

# Pain Management Pearls and Whole System Quality

# Opioid versus opioid-free analgesia after surgical discharge: a systematic review and meta-analysis of randomised trials

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- Meta-analysis, n=6607
- Minor and moderate surgical procedures
- Opioid prescribing did not reduce self-reported pain intensity compared with opioid-free analgesia
- Opioids were associated with increased risk of vomiting, nausea, constipation, dizziness, and drowsiness
- General surgery: in US 95% of patients got opioids, on 5% in European, Asian, and south American locations

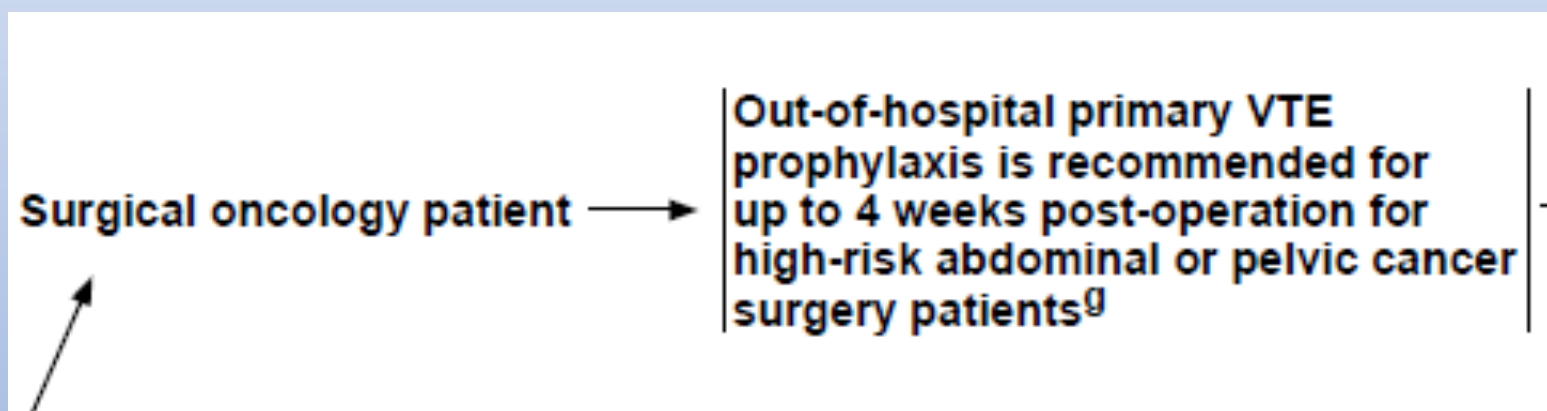


	SELECT NON-DRUG STRATEGIES	ACUTE PAIN			CHRONIC PAIN	PAYER COVERAGE <sup>2</sup>		SELF-DIRECTED CARE	RESOURCES FOR SELF-DIRECTED CARE	COMMENTS
		LOW BACK PAIN (LBP)	SPRAINS/ STRAINS <sup>1</sup>	POST-OP		MEDICAID	BCBS			
B E H A V I O R A L	Aromatherapy	-	✓ <sup>3</sup>	✓ <sup>4</sup>	✓ <sup>5</sup>	-	-	✓	<a href="https://www.hopkinsmedicine.org/health/wellness-and-prevention/aromatherapy-do-essential-oils-really-work">https://www.hopkinsmedicine.org/health/wellness-and-prevention/aromatherapy-do-essential-oils-really-work</a>	Through olfactory system or absorption through skin; Lavender is the most commonly studied essential oil associated with decreased pain
	Cognitive Behavioral Therapy (CBT)	-	✓ <sup>3</sup>	✓ <sup>6,7</sup>	✓ <sup>6,8</sup>	-	✓	-		May reduce psychosocial distress in chronic pain patients; American College of Physicians (ACP) recommended for chronic low back pain
	Distraction Techniques	-	✓ <sup>5,9</sup>	✓ <sup>5,9</sup>	✓ <sup>4</sup>	-	-	✓	<a href="https://www.aci.health.nsw.gov.au/chronic-pain/painbytes/pain-and-mind-body-connection/how-can-distraction-be-used-to-manage-pain">https://www.aci.health.nsw.gov.au/chronic-pain/painbytes/pain-and-mind-body-connection/how-can-distraction-be-used-to-manage-pain</a>	Common techniques include counting, deep breathing, bubbles, drawing/coloring, listening to music, crafts, virtual reality
	Guided Imagery	-	✓ <sup>4</sup>	✓ <sup>4</sup>	✓ <sup>5</sup>	-	-	✓	<a href="https://www.youtube.com/watch?v=cJwbSks_B4">https://www.youtube.com/watch?v=cJwbSks_B4</a>	May reduce fear of reinjury; May reduce pre- and post-operative anxiety, pain, and medication use; May increase patient satisfaction; May reduce chronic pain medication use
	Meditation/ Mindfulness	-	-	-	✓ <sup>4</sup>	-	-	✓	<a href="https://www.headspace.com/">https://www.headspace.com/</a> <a href="https://mobile.va.gov/app/mindfulness-coach">https://mobile.va.gov/app/mindfulness-coach</a>	
	Mindfulness Based Stress Reduction (MBSR)	✓ <sup>4</sup>	-	✓ <sup>5,10</sup>	✓ <sup>6,8</sup>	-	-	✓	<a href="https://palousemindfulness.com/index.html">https://palousemindfulness.com/index.html</a>	Typically delivered as a structured 8-week program; ACP-recommended for chronic LBP
	Music Therapy	-	✓ <sup>3</sup>	✓ <sup>6,8</sup>	✓ <sup>6</sup>	-	-	✓	<a href="https://www.theacpa.org/pain-management-tools/the-art-of-pain-management/music-to-help-you-relax/">https://www.theacpa.org/pain-management-tools/the-art-of-pain-management/music-to-help-you-relax/</a>	May reduce post-operative anxiety and medication use; May increase patient satisfaction; Decreases psychosocial distress in a variety of chronic pain conditions
	Sleep Hygiene	-	-	-	✓ <sup>5</sup>	-	-	✓	<a href="https://msp.scdhhs.gov/tipsc/sites/default/files/healthy_sleep_habits_handout_06_press.pdf">https://msp.scdhhs.gov/tipsc/sites/default/files/healthy_sleep_habits_handout_06_press.pdf</a>	A good night's rest should always be part of a patient's care plan, especially when dealing with pain, stress, and illness.
P H Y S I C A L	Acupuncture	✓ <sup>6,8</sup>	✓ <sup>6</sup>	✓ <sup>6</sup>	✓ <sup>6,8</sup>	✓	-	-		May decrease post-operative medication use; ACP-recommended for acute, subacute, and chronic LBP
	Chiropractic	✓	-	-	✓	-	✓ <sup>12</sup>	-		Licensed professional that utilizes multiple non-drug strategies
	Cold Packs	✓	✓	✓	✓	-	-	✓	<a href="https://www.uofmhealth.org/health-library/hw47901">https://www.uofmhealth.org/health-library/hw47901</a>	The use of ice and heat as a standard of care in pain management is largely based on anecdotal evidence with limited studies available
	Heat Packs	✓	X	-	✓	-	-	✓		
	Massage	✓ <sup>4,8</sup>	-	✓ <sup>6</sup>	✓ <sup>6,8</sup>	-	-	-		May improve patient satisfaction in acute LBP; May reduce post-operative anxiety; ACP-recommended for acute, subacute, and chronic LBP
	Occupational Therapy	-	-	✓	✓	✓	✓	-		Licensed professional that utilizes multiple non-drug strategies
	Physical Therapy	✓	✓	✓	✓ <sup>8</sup>	✓	✓	-		Licensed professional that utilizes multiple non-drug strategies
	Spinal Manipulation	✓ <sup>6,8</sup>	-	-	✓ <sup>6,8</sup>	✓ <sup>11</sup>	✓ <sup>12</sup>	-		ACP-recommended for acute, subacute, and chronic LBP
	Tai Chi	✓ <sup>5</sup>	-	-	✓ <sup>6,8</sup>	-	-	✓	<a href="https://www.youtube.com/watch?v=BoQDRqHNE8">https://www.youtube.com/watch?v=BoQDRqHNE8</a>	ACP-recommended for chronic LBP
	Transcutaneous Electrical Nerve Stimulation (TENS)	✓ <sup>5</sup>	-	✓ <sup>6,8</sup>	✓ <sup>4</sup>	-	-	✓	<a href="https://ukidfirst.com/v?...https://myclevelandclinic.org/health/treatments/15540-transcutaneous-electrical-nerve-stimulation-tens.../B6t_BwTgFY0emYhRCjEgY-f5aZVWt_E5r_R0G6A6L_TwQ6q3qM79d4Wk0qgUis">https://ukidfirst.com/v?...https://myclevelandclinic.org/health/treatments/15540-transcutaneous-electrical-nerve-stimulation-tens.../B6t_BwTgFY0emYhRCjEgY-f5aZVWt_E5r_R0G6A6L_TwQ6q3qM79d4Wk0qgUis</a>	May decrease post-operative medication use
	Yoga	-	-	-	✓ <sup>6,8</sup>	✓	-	✓	<a href="https://www.youtube.com/user/yogawithadriene">https://www.youtube.com/user/yogawithadriene</a>	ACP-recommended for chronic LBP

# Basic Pain Management

- Acetaminophen is first-line treatment for mild-moderate acute pain
- NSAIDs (Ibuprofen, naproxen) are also first line, can be combined with Tylenol
- Opioid combinations are more effective than opioid alone
  - Patients take lower amounts of opioids when combined with NSAIDs or Tylenol and have better pain scores than opioids alone.
- Codeine only improves pain by 10-15% over acetaminophen alone.
- Tramadol is less effective than hydrocodone/acetaminophen and is second-tier for pain management
- Gabapentinoids slightly improve pain control but can have significant negative effects

## **NCCN Guidelines Version 3.2021 Cancer-Associated Venous Thromboembolic Disease**



Date Range: 01/13/2015 - 05/13/2022

CPT Codes: All

		Surgeon	Site	SCSQC
<b>Report Information</b>	<b>Number of Cases</b>	1,090	7,717	43,667
	<b>Length of Stay (Days) Mean</b>	5.2	4.5	3.2
	<b>Length of Stay (Days) Median</b>	4	2	1
	<b>Surgical Time (Minutes) Mean</b>	148.7	119.5	83.3
	<b>Mortality</b>	7 (0.6%)	105 (1.4%)	644 (1.5%)
	<b>Overall Morbidity</b>	155 (14.2%)	749 (9.7%)	2,940 (6.7%)
<b>Surgical Site Infection</b>	<b>SSI - Superficial</b>	7 (0.6%)	73 (0.9%)	435 (1.0%)
	<b>SSI – Organ Space</b>	50 (4.6%)	208 (2.7%)	529 (1.2%)
	<b>SSI – Deep Incisional</b>	2 (0.2%)	22 (0.3%)	122 (0.3%)
	<b>SSI – All</b>	58 (5.3%)	299 (3.9%)	1,067 (2.4%)
<b>Morbidity</b>	<b>Pneumonia</b>	12 (1.1%)	97 (1.3%)	403 (0.9%)
	<b>Unplanned Intubation</b> <i>(Intraop and Postop)</i>	8 (0.7%)	89 (1.2%)	390 (0.9%)
	<b>VTE</b> <i>(Pulmonary Embolism and Deep Vein Thrombosis req. Therapy)</i>	17 (1.6%)	88 (1.1%)	285 (0.7%)
	<b>Myocardial Infarction</b> <i>(Intraop and Postop)</i>	4 (0.4%)	23 (0.3%)	85 (0.2%)
	<b>Sepsis (All)</b> <i>(Sepsis and Severe Sepsis)</i>	31 (2.8%)	160 (2.1%)	697 (1.6%)
	<b>Urinary Tract Infection (Any)</b> <i>(SUTI and CAUTI)</i>	27 (2.5%)	120 (1.6%)	331 (0.8%)
	<b>Acute Renal Insufficiency and/or Failure</b>	27 (2.5%)	117 (1.5%)	433 (1.0%)
	<b>Stroke/CVA</b>	1 (0.1%)	11 (0.1%)	57 (0.1%)
	<b>Cardiac Arrest req. CPR</b> <i>(Intraop and Postop)</i>	5 (0.5%)	33 (0.4%)	219 (0.5%)
	<b>Cardiac Arrhythmias</b>	27 (2.5%)	107 (1.4%)	354 (0.8%)
	<b>C-Difficile</b>	14 (1.3%)	40 (0.5%)	186 (0.4%)
	<b>Central Line-Associated Bloodstream Infection (CLABSI)</b>	4 (0.4%)	12 (0.2%)	26 (0.1%)
	<b>Transfused (All)</b> <i>(Preop, Intraop and Postop)</i>	79 (7.2%)	425 (5.5%)	1,900 (4.4%)
	<b>Colorectal / Colectomy</b>	<b>Anastomotic Leak</b> <i>*Percentages based on number of colorectal/colectomy cases</i>	32 (3.5%)	38 (2.7%)
<b>Discharge Events</b>	<b>Unplanned Reoperation</b>	40 (3.7%)	325 (4.2%)	1,438 (3.3%)
	<b>Readmission</b>	216 (19.8%)	1,443 (18.7%)	5,095 (11.7%)
	<b>Return to the ED</b>	153 (14.0%)	1,309 (17.0%)	5,873 (13.4%)

# Whole System Quality

Institute for Healthcare Improvement Framework



# Quality

Continuously, reliably, and sustainably meet the evolving needs of patients, populations, and communities



# Definitions and Principles

- Whole System Quality is the organization-wide pursuit of quality by facilitating knowledge exchange and leadership principles that foster a culture of learning
- Integrates quality planning, quality control, and quality improvement activities to build organizational alignment and maintain an organization-wide customer-centric approach to quality
- Foster a culture that promotes inquiry, reflection, systems thinking, and purpose

# Quality Planning

The process to identify customer needs, define quality goals, and design/deploy a strategy to meet the identified needs.

# Quality Control

Quality Control involves building performance standards, creating information systems to track performance, identify gaps, and apply processes to close the gap.

# Quality improvement

Structured approach to system redesign to achieve new levels of performance

## Management Practices

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Pursue an integrated set of activities that support an infrastructure for learning across the organization to ensure alignment of quality efforts



## Leadership Principles

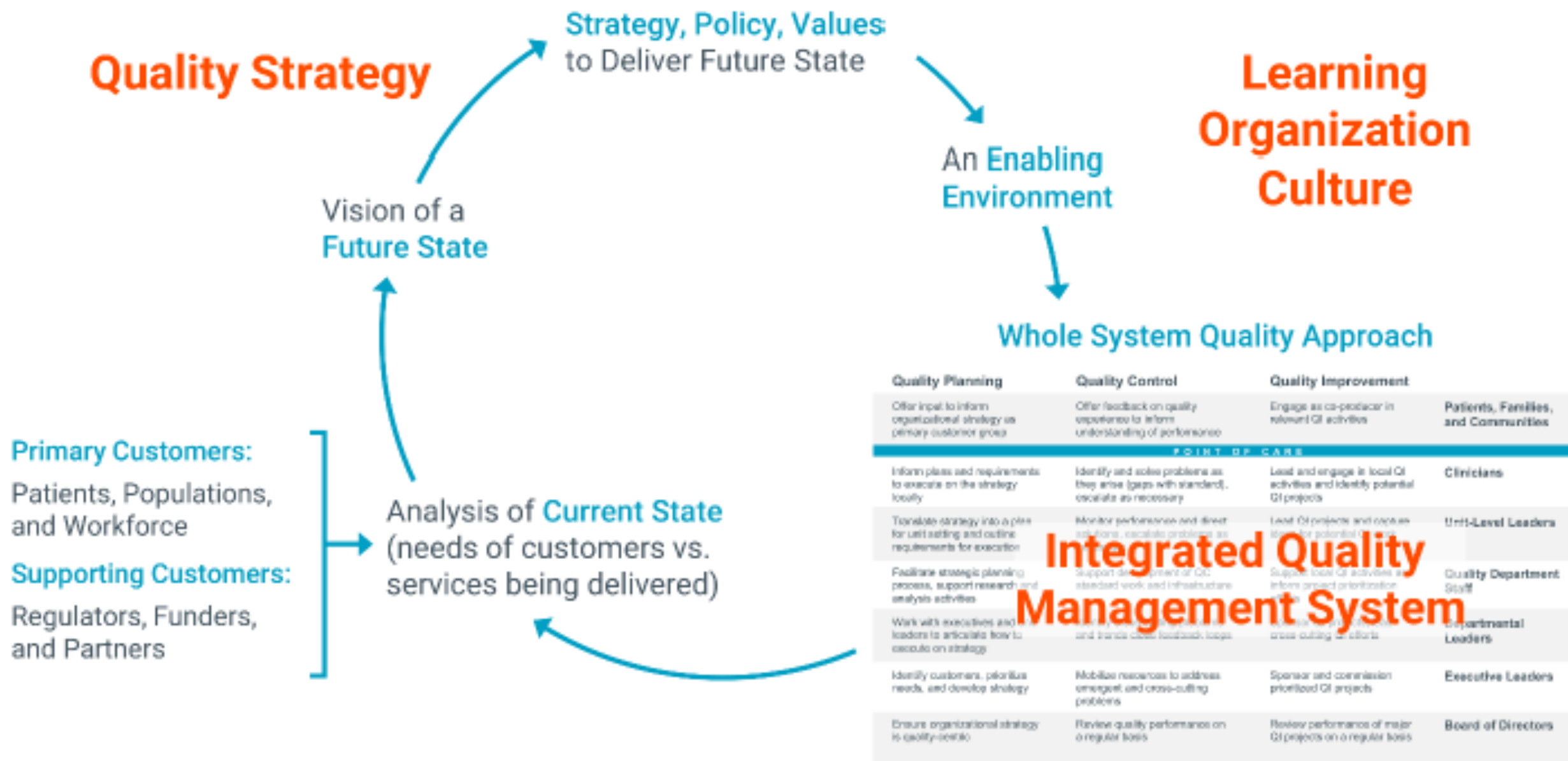
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Engage in the disciplines of a learning organization to foster a culture that promotes inquiry, reflection, systems thinking, and purpose

# Quality Leadership Principles

- Sense of purpose (e.g. what matters)
- Systems thinking (process maps)
- Collective learning and dialogue (what and how, not who and why)
- Personal inquiry and reflection (unconscious bias)

Figure 4. Journey to Whole System Quality



## Quality Planning

## Quality Control

## Quality Improvement

Offer input to inform organizational strategy as primary customer group

Offer feedback on quality experience to inform understanding of performance

Engage as co-producer in relevant QI activities

**Patients, Families, and Communities**

### POINT OF CARE

Inform plans and requirements to execute on the strategy locally

Identify and solve problems as they arise (gaps with standard), escalate as necessary

Lead and engage in local QI activities and identify potential QI projects

**Clinicians**

Translate strategy into a plan for unit setting and outline requirements for execution

Monitor performance and direct solutions, escalate problems as necessary

Lead QI projects and capture ideas for potential QI work

**Unit-Level Leaders**

Facilitate strategic planning process, support research and analysis activities

Support development of QC standard work and infrastructure

Support local QI activities and inform project prioritization efforts

**Quality Department Staff**

Work with executives and unit leaders to articulate how to execute on strategy

Identify cross-cutting problems and trends close feedback loops

Sponsor QI projects, lead cross-cutting QI efforts

**Departmental Leaders**

Identify customers, prioritize needs, and develop strategy

Mobilize resources to address emergent and cross-cutting problems

Sponsor and commission prioritized QI projects

**Executive Leaders**

Ensure organizational strategy is quality-centric

Review quality performance on a regular basis

Review performance of major QI projects on a regular basis

**Board of Directors**



# Learning Culture

- Psychological safety – anyone can voice concerns
- Culture of trust – respect, opinions are valued
- Constancy of purpose – apply organizational values to everything
- Commitment to avoid inequity
- Innovation – adopting new practices or abandoning ones that no longer work

# Elements of a Learning Organization

- Shared sense of purpose – cohesive, unified vision
- Systems thinking – complex, dynamic, interconnected / change by patterns not isolated events
- Collective learning and dialogue – inquiry, challenge assumptions, alternative ways of thinking, harness data
- Personal Inquiry and reflection – understand how belief structures influence behaviors

# Quality Planning

- Understand customer needs
  - Prioritize needs
  - Vision, mission, values
  - Organizational definition of quality
- Design a strategy and quality goals that meet customer needs
  - Analyze existing system and find opportunities to improve
  - Breakthrough objectives and annual goals
- Build a delivery system that responds to the organizational strategy
  - Actionable plans and requirements
  - Align goals and measures
  - Quality management infrastructure

# Quality Control

- From Change to Sustainability
- Monitor performance against goals and adjust as needed
- High reliability: consistent excellence in quality and safety across all services maintained over long periods of time.

# 6 Drivers of Quality Control

- Standardization – (e.g. SOPs)
- Accountability – (review execution of work, huddles)
- Visual management – (provide performance information)
- Problem-solving – (point of care fixes, rounding)
- Escalation – (when not fixable a point of care)
- Integration – (coordination across units)
  
- Quality control should mean staff empowerment

## Quality Planning



- Identify the quality strategy, priorities, goals, and measures

## Quality Improvement



- Operationalize the quality strategy at the unit and departmental levels by chartering improvement projects to achieve quality goals
- Ensure the necessary structures and resources are in place to bring performance to a new level and to achieve quality goals

## Quality Control

- Monitor performance using measures related to quality goals, make adjustments as needed, and continuously execute on standard work

# Miscellaneous bullets

- The most important job of quality staff is to build Quality Improvement capability in others
- Organizations should not have more than 5 major improvement initiatives happening at one time
- Find your pockets of excellence and work to link efforts so quality penetrates the whole organization
- Avoid reactive quality management – addressing issues caused by poor quality rather than designing systems to prevent them altogether. Embed quality into your enterprise





# Your Psychological PPE

to Promote Mental Health and Well-Being



These recommendations are based on a review of published literature and the experience of health systems. For more information visit [ihi.org](http://ihi.org).

## Individual



.....> Take a day off and create space between work and home life



.....> Avoid publicity and media coverage about COVID-19



.....> Receive mental health support during and after the crisis



.....> Facilitate opportunities to show gratitude



.....> Reframe negative experiences as positive and reclaim agency

## Team Leader



.....> Limit staff time on site/shift



.....> Design clear roles and leadership



.....> Train managers to be aware of key risk factors and monitor for any signs of distress



.....> Make peer support services available to staff



.....> Pair workers together to serve as peer support in a “buddy system”

Questions