

C-MAC Video Laryngoscope Is Superior to Macintosh Laryngoscope for Intubation Training

Intubation with the Macintosh blade is performed better by students trained with the C-MAC video laryngoscope than by those trained with the Macintosh blade.

A previous study showed that students trained with the GlideScope video laryngoscope performed direct laryngoscopy better than those trained with the Macintosh laryngoscope ([JW Emerg Med Jul 23 2010](#)). In the current study, researchers in Germany compared intubation skills in 86 novice medical students who were randomized to training with either a standard Macintosh laryngoscope or the C-MAC video laryngoscope. The C-MAC incorporates a standard Macintosh laryngoscope blade with an integrated video camera directed toward the distal tip. Students were trained by anesthesiology residents on anesthetized adult surgical patients without difficult airway predictors. Intubation skills with a direct laryngoscope were assessed on a standardized manikin before and after training.

Pretraining intubation success rates did not differ significantly in the C-MAC and conventional laryngoscope training groups (44% and 51%). During training, students averaged nine intubations, and success rates were similar in the two groups (53% and 47%, respectively). During the posttraining manikin assessments, however, the C-MAC group had significantly higher intubation success rates (90% vs. 71%), fewer grade III and IV glottic views (8% vs. 34%), and faster times to intubation (18 vs. 29 seconds).

Comment: Training novice intubators with the C-MAC video laryngoscope, as with the GlideScope, improved performance of intubation by direct laryngoscopy in this standardized manikin assessment. This study provides one more piece of convincing evidence that video laryngoscopes are superior to direct laryngoscopes for intubation and for training novices to intubate.

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