

# The GlideScope Performs Well in Clinical Practice

*A large observational study reveals a high rate of successful intubation.*

To characterize use and performance of the GlideScope video laryngoscope in routine clinical practice, researchers reviewed 71,570 operating room intubations in adults at two U.S. academic medical centers between 2007 and 2009.

Of 2004 patients (2.8%) who underwent GlideScope intubation, 81% had markers of difficult laryngoscopy ([table](#)) or were obese (body-mass index >30 kg/m<sup>2</sup>).

GlideScope intubations were performed or supervised by 142 attending anesthesiologists who did not receive formal training with the device. Success rates for GlideScope intubation were 97% overall, 96% in patients with markers of difficult laryngoscopy, 98% in patients without such markers, 98% when used first, and 94% (224 of 239 cases) when used after failed direct laryngoscopy. GlideScope intubation failed in 60 patients. In multivariate analysis, three markers of difficult laryngoscopy predicted failure: abnormal neck anatomy (odds ratio, 4.4), thyromental distance <6 cm (OR, 2.5), and limited cervical motion (OR, 1.8.) When GlideScope intubation failed, intubation was most often achieved by direct laryngoscopy (47%) or fiber-optic laryngoscopy (32%). Serious complications occurred in six cases (0.3%), all during GlideScope use: one case each of vocal cord trauma, tracheal injury, hypopharynx trauma, and tonsillar perforation, and two cases of dental injuries.

**Comment:** This large observational study confirms a high intubation success rate with the GlideScope ([JW Emerg Med May 2 2008](#)). The findings also highlight that GlideScope intubation can fail, particularly in patients with difficult airway markers, and that backup plans and devices should be in place.

— [Emily L. Brown, MD](#), and [Ron M. Walls, MD, FRCPC, FAAEM](#)

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