

# Blind Nasotracheal Intubation in Penetrating Neck Trauma: A Good Idea or Not?

Some experts have eschewed the use of blind nasotracheal intubation (BNTI) in patients with penetrating neck trauma, as BNTI might be less successful than other methods of intubation due to airway distortion or, worse, could exacerbate damage from the original trauma. Contrarily, BNTI allows preservation of existing ventilation, whereas administration of paralytic agents during rapid sequence intubation (RSI) eliminates even that. These authors retrospectively assessed the clinical course of 240 patients who were admitted to one level 1 trauma center from 1993 to mid-2001 with penetrating neck trauma due to stab wounds (70%), gunshot wounds (25%), or motor vehicle crashes (5%). Injuries affected zone 1 (from the clavicles to the inferior aspect of the cricoid cartilage, 14%), zone 2 (from the cricoid cartilage to the angle of the mandible, 52%), zone 3 (from the angle of the mandible in a cephalad direction, 16%), or multiple zones (19%). Paramedics made the decision to intubate; RSI was not available to them.

Overall, 89 patients (37%) were intubated, either in the field or in the emergency department. Active airway management in the field was accomplished successfully by BNTI in 36 of 40 patients (mean number of attempts, 1.1) and by oral intubation in 18 of 24 patients. In the ED, RSI was successful in 25 of 25 patients and in the 10 cases of failed BNTI or oral intubation in the field.

**Comment:** In general, the proscription of BNTI in penetrating neck trauma makes sense, because a blind technique in an anatomically distorted airway certainly carries more risk than does one done under direct vision. However, when neither RSI nor fiberoptic intubation (which could be the best of all methods) is available, BNTI might be a reasonable alternative. One wonders how many of the study patients really required field intubation rather than prompt transfer to the trauma center, where the airways could be properly managed with RSI. The 10% failure rate, consistent with that in other BNTI studies, is also of concern. BNTI could be a useful technique for managing patients with penetrating neck trauma if used by providers who are experienced in its use, but only when intubation is clearly mandated and no other technique is available.

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Weitzel N et al. *Blind nasotracheal intubation for patients with penetrating neck trauma. J Trauma* 2004 May; 56:1097-101.