Designing A Quality Improvement Curriculum: Optimizing Valuable Resident Time

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Context

Quality Improvement is a relatively new ACGME requirement with which residency programs may struggle due to
• Lack of time
• Lack of previous training
• Many programs have developed a continuum of education focused on Quality Improvement however this can take significant faculty investment and resident time
• In the Pediatric Residency Program at Stanford University, Lucile Packard Children’s Hospital an opportunity exists to participate in Quality improvement through the Stanford Advocacy Track
• This track gives residents exposure to Quality Improvement, however not all residents participate
• Developing a Quality Improvement curriculum was essential to
  • Address Quality Improvement concepts
  • Direct experience in project development
  • Comply with ACGME requirements

Objective

To demonstrate the development of a Quality Improvement curriculum mandatory for all pediatric residents

Program Development

Needs Assessment: Brainstorming with chiefs and program directors. Rotation paired with various resident coverage duties where exposure to quality issues may become evident in form of:
• Random float
• Effects of shift work
• Varying practice styles
Quality improvement ideas including:
• Menu of opportunities
• Participation in a hospital committee focused on quality improvement
Do you have any suggestions for quality improvement projects that you would be interested in working on this year?
• Make clinic more efficient
• Working on getting better, healthier food at conference
• Finding better space

Survey of Current Residents

What does quality improvement mean to you?
• Making things flow more smoothly and improve our ability to do our jobs
• Sounds like something administrative
• Making changes that will make care of patients better and more efficient

Do you have any suggestions for quality improvement projects that you would be interested in working on this year?

Program Development

Program Development

Background Literature

A series of articles were reviewed and selected for self directed learning:
1. Quality Improvement Methodology
2. Plan Do Study Act cycles
3. Root Cause Analysis
4. Error and Harm in Pediatrics and Difficulties in Measurement
5. Differences in the Scientific Process and the Quality Improvement Process
6. Cultural and Systemic Barriers to Safe Healthcare
7. Lessons from Too Err is Human
8. Examples of Quality Improvement in action across the country

Goals and Objectives Defined

Goal: Appraise the impact and complexity of the logistics and infrastructure required to deliver healthcare

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<tr>
<th>Resident Objective</th>
<th>ACGME Competencies Goals</th>
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<td>1. Develop critical thinking skills related to systems and related errors and acquire practical knowledge about how to affect change</td>
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Program Development

Schedule Mapping

Time | Monday | Tuesday | Wednesday | Thursday | Friday |
--- | --- | --- | --- | --- | --- |
0830-1200 | Conference | Conference | Conference | Conference | Conference |
1200-1300 | Conference | Acute Care Clinic | Acute Care Clinic | Inpatient ward | Valley Outpatient |
1300-1700 | Continuity Clinic | Acute Care Clinic | Inpatient ward | Valley Outpatient | Acute Care Clinic |
| Goal: Develop awareness of ongoing hospital improvement initiatives and identifying methods to expand those initiatives in the resident setting |

Quality Improvement Projects

• Projects formulated by residents and guided by program directors
• Initial focus was initiation of morbidity and mortality conference
• Education gap in pediatric residency
• Opportunity to focus on safety and systems issues
• Basis for future Quality Improvement initiatives
• Current projects chosen from issues raised in morbidity and mortality conferences based on
  • Feasibility
  • Resident Interest
  • Potential practical solution to systemic problem
  • Institutional significance

Conclusions

This Quality Improvement curriculum, developed for this residency is easily adaptable to other programs
• Brief rotation
• Requires nominal amount of resident time
• Requires nominal amount of faculty time

• Introduces Quality Improvement concepts
• Necessary for ongoing patient care improvement
• Necessary for ACGME compliance
• Necessary for maintenance of pediatric board certification

We expect residents leave this rotation with
• A better sense of the systems that influence patient care
• A heightened interest in quality improvement
• Skills and desire to help create “Ideal Healthcare” according to the Institute of Medicine
  • Safe
  • Timely
  • Effective
  • Efficient
  • Patient Centered