

# CS#50

## **Alternative intubation techniques vs Macintosh laryngoscopy in patients with cervical spine immobilization: systematic review and meta-analysis of randomized controlled trials**

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We searched MEDLINE, EMBASE, and the Cochrane Library for **randomized controlled trials comparing any intubation device with the Macintosh laryngoscope in human subjects with cervical spine immobilization.**

Results: **Twenty-four trials (1866 patients)** met inclusion criteria. With alternative intubation devices, the risk of intubation failure was lower compared with Macintosh laryngoscopy. Metaanalyses could be performed for **Airtraq, Airwayscope, C-Mac, Glidescope, and McGrath.**

**The Airtraq was associated with a statistically significant. reduction of the risk of intubation failure at the first attempt, a higher rate of Cormack–Lehane grade 1, a reduction of time until successful intubation, and a reduction of oropharyngeal complications.**

Other devices were associated with improved glottis visualization but no statistically significant differences in intubation failure or time to intubation compared with conventional laryngoscopy.

**Conclusions: In situations where the spine is immobilized, the Airtraq device reduces the risk of intubation failure. There is a lack of evidence for the usefulness of other intubation devices.**