

# CS#20

## **Cuff inflation as an aid to nasotracheal intubation using the Airtraq®**

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We recruited **72 patients** . A nasotracheal tube was inserted via the preselected nostril until the tube tip passed through the posterior larynx. Next, an orotracheal Airtraq was passed into the patient's mouth over the tongue in the midline. If the tube tip failed to be aligned with the glottis, the tube was withdrawn until the cuff was below the distal end of the Airtraq.

**At this position, an assistant slowly inflated the cuff with a 20 mL syringe until the tube tip was aligned with the visualized glottis** Then, the tube was re-advanced an additional 1.0 to 1.5 cm to pass the glottis., deflated and the tube was inserted into the trachea.

Nasotracheal intubation was successful in 49 of the 72 patients at the first attempt without cuff inflation. However, in the remaining 23 patients, the nasotracheal tube tip could not be brought into alignment with the glottis during the initial intubation attempt. Sixteen of the 23 incorrect tube tip locations were posterior tip positions and seven were lateral tip positions.

**By inflating the cuff in these cases, the nasotracheal tube tip was directed satisfactorily toward the glottis and NTI was successfully completed.** The air volume required for cuff inflation was  $12.5 \pm 3.2$  mL with a range from 8-18 mL. We observed through the viewfinder that cuff inflation could produce upward and central movements of the nasotracheal tube tip to align with the glottis located in midline