Complications During Physician-Performed Prehospital Intubation

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Hypoxia occurred in 15% of patients and poor glottic view was the only predictor.

To determine the incidence of peri-intubation complications in a physician-staffed Scottish aeromedical transport system, researchers retrospectively analyzed emergent rapid-sequence intubations performed between 2008 and 2012.

Of 208 intubations, 75% were performed during interfacility transport and 25% were performed at the scene of the incident. Peri-intubation desaturation (defined as a drop in oxygen saturation below 90% or a 10% drop from the initial oxygen saturation) occurred in 15.4% of patients. Peri-intubation hypotension (defined as a drop in systolic blood pressure below 90 mm Hg) occurred in 7.9% of patients.

On multivariate analysis, a Cormack and Lehane grade 3 or 4 glottic view was the only predictor of oxygen desaturation. Complication rates were similar between emergency medicine–trained and anesthesia-trained physicians.

Comment: Even when physicians perform emergency prehospital intubation, complications like hypoxia are common. This study’s prehospital findings are consistent with those from a prior study that demonstrated higher rates of hypoxia and hypotension when prehospital intubation requires multiple attempts, often due to poor glottic views (NEJM JW Emerg Med Sep 11 2013). Perhaps this offers yet another opportunity to deploy video laryngoscopy in lieu of antiquated technology, because glottic views are better with video laryngoscopy, and for difficult intubations, success rates are higher.

Citation(s):


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