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Reply letter to: Intubation in neonatal resuscitation - compelling necessity or incalculable risk?

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Letter to the Editor

Reply letter to: Intubation in neonatal resuscitation — Compelling necessity or incalculable risk?



To the Editor,

Schwindt et al., raise concerns about a passage in the algorithm of the latest European Resuscitation Council (ERC) newborn life support (NLS) guidance. The authors are worried that the ERC-NLS recommendation to “*Consider intubation if not done already (or laryngeal mask if intubation not possible)*” may be interpreted as an imperative to intubate when commencing chest compressions (CC). They speculate this would delay delivering effective ventilation and ongoing management and put patients at risk. We disagree with their interpretation and the ERC-NLS group unanimously refutes the notion that the guideline mandates intubation when commencing CC. It asks those involved to think about whether intubation or a laryngeal mask (LM) might be beneficial at this time, bearing in mind that babies who receive CC will have received mask ventilation that may already have been suboptimal and is then potentially further compromised by the delivery of CC.^{1,2} Therefore, the ERC-NLS writing group concluded that a secure airway was optimal and that if intubation (or insertion of LM) could be undertaken competently and safely, then it should be considered. The ERC-NLS guidelines are not prescriptive and individual teams should choose the most effective means of airway management according to the locally available skills and facilities, be it face mask, LM, or intubation.

We appreciate the efforts of Schwindt et al., in aiming to improve newborn resuscitation guidelines by basing them on evidence. However, it needs to be acknowledged that studying newborn resuscitation with CC is very challenging as cases are infrequent, heterogenous and difficult to anticipate, meaning solid evidence is scarce and no good studies exist on the optimal management of newborns receiving CPR. With respect to the effectiveness of invasive versus non-invasive airway management, the ERC-NLS group recognises the few in-vivo observations and the many in-vitro studies which highlight a plethora of problems of facemask ventilation, like mask leak and airway obstruction, and the fact that during mask ventilation, resuscitators are neither able to accurately assess effective ventilation nor heart rate.^{3–5} Further, we agree with Schwindt et al., in acknowledging that adequate ventilation, and thus oxygenation, needs to take precedence over all other resuscitative measures in the majority of those requiring CPR. With respect to the questions Schwindt et al. ask, we consider questions one, two and four as highly-challenging to answer with clinical studies. Question three might be interpreted as suggesting that the ERC-NLS guideline prioritises intubation (or LM) over other tasks. That is incorrect: The

‘consider’ makes no judgements on priorities but is to ensure that the effectiveness of airway management remains a priority during the delivery of CC — rather than making a potentially invalid assumption on the effectiveness of mask ventilation and continuing with vascular access and drugs inappropriately.

In the absence of evidence suggesting non-invasive airway support is superior to invasive support during CPR with CC, and evidence to suggest mask ventilation is commonly poorly performed, we remain with our recommendation to *consider* intubation or LM airways to secure the airway when faced with ongoing CPR.

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