

Hyperangulated video laryngoscopy beneficial for achieving intubation

April 4 2024, by Elana Gotkine



For patients who require single-lumen endotracheal intubation for general anesthesia, hyperangulated video laryngoscopy reduces the

number of attempts needed to achieve intubation, according to a study [published](#) online March 18 in the *Journal of the American Medical Association* (JAMA).

Kurt Ruetzler, M.D., from the Cleveland Clinic, and colleagues examined whether the number of [intubation](#) attempts per [surgical procedure](#) is lower when initial laryngoscopy is performed using [video](#) laryngoscopy or direct laryngoscopy in a cluster randomized, crossover clinical trial.

Participants were adults undergoing elective or emergent cardiac, thoracic, or vascular surgical procedures who required single-lumen endotracheal intubation for [general anesthesia](#). Two sets of 11 operating rooms were randomized on a one-week basis to perform hyperangulated video laryngoscopy or direct laryngoscopy for the initial attempt at intubation. Data were included for 8,429 surgical procedures in 7,736 patients.

Overall, 1.7 and 7.6% of the 4,413 surgical procedures randomized to receive video laryngoscopy and the 4,016 procedures randomized to receive direct laryngoscopy, respectively, required more than one intubation attempt, with an estimated proportional odds ratio of 0.20 for the number of intubation attempts.

The researchers found that intubation failure occurred in 0.27 and 4.0% of surgical procedures using video laryngoscopy and direct laryngoscopy, respectively (relative risk, 0.06), with an unadjusted absolute risk difference of -3.7%. No significant difference was seen in airway and dental injuries between the groups.

"Results suggest that video laryngoscopy may be a preferable approach

for intubating patients undergoing surgical procedures," the authors write.

More information: Kurt Ruetzler et al, Video Laryngoscopy vs Direct Laryngoscopy for Endotracheal Intubation in the Operating Room, *JAMA* (2024). [DOI: 10.1001/jama.2024.0762](https://doi.org/10.1001/jama.2024.0762)

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