



UNIVERSITY OF
PLYMOUTH



More Faculty of Health Research
Faculty of Health

2018-01-01

Attempting tracheal intubation without paralysis

J. R. Sneyd *Faculty of Health*

E. P. O'Sullivan

Let us know how access to this document benefits you

General rights

All content in PEARL is protected by copyright law. Author manuscripts are made available in accordance with publisher policies. Please cite only the published version using the details provided on the item record or document. In the absence of an open licence (e.g. Creative Commons), permissions for further reuse of content should be sought from the publisher or author.

Take down policy

If you believe that this document breaches copyright please [contact the library](#) providing details, and we will remove access to the work immediately and investigate your claim.

Follow this and additional works at: <https://pearl.plymouth.ac.uk/more-foh-research>

Recommended Citation

Sneyd, J., & O'Sullivan, E. (2018) 'Attempting tracheal intubation without paralysis', *British Journal of Anaesthesia*, 120(6), pp. 1429-1430. Available at: <https://doi.org/10.1016/j.bja.2018.02.014>

This Article is brought to you for free and open access by the Faculty of Health at PEARL. It has been accepted for inclusion in More Faculty of Health Research by an authorized administrator of PEARL. For more information, please contact openresearch@plymouth.ac.uk.



PEARL

Attempting tracheal intubation without paralysis

Sneyd, J. R.; O'Sullivan, E. P.

Published in:

British Journal of Anaesthesia

DOI:

[10.1016/j.bja.2018.02.014](https://doi.org/10.1016/j.bja.2018.02.014)

Publication date:

2018

Link:

[Link to publication in PEARL](#)

Citation for published version (APA):

Sneyd, J. R., & O'Sullivan, E. P. (2018). Attempting tracheal intubation without paralysis. *British Journal of Anaesthesia*, 120(6), 1429-1430. <https://doi.org/10.1016/j.bja.2018.02.014>

2018-06-01

Attempting tracheal intubation without paralysis

Sneyd, JR

<http://hdl.handle.net/10026.1/11560>

10.1016/j.bja.2018.02.014

British Journal of Anaesthesia

Elsevier BV

All content in PEARL is protected by copyright law. Author manuscripts are made available in accordance with publisher policies. Please cite only the published version using the details provided on the item record or document. In the absence of an open licence (e.g. Creative Commons), permissions for further reuse of content should be sought from the publisher or author.

Lundstrøm and colleagues have conducted a well constructed and carefully reported meta-analysis of studies comparing tracheal intubation without the use of muscle relaxants with conventional relaxant-based methods.¹ They found that avoiding the use of a muscle relaxant increases the risk of difficult laryngoscopy two and a half times (risk ratio (RR) 2.54, 95% confidence interval (CI) 1.53-4.21, $P=0.0003$, difficult tracheal intubation 13 fold (RR=13.27, 95% CI 8.19-21.49, $P<0.00001$) and the risk of upper airway discomfort or injury (RR=1.37, 95% CI 1.09-1.74, $P=0.008$). So far, so good... Then things start to unravel and the all-important last sentence of the abstract states “In a clinical context, one must balance judgements for using an NMBA when performing tracheal intubation”. What? Why?

Possible explanations for a conclusion so far removed from the data lie in the review’s discussion section. The authors remind us that nobody died and that not all difficult tracheal intubations are “clinically important” i.e. threatening to the patient’s life or health. The statistics on difficult laryngoscopy are then undermined by the application of trial sequential analysis (TSA), a methodology primarily intended to strengthen statistical analysis when a completed meta-analysis is updated by new studies. Maybe so. Nevertheless the fact remains that attempting tracheal intubation without prior paralysis increases the risk of difficulty by a factor of 13. The Difficult Airway Society 2015 guidelines on the Management of Unanticipated Difficult Intubation² stress the importance of optimising the first attempt at laryngoscopy “as repeated attempts increase risk of morbidity and mortality. Isn’t that enough? No? Then how about the increased risk of injury?

Finally, we are told that “...large trials with low risk of bias describing upper airway injury and discomfort, and other SAES and mortality are needed”. No they aren’t. We already know that attempting tracheal intubation without muscle relaxants is a bad idea. As a

minimum it worsens laryngoscopy, increases the likelihood of difficult intubation and increases the risk of injury. Won't that suffice? How can we possibly justify pressing on with further research into a methodology that we know to be inferior?³

In a brilliantly titled editorial "Did our brains fall out"⁴ Shafer reminds us of James Oberg who said "You must keep an open mind, but not so open that your brains fall out."

Continued promotion of tracheal intubation in the absence of paralysis despite decent evidence to the contrary is starting to sound like advocacy for a flat earth or homeopathy. In this context, calling for more research amounts to advocacy. We don't need more research, we need to apply what we already know. Specifically, the anaesthetist's best shot at tracheal intubation involves general anaesthesia with paralysis.

Interestingly, the original Cochrane review⁵ (of which the present publication is a summary) ends with a slightly different homily: "In conclusion, in a clinical context, one must have weighty arguments for using or not using NMBA when performing tracheal intubation."

Indeed. We have a weighty argument for using paralysis, its omission is injurious to patients.

J Robert Sneyd

Ellen P O'Sullivan

1 Lundstrøm LH, Duez CHV, Nørskov AK, et al. Avoidance of use of neuromuscular blocking agent for improving conditions during tracheal intubation: a Cochrane systematic review. *British Journal of Anaesthesia*

2 Frerk C, Mitchell VS, McNarry AF, et al. Difficult Airway Society 2015 guidelines for management of unanticipated difficult intubation in adults. *BJA: British Journal of Anaesthesia* 2015; **115**: 827-48

3 Sneyd JR, O'Sullivan E. Tracheal intubation without neuromuscular blocking agents: is there any point? *Br J Anaesth* 2010; **104**: 535-7

4 Shafer SL. Did our brains fall out? *Anesth Analg* 2007; **104**: 247-8

5 Lundstrøm LH, Duez CH, Nørskov AK, et al. Avoidance versus use of neuromuscular blocking agents for improving conditions during tracheal intubation or direct laryngoscopy in adults and adolescents. *The Cochrane Library* 2017