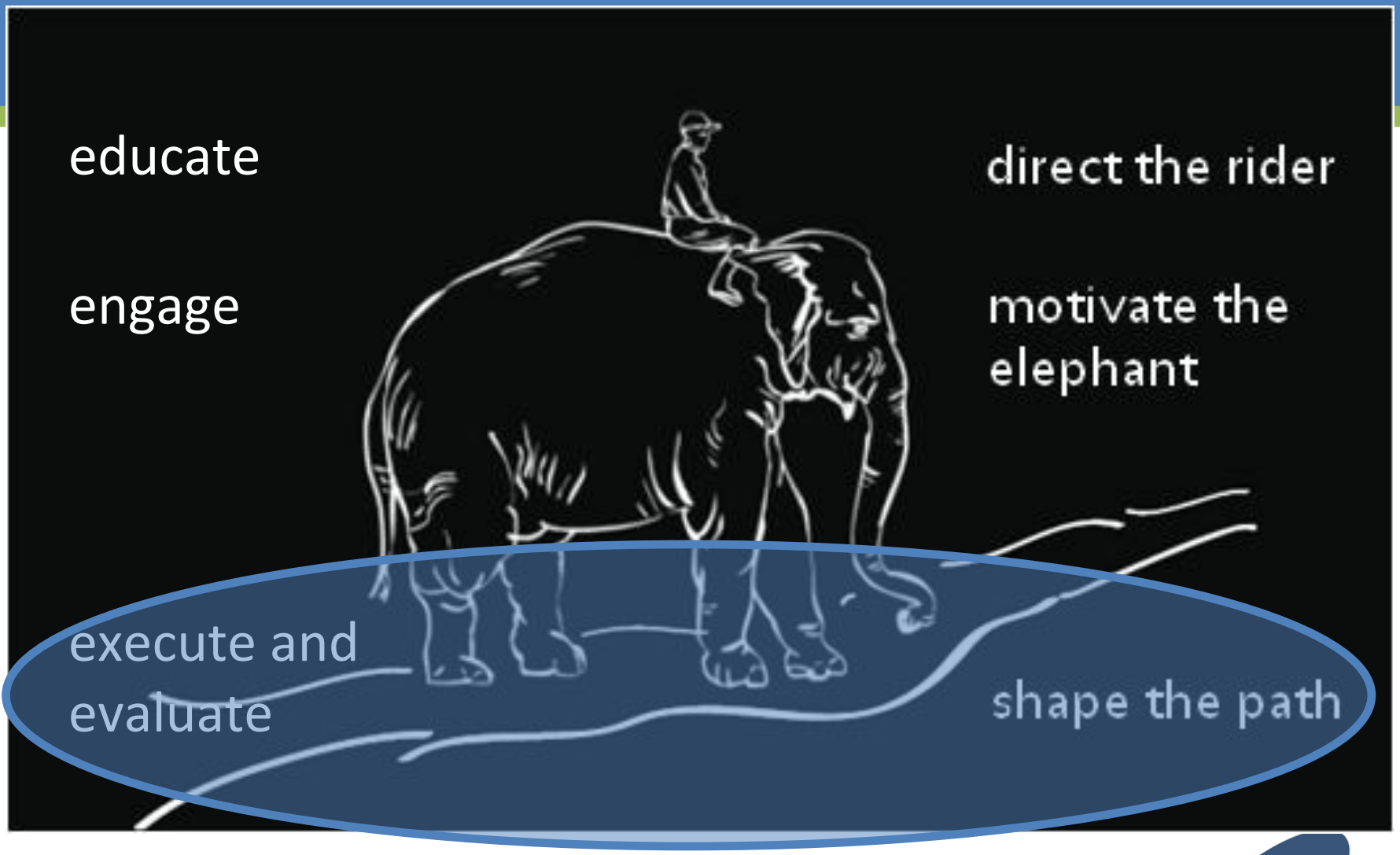
Examples of Common Conditions where Catheter May Be Placed Inappropriately

Who is Critically Ill?	Unconsciousness versus Agitation
• Admitted to ICU • Requiring high amounts of Oxygen (e.g., >4 liters, >6 liters, or on 100% O2 non-rebreather)?	• Agitated patients may have a higher risk of trauma related to UC, if placed. • Evaluate whether you have any standing orders for UC placement as a part of the treatment of acute stroke.
Emergent Pelvic Ultrasound for Pregnancy?	**Frail and Immobile patients**
• Placing UC would increase the risk for introducing bacteria to the bladder. • Patients can drink fluids and will have a full bladder without risk. • It is usually an issue with workflow in the ED.	• The UC reduces mobility, and makes patients at a higher risk for pressure ulcers. • Frail patients may become more deconditioned with a UC and infectious complications (CAUTI) may result in poor outcomes.

CAUTI Myths

- Facilitates I/O measurement
  - Alternatives are available with less risk (e.g., urinals, daily weights)
- Prevents falls from getting up to urinate
  - Increases risk to fall, especially in the confused patient
- Protects skin in the incontinent patient
  - Increases risk of skin breakdown from immobility, muscle loss, and catheter-related trauma
- Saves time for the bedside nurse
  - Extended LOS, infection complications, and other risks, it does not

Can you get people to start behaving in a new way?



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Urinary Catheter Insertion Kits

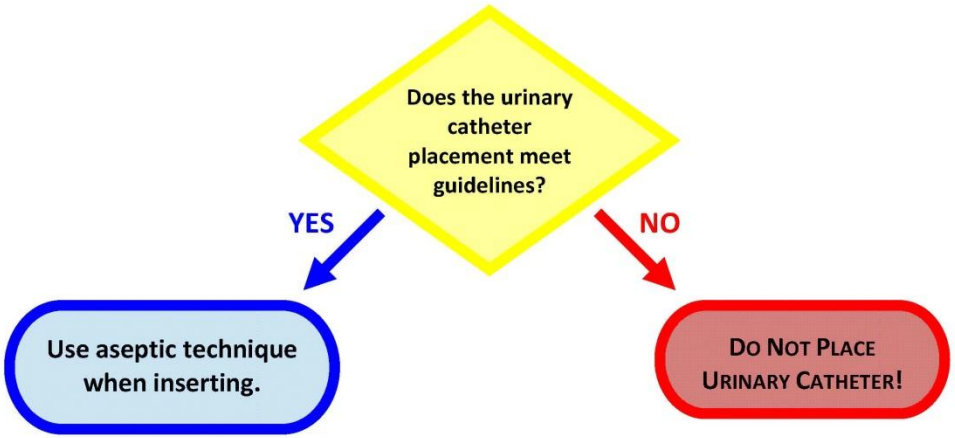
Emergency Department Guidelines for Urinary Catheter Placement

Appropriate Urinary Catheter Indications:

- Acute urinary retention or obstruction
- Perioperative use in selected surgeries
- Assist healing of perineal and sacral wounds in incontinent patients
- Hospice/comfort/palliative care
- Required immobilization for trauma or surgery
- Accurate measurement of urinary output in the critically ill patients

Inappropriate Urinary Catheter Indications:

- Incontinence
- Morbid obesity
- Dementia/ Confusion
- Patient's request
- Nursing convenience
- Urine specimen collection (*may straight catheterize if unable to obtain specimen*)



Questions? [Enter contact information here.]

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Data Collection in the Emergency Department

- A form is completed by the ED nurse transferring the patient to the hospital unit:
  1. Patient with or without catheter
  2. Reason for use of catheter (for internal evaluation)
  3. If no appropriate reason, nurse to evaluate removal

ED Intervention Urinary Catheter (UC) Data Collection Form

Patient #_____ Date:_____

UC (Foley) placed in ED: Yes No

If yes, physician order present* Yes No

If placed in ED, reason*

Appropriate Indications	Inappropriate Reasons for Placement
☐ Urinary flow obstruction or retention (e.g., prostatic hypertrophy, hematuria with clots, urethral stricture, trauma to urethra, neurogenic bladder, including paraplegia/quadriplegia if unable to straight catheterize)	☐ Incontinence ☐ Morbid obesity ☐ Immobility not related to trauma ☐ Dementia/chronic confusion ☐ Debility (very frail patients)
☐ Perioperative use in selected surgeries (e.g., urologic procedures, surgeries contiguous to genitourinary tract, emergency surgery with anticipated large fluid resuscitation or extended duration, or if needed for intraoperative urine output monitoring)	☐ Monitoring fluids in non-critically ill patients ☐ Urine specimen collection ☐ Patient request
☐ Need for immobilization because of trauma with multiple fractures (e.g., pelvic fractures, hip fractures with risk of displacement) or unstable spine	☐ If other, please state:
☐ Monitoring fluids in critically ill patients	
☐ Assist healing of sacral and perineal wounds in those with incontinence	
☐ To improve comfort for end of life care (eg, hospice, palliative care, comfort care)	
☐ Acceptable conditions per institutional guidelines:	

*Data recommended for internal evaluation only.

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Metrics to Evaluate Improvements

Measurement	Calculation		
Required for reporting to national project:			
ED UC Placement Rate	=	(Number of ED admissions **with a newly-placed indwelling UC,** including observation patients) / (Number of ED admits from the ED, including observation patients)	**X 100**
Optional recommended to internal evaluation:			
Inappropriately Placed UC Rate	=	(Number of UCs placed in the ED *without* appropriate indication) / (Total number UCs placed in the ED)	**X 100**
Documented Physician Order to Place UC Rate	=	(Number of UCs placed in the ED *without* a documented physician's order) / (Total number of UCs placed in the ED)	**X 100**

Urinary Catheter ED Avengers

1. ED physician champion
2. ED nurse champion
3. Infection Preventionist
4. ICU, Floor, OR?
5. Trauma?
6. Cardiology?
7. Urology?
8. Patient?

STOP HAI

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Katzenbach *et al.*: *The Wisdom of Teams*, HarperBusiness, 2003

Purpose

- Improve the compliance with the appropriate indications for UC placement in the emergency department.
- Improve the compliance with proper technique for placement.
- **Goal is to have less UCs placed in the ED, contributing to a lower utilization rate throughout inpatient units.**

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ED Nursing Role

– Obtain support from ED nurse director, nurse manager, and nurse educator

- ED nurse champion identified
  - Responsible for peer-to-peer coaching and education
  - Should be an approachable person who is well-versed in ED functions and is available as a resource
- Educated nursing staff
  - Appropriate indications, alternatives to UC
- Focused on working with physicians to determine UC necessity (patient-specific, patient-focused)
- Stressed importance of a corresponding, written physician order

ED Physician Role

- Promote reduction of catheter use by championing appropriateness
- Encourage interdisciplinary conversation around catheter use
- Engage other services around patterns of catheter use
- All urinary catheters require an order
- Encourage communication at the time of catheter ordering/placement
  - "Huddle" re: need for catheter
  - Acknowledge nursing's deeper knowledge of patient and ability to care for self

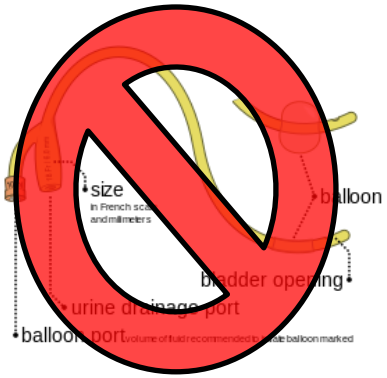
Infection Preventionist Role

Team leader

Data collection and entry

Facilitate implementation

Project coordinator



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Champion Roles

- Share data on catheter use with medical staff
  - Break out by physician if possible
- Circulate descriptive summaries of any CAUTIs that are attributed to ED placement
- Communicate with other medical services about specific patterns of care

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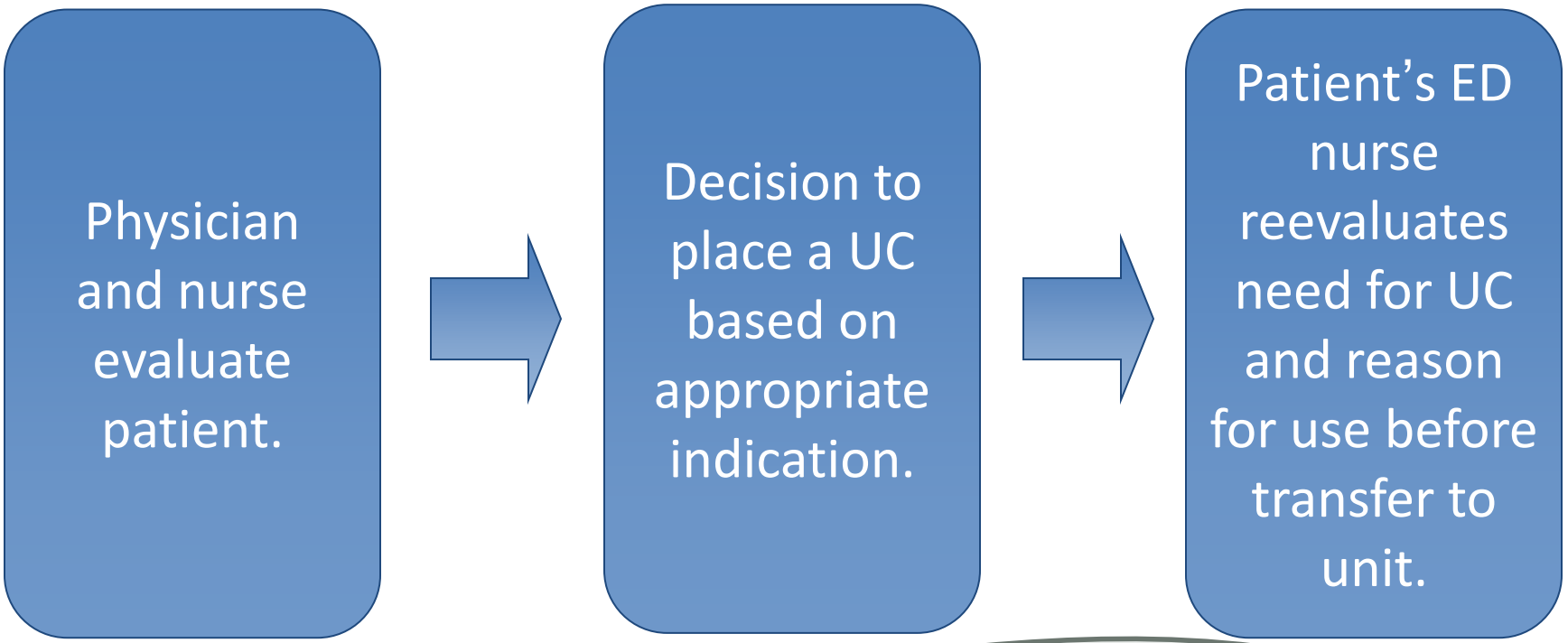
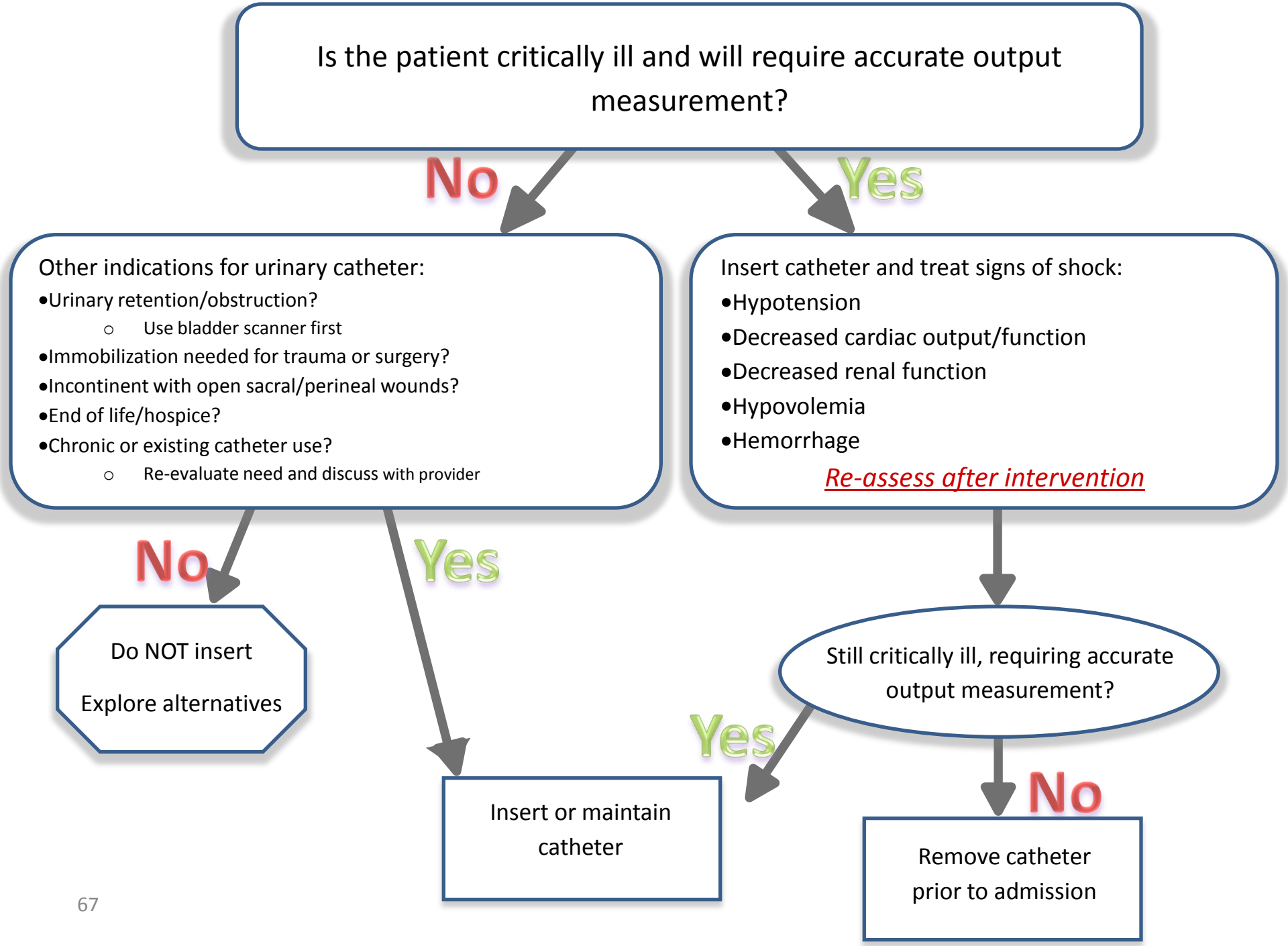
What is the Process?




Is the patient critically ill and will require accurate output measurement?
No
Yes
Other indications for urinary catheter:
•Urinary retention/obstruction?
○ Use bladder scanner first
•Immobilization needed for trauma or surgery?
•Incontinent with open sacral/perineal wounds?
•End of life/hospice?
•Chronic or existing catheter use?
○ Re-evaluate need and discuss with provider
Insert catheter and treat signs of shock:
•Hypotension
•Decreased cardiac output/function
•Decreased renal function
•Hypovolemia
•Hemorrhage
Re-assess after intervention
No
Yes
Do NOT insert
Explore alternatives
Still critically ill, requiring accurate output measurement?
Yes
No
Insert or maintain catheter
Remove catheter prior to admission

Simplified Insertion Checklist for UC Placement

Components of Checklist	Compliant	
	Yes	Yes, *after correction*
Hand hygiene before and after procedure?		
Sterile gloves, drapes, sponges, aseptic sterile solution for cleaning, and single use packet lubricant used?		
Aseptic insertion technique (no contamination during placement)?		
Proper securement of urinary catheter post-procedure?		
Closed drainage system and bag is below patient post-procedure?		

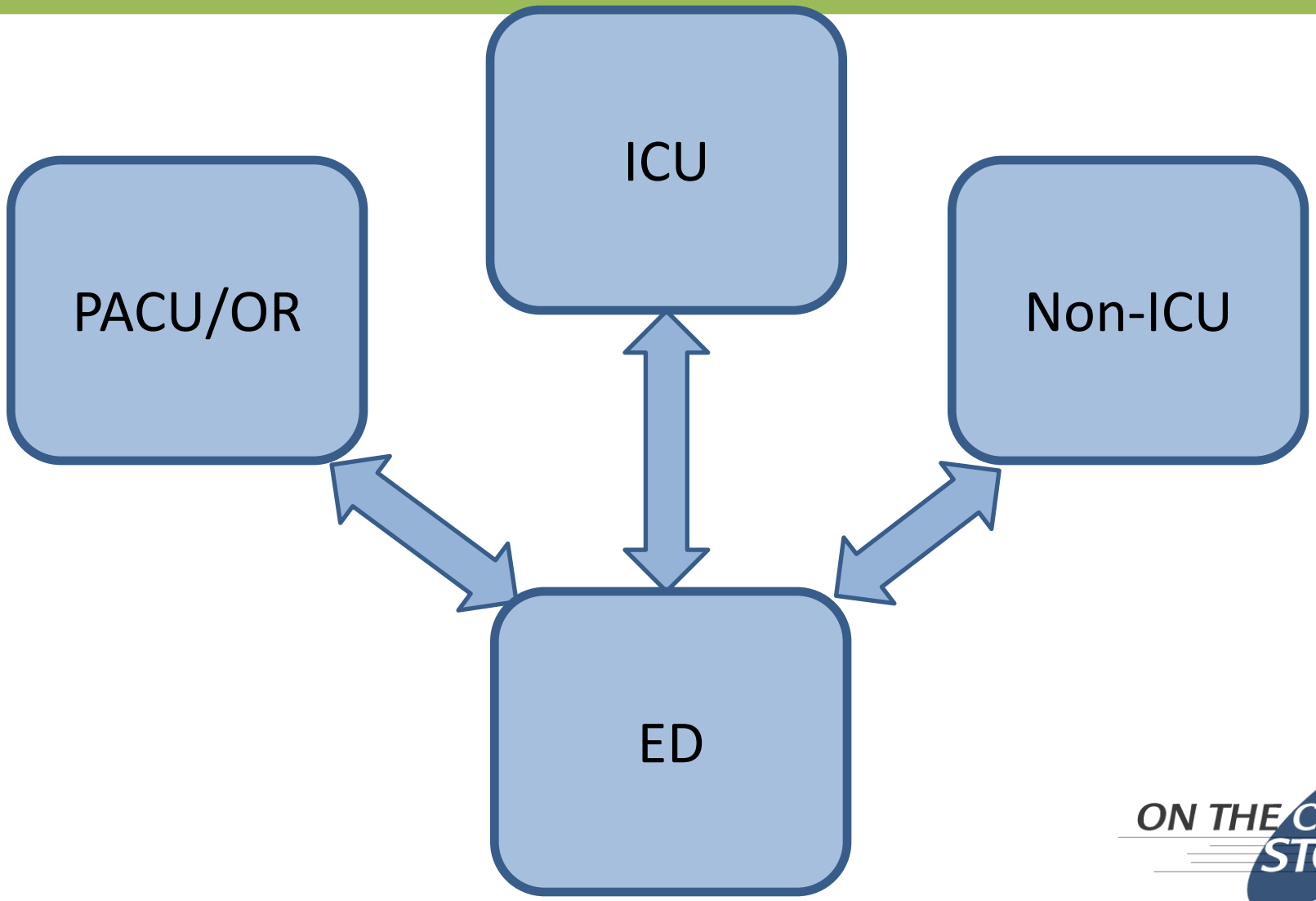
Characteristics

- Common Purpose
- Clear Roles
- Accepted Leadership
- Effective Processes
- Solid Relationships
- Excellent Communication

Team members are so devoted to their purpose that they will surmount any barrier to achieve the team's goals.

Katzenbach *et al.*: *The Wisdom of Teams*, HarperBusiness, 2003

Relationships and Communication



ON THE CUSP: STOP HAI

How to Spread the Message

- Pocket cards, posters, lectures, and algorithms describing the appropriate indications.
- Make sure the information is shared with nurses and nursing assistants, staff physicians, physicians-in-training, and mid-level providers

DO NOT PLACE URINARY CATHETERS UNLESS NEEDED!

Emergency Department-Specific Guidelines

Appropriate Urinary Catheters Indications:

- Acute urinary retention or obstruction
- Perioperative use in selected surgeries
- Assist healing of perineal and sacral wounds in incontinent patients
- Hospice/comfort/palliative care
- Required immobilization for trauma or surgery
- Accurate measurement of urinary output in the critically ill patients

Urinary catheters may also be used for:

- *Place your additional institutional indications if different from above*

Always obtain a physician order before placement of a urinary catheter.

For questions, please contact [Enter contact information here].

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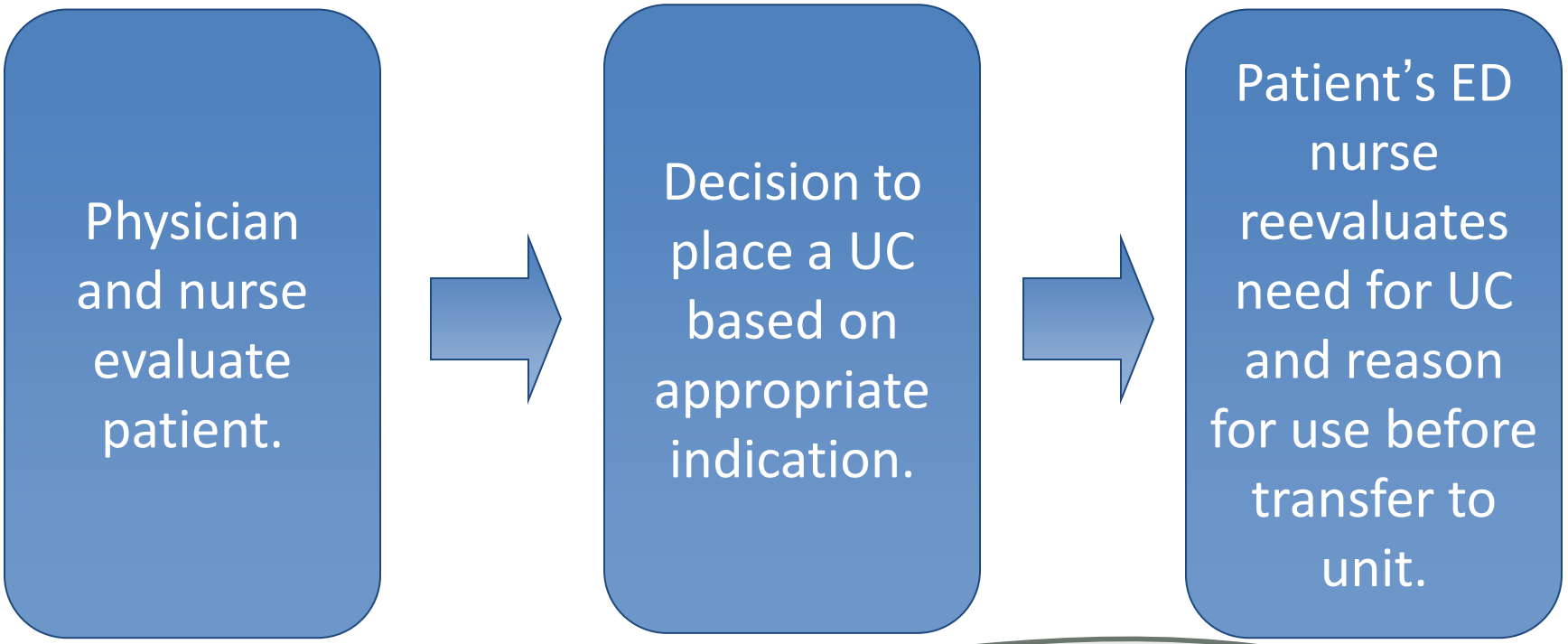
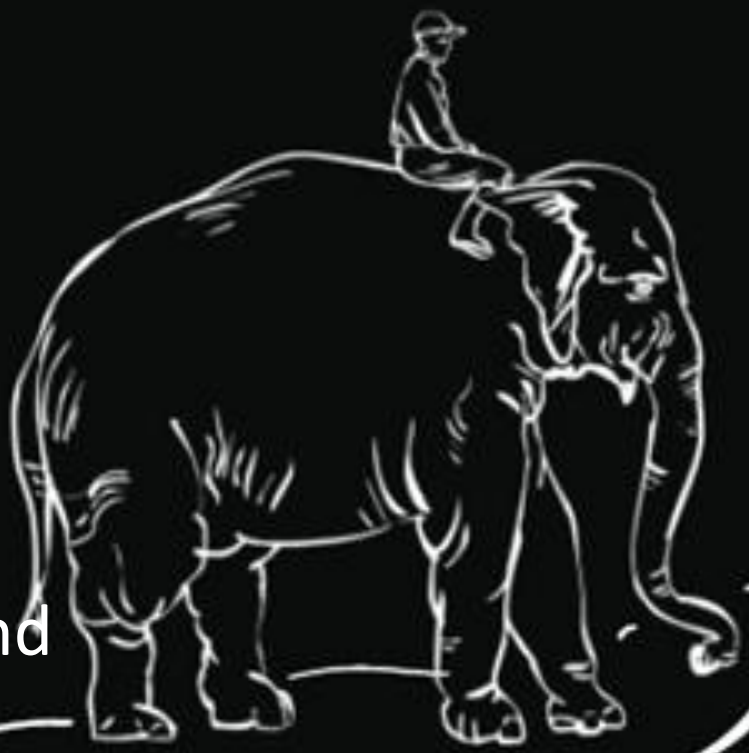
What is the Process?



educate

engage

execute and evaluate



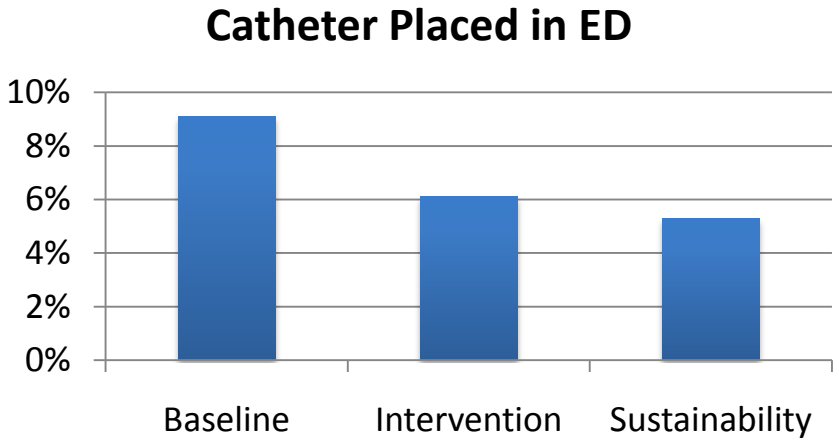
direct the rider

motivate the elephant

shape the path

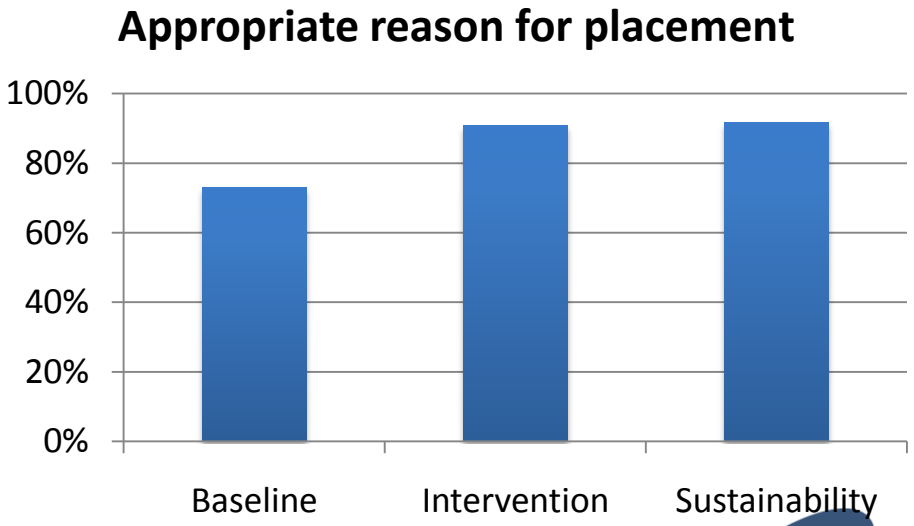
Example of Success: AH Pilot- 18 EDs

(Fakih et al, ID week 2013, abstract 1073)



- Reduction in catheter use by a third!
- The results were sustained for more than 6 months

- Catheter avoidance translates into preventing exposure to the catheter for thousands of patients



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Thank You

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