

## Perspective

# Quality Improvement in Intensive Care Medicine: Leveraging Teamwork to Improve and Optimize Care Delivery

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600, Bethesda, MD, USA**Received:** November 30, 2016; **Accepted:** January 11,  
2017; **Published:** January 13, 2017**Abstract**

Intensive care medicine involves complex processes and multiple individuals to deliver safe, quality care to patients. Although evidence-based practices are well known, the compliance with such practices is variable, leading to suboptimal results in care delivery. Quality improvement promotes adherence to evidence-based practices by identifying areas of inefficiency in care delivery processes and leveraging teamwork to optimize care delivery and improve overall care outcomes.

**Background:** Intensive care medicine is complex and involves multiple processes in order to effectively deliver the right care in a timely manner to patients. As such, each process must be optimized to deliver care that is consistently compliant with evidence-based practices [1]. However, a gap exists between knowledge of evidence-based practices and actual adherence to and delivery of such care to patients. Without a deliberate means of closing these gaps to ensure quality care delivery, suboptimal results are inevitable. Addressing barriers to compliance and adherence in clinical practice is a must not only to improve outcomes, but to create a standard of quality in the complex intensive care setting.

**Keywords:** Quality improvement; Intensive care; Critical care; Health systems

## Introduction

Intensive care medicine is rooted in best-practices in care delivery. However, the existence of evidence-based practices does not guarantee compliance or care organization that ensures that patients will receive quality care. In fact, compliance and adherence to best practices is variable [2]. This, together with lack of multidisciplinary teamwork leads to less than optimal and sometimes unsafe outcomes in intensive care medicine. Quality improvement methods can be used to encourage adoption of evidence-based best practices as well as improve compliance with such practices and protocols. This paper reviews the complex nature of intensive care medicine and identifies the importance of quality improvement in facilitating better intensive care outcomes.

### Why quality improvement?

Much literature exists regarding the use of quality improvement methods in intensive care medicine to produce better healthcare outcomes in a variety of practices with evidence that quality improvement in the intensive care system can reduce infections, mortality, and cost of care [2,3]. Use of quality improvement various care settings and processes is reflective of the flexible nature of quality improvement as well as the necessity of optimizing and delivering quality care. The science of quality improvement focuses on processes of care delivery within the larger healthcare system. In improving outcomes in intensive care medicine, the use of quality improvement methods allows for the mapping of care delivery processes to identify

where problems exist in the system. In complex systems such as intensive care, visualization of such processes is key in determining where care can be optimized and improved.

Once issues in care delivery processes have been identified, they can be addressed by implementing changes to improve care. Because changes do not guarantee improvement, any implemented changes must be tested and monitored. Continuous quality improvement also allows for continuous monitoring of processes and changes in order to improve care delivery in real-time [4]. Quality improvement also recognizes that health care delivery processes involves multiple individuals throughout each process. With multiple people involved in care delivery, quality improvement promotes the use of interdisciplinary teams to more effectively identify areas for improvement and foster engagement in quality improvement initiatives.

### Leveraging teamwork to improve care

Quality improvement emphasizes the need to develop interdisciplinary teams. Involving different individuals on an improvement team allows for potential issues in testing and implementing changes to be more easily identified. Those directly involved in certain processes of care are the best to provide insights on barriers not only in care delivery, but can also advise regarding barriers to implementing proposed changes to these processes. Some of these barriers may be non-clinical in nature, such as timing, supply chain, or communication between team members involved

in care delivery [2,5]. Interdisciplinary teams engage individuals and encourage them to work together in achieving a common goal. Continuous engagement in the team environment also promotes a sense of responsibility for providing quality care across all members involved [3,5,6]. Ownership in this form is essential in ensuring that providers, regardless of their clinical specialization, play a role in delivering and sustaining improvements in care delivery [5,6]. By leveraging teamwork to create a health system focused on and committed to delivering quality care, changes implemented through quality improvement initiatives can facilitate improved care outcomes through optimized care and ensuring practitioner adherence to proper evidence-based practices [3].

## Conclusion

Emphasizing the importance of delivering quality care is essential in ensuring that patients receive safe, proper care free of avoidable complications. Uses of quality improvement methods are not unknown in producing better health outcomes in intensive care delivery. Integrating quality improvement in intensive care is essential in addressing issues in intensive care processes in a continuous and sustainable way. We are aware of the evidence-based practices and guidelines in care delivery. Without standardization and integration of best practices into clinical care, there is no guarantee that patients are receiving proper care. Quality improvement provides the means of practitioners to analyze, change, and optimize their delivery processes. By work together, interdisciplinary teams are empowered to create flexible and sustainable changes necessary to ensure these best practices are consistently delivered to patients.

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