The interesting, well-constructed letters by Professor Priebe [1] and Dr. Mushambi [2] reignite the debate on the value of cricoid force during rapid sequence induction (RSI). While the focus is on the obstetric guidelines, the argument extends to the recently published Difficult Airway Society 2015 guidelines [3] and will be relevant for the guidelines for managing difficult intubation in the critically ill, which are in preparation. This is not a new debate, as the excellent 1999 editorial by Vanner and Asai illustrates [4], but the step changes that have occurred in airway management in the last decade do inform it.

It is perhaps worth reflecting on the findings of NAP4, which reported that aspiration remains the commonest cause of airway-related death and brain damage [5]. A substantial number of these cases involved patients in whom RSI would traditionally have been performed or in whom there were concerns over the practice of RSI [6]. It is therefore beholden on us as a community to do all we can to reduce these (rare) events. NAP4 did not receive any reports of major morbidity related to complications of the application of cricoid force and the NAP4 review team judged that, on balance, cricoid force should be retained as a component of RSI.

I agree with Dr. Mushambi that the call for a randomised controlled trial (RCT) of cricoid force will not happen. If planned in high-risk patients it would likely be rejected on ethical grounds, and if planned in low-risk patients the study would be too large – likely hundreds of thousands of patients - to be practical. Not all interventions are evaluable by RCTs and in those circumstances we rely on logic and the available indirect evidence: whether parachutes reduce mortality when jumping from a plane is an oft-quoted example [7].

My reading of the evidence (which there is no space to describe in a letter) and my practical experience is that correctly applied cricoid force does not: i) worsen the view at laryngoscopy; or ii) significantly interfere with mask ventilation. The challenge is therefore to ensure that cricoid force is correctly applied. Those who apply cricoid force should be trained in the technique and this is also recommended in the NAP4 report [5]. Once trained, assistants can rehearse the required force (immediately before induction) by depressing a capped air-filled syringe (e.g. most 20 ml syringes from 20 to 12 ml and most 50 ml syringes from 50 to 32ml) and this improves the reliability of the force applied [8]. It is a simple, effective intervention to improve the reliability and safety of the technique.

Two additional points are relevant. The increasing availability of videolaryngoscopy changes the dynamic of intubation and when a remote screen is used, all those participating in the intubation (e.g. intubator, assistant, trainer) can observe a wide-angle view of the larynx and any difficulties. Videolaryngoscopy enables the operator and assistant to directly observe the effect of cricoid force or attempts at laryngeal manipulation. This is, in practice, a significant benefit and reinforces the (direct) view that cricoid force is a benign procedure. There is an increasing argument that videolaryngoscopy with a remote screen should be used for all RSIs.

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When intubation is difficult during RSI, the DAS 2015 guidelines dictate that a supraglottic airway device (SAD) should be inserted [3]. Both the NAP4 [5] and the DAS guidelines [3] indicate that this should be a 2nd generation SAD [9]. It is perhaps this area where cricoid force has the potential to impact on airway management most as it obliterates the post-cricoid space that the distal SAD needs to occupy to be placed correctly. There is clear evidence that cricoid force must be removed during SAD placement [10]. For some devices (e.g. cLMA) re-application of cricoid force after SAD insertion will lead to airway obstruction [10]. Another advantage of a 2nd generation device such as the ProSeal LMA is that re-application of cricoid force, if deemed necessary, is unlikely to obstruct the airway [11].

There is a natural tendency in any debate for the opponents to take diametrically opposing views and this leads to selective quoting of the literature and a degree of entrenchment. As with many debates, the truth often lies somewhere in the middle – cricoid pressure has strengths and weaknesses. These need to be understood before it is used. Cricoid force remains logical when there is a high likelihood of benefit and a low risk of harm, but not when that equation is reversed. When cricoid force is applied (correctly by someone trained and rehearsed in its performance) and its effects viewed by the whole intubating team on a videolaryngoscope screen it is highly unlikely to cause harm. When there is concern that it is causing more harm than good it should be reduced, and if necessary released, while taking appropriate actions to manage aspiration if it occurs [4].

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Nasotracheal intubation and epistaxis

Lee et al. concluded that the Trachway® (Biotronic Instrument Enterprise Ltd, Taiwan, China) technique is easier and quicker but not safer during nasotracheal intubation compared with fibreoptic intubation in patients with limited mouth opening [1]. They excluded patients with fixed, or limited, neck movement, obstructive sleep apnoea, bilateral nasal obstruction or abnormal coagulation status. Despite these exclusion criteria, topical treatment of the nasal mucosa with cocaine 4% and intubation by anaesthetists with more than 20 years experience familiar with both techniques, 35% of patients in the Trachway group and 28% of the fibreoptic intubation group had mild accumulation of blood in the oropharyngeal space. Of the 40 patients in the fibreoptic intubation group, there were four failed first attempts due to the presence of nasal secretions.