Advancing Care: The Fundamentals of Quality Improvement for Frontline Clinicians and Resident Educators

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Introductions

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#ICRE2019
Learning Objectives

• Review why residents *must* learn to apply QI principles

• Present a framework to choose the *right* resident QI project

• Determine how to diagnose a quality gap and *how* to involve residents
Why QI?
The ‘Q’ in ’QI’...

STEEEP:

• Safe
• Timely
• Efficient
• Effective
• Equitable
• Patient-centred
Sure glad the hole isn’t at our end...

Why should residents (and their faculty!) care?
Nodule

Patient: ‘ex’-smoker only

Radiologist: not flagged

Resident: forgot to include in D/C summary

Attending: backlog unattended

Cancer
Why Teach Residents QI?

• CanMEDS & CanMEDS-FM competencies
• Required for some hospital hiring
• CPSO’s practice/charting self-assessment
• Increased understanding of system
• Increased diversity for academic projects
Picking the Right Resident Project
Lots of choice
## CONSIDERATIONS:

*Project Considerations*

<table>
<thead>
<tr>
<th>Question</th>
<th>PROJECT 1</th>
<th>PROJECT 2</th>
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<tbody>
<tr>
<td>Why THIS project?</td>
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<td>What IOM Quality Domain is addressed?</td>
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<td>Scope of the project?</td>
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<td>Effectiveness of Solution/Intervention?</td>
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<td>Implementation issues?</td>
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<td>Institutional Alignment?</td>
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<td>Resources?</td>
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<td>CONSIDERATIONS: Professional Development Considerations</td>
<td>PROJECT 1</td>
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<td>Novelty of Project/Intervention</td>
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<td>Likelihood of Publication</td>
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<td>Skill Acquisition Opportunities **</td>
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<td>Personal Alignment</td>
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<td>Visibility and Relationship Building</td>
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<td>CONSIDERATIONS:</td>
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<tr>
<td><strong>Project Timeline/ Barrier Considerations</strong></td>
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<td>What will you change?</td>
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<td>Why would that change work? (theory)</td>
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<td>How will you know the change takes hold?</td>
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<td>How long will it take for your change to work?</td>
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<td>What unanticipated consequences may occur?</td>
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Understanding Current State and Gap Analysis
Understanding current state

• Top 3 simple tools available:
  • 5 Whys
  • Fishbone diagram
  • Process Map
5 Whys

Got caught speeding!

Got up late

Alarm clock didn’t work

Batteries weren’t working

Forgot to replace them!
Fishbone analysis

- ensure broad representation
- front-liners, multidisciplinary
Process mapping – you must first agree on the current state to get to future state!
Process mapping
One example:

Legend:
- RED = Triage RN task
- BLUE = Registration clerk task
- GREEN = Primary RN or MD task
- BROWN = Housekeeping task
- BLACK = event

Triage

Acute Bed
PDSA Cycles
Plan – Do – Study – Act

- **P**: Formulating a hypothesis
- **D**: Collecting data to test this hypothesis
- **S**: Analyze and interpret results
- **A**: Make inferences to *iterate* the hypothesis

Continuous measurement to drive improvement
Resident-led PDSAs - learning

- **P:** Patients want specific info while waiting
- **D:** Distribute/collect patient surveys
- **S:** Analyze results
- **A:** Create patient pamphlet
Resident-led PDSAs - developing

- **P**: Guidelines can be followed
- **D**: Develop CCTHR algorithm
- **S**: Field-test formatting
- **A**: Use the improved (16th!) version
Resident-led PDSAs - implementing

- **P:** Multi-modal education works best
- **D:** Attempt various approaches (posters, emails, direct)
- **S:** Assess which worked best
- **A:** Continue to use that one!
Who can teach QI?
You CAN!

• Dilemma:
  • Residents want to learn QI
  • Staff are not trained in QI
  • Staff don’t feel they have capacity to supervise projects

• Solution:
  • LEARN TOGETHER!
How to Co-learn QI

• CCQI

• Other QI CME for Staff:
  • Check out the CAEP QIPS Resource Centre: https://caep.ca/qips-resources/
  • ASPIRE course
Putting it all together
Is this a good QI project for residents?

• Why is this a GOOD resident project?
• Why is this a BAD resident project?
• Other things to keep in mind with this project?
GOOD RESIDENT- LED PROJECTS!

**Decrease urine cultures sent**

- Relied on change of protocol
- Good evidence base

**Time to analgesia for MSK Complaints**

- Small Scope, Defined Project
- Clear deliverables
LESS GOOD (BAD) RESIDENT-LED PROJECTS!

Improve Communication of Wait Time
✓ Relied on technology change idea

Improve Communication
✓ Relied on Culture Change
✓ Issues with power differential

Improve time to antibiotics
✓ Too complex, many steps
Wrap Up #ICRE2019

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