

4.15 QUALITY IMPROVEMENT

Introduction

Quality Improvement (QI) in healthcare involves planning, implementation, and ongoing assessment of care to proactively improve healthcare outcomes. Hospitals use QI programs to optimize care, streamline systems operations, meet regulatory requirements, and enhance customer service quality. Since the publication of *Crossing the Quality Chasm* decades ago by the Institutes of Medicine (now the National Academies of Medicine), even greater attention has been focused on improving use and assessing outcomes of evidence-based practices. Proving that “quality of care” and healthcare “value” (quality achieved relative to cost) has been achieved is critical for individual hospitals as well as the national healthcare system. The challenge is to maintain fiscal viability while delivering appropriate healthcare. Healthcare leaders therefore consider QI programs integral to system operations as a means to assure that resources are used wisely and delivery of consistent outcomes that improve the health of the populations served occurs. Pediatric hospitalists work on the front lines of clinical care and are aware of opportunities to improve acute care management, address gaps in chronic care needs, and identify opportunities for system-wide enhancements. Pediatric hospitalists are well positioned to act as influential change agents to promote, champion, and lead QI projects to ensure the highest value of healthcare for hospitalized children.

Knowledge

Pediatric hospitalists should be able to:

- Compare and contrast between Quality Assurance (focus on individual compliance with standards) and Quality Improvement (proactive systems improvement via integration of best practices).
- Define the “Model for Improvement.”
- Summarize the steps of the Shewart-Deming Plan Do Study Act (PDSA) cycle of improvement.
- Explain the value of demonstrating small gains and identifying failures for correction through rapid cycle improvement.
- Describe how lean methodology attempts to eliminate waste and Six Sigma attempts to reduce variation and defects within a process.
- Define commonly used QI tools and terms such as common cause and special cause variation, run charts, cumulative proportion charts, process map, and others.
- Cite examples of structure, process, outcome, and balancing metrics, attending to areas such as clinical, financial, resource use, and perceptions of care improvement.
- Summarize how QI supports effective development of care standardization, best practices, and practice guidelines in order to improve clinical outcomes.
- Discuss the importance of integrating evidence-based medicine into the planning stage of QI projects affecting patient care.
- Explain how QI can be effectively used for both clinical and

system operations improvements using examples such as clinical care guidelines and hospital procedures.

- Describe the business case for quality and review why quality should drive cost and resource allocation.
- Define the role of the patient and family in QI and illustrate how their involvement or perspectives are central to QI project success.
- Discuss how interprofessional teams and a culture of commitment to QI impact the success of QI Programs.
- Explain the role of human factors in implementing healthcare improvements.
- List the attributes necessary to moderate, facilitate, and lead QI initiatives and discuss the importance of team building methods.
- Summarize how regulatory, accrediting, advocacy, research funders, and insurers impact QI initiatives and outcomes reporting for hospitalized children, attending to the Centers for Medicare and Medicaid, The Joint Commission, Agency for Healthcare Research and Quality, Leapfrog, and the National Quality Forum.
- Discuss the value of national, state, and local comparative quality data reporting and the clinical, educational, and research utility of national sources such as the Pediatric Health Information Dataset (PHIS).
- Review how reporting quality outcomes to external sources and posting on local hospital websites can affect the patient experience and community trust.
- Summarize the value of continuous participation in QI activities, noting the expectations from medical school through American Board of Pediatrics initial and ongoing certification.

Skills

Pediatric hospitalists should be able to:

- Identify processes in need of improvement and engage the appropriate personnel to gain approval for a QI project.
- Demonstrate proficiency in performing each step in a basic QI project.
- Demonstrate proficiency in utilizing basic QI tools such as a process map, key driver diagram, and fishbone diagram.
- Perform review of quality data, including basic data analysis, interpretation, and development of recommendations from the data.
- Serve as a liaison between physician staff and hospital administrative staff when interpreting physician-specific information and clinical care outliers.
- Utilize communication and leadership skills to participate effectively on an interdisciplinary team.
- Educate trainees, nursing staff, ancillary staff, and peers on the basic principles of QI.
- Assist with development of practice guidelines to assure delivery of standardized high value care in the hospital setting.
- Use best practice guidelines effectively and consistently.
- Demonstrate facility with the use of common computer applications, including spreadsheet and database management for information retrieval and analysis.

Attitudes

Pediatric hospitalists should be able to:

- Realize the value of leading as an “early adopter” and “change agent” by building an awareness of and consensus for changes needed to make patient care quality a high priority.
- Recognize the importance of team building, leadership, and family centeredness in performing effective QI.
- Acknowledge the importance of collaboration with healthcare providers critical to QI efforts, such as clinical team members, information technology staff, data analysts, and others.
- Seek opportunities to initiate or actively participate in QI projects.
- Work collaboratively to help create and maintain a QI culture within the institution.
- Exemplify professional behavior when reviewing and interpreting data.
- Recognize how value is defined by the patient and family/caregivers and support QI efforts to increase this value.

Systems Organization and Improvement

In order to improve efficiency and quality within their organizations, pediatric hospitalists should:

- Engage hospital, medical group, and medical staff leadership in creating, implementing, and sustaining short- and long-term QI goals that add value for all customers.
- Participate on QI committees and seek opportunities to serve as QI officers or consultants.
- Advocate for the necessary information systems and other infrastructure to secure accurate data and assure success in the QI process.

References

1. Agency for Healthcare Research and Quality. Toolkit for Using the AHRQ Quality Indicators. 2017 Edition. <https://www.ahrq.gov/patient-safety/settings/hospital/resource/qitool/index.html>. Accessed August 21, 2019.
2. Department of Health and Human Services Health Resources and Services Administration. Quality Improvement Toolkit. April 2011 Edition. <https://www.hrsa.gov/sites/default/files/quality/toolbox/508pdfs/qualityimprovement.pdf>. Accessed August 21, 2019.
3. Langlely GL, Moen R, Nolan KM, Norman CL, Provost LP. *The Improvement Guide - A Practical Approach to Enhancing Organizational Performance*, 2nd ed. San Francisco, CA: Jossey-Bass; 2009.