

Implementing Change: The Technical & Socio-Adaptive Aspects of Preventing CAUTI

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“Nothing is more difficult to plan nor more perilous to conduct than the introduction of change. The innovator has for enemies all those who have prospered under the old, and only lukewarm defenders in those who may prosper under the new.... When his enemies have the opportunity to attack they do so with the zeal of partisans, while supporters defend him feebly, endangering both the innovator and the cause.”

A True Story...

- Smart (and brash) physician begins a new job at hospital in a famous city
- Watches people dying needlessly on a unit
- Comes up with a simple solution to prevent deaths
- Implements the solution on a small scale and observes a dramatic benefit

A True Story, continued...

- Attempts to spread his ideas and implement his simple solution elsewhere
- (Mostly) ignored, ridiculed, rejected...out of a job
- Goes to a different hospital; confirms his findings
- (Mostly) ignored, ridiculed, rejected...dies at the age of 47...

Consistently Using Evidence-Based Practices Remains a Challenge...

Hand Hygiene Compliance in Healthcare Workers

(Erasmus et al. Infect Control Hosp Epidemiol March 2010)

- Systematic review of 96 studies
- Overall median compliance of 40%
- Lower rates in physicians (32%) than nurses (48%)
- Lower rates “before” (21%) patient contact rather than “after” (47%)

Given this Gap Between What *Should* Be Done and What *Is* Done...

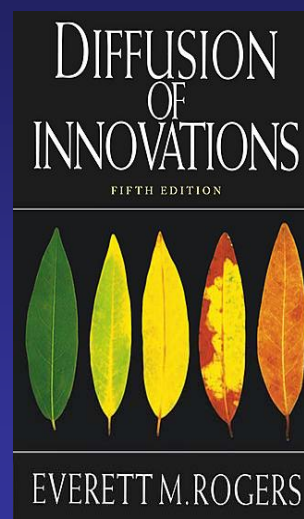
- Focus on “implementation science”
- “The scientific study of methods to promote the systematic uptake of research findings into routine practice”
(Eccles & Mittman. Implementation Science. Feb 2006)
- Synonyms:
 - “T3” translation
 - Knowledge transfer
 - Knowledge utilization

Implementation Science: Conceptual Model

- In the last 6 decades, “knowledge utilization” field dominated by one person: Everett Rogers, PhD
(Estabrooks et al. Implementation Science. Nov 2008)
- Rogers’ “Diffusion of Innovation” Model is the canonical model since World War 2
- A descriptive model that helps explain why innovations diffuse slowly

“Diffusion of Innovation” Model of Everett Rogers, PhD

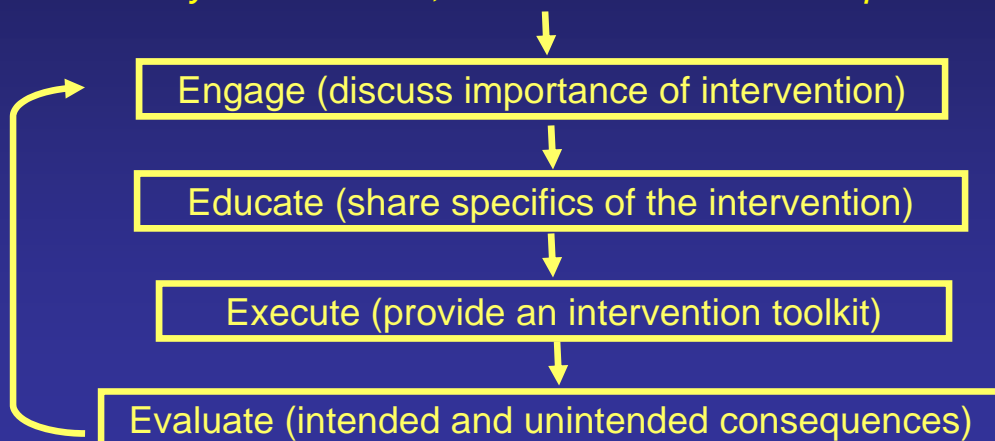
- Definitions:
 - Diffusion = spread
 - Innovation = a new practice
- A “descriptive” model – not a “prescriptive” one
- Describes what is occurring rather than what to do



4E's Model of Implementation

(Pronovost et al. BMJ 2008)

Needs Assessment: measure baseline performance, identify local barriers, select interventions to implement



- ✓ Implementation Science
- The Technical and Socio-Adaptive Aspects of Preventing CAUTI

Recent Guidelines on CAUTI
Prevention

www.catheterout.org

CA-UTI Prevention: Concise Summary of Recommendations

- Adherence to infection control principles (eg, aseptic insertion, proper maintenance, education) is important
- Bladder ultrasound may avoid indwelling catheterization
- Condom or intermittent catheterization in appropriate pts
- Do not use the indwelling catheter unless you must !
- Early removal of the catheter using reminders or stop-orders appears warranted

(Saint et al. Jt Comm J Qual Saf 2009)

What are Hospitals Using to Prevent CAUTI?

- National survey of U.S. hospitals (focused on device-related infection)
- > 700 hospitals surveyed (2005 and 2009)
- Lead Infection Control Professional filled out the survey
- ~70% response rate in both years

Socio-Adaptive Aspects

- No dominant practice is being used
- About 1 in 5 U.S. hospitals using catheter reminders or stop-orders
- Next Step: evaluate a statewide initiative to reduce urinary catheter use

Qualitative Themes from Michigan's CAUTI Experience: The Socio-Adaptive

- *Tailoring*
- *Workflow*
- *Leadership*

The Importance of Tailoring

- May need to tailor (ie, modify) your approach to CAUTI given your specific context and circumstances
- We saw different solutions at different hospitals; different solutions within different units at the same hospital
- Examples:
 - Who assesses for catheter appropriateness
 - Modifying the indications for catheter use (slightly)
 - Focus on insertion or early removal or both?

Qualitative UTI Themes from Michigan's CAUTI Experience: The Socio-Adaptive

✓ *Tailoring*

■ *Workflow*

■ *Leadership*

The Challenge: How to Make Urinary Catheter Removal Part of the Workflow

- The intervention(s) should become part of the workflow: both removal (floor) and insertion (ED)
- Nursing workload was a big issue - since Foleys can be easier for the nurses, this may be a disincentive to remove

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- For insertion, ED is paramount
 - Foleys put in for specimen collection and left in
 - ED nurses may think they're doing floor nurses a favor
 - Nursing aides often insert Foleys in the ED

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The Importance of Leadership

- Leadership at various levels appears to be important, especially at the nurse manager level
- Physicians often play an important role
 - Behind-the-scenes (getting buy-in from medical executive committees and other physicians)
 - Front-line (eg, hospitalists, hospital epidemiologists)

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- The type of champion that is needed depends on organizational culture
 - Nurse manager or charge nurse may be best option
 - Not a one-size-fits-all strategy

4 Key Behaviors of Effective Infection Prevention Leaders

(Saint et al. Infect Cont Hosp Epid. Sept 2010)

1) Cultivated a culture of clinical excellence

- Developed a clear vision
- Successfully conveyed that to staff

2) Inspired staff

- Motivated and energized followers
- Some, not all, were charismatic

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3) Solution-oriented

- Focused on overcoming barriers rather than complaining
- Dealt directly with resistant staff

4) Thought strategically while acting locally

- Planned ahead leaving little to chance; politicked before crucial issues came up for a vote in committees

2 More Potential Hurdles...

Conclusion

**Preventing Catheter-Associated
UTI is a Team Sport!**