Key Course Faculty:

Somnath Mookherjee, MD
Assistant Professor of Medicine
Associate Director of Faculty Development, Hospital Medicine

Sumant Ranji, MD
Associate Professor of Medicine
Associate Program Director for IM Residency Program

Niraj Sehgal, MD, MPH
Associate Professor of Medicine
Associate Chair for Quality & Safety, Department of Medicine

Naama Neeman, MSc
Course Coordinator
Administrative Director of Quality and Safety Programs
Overview

This rotation will provide students with an immersion experience in Quality Improvement and Patient Safety (QI/PS) activities. Students will learn fundamental concepts in QI/PS through directed readings and didactics, apply their learning in experiential fashion (e.g. conduct a formal adverse event case review), and attend key UCSF medical center QI/PS committees. Students will also learn about organizational, unit/practice, and individual approaches to improving patient care using QI/PS tools.

Goals

At the completion of this course, students will be able to:

- Understand the challenges in measuring patient safety
- Describe several strategies employed to measure patient safety in the inpatient and outpatient environment
- Analyze an adverse event and identify active and latent errors (using a structured case review tool)
- Define the structure/process/outcome triad for measuring healthcare quality
- Analyze a quality problem by identifying the quality gap and designing potential improvement strategies
- Develop an Aim statement, a SMART objective, and a measurement strategy for a QI project
- Define elements of a PDSA cycle
- Understand the role of multidisciplinary teams in improving patient safety and healthcare quality

Requirements & Evaluation

Pass / fail, based on:

- Attendance at all scheduled activities
- Participation in experiential activities
- Completion of a case review
- Completion of a QI project proposal
- Final presentation

Suggested Brief Readings

- Basics of patient safety: http://knol.google.com/k/patient-safety#
- Basics of healthcare quality improvement: http://knol.google.com/k/the-quality-of-healthcare#

Available Online Classes

IHI Open School Program
http://www.ihi.org/IHI/Programs/IHIOpenSchool/Course+Catalog.htm

- PS 100: Introduction to Patient Safety
- PS 101: Fundamentals of Patient Safety
- PS 102: Human Factors and Safety
- PS 103: Teamwork and Communication
- PS 104: Root Cause and Systems Analysis
- QI 101: Fundamentals of Quality Improvement
- QI 102: The Model for Improvement
- QI 103: Measuring Quality Improvement
- QI 104: Putting It All Together
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<th>Sun</th>
<th>Mon</th>
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<tr>
<td>9:30a–10:00a: Pre-Assessment Location: U-107</td>
<td>8:30–9:30a: Introduction to Patient Safety Location: U-107</td>
<td>7:30–9:00a: DHM QI Committee Location: M1319</td>
<td>9:00a–3:00p: Independent work on Case Review and QI Project assignments</td>
<td>Cesar Chavez Holliday</td>
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<td>10:00–11:00a: Introduction to the Quality Improvement and Patient Safety Elective Location: U-107</td>
<td>10:00–11:30a: Quality &amp; Safety: How is it organized at UCSF? Location: U-107</td>
<td>9:00–10:00a: Introduction to Cost Awareness Location: U-107</td>
<td>3:00–4:00p: Meet the Professor with Bob Wachter, MD (Professor &amp; Chief of Medical Service; Quality &amp; Safety Leader) Location: U-107</td>
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<td>2:30–4:00p: Introduction to Quality Improvement Location: U-107</td>
<td>3:00–4:30p: QI Tools: Failure Mode and Effect Analysis Location: U-107</td>
<td>12:00–1:00p: Morbidity &amp; Mortality conference (optional) Location: VA, Building 203, 1A</td>
<td>2:00–3:00p: Conducting Case Review Location: U-107</td>
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<td>9:00a–12:00p: Independent work on Case Review and QI Project assignments</td>
<td>9:00–11:00a: UCSF Medical Center’s Patient Safety Committee Location: MU506</td>
<td>9:00–10:00a: Case Review – Works in Progress Session Location: U-107</td>
<td>1:00 – 3:00p: Final Presentations of Case Review and QI Project Assignments Location: S-182</td>
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<td>3:00–4:00p: QI Project – Works in Progress Session Location: S-159</td>
<td>12:00–2:00p: UCSF Quality Improvement Executive Committee Location: 1319M</td>
<td>11:00–5:00p: Independent work on Case Review and QI Project assignments</td>
<td>10:00–10:45a: Debrief: Observations from Committee Experience Location: U-107</td>
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Daily Schedule & Session Details:

**Monday, March 26th**

9:30a–10:00a: Pre-Assessment
Niraj Sehgal, MD, MPH
Location: U-107

Learning Objectives:
1) Complete pre-assessment tools to help identify individual learning opportunities during the elective
2) Understand basic principles of Quality Improvement and Patient Safety through completion of IHI online modules

10:00–11:00a: Introduction to the Quality Improvement and Patient Safety Elective
Niraj Sehgal, MD, MPH
Location: U-107

1) Describe the goals and expectations of the 2-week elective
2) Understand the calendar and daily schedule for the elective
3) Identify a structured framework to organize the QI elective project experience

2:30-4:00p: Introduction to Quality Improvement
Niraj Sehgal, MD, MPH
Location: U-107

Learning Objectives:
1) Define quality and quality improvement
2) Understand SMART objectives, elements of a PDSA cycle, and the model for improvement
3) Describe the structure/process/outcome triad for measuring healthcare quality

**Tuesday, March 27th**

8:30–9:30a: PQJ - Introduction to Patient Safety
Krishan Soni, MD
Location: U-107

Learning Objectives:
1) Recognize the contributing factors to medical errors
2) Understand the challenges in measuring patient safety
3) Describe several strategies employed to improve patient safety in healthcare settings

10:00–11:30a: Quality & Safety: How is it organized at UCSF?
Niraj Sehgal, MD, MPH
Location: U-107

Learning Objectives:
1) Discuss the role of physicians in improving the quality and safety of care
2) Highlight the organizational structures that foster systems innovation and improvement
3:00–4:30p: QI Tools: Failure Mode and Effect Analysis
Krishan Soni, MD and Katie Quinn, MPH
Location: U-107
Objectives:
1) Understand the purpose and conceptual steps of Process Mapping and Failure Mode and Effect Analysis (FMEA)
2) Know when to use FMEA (vs. other process improvement tools)
3) Apply FMEA to routine clinical processes

Wednesday, March 28th
7:30 – 9:00a Division of Hospital Medicine QI Committee
Krishan Soni, MD and Katie Quinn, MPH
Location: M1319
Learning Objectives:
1) Observe how quality and safety efforts are organized within the Division of Hospital Medicine

9:00–10:00a: Introduction to Cost Awareness
Krishan Soni, MD
Location: U-107
Objectives:
1) Understand the concept of cost-effective physician test ordering behaviors
2) Recognize cost-inefficient medical practices and how these can be improved

12:00–1:00p: Attend the Department of Medicine’s QI Morbidity & Mortality conference (optional)
Krishan Soni, MD
Location: VA, Building 203, 1A conference room

2:00–3:00p: Conducting a Formal Case Review
Sumant Ranji, MD
Location: U-107
Objectives:
1) Differentiate a Case Review from an RCA
2) Explain how to analyze an adverse event and identify active and latent errors
3) Apply a structured case review tool to an actual case provided

Thursday, March 29th
9:00a-3:00p: Independent work on Case Review and QI Project assignments

3:00-4:00p: Meet the Professor with Bob Wachter, MD (Professor & Chief of Medical Service; Quality & Safety Leader)
Objectives:

1) Discuss and learn from the evolution of quality & safety through the career path of Dr. Wachter
2) Identify opportunities for physician (and trainee) engagement in quality & safety

Friday, March 30th

Cesar Chavez Holliday

Monday, April 2nd

10:00-11:00a: Meet the Professor with Adrienne Green, MD (Associate Chief Medical Officer, UCSF Medical Center)
Location: U-107
Objectives:

1) Discuss and learn from the career path of a physician leader with Dr. Green
2) Identify opportunities for physician (and trainee) engagement in quality & safety

3:00–4:00p: QI Project – Works in Progress Session
Somnath Mookherjee, MD
Location: S-159
Objectives:

1) Share early lessons learned from QI project
2) Clarify questions about final presentations and deliverables

Tuesday, April 3rd

9:00a-12:00p: Independent work on Case Review and QI Project assignments

12:00–2:00p: UCSF Medical Center’s Quality Improvement Executive Committee
Location: 1319M
Objectives:

1) Observe the role of the QIEC in promoting high quality and safe care

Wednesday, April 4th

9:00–11:00a: UCSF Medical Center’s Patient Safety Committee
Location: MU506/507
Objectives:

1) Observe a Root Cause Analysis (RCA) and the role of the Safety Committee

11:00a-5:00p: Independent work on Case Review and QI Project assignments
Thursday, April 5th
9:00–10:00a: Case Review – Works in Progress Session
Sumant Ranji, MD
Location: U-107
Objectives:
1) Share early lessons learned from case review
2) Clarify questions about final presentations and deliverables

10:00–10:45a: Debrief: Observations from Committee Experience
Niraj Sehgal, MD, MPH
Location: U-107
Objectives:
1) Share observations from DHM QI Committee, QIEC, and Patient Safety Committee

11:00a–5:00p: Independent work on Case Review and QI Project assignments

Friday, April 6th
1:00–3:00p: Final Presentations of Case Review and QI Project Assignments
Location: S-182
Objectives:
1) Synthesize elements of conducting a case review by presenting formal findings
2) Report and illustrate an approach to a quality problem by presenting QI proposal