

Introduction to Quality Improvement & Patient Safety

Course content

Introduction to Quality Improvement

Topic	Learning Objectives	Presenter
Introduction to Healthcare Improvement	<ul style="list-style-type: none">• Describe the difference between quality assurance and quality improvement.• Identify some of the common challenges for healthcare around the world (Ex. inability to reliably deliver best practices, hospital acquired conditions, end of life care, etc.).• Describe the concept of "Value" in healthcare (includes aspects of quality and cost).• Name the six domains of "Quality" as defined by the US Institutes of Medicine.	Jeffrey Braithwaite
Quality Improvement Methods	<ul style="list-style-type: none">• To describe the difference between the main types of measures (structure, process, outcome) and its relationship.• To explore the relationship between Quality Improvement strategies and patient safety: the DUQuE study and its implications will be presented as an example.• To briefly describe the process of implementing quality interventions.	Rosa Sunol
The Model for Improvement	<ul style="list-style-type: none">• Ask the three critical questions in the Model for Improvement.• List the critical elements of an effective aim statement.• Describe the difference between the main types of measures (structure, process, outcome, balancing).	Gail Nielsen
Testing and measuring change with PDSA cycles	<ul style="list-style-type: none">• Describe the specific components of the PDSA cycle.	John Fitzsimons &

	<ul style="list-style-type: none"> Describe ways to collect data during the "Do" phase of the PDSA cycle. Understand how to translate your data ("study") to move to the "act" phase. 	Emmanuel Aiyenigba
Interpreting data	<ul style="list-style-type: none"> Build a run chart (including plotting a baseline median/mean and annotations). Describe the difference between common cause and special cause variation. Identify several rules that identify non-random variation in outcomes. 	David Vaughan
Quality Improvement Tools	<ul style="list-style-type: none"> Create a SMART aim. Build a driver diagram that addresses the SMART aim created. Understand the appropriate times to use other critical Quality Improvement Tools Understand "the theory" as shown by the driver diagram. 	John Fitzsimons & Emmanuel Aiyenigba
Using Evidence Based Medicine to Achieve Quality Outcomes	<ul style="list-style-type: none"> Name where to find out about best practices (ex. literature, registries of databases, etc.). Describe how to use Evidence Based Medicine to improve quality in healthcare Understand how to achieve best value and outcomes 	Enas el Gouhary
Variation and Managing Clinical Processes	<ul style="list-style-type: none"> Recognize the difference between random variation and special cause variation. Understand the importance of a "stable" process as a precursor to improvement. Describe approaches to optimize a clinical process. 	David Vaughan
Lean Management Systems	<ul style="list-style-type: none"> Describe the 5 components of the Lean based "Daily Management System". Understand what is meant by the term "visual management" and describe how this might be used to improve quality. Describe a "tiered huddle" system, and establish a connection between tiered huddles and situational awareness. 	Ben Chan

Implementation Science	<ul style="list-style-type: none"> • Define what is meant by the term "implementation science". • Describe the average lag time between discovery of best practice and comprehensive implementation. • Name 2 barriers and 2 facilitators that influence successful implementation of best practices. 	Jeffrey Braithwaite
Spread	<ul style="list-style-type: none"> • Describe what is meant by the term "spread" in healthcare. • Explain why "spread" is such an important topic in quality improvement. • List several components of a successful spread plan. 	Rashad Massoud
Generalizability and Sustainability	<ul style="list-style-type: none"> • Identify several strategies to ensure a local quality project is generalizable to entire organization. • Describe three approaches that increase the likelihood of sustaining the gains of a QI project. • Describe ways to design sustainability into QI work at the start of the project. 	Lynne Maher
Publishing and Presenting QI Work	<ul style="list-style-type: none"> • Explain some of the challenges faced by scientists when publishing QI projects. • Determine if "improvement science" is perceived as "real science" at your institution. • Describe the SQUIRE guidelines and their importance to publishing QI work. 	Helen Crisp
Informatics	<ul style="list-style-type: none"> • Give several examples of how the Electronic Medical Record can improve the quality of care. • Identify what other technology has been used to improve quality and patient safety (ex. bar coding, point of care testing, etc.). • Describe at least two important studies that show improved outcomes because of implementing an electronic medical record. 	David Bates
QI Indicators	<ul style="list-style-type: none"> • Identify the most important quality indicators tracked at your institution • Describe the quality metrics that are required for submission to external 	Peter Hibbert

	<p>agencies (ex. regulatory agencies, insurance agencies, etc.).</p> <ul style="list-style-type: none"> • Determine what metrics are presently linked to "pay for performance" approaches in your location 	
How to Identify Process Problems for Improvement	<ul style="list-style-type: none"> • Explain some of the limitations of standards and training to fix problems in health service delivery. • Identify problems in processes of care that can be readily fixed. • Share examples from hospitals and clinics in low and middle income countries of how health workers have used these approaches. 	Gail Nielsen
Current QI Trends	<ul style="list-style-type: none"> • Understand the long journey over the past two decades of improving healthcare. 	Rashad Massoud

Introduction to Patient Safety

Topic	Learning Objectives	Presenter
Introduction to Patient Safety	<ul style="list-style-type: none"> • Know the frequency/cost of adverse events worldwide (Ex. to Err is Human). • Recognize that adverse events are a common cause of death in hospitals. • Describe efforts to date to address adverse events and results. • Understand safety from viewpoint of the patient. 	Paul Sharek
From Error to Harm	<ul style="list-style-type: none"> • Describe the difference between error and harm. Establish the link between human error and harm (ex. Swiss cheese model). • List three unsafe acts (Ex. James Reason model). 	Qianli Jiang
Human Factors and Patient Safety	<ul style="list-style-type: none"> • To understand the key principles of Human Factors and Ergonomics science. • To be able to describe how the Human Factors and Ergonomics approach to safety (most effective to least effective). 	Sue Hignett, Thomas Jun & Mike Fray

	<ul style="list-style-type: none"> To have an appreciation of where Human Factors and Ergonomics could and should be considered to improve systems design and human interfaces/interactions. 	
Effective Teamwork & Communication	<ul style="list-style-type: none"> Advise your institution on how teamwork can contribute to quality and safety of care Describe the key contents of a teamwork training program Explain elements of effective structured communication tools to decrease risk 	Anthony Staines
Responding to Adverse Events	<ul style="list-style-type: none"> State the immediate next steps to be taken after an AE occurs. Describe two elements of an effective disclosure of an AE to a patient/caregiver Define what the term "Second victim" means. 	Albert Wu
Root Cause Analysis (RCAs)	<ul style="list-style-type: none"> Explain Root Cause Analysis (RCA) and its purpose. Show how an RCA can be used to prevent harms in the future. Name an event that would be appropriate for an RCA. 	Peter Lachman
Failure Modes and Effects Analysis (FMEAs)	<ul style="list-style-type: none"> Understand the five "Whys" and when an FMEA would be used. State how to assess the relative impact of failure on each component of the process. Describe the approach to identifying "high risk" components of the process being evaluated in the FMEA. 	Paul Rafferty
Healthcare Standards	<ul style="list-style-type: none"> Define healthcare standards including common patient care and management standards and how they are applied clinically. Understand the difference between awards, accreditation, regulation and peer review. Know what structures are necessary and the importance of processes to the delivery of high quality and safe patient care. 	Stephen Clark

<p>Building a Culture of Safety</p>	<ul style="list-style-type: none"> • Identify the three critical components of a culture of safety (ex psychologic safety, transparency, supportive leadership). • Explain can be done to create a culture of safety. • List the clinical outcomes that have been improved with a strong culture of safety. • Articulate how do measure (what are the attributes of) the culture of safety in their own organisations. 	<p>Christina Krause</p>
<p>Just Culture</p>	<ul style="list-style-type: none"> • Describe what is meant by a "fair and just culture". • Understand what the word "reckless" means and how it relates to patient safety. • Explain how a healthcare organization with a just culture would respond when a staff member has excessive workload. 	<p>Sidney Dekker</p>
<p>Person-Centred Care</p>	<ul style="list-style-type: none"> • Understand the concept of Patient-Centred Care • Discuss how to implement effective Patient-Centred Care • Give examples of how we can deliver Patient-Centred Care 	<p>Kris Vanhaecht</p>
<p>Measuring Patient Safety</p>	<ul style="list-style-type: none"> • Name three ways to measure patient safety • Identify two strengths and two weaknesses of occurrence reporting • Explain what a trigger is and identify one strength and one weakness of using "trigger tools" to measure safety • Describe the Framework for safety measurement 	<p>Peter Lachman</p>
<p>Understanding Healthcare as a Complex System</p>	<ul style="list-style-type: none"> • Understand the complexity of the health care system • Differentiate between Safety and Quality in health care • Understand risk and harm through the patient's eyes • Describe different models of safety • Consider the balance of benefit and harm within an episode of care 	<p>Rene Amalberti</p>

<p>Understanding and Managing Clinical Risk</p>	<ul style="list-style-type: none"> • Understand the complexity of the health care system • Differentiate between Safety and Quality in health care • Understand risk and harm through the patient's eyes • Describe different models of safety • Consider the balance of benefit and harm within an episode of care 	<p>Bruno Lucet</p>
<p>High Reliability</p>	<ul style="list-style-type: none"> • List the five attributes of a high reliability organization • Explain what the word "resilience" means in the context of high reliability. • Describe "situational awareness" and give an example of how this attribute can improve patient safety. 	<p>John Brennan</p>
<p>Change Management</p>	<ul style="list-style-type: none"> • List the levels of "adopters" in the Rogers model of "the diffusion of innovation" • Discuss the value of a "pilot test" in managing change. • Name three techniques that increase the likelihood that change will be adopted 	<p>Lynne Maher</p>
<p>Clinical Applications of Patient Safety Theory - Part 1</p>	<ul style="list-style-type: none"> • Define what a bundle is. • Understand the bundle elements for preventing Central Line Associated Blood Stream Infections 	<p>Eyal Zimlichman</p>
<p>Clinical Applications of Patient Safety Theory - Part 2</p>	<ul style="list-style-type: none"> • Understand the bundle elements for preventing Pressure Ulcers • Describe the decrease in patient falls that occurs when the pressure ulcer prevention bundle is adhered to at least 90% of the time. 	<p>Peter Lachman</p>
<p>Medication Safety</p>	<ul style="list-style-type: none"> • Identify at what stage of the medication process most harm occurs. (Administration). • Describe 2 ways that technology can improve (and 2 ways that it can worsen) the safety of the medication management process • Describe the frequency, and severity, of medication related harm in hospitals 	<p>Terri Warholak</p>

The WHO Medication Safety Challenge	<ul style="list-style-type: none"><li data-bbox="550 226 1023 293">• Describe and understand WHO Medicine Safety Challenge	Shin Ushiro
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