Culture, Structure and Education to Improve Patient Safety in Critical Care

Despite the ever-increasing evidence base suggesting that interventions enhance the quality and safety of healthcare, a large gap remains between the existing evidence and the actual implementation of these interventions in day-to-day critical care practice. This gap undoubtedly impacts on patient safety and quality of care. This article provides the most elementary basics for enhancing successful implementation of quality improvement interventions.

Background

The nature of patient safety and quality problems within hospitals is very broad (Pronovost et al. 2009). In particular, the critical care department is one of the most complex environments in a hospital. This is related to the continuous challenge of balancing the maintenance of a high-tech setting and supply of competent staff to operate the advanced equipment, with the continual provision of high-quality care to patients. Meeting the needs of all staff members working in a very stressful environment is also a key component of the balancing act. While other hospital units may need to manage one or two challenges at a time, critical care departments have to manage them all simultaneously while remaining focused on the delivery of safe patient care (Vandijck and Annemans 2010). Regarding patient safety, relevant issues range from improving interdisciplinary communication and teamwork to increasing highly technical skills. However, when thinking about quality and safety, one of the most important issues is to ensure that patients receive the recommended care based on the highest available evidence. The top requirements for highquality and safe care are appropriate education and implementation of evidence-based measures for ensuring and/or improving quality and safety in the healthcare organisation.

Several important factors play a role in fostering patient safety in critical care. They are briefly discussed in this paper. Strategies to improve or maintain patient safety in critical care are:
1. Creating a culture that supports and promotes safety measures;
2. Operating a critical care structure in which the care of severely ill patients is directed and managed by professionals who are specialised in critical care;
3. Ensuring that the work environment can support professionals in interacting productively, making vital decisions, performing medical interventions safely; and 4. Ensuring staff competency in operating medical equipment safely.

Patient Harm in Critical Care

How does critical care perform with respect to quality and safety issues? Critical care patients are at increased risk for complications given the severity of their underlying medical conditions, the complex and invasive nature of treatments and procedures, and the use of drugs and highly expensive technology that carry risks as well as benefits. Adverse events (AEs) on critical care units are unfortunately common, multifactorial, serious and often preventable (Forster et al. 2008). One of the most striking, and at the same time instructive, studies ever performed is the Critical Care Safety Study (Rothschild et al. 2005). This study found that 20 percent of patients in critical care suffered an AE, of which half were considered preventable. But critical care units are also confronted with patients who have undergone preventable AEs in other hospitals units (Vlayen et al 2012).

How to Start From Zero

Any critical care patient safety improvement process must start by engaging hospital leadership. This means that risk managers, patient safety officers, and critical care nurses/physicians should work together to make a "business case" for patient safety investments, to be communicated to the hospital executives (Vandijck et al. 2009). In developing such a case, there is an important role for clinical leadership in building a stimulating patient safety culture (Hellings et al. 2010). Once leadership support is obtained, the implementation of critical care safety becomes a team effort, supported at all levels. There must be a clearly articulated plan for improvement, developed with input and involvement from frontline professionals, that is understood by all managers, physicians, and staff members. Identifying a specific group of individuals responsible for initiating, coordinating, monitoring, and communicating safety measures is a key and primary step in the process. Whether the group is an existing patient safety committee, a newly formed task force, or some other combination of individuals depends on the hospitals structure, knowledge base, and resources. The group can expect to be involved in education and training, translating evidence to bedside practice, communication, and baseline data gathering, which should include a safety assessment of the critical care departments.

In order to change practice and improve utilisation of evidence-based care, it is key to identify which interventions have the largest potential in terms of patient outcome. At the same time, it is important to be aware of the unique barriers to implementation in your own setting (Needham 2010). There are many barriers that may undermine the implementation of evidence- based recommendations, such as lack of awareness and familiarity with guidelines, staff attitudes, lack of agreement with the guideline and self-efficacy. Therefore, when aiming to enhance the likelihood of successful guideline implementation, there are several key issues to consider (Vandijck et al. 2009; Cabana et al 1999; Labeau et al. 2008).

Firstly, when introducing a new quality measure, keep in mind that people are conservative in work management and habits; therefore, it is crucial to adequately inform all staff who will have to deal with the new protocol/procedure, in particular about the expected consequences regarding organisation and patient care. If necessary, educational sessions should be conducted repeatedly (Labeau et al. 2008). In other words, staff need to be informed about and understand the reasons for change, but must also be stimulated to play an active role in it. The favourable impact of a quality improvement measure will increase if the underlying principles are better understood, although knowledge alone does not ensure adherence. Embedding the new requirements will be supported by a stimulating patient safety culture (Huang et al. 2010).

Secondly, when developing a new initiative to improve delivery of safe patient care, simple, low cost and less complex interventions should be preferred to highly complicated and expensive measures. It should be avoided to impact thoroughly on someone's autonomy. Staff should be allowed, and even be prompted, to use their professional judgment and expertise in a model of participative decision-making. Accordingly, colleagues (even of different disciplines) should be authorised, and even empowered, to interrupt care procedures in cases where violation against the recommendations is noticed. This empowerment is not intended to undermine colleagues' (eg. physicians) authority, but, on the contrary, to stimulate collaboration and discussion between disciplines and, most importantly, to improve quality of care and thus patient safety. Similarly, implementation of a quality measure will require a multidisciplinary approach, and an atmosphere in which open communication in the team is encouraged. Despite this, the valuable time of staff should not be wasted. If action has a solid basis with clear motivation, staff time spent will not be perceived as futile or irrelevant, and hence the initiative will not be easily abandoned. Another way to increase the likelihood of successful implementation is to keep it simple, as every step in a process induces an incremental risk.

Thirdly, summarising the evidence in a care bundle, if possible, is a next step. The main aim of a bundle approach is to group a limited number of measures with a solid evidence base, in order to further improve patient care and safety. Care bundles comprise the best practice measures that when implemented together will yield better outcomes than when implemented separately. It is important, however, to remember that adherence will also depend on the user-friendliness of the bundle, or of the quality measure.

Finally, understanding measures of performance, by means of well-considered quality indicators, is important for appropriately following up the initiative. Last but not least, hard work, enthusiasm, continuous assessment, and above all, a never ending willingness to closely work together and to never stop learning new skills are key contributing factors to success.

Conclusion

Getting evidence-based quality improving measures implemented into daily practice is not as simple as often considered, and this clearly affects patient safety and quality of care in all healthcare services, especially within the field of critical care. Having a better insight into some easy and straightforward basics for tackling this hurdle is a first. Then, firm steps towards providing and maintaining a high level of care are crucial, and are an elementary right of each patient.

Published on : Sat, 14 Jul 2012