Cultivating Competence in Quality Improvement and Patient Safety
A Curriculum for Internal Medicine Residency

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Introduction

In today's rapidly evolving healthcare environment, quality improvement and patient safety are fundamental priorities. Ensuring the highest level of care and minimizing patient harm necessitates continuous learning, adaptation, and a steadfast commitment to improving processes and systems. This is particularly critical in the field of Internal Medicine, where complexity is intrinsic to patient care

Our curriculum seeks to equip our residents with the essential knowledge and skills they need to drive meaningful improvement in their practices and the larger healthcare systems they operate within. The aim of our curriculum is not just to impart knowledge, but also to cultivate a mindset and culture of continuous improvement, patient safety, and high-quality care among our residents. We believe that quality improvement and patient safety are not just technical tasks but also adaptive challenges that require changes in values, beliefs, and attitudes.

Furthermore, our curriculum acknowledges the pivotal role of the residents as the frontline workers in patient care. Their unique position allows them insight into the microsystem of patient care, where they can identify areas for improvement and actively participate in implementing changes. By involving residents in quality improvement efforts, we aim to empower them, enhance their learning experience, and ultimately improve patient outcomes. This curriculum aims to foster a lifelong commitment to quality improvement and patient safety among our residents, enhancing their professional development and improving healthcare delivery.

Goals & Objective

- Goal 1: Develop comprehensive understanding of QIPS principles via IHI modules.
  - Objective: Direct learners to complete IHI modules on QIPS within one year.
- Goal 2: Enhance practical QIPS skills via role play, simulation, and IHI games.
  - Objective: Conduct three interactive QIPS workshops for residents.
- Goal 3: Apply QIPS knowledge in analyzing one M&M case during the QI rotation.
  - Objective: Guide learners to identify and analyze an M&M case, utilizing QIPS tools.
- Goal 4: Demonstrate proficiency in reviewing IHI QIPS courses.
  - Objective: Encourage in-depth review and application of IHI QIPS course content.
- Goal 5: Engage in GEMBA walks and talks for insight into healthcare processes.
  - Objective: Facilitate GEMBA sessions, enabling engagement with frontline staff.
- Goal 6: Prepare a comprehensive RCA on a patient safety case.
  - Objective: Ensure RCA preparation on a selected case, using appropriate methodologies.
- Goal 7: Effectively communicate RCA findings at the M&M conference.
  - Objective: Guide development of a comprehensive RCA presentation for the M&M conference.
- Goal 8: Promote a culture of continuous learning and multidisciplinary patient safety.
  - Objective: Arrange stakeholder meetings to broaden perspective on QIPS initiatives.
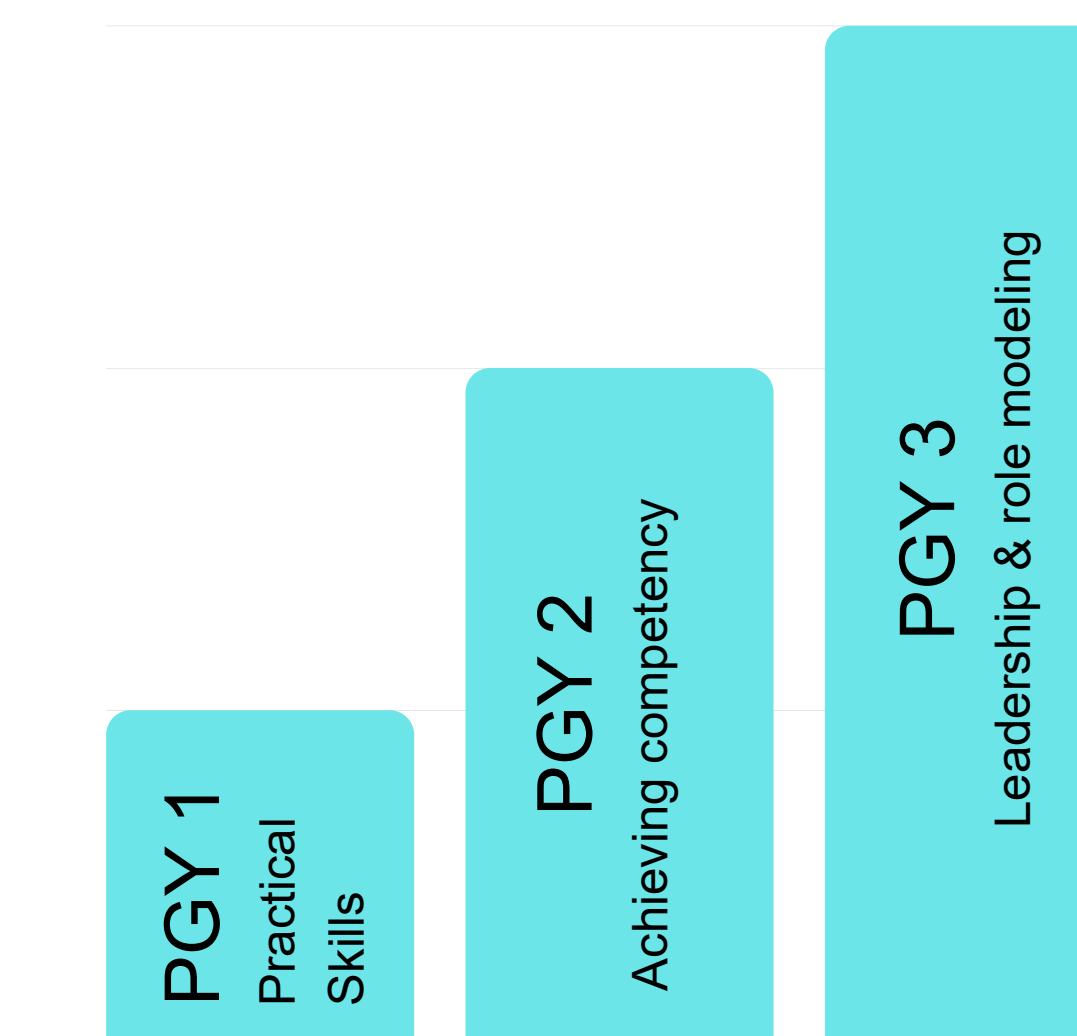
Curriculum component

- QIPS Workshops:
  - Three interactive half-day workshops featuring role plays, low-fidelity simulations, and IHI games, covering essential topics in patient safety and quality improvement.
- IHI Courses:
  - Mandatory completion of IHI courses on patient safety and quality improvement for all residents, with progress monitored via the IHI dashboard.
- QI Rotation:
  - A two-week QI rotation encompassing various activities including M&M case analysis, GEMBA walks, stakeholder meetings, and RCA preparation on a patient safety case.
- QIPS Didactics:
  - QIPS workshops as primary didactic sessions, incorporating a variety of teaching tools and engaging activities such as role plays, process mapping, PDSA applications, and more.
- Evaluation:
  - Post-assessment survey to evaluate residents' knowledge, skills, attitudes, and curriculum effectiveness, aiding in identifying areas for improvement.
- Continuous Curriculum Updates:
  - Regular curriculum improvements based on feedback from residents and faculty and up-to-date research findings in the field of quality improvement and patient safety.
- Stakeholder Engagement:
  - Active involvement of stakeholders, including residents, faculty, directors, and others, to collect surveys and feedback for future curriculum improvements and foster a collaborative approach.
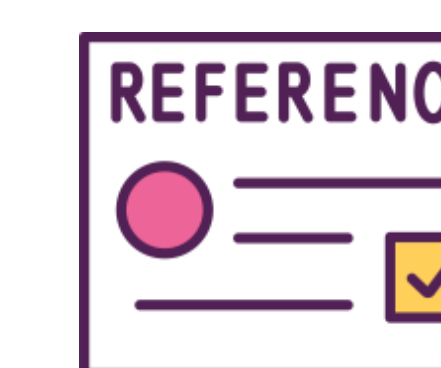
Implementation plan

- Resources and Support:
  - Allocate necessary funds, tools, literature, external partnerships, and mentorship to facilitate the QIPS rotation.
- Addressing Barriers:
  - Identify and address potential barriers, logistical challenges, and provide necessary training to faculty for effective instruction.
- Pilot and Data Collection:
  - Conduct a pilot run to test the curriculum, collect and analyze data to evaluate its effectiveness.
- Reviews and Continuous Improvement:
  - Regularly review and evaluate the rotation based on data and stakeholder feedback, identify areas for improvement, and adjust the curriculum accordingly.
- Ethics and Training:
  - Ensure ethical clearance from the IRB for data collection and train data collectors for accurate data gathering.
- Stakeholder Communication:
  - Highlight the importance and benefits of the rotation to all stakeholders to ensure their support and cooperation.

PGY 1 Practical Skills
PGY 2 Achieving competency
PGY 3 Leadership & role modeling

Outcome measures

- Learner Competence:
  - Evaluate resident competence in QIPS principles and their application, measured through quizzes, assignments, and RCA presentations.
- IHI Course Completion:
  - Track the completion rate of IHI courses on patient safety and quality improvement.
- Stakeholder Feedback:
  - Collect and analyze feedback from various stakeholders for insights into curriculum effectiveness.
- Post-assessment Surveys:
  - Conduct post-assessment surveys to measure residents' knowledge, skills, and attitudes post curriculum implementation.
- M&M Case Analysis:
  - Evaluate the quality of M&M case analysis done by residents, focusing on their ability to identify areas for improvement and develop action plans.
- Quality of RCA Reports:
  - Assess the comprehensiveness, analytical depth, and practical recommendations in the RCA reports prepared by residents.
- Feedback Incorporation:
  - Measure the rate at which feedback is incorporated into curriculum updates, indicating responsiveness to learner and faculty needs.
- Patient Outcomes:
  - Monitor changes in patient outcomes linked to the implemented quality improvement measures proposed in residents' projects.
- QIPS Culture:
  - Assess the impact of the curriculum on fostering a culture of continuous learning and improvement in QIPS among the residents.

References

Institute for Healthcare Improvement. (n.d.). [Open School]. Retrieved [May 19th, 2023], from http://www.ihi.org

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