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## Time for anaesthetists to take back control of the preoperative fasting message. Comment on *Br J Anaesth* 2020; 124: 361–3

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**Keywords:** education; fasting; guidelines; implementation; preoperative

Editor—I read with interest the editorial by Hewson and Moppett<sup>1</sup> questioning why we have failed to convert the wealth of scientific evidence for the preoperative fast into meaningful clinical change. I would like to offer some observations from my experience of implementing these changes in a 100-bed hospital in rural New South Wales over the last 5 yr.<sup>2</sup> My ultimate conclusion is that, we, as anaesthetists, need to take back control of the preoperative fasting message and not let other healthcare professionals continue to espouse outdated dogma.

Hewson and Moppett<sup>1</sup> correctly note that successful implementation requires buy-in from administration, nursing, and surgical colleagues; however, I take exception to their comment that 'local' settings will be more effective. The itinerant nature of doctor training rotations, along with a steady stream of newly graduated nurses, means that the initial improvements we made are constantly at risk of being eroded. The resident medical officers in my hospital's surgical ward change every 10 weeks and the registrars rotate every 6 months. They come to us from a large metropolitan teaching hospital that has not taken on 'modern' fasting practices, and it takes half a rotation to convince them that drinking on the day of surgery at all is safe and the concept of encouraging patients to drink freely up until a cut-off time is a step too far.

Medical colleges and undergraduate medicine and nursing courses tend to be very conservative, and their professional standards for best practice and syllabuses lag behind the journals. The safety of drinking clear fluids to 2–4 h before anaesthesia and surgery dates back to the mid-1980s for single papers<sup>3</sup> and 2011 for consensus papers<sup>4</sup>; yet, the Australian and New Zealand College of Anaesthetists first recommended encouraging drinking clear fluids to 2–4 h before surgery in a professional standards document in 2017.<sup>5</sup>

We are the professional body that has asked for patients to be fasted, and therefore, we are responsible for getting the messaging right and stopping the harm generated by ritualistic starvation practices. We need leadership from national

anaesthesia bodies to take back ownership of the messaging for preoperative fasting instructions, which continue to evolve.<sup>6,7</sup> We need them to influence undergraduate education, encourage administrators to adopt national standards, and collaborate with surgical colleges to put an end to local attempts to implement best-practice fasting as being seen as eccentric local practice by inexperienced rotating trainee physicians.

### Declaration of interest

The author declares that they have no conflicts of interest.

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## Is difficult or failed intubation a confounder or an effect modifier for hypoxaemia? Comment on *Br J Anaesth*; 125: e81-7

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**Keywords:** Caesarean delivery; desaturation; hypoxaemia; obstetric anaesthesia; rapid sequence induction; tracheal intubation

Editor—Bonnet and colleagues<sup>1</sup> reported the results of an observational study that showed that parturients who encountered difficult or failed intubation were at increased risk for hypoxaemia after intubation (adjusted odds ratio =19.1 [8.6–42.7]). Baseline predictors for difficult intubation were collected: it is possible that these identified risk factors<sup>2</sup> attributed to difficult or failed intubation prolonged the intubation time leading to hypoxaemia. It is important to know whether difficult or failed intubation is a potential confounder or an effect modifier (in other words, the interaction effect). A variable is considered a confounding variable if it is associated with both the exposure and outcome variables, but is not associated with the causal pathway between the exposure and the outcome (Fig. 1a). As shown in Figure 1b, it is likely that the occurrence of difficult or failed intubation might be the mediator between predictor variables of difficult intubation and hypoxaemia. If so, then, it would be appropriate to test the interaction effect of the covariate (i.e. the presence or absence of difficult/failed intubation in the regression model).

The authors mentioned that 9.6% of the parturients needing non-elective Caesarean section had severe pregnancy-induced hypertension. It is understood that the authors used rapid sequence induction of anaesthesia and tracheal intubation to secure the airway. However, in this group of patients, the transient, but severe hypertension that accompanies tracheal intubation can result in fatal neurological complications. As a result, guidelines recommend administration of agents such as short-acting beta blockers, opioids, or vasodilators to blunt the intubation stress response. The authors need to justify not using the above medications. Further, if the authors had used these agents, it would have been interesting to see the effect on hypoxaemia, especially with the short-acting opioids.

The authors cited an article suggesting that head-up positioning does not prolong the safe apnoea time in the obstetric

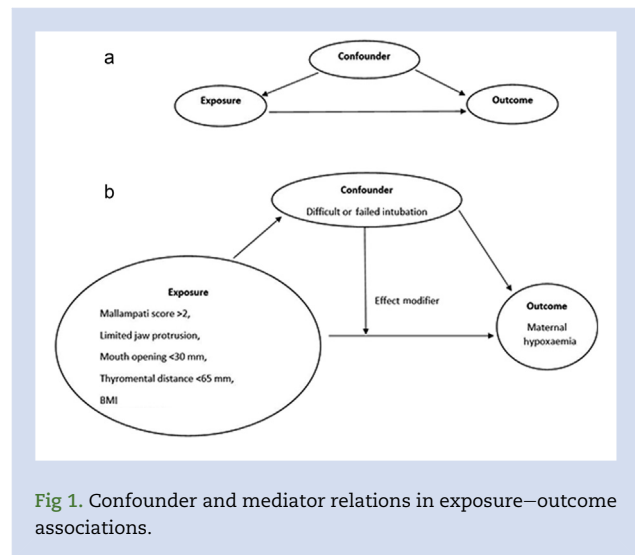


Fig 1. Confounder and mediator relations in exposure–outcome associations.

population.<sup>3</sup> This unexpected result may be attributed to several factors: small sample size (10 parturients in supine vs 10 parturients in head-up position), lack of a reliable tool to assess lung denitrogenation (i.e. monitoring of end-tidal concentration of expired oxygen), and no information on parturient BMI. On the contrary, a study by Hignett and colleagues<sup>4</sup> on healthy term parturients showed a significant increase in functional residual capacity with the 30° head-up position in comparison with the supine position. In addition, the head-up position improves the glottic view at laryngoscopy.<sup>5</sup> In one survey, the majority of respondents preferred head-up or ramped positioning before induction of anaesthesia in obstetric patients.<sup>6</sup> It is necessary to conduct a multicentre randomised clinical trial to determine whether head-up position in comparison with supine position prolongs the time to desaturation during the apnoea phase in rapid sequence induction for Caesarean section.