



Optimizing patients undergoing surgery (OPUS): Part II - still a matter of 'eminence-based medicine'?

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In the 2016 June issue of *Current Opinion in Anesthesiology*, several reviews were published under the heading 'Anesthesia and Medical Disease'. We covered not only several topics, such as heart failure, hypertension, chronic renal failure, obesity, and anemia, but also specific perioperative complications such as myocardial postoperative immune suppression and infections, postoperative myocardial injury after noncardiac surgery, delirium, and glycemic variability [1–9]. In this issue, we continue with reviews focusing on other but not less important topics: the patient with liver disease, with pulmonary disease, the adult with congenital heart disease, with neuromuscular disorder, the patient coming to the OR with an infection by multiresistant bacteria, and last not least the frail patient.

Still, the overarching topic is 'optimizing patients undergoing surgery'. Still, there are only few recommendations, which are solidly evidence-based, that is, on randomized controlled trials, and many recommendations (if there are any) are expert opinion and rationale-based or based on retrospective observational studies at its best. Nevertheless, according to an aphorism by Erich Kästner 'Es gibt nicht Gutes, außer man tut es!' (freely translated: 'There is no good, only if you do good'), we should strive to optimize the perioperative process, even if solid evidence is sparse.

In each of these reviews, the experts give their specific view on their topic. The challenge is to translate all these recommendations into clinical practice. The problem already starts preoperatively with assessment of the patient. Of course, we can introduce even more scores than we already do anyhow. Mostly, everybody has established American Society of Anesthesiologists (ASA) physical status, New York Heart Association (NYHA), Mallampati, metabolic equivalents (METs), maybe also revised Cardiac Risk Index (rCRI), and maybe also the Apfel score. Now, we add the ARISCAT Risk index or the Score for Prediction of Postoperative respiratory Complications (SPORC), one or even two of the various frailty scores, a special score for kidney and liver disease, and the risk

calculator for Myocardial Infarction or Cardiac Arrest (MICA) based of the data from the National Surgery Quality Improvement Program (NSQIP) or the Preoperative Score to Predict Postoperative Mortality (POSPOM) to include the risk of the surgical procedure. In addition, we might perform some time-consuming assessment of cerebral function status to detect minimal cerebral impairment (MCI) for delirium risk stratification. Theoretically, this might all be possible but will be very difficult to implement into clinical practice. What is lacking is an integrative approach for preoperative evaluation, which takes into account all the specific risks and – most importantly – would then lead to therapeutic consequences or to specific perioperative pathways. Moreover, most of the scores do not take advantage of modern biomarkers. Do we still need NYHA if we can simply measure brain natriuretic peptide (BNP) preoperatively? And doesn't BNP also identify patients who suffer from frailty or at least give an indication for the severity of the risk for adult patients with congenital heart disease? Even then, if we have identified a patient with higher risk, for instance because of MCI, frailty, elevated BNP, or a high SPORC score, what would be the consequence? – planned intensive care admission, postoperative surveillance monitoring at the normal ward, postoperative screening with biomarkers, or planned postoperative visit? Most likely, a mixture of all, very much depending on local conditions.

It will be essential to act locally, to develop and implement center-specific guidelines, as very nicely pointed out by Ruscic *et al.* (pp. 399–408) in their review. She recommends that plans are created and that effectiveness needs to be continually monitored to overcome the 'knowledge doing gap'. In

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their experience, ‘... the selection of a locally respected “facilitator” who makes sure that all voices are heard and that plans made based on algorithms are properly implemented ...’ was of ‘... utter importance ...’. This recommendation is basically valid for all areas covered in this issue – Starczewska *et al.* (pp. 392–398), Tov *et al.* (pp. 409–417), Baehner *et al.* (pp. 418–425), Einav *et al.* (pp. 426–434), and Katz *et al.* (pp. 435–440) – as well as in the previous chapters of in the June 2016 issue.

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