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The dose makes the poison

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Dear Editor,
We appreciate the effort of Dr Isherwood in commenting on our editorial, since the subject is worthy of discussion [1, 2]. We also appreciate the illustration of what we warn against, an overrating of the utilization of protocols and the continuing inappropriate comparison of patients with airplanes or buildings. Protocols and checklists are like medicines and surgery: it is all about the indication, the dose, and knowing when not to use them. Again, as we stated, we encourage the use of protocols and checklists for relatively simple and especially repetitive tasks. We also highlighted that protocols and checklists can improve performance where basics can be improved or where (relatively) inexperienced professionals have to act. However, a protocol can never substitute the deployment of well-trained, experienced professionals. We urge for the awareness that many medical situations in intensive care are too complex for a protocol in order to provide the best possible care. Furthermore, protocols are implicitly superseded. There are multiple examples where checklists

and guidelines have failed, can be wrong, induce excessive unnecessary work, or are even harmful [3–5]. Additionally, strictly enforcing the implementation of protocols and guidelines will impede progress in patient care and may lead to a waste of time and money [5]. The solution for better care and outcome for patients is good individualized treatment by experienced, well-trained professionals where in particular situations the appropriate—in our minds therefore limited—use of protocols and checklists is very helpful. We also acknowledge the importance of human factors, as pointed out by Dr Isherwood and we favor simulation-based team training in intensive care. This refers to permanent education and training of professionals. Protocols and checklists have a limited role in improving care and outcome for the individual patient and we fear the healthcare administrators, regulatory bodies, “quality organizations”, and insurance companies that measure the rate of implementation of insufficiently validated checklists and protocols in order to—as they state—improve patient safety and outcome. This merely reflects their state of mind: “If you can’t measure what is important, you make important what you measure”. There are very few proven effective interventions by protocol or checklist, to improve safety. The evaluation of the efficacy is quasi-impossible because of the complexity and variability of interventions, related to local and individual differences and a lack of reliable measurement instruments [5]. We will have to live with that.

Compliance with ethical standards

Conflicts of interest The authors have no real or perceived conflict of interest and have

no financial interest in any of the products or companies mentioned in this paper.

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