
ICU Volume 11 - Issue 1 - Spring 2011 - Matrix

Bridging the Gap Between Theory and Practice

Authors

Stijn Blot, PhD

*General Internal Medicine & Infectious Diseases
Ghent University Hospital;
Faculty of Medicine & Health Sciences, Ghent University, Belgium*
stijn.blot@UGent.be

Dominique Vandijck, PhD

*General Internal Medicine & Infectious Diseases
Ghent University Hospital; Dept. of Health Economics
Faculty of Medicine & Health Sciences
Ghent University, Belgium*

Dirk Vogelaers, PhD

*General Internal Medicine & Infectious Diseases
Ghent University Hospital; Dept. of Health Economics
Faculty of Medicine & Health Sciences
Ghent University, Belgium*

Sonia Labeau, MNSc

*General Internal Medicine & Infectious Diseases
Ghent University Hospital; Dept. of Health Economics
Faculty of Medicine & Health Sciences
Ghent University, Belgium*

Publication and distribution of guidelines alone insufficiently succeed in changing practice. This theory-practice gap is, at least partly, responsible for suboptimal patient care and potential patient harm. This paper reviews the most elementary conditions to enhance successful implementation of evidence-based guidelines in daily practice.

Introduction

For centuries, man has tried to find ways to improve practice. High-quality research was found to be key. In the 1980s, the evidencebased medicine movement emerged and has firmly developed in the following decades. The emphasis was on integrating "best practice care derived from well-conducted research" taking into account the preferences of the patient, experiences of the caregiver, and ethical considerations. Since that time, vast investments in healthcare research have been made. Yet, in recent years, it has become clear that the bottleneck that exists is not due to the provision of guidelines, but rather in their implementation. This paper discusses the troublesome theory-practice gap, which is often responsible for inferior patient care. The guidelines to prevent respiratory infections are used by means of an example. Respiratory infections carry a highly relevant clinical and economic burden. Successful implementation of prevention guidelines should be of particular concern for those involved in ICU management. The recommendations provided below are nevertheless also valid for all circumstances in which implementation proves to be a hurdle.

The Theory-Practice Gap in the Prevention of Ventilator-Associated Pneumonia (VAP)

Several studies indicate that evidence-based guidelines to prevent VAP are poorly adopted. Self-reported non-adherence rates to evidence based guidelines among ICU physicians and nurses demonstrated to be 37% and 22%, respectively (Rello et al. 2002; Ricart et al. 2003). In a multicentre survey among respiratory therapists and ICU nurses, the average reported adherence to ineffective and equivocal interventions was about 70% (Kaynar et al. 2007). In spite of this, there is growing evidence that an increase in adherence to evidence-based guidelines goes along with a decrease of VAP rates (Bird et al. 2010; Zaydfudim et al. 2009). Yet, the simple publication of prevention guidelines does not guarantee adherence. It seems that a more pro-active approach of implementation is needed to achieve favorable adherence rates.

Reasons for Non-Compliance with Guidelines

Self-reported reasons for non-compliance include inadequate resources, high costs, patient discomfort, and disagreement with the interpretation of clinical trial results (Rello et al. 2002; Ricart et al. 2003). According to a systematic review, the most frequently identified obstacles are a lack of awareness of the problem, lack of familiarity with the guideline, non-agreement with the recommendations, poor self-efficacy, inability to overcome the inertia of previous practice, and presence of external barriers to perform recommendations (Cabana et al. 1999). Yet, these results are not generalisable because barriers in one setting may not be present in another.

How to Bridge the Theory-Practice Gap?

Luckily, a number of facilitators to guideline implementation have been identified and should be considered. These refer to features of the guideline (scientific basis, logical and attractive presentation); the target group (level of knowledge, skills and attitudes, working practices); the social context (actual operating culture, views of opinion leaders), and the organisational context (organisational aspects, staffing levels).

A duly considered implementation programme includes the following elements: First, one should identify and measure the problem. This will increase awareness of the issue and convince non-believers that there is actually a problem.

Second, an action plan must be defined. This includes the selection of action points by all stakeholders: policymakers, patients and public, professional organisations and educational bodies, healthcare providers, and purchasers (Haines & Jones, 1994). It can be recommended to invite an opinion leader to support the programme.

As a third step, objectives must be defined. These should be realistic, clear and limited in order not to demotivate.

Fourth, consensus should be reached among the team members about the action plan and the way to achieve these objectives. It is important that this is negotiated prior to the implementation phase. Without consensus, the programme is a priori doomed to fail, if not on short term, definitely on the long term.

The fifth rule is to implement the programme in a multifaceted approach. Doing so will avoid a bulldozer effect which will evoke resistance. This method succeeds in enhancing awareness and behaviour towards the problem (Bouadma et al. 2010; Gross et al. 2001).

Finally, the process as well as the outcome must be monitored. Monitoring the process is done by measuring the compliance rate with local recommendations. The outcome is monitored by measuring the occurrence rate of the event to be prevented. Feedback of these data to the personnel is of key importance. Even when objectives are not achieved, feedback should be as positive as possible. If necessary, the programme must be adapted or the objectives redefined.

Knowledge as a "Conditio Sine Qua Non" to Improve Adherence

How can we expect healthcare workers to adhere with guidelines if they lack knowledge or deeper insights in the rationale of prevention measures? Targeted education is key to increasing awareness of the problem and the necessary knowledge to tackle it. Knowledge does not guarantee adherence, but it is highly important to realise that a lack of knowledge, per definition, impedes adherence. Certainly achieving long-term effects without a solid knowledge base seems to be an impossible goal. Several studies demonstrated that knowledge among European ICU nurses concerning infection prevention guidelines is poor (Labeau et al. 2010). As a response to these disappointing findings an interactive webbased 'crash course' in infection prevention is developed (www.evidenceproject.org). The interactive course design might be helpful to more easily adopt and maintain knowledge about infection prevention in the ICU. To which extent this learning module is effective, is currently a matter of study.

Conclusion

The theory-practice gap is highly relevant as it endangers patient safety. High adherence rates to guidelines are difficult to achieve. Implementation programs should be well thought-out and should take into account features of the target group, the social and organisational context. Investments in knowledge are of key importance, not only to help healthcare workers understand the rationale of the guidelines, but also because they positively affect their awareness and attitude.

Published on : Thu, 15 Aug 2013