Seated vs. Supine Patient Positioning for Emergency Intubation

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First-attempt intubation success was more common with more-upright patient positioning.

Prior research has suggested that patients should be intubated emergently in an upright, head-forward position rather than in the traditional supine position (NEJM JW Emerg Med Mar 15 2016; [e-pub] and Anesth Analg 2016; 122:1101).

To examine this issue further, investigators analyzed 231 intubations performed in two emergency departments (EDs) by 58 residents affiliated with a single residency program. Patient positioning was chosen at convenience, the angle of elevation of the bed was measured, and first-attempt intubation success rates were recorded.

First-attempt success was attained in 66% of supine intubations, 78% of inclined intubations, and 86% of upright intubations (angle of bed, ≥45 degrees).

Comment: Because this was not a randomized study, patients selected for supine intubation may have been sicker or more difficult to intubate. Nevertheless, the findings provide compelling evidence that upright intubation is feasible. Given that ED patients requiring intubation often have full stomachs, congestive heart failure, or other characteristics that may make supine positioning undesirable, upright intubation seems an attractive option.

Note to readers: At the time NEJM Journal Watch reviewed this paper, its publisher noted that it was not in final form and that subsequent changes might be made.

Citation(s):