How does Culture and Clinical Improvement (NSQIP) fit together?

Surgical Quality Action Network

Context

This short position paper describes the connection between culture and clinical improvement. Both these concepts are intricately intertwined, yet it is hard to describe how they fit together. The BC Patient Safety and Quality Council strongly believe that culture and clinical improvement are like two sides of the same coin. It will be impossible to improve clinical outcomes if the organization has not embraced a culture of safety at all levels.

Better culture means better outcomes for our patients and fewer adverse events. In root-cause analysis of more than 4,000 adverse events, the Joint Commission identified communication breakdown as the most common factor implicated in adverse events.\(^1\) Academic evidence is growing that shows a concrete link between strong teamwork and increased safety and quality of care.\(^2\) We are beginning to see how interventions that improve culture can change clinical outcomes for the better and reduce adverse events,\(^3\) although culture interventions are both a science and an art at this early stage in health care’s movement toward a focus on safety culture.

In BC, we have embraced the NSQIP program to provide us information on the clinical outcomes for our surgical patients. Unfortunately, NSQIP can tell us that we have a problem – but the data does not tell us what the problem is. To investigate, the team have to collect process data to inform them of the gaps in care that patients are receiving. The Clinical Care Management initiative (mandated by the Ministry of Health) addresses some process measures in surgery which include: antibiotic timing, and checklist compliance.

Ideal State for Teams to Improve

In BC we are working hard to improve outcomes for surgical patients. We have many information sources including NSQIP, Safety Attitude Questionnaire/Modified Stanford tool, Checklist observations, OR efficiency efforts, Patient Safety & Learning System and others.

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The data from all these data sources should ideally be taken into considered as a site or team determines their plan of action. For example; if a surgical department has identified a problem with high surgical site infection rates then reviewing all other data sources for information are important to paint a complete picture of the current state. What is the communication between team members like? Do people feel comfortable reporting safety concerns?

The front line team then needs to identify what is most important to address. To continue with the SSI example, frontline providers might identify wound classification, skin prep, room temperature, or other factors as likely causes of infections. Not only are frontline staff likely to know the root causes, but improvement is more likely to succeed if they select the course of action.

The course of action could entail only clinical process improvement or combine the approach with addressing any culture issues that were identified. We are seeing lots of teams who are implementing best practice as well as striking daily huddles with staff to address ongoing safety issues. For example, do we see problems with wound classification because of disagreement on best practice or because nurses and surgeons find it difficult to communicate? Often, the answer is both. Changing the way wound classification is done requires that we address best practice and communication between disciplines. The Comprehensive Unit-Based Safety Program (John Hopkins) is an ideal framework for considering all data sources and using a multidisciplinary frontline staff approach.

The diagram below depicts the desired state of continuous improvement. Ideally, we work together and use all data sources to improve patient outcomes by improving both processes and culture.
Other High Performing Health Systems: How do they do it?

Those who aim to improve quality in health care often view the system in which we work as a “sociotechnical system” that includes clinical and technical components, as well as interpersonal or non-technical components. To improve in a sociotechnical system, we need to address both technical and interpersonal components simultaneously. For example, Mayo Clinic, a health system leading the way in quality, aims to achieve safe care through both the standardization of best practice and the commitment to a just culture. A combined approach is also the basis of the Comprehensive Unit-based Safety Program (CUSP), which addresses both technical and non-technical barriers that care teams face through a frontline-driven approach.

Source: Presentation at Culture and Adverse Events Symposium, April 2013, Washington DC
Continuous Improvement: How can we do it?

In our health systems it is hard to execute all the initiatives that are important, both those that are voluntary and those that are mandated. All the various initiatives in BC can start to feel like separate projects in silos. It is up to the SQAN/BCPSQC leadership and the Health Authority leadership to bring the agenda’s together when there is an opportunity to simplify. The Surgical Quality Action Network believes that all surgical improvement topics should be discussed and addressed by the surgical community as a whole. Presenting culture as the other side of the coin to clinical improvement is imperative for movement to occur.

Please find below a framework that might help in articulating how the various data sources come together in the stages of improvement: 1) engage 2) assess 3) debrief and 4) change.
Engage
If we want to change the way we deliver care, we must involve the people providing care from the beginning, or engage them through meaningful, two-way conversations. These conversations continue throughout the process.

Assess
Next we assess our current activity by taking measurements. In BC we have some remarkable tools for gathering data for improvement. We want to assess outcomes, processes, and culture because they are all inter-connected. For example, our skin prep guidelines influence rates of SSIs. Culture, or the way we work together, affects our ability to come to a consensus on how to implement clinical guidelines.

Debrief
Once we have data, we share it with everyone involved in delivering care, or debrief. This discussion allows everyone to be involved in selecting goals for change and improvement. It’s about building support for changes that follow by selecting changes that matter to providers.

Change
Change can take place at any level: outcomes, processes, or culture. Most of our interventions are aimed at processes and culture because we want to improve the root cause of our outcomes. In the end we want to approach all three elements together. It is about improving the way we deliver care, and outcomes, processes, and culture are inter-connected.

After making changes, we begin the cycle again. How are people feeling about the changes? Have they worked? Are there new challenges? We aim for continuous improvement.

Summary
Culture and Clinical Improvement are intricately intertwined. It is much more difficult to address both of these elements, simultaneously or separately, than it sounds.

Teams across BC are approaching the needs in culture and clinical improvement in a variety of ways. The BC Patient Safety and Quality Council team encourages all teams to consider both of these inter-related concepts at the same time as the improvement work unfolds.

We hope that this document is helpful as you lead your surgical improvement work in your hospital.