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The Airtraq as a Primary and Rescue Device in the Prehospital Setting

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Despite the Airtraq’s availability and known ease of use, providers selected the device for only 1% of intubations, and performance was spotty.

Several studies have shown that the Airtraq, a self-powered, single-use, indirect laryngoscope, has a higher intubation success rate than direct laryngoscopy, particularly for novice intubators (NEJM Journal Watch Emerg Med Dec 2 2011). To assess use of the device in the prehospital setting, researchers in Sweden performed a retrospective chart review of prehospital endotracheal intubations over a 5-year period.

The Airtraq was used in 28 of 2453 intubations (1%). Of these 28 patients, 23 were in cardiac arrest. The overall success rate was 68%. The success rate was 61% in the 23 cases in which the device was used for anticipated or unexpected difficult airway. Of 13 patients with failed prior attempts at intubation with conventional laryngoscopy or a laryngeal mask airway, 46% were intubated successfully with the Airtraq. Airtraq intubation failures were rescued with combinations of direct laryngoscopy, use of a bougie, and blind nasal intubation.

Comment: The Airtraq intubation success rate in this study (68%) is higher than that in the only prospective prehospital study (47%), but is lower than that in other, prior prehospital studies. The small number of Airtraq intubations in this study limits extrapolation of the findings, and the study fails to further clarify the device’s role in prehospital difficult airways. Larger studies comparing the Airtraq to both video and direct laryngoscopes are needed. As with every intubation technique, provider familiarity and experience is paramount for success.

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