Improving the efficiency of handover in pediatrics: a resident-led quality improvement (QI) project

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INTRODUCTION

- Handover, a critical component of patient care, is a major preventable cause of patient harm
- Handover is recognized as an area requiring improvement due to its effect on patient safety and quality of care
- Residents are responsible for handover throughout their training
- Handover is a new key competency under the CanMEDS Collaborator Role
- Despite the implementation of a handover tool, pediatric residents still feel handover is inefficient

PURPOSE

This resident-led QI project aims to improve the efficiency of resident handover by engaging residents in QI methodologies in order for them to identify challenges and implement change ideas through iterative plan-do-study-act (PDSA) cycles.

METHODS

- Pediatric residents perceived handover challenges were documented using an email questionnaire (PGY-1 to PGY-4)
- A qualitative thematic process was conducted
- A resident Kaizen was conducted with an introduction to Lean Six Sigma and the Model of Improvement and QI methodologies (process mapping, Ishikawa diagrams, aim statements, outcome and process measures) were employed
- Resident handover was observed

RESULTS

Qualitative Thematic Process

Figure 1. PGY-1 pediatric resident qualitative thematic process identified content (73%), structure (55%), interruptions (36%), duration (36%) and late starts (36%) as major challenge themes.
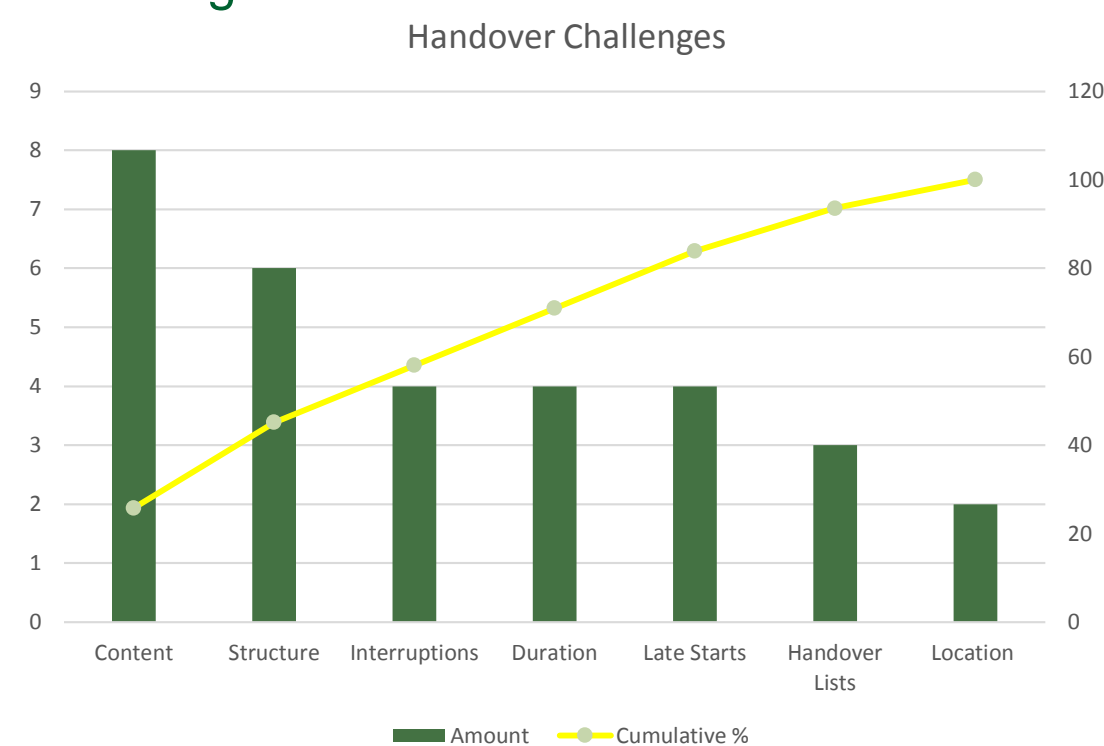
Resident Kaizen

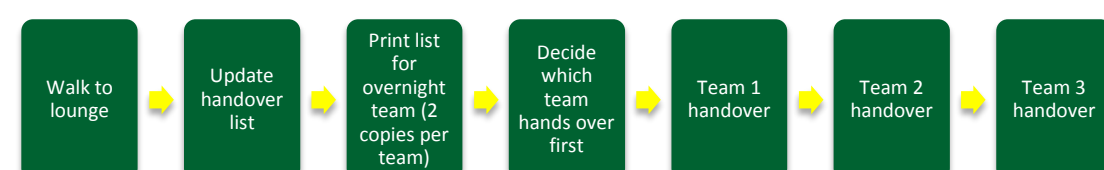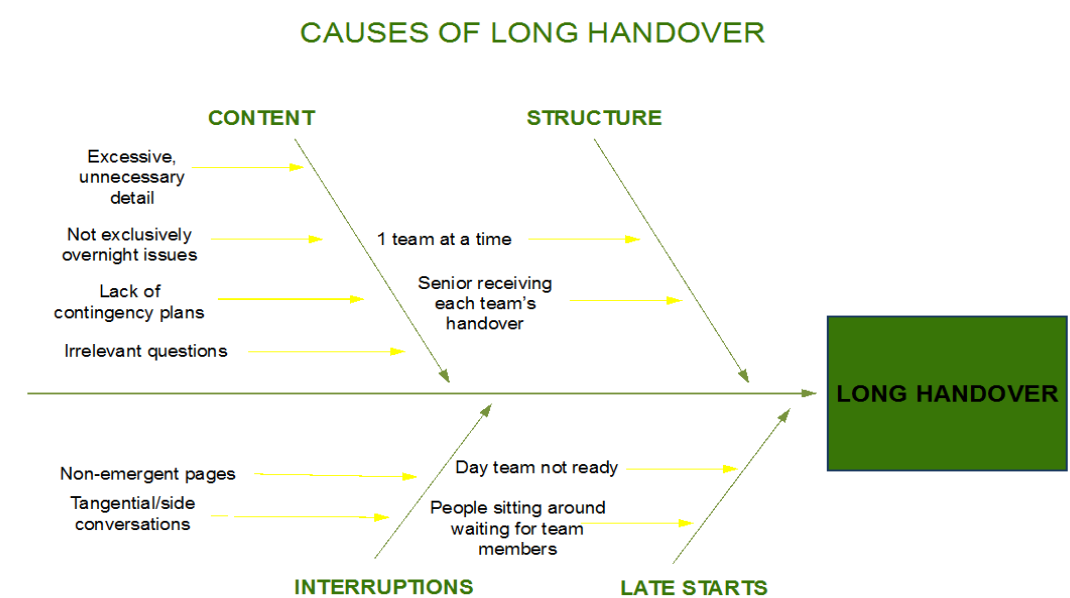Figure 2. Process Map of evening handover as outlined by pediatric residents

Figure 3. Ishikawa diagram of potential causes contributing to length of handover

RESULTS

Table 1. Challenges prioritized by pediatric residents

Challenges	Process Measure
Interruptions	Number of ward pages during handover
Content	Time handover lists are printed by each team
Structure	Time each team begins handover

CONCLUSIONS

- Engaging residents in QI methodology identified length of handover as a problem
- Residents prioritized interruptions, content and structure as challenges to address

NEXT STEPS

- Working groups for each prioritized challenge were developed
- Implementation of change ideas in a PDSA cycle eg. Staggered handover times, third computer installed
- Third party data collection by medical students by observing handover and using shared data collection sheet

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