Editorial

Perioperative medicine: From theoretical guidelines to clinical practice

Despite intensive clinical research, postoperative complications after non-cardiac surgery remain frequent [1]. Accurate preoperative risk estimation and patients’ risk stratification play a major role to guide perioperative management decisions, to determine the risks and benefits of surgery and to facilitate informed decision making about the appropriateness of surgery [2]. To emphasize these important preoperative evaluations, guidelines are regularly published and updated.

In this issue of the Anaesthesia, Critical Care & Pain Medicine, Schweizer et al. [3] evaluated cardiologists’ adherence to actual guidelines for non-cardiac surgery in France. They assessed the discordance between the cardiac evaluations requested during preoperative period by cardiologists and guidelines recommendations. While some specific updated guidelines are available for 2 years [4], preoperative use of cardiac stress investigations and transthoracic echocardiography ordered by cardiologists were consistent with guidelines recommendations in less than 20% of the cases. These results confirmed poor adherence to dedicated guidelines reported in other countries [5].

Adherence to guidelines and their applications reflect the translation of clinical research to clinical practice. Three main limitations could be suggested to explain this result (Fig. 1).

At first, the guidelines themselves should be written in a clear fashion, shortly, and easy available. Efficient communication of the recommendations is a key for their implementations. Despite tremendous efforts to establish and to diffuse guidelines, they are frequently not as clear as one can expect, because the level of evidence does not allow clear and strong recommendations. As a consequence, clinicians will use their own judgement, local protocols to manage perioperative decisions. Further publication of different guidelines on the same clinical topic is increasing. Each federation learned Society, experts group, or independent authors spread guidelines, with a risk of confusion for clinicians, because recommendations regarding specific points may differ among published guidelines [6]. We could ask if more could be less for clinical practice?

Secondly, the scientific knowledge is quickly moving, and physicians could be aware of these continuous changes. In a recent study, we showed that a simple hemodynamic tool such as the arterial pulse pressure variations could be misuse to predict fluid responsiveness for mechanically ventilated patients in clinical situations by anaesthesiologists [7]. One hypothesis for this last result was that recent publications were scarcely read by practitioners, whose declared reading 2 scientific articles per month in median [7]. This point emphasizes the need of a continuous medical education, until a recertification as actually proposed in some countries [8].

Thirdly, the local communication remains a major key for quality of care. To increase the guidelines adherence, physicians could work together in dedicated team to adapt guidelines to their institution using local protocols [9]. In one hand, using the implication of many physicians increases the adherence to the local protocol [10]. In other hand, this strategy increases the communication between physicians from different specialities (surgery, anaesthesiology, cardiology, geriatrics…), and increases the quality of care in clinical practice [11]. Moreover, Schweizer et al. [3] described in the current issue of the Anaesthesia, Critical Care & Pain Medicine that a weak guideline adherence conduct to inappropriate use of complementary exams. This point emphasizes that the appropriateness of guidelines using local protocol could decrease the costs [12]. Finally, the communication could conduct to an evaluation by all care providers themselves, which increase the guidelines adherence [13].

Fig. 1. The concept of guidelines applicability. The applicability of guidelines (black zone) depends on the crossway of three components: (1) the theoretical guidelines and their own communication, (2) the individual knowledge of each physician including the guideline itself, and (3) the communication between whole physicians taking care the same patient.

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In conclusion, our challenge in the future will be to increase the quality of care in a changing world with exponential knowledge and guidelines spreading. A major key will be to use new technologies to refocus the communication between physicians for each patient.

Disclosure of interest

The authors declare that they have no competing interest.

References


Marc-Olivier Fischer PhDb,a
aPôle Réanimations Anesthésie Samu/Smur, CHU de Caen, avenue de la Côte-de-Nacre, CS 30001, 14000 Caen, France
bEA 4650, Université de Caen Basse-Normandie, esplanade de la Paix, CS 14032, 14000 Caen, France

Yannick Le Manach
Departments of Anesthesia & Clinical Epidemiology and Biostatistics, Michael DeGroote School of Medicine, Faculty of Health Sciences, McMaster University and the Perioperative Research Group, Population Health Research Institute, Hamilton, Canada

*Corresponding author at: Pôle Réanimations Anesthésie SAMU/SMUR, CHU de Caen, avenue de la Côte-de-Nacre, 14000 Caen, France.

Tel.: +33 2 31 06 47 36; fax: +33 2 31 06 51 37

E-mail addresses: marcolivierfischer@yahoo.fr (M.-O. Fischer), yannick.lemanach@phri.ca (Y. Le Manach)