UCSD Pediatric Residency and Fellowship Quality Curriculum

Innovative Quality Improvement Research in Residency (INQUIRY) Program
Estimated Time: Longitudinal

Goal: To attain a level of basic knowledge and skills in quality improvement and patient safety related to caring for children in the healthcare environment.

Objectives/Milestones: As listed below. The following learning activities and assessment methods used for this program, where yellow highlighted items are integrated for all trainees and green for RAP QI Scholar and fellow level trainees. Optional are noted in blue:

Teaching/Learning Activities	Assessment Methods
1. Experiential activities (clinical; shadowing; other) **2. Workshop sessions** **3. Seminars** **4. Readings/modules** **5. Hospital/system committee participation** **6. Group project participation** **7 Web search and report** **8. Portfolio** **9. Supervising/teaching an activity to others** **10 Dissemination: via Presentation given/abstract submitted/other academic product** **11. Individual project**	**a. Global rating** **b. Direct observation with checklist** **c. Expert opinion- interactive discussion** **d. Faculty evaluation (learner assessment)** **e. Test** **f. Faculty review of work/presentations (project; any disseminated work)** **g. Peer review of abstract/other** **h. Faculty review of project/skill** **m. Self assessment**

NOTE: All trainees who successfully complete INQUIRY LEVEL 1 do NOT need to complete the 16 UCSD quality and safety on line modules.

Sessions:
Interactive Course Workshops:
QI 1: Intro – Who do you want to be? How QI fits into your career
QI 2: Patient safety – slips, lapses, mistakes (…and humans)
QI 3: QI Specific aims and measures – change what really matters
QI 4: Teams and why they matter
QI 5: Tools and How to make it visual
Qi 6: Wrap-up: The Project. Making the experience work for you and the patients

Objectives:

Knowledge

1. Discuss factors pushing patient safety and medical quality efforts
2. Compare and contrast quality assurance (QA) and quality improvement (QI)
3. Discuss potential career focus and discuss how QI fits into it
4. List examples of different error types, including slips, lapses, and mistakes
5. Describe the "swiss cheese" model of how errors occur
6. Define human error, at risk behaviors, and reckless behavior
7. List examples of and describe differences between different errors types, including slips, lapses, and mistakes, and describe the difference between a failure in planning vs failure in execution
8. Compare and contrast reporting for safety/good catch, performing a Root or Apparent Cause Analysis, "M&M", and Peer Review
9. Define and discuss Just Culture and personal accountability
10. Cite the components of the P-D-S-A cycle
11. Summarize sources of data for QI projects
12. Give examples of process, outcome, and balancing measures
13. Define the "implementation gap"
14. Cite unique healthcare needs of children and discuss how these and disparities and vulnerabilities affect QI and PS for children
15. List commonly used QI tools
16. Discuss the value of Affinity diagram, fishbone, and process map in performing the "P" of a PDSA cycle
17. Compare and contrast data for clinical research with data for QI
18. Discuss how graphed data can be misinterpreted
19. Summarize how pareto, run, and control charts are commonly used
20. Define common cause and special cause variation
21. List common QI team members and cite 4 key elements of a successful team
22. Compare and contrast how interprofessional team members may relate to each other and the impact this may have on project success
23. Define and discuss Just Culture and personal accountability
24. Cite current RCHSD quality and safety projects
25. Identify steps to complete a project

Skills

1. Complete IHI modules: "PS 101 Introduction to Patient Safety" and "QI 101 Introduction to Health Care Improvement"
2. Participate in Level 1 breakout sessions , demonstrating basic skills in working in small teams
3. Demonstrate your current QI Skill level
4. Correctly identify examples of human error, at risk behaviors, and reckless behavior
5. Correctly identify complete and incomplete SMART aims
6. Create one draft SMART aim
7. Correctly choose measures (metrics) for a hypothetical SMART aim

8. Demonstrate basic proficiency in use of 3 QI tools: Fishbone diagram, process map, and affinity diagram
9. Correctly identify common cause and special cause variation in graphed data
10. Analyze and interpret various quality data presented in graphic form
11. Working in small teams, choose team members for a hypothetical project
12. Correctly apply the Just Culture algorithm to hypothetical cases, identifying human error, at risk behaviors, and reckless behavior.

Attitudes

1. Conduct daily activities in a professional manner that incorporates attention to patient safety principles
2. Identify opportunities to improve healthcare delivery and engage in actions for these where possible
3. Enhance team success by role modeling partnership and supportive behaviors
4. Recognize that patient safety and QI are foundational elements of healthcare delivery that can help reduce healthcare disparities
5. Reflect on how QI training and actions can be integrated into lifelong learning, realizing that this is a form of pediatric advocacy

During the UCSD Innovative Quality Improvement Research in Residency (INQUIRY) Program level 2 (participating and completing at least one PDSA cycle of an interdisciplinary project), the learner will demonstrate:

- Ability to assess a clinical problem and create an effective SMART aim statement to address the issue
- Skills in identifying feasible metrics, including sources for data acquisition
- Successful partnership with a QI team
- Ability to obtain, analyze, and interpret basic QI data
- Complete a project worksheet
- Self-reflection/self-assessment skills via survey

Optional (encouraged) competencies may be addressed if the trainee disseminates the learning via presentation or submission of work in academic form to a meeting/conference. In these cases, the trainee will be mentored in creation and submission of an abstract in appropriate QI format. If accepted, the trainee will be mentored in creation and showing of poster or oral presentation. Trainees who wish to create a manuscript for publication will also receive mentorship in creating and submitting this work.

Milestones:

MK1: Critically evaluate and apply current medical information and scientific evidence for patient care
SBP1: Coordinate patient care within the health care system
SBP 2: Advocate for quality patient care and optimal patient care systems

SBP 3: Work in interprofessional teams to enhance patient safety and improve patient care quality
Other SBP: Participate in identifying system errors and implementing potential systems solutions
Other SBP: Incorporate considerations of cost awareness and risk-benefit analysis in patient and/or population -based care
PBL1: Identify strengths, deficiencies, and limits in one's knowledge and expertise
PBL3: Systematically analyze practice using QI methods and implement changes with the goal of practice improvement
PROF1: Professionalism: A sense of duty and accountability to patients, society, profession