

Using a Video Laryngoscope to Facilitate Teaching Direct Laryngoscopy and Intubation

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Context:

Teaching direct laryngoscopy and intubation (DL/I) skills to students is traditionally done with the instructor performing the procedure while the student peers over his/her shoulder. Subsequently, the student and the instructor trade places.

Need:

An inherent problem is that the instructor is never sure the student does actually see the anatomic structures that he is exposing or the correct placement of an endotracheal tube (ETT). Conversely, when the student is doing the procedure, the instructor is unsure what the student is seeing or doing until placement of the ETT is verified.

Action:

The video laryngoscope (VL) (Karl Storz Endoscopy, Inc) has a built in fiberoptic camera that transmits images from the tip of the laryngoscope to a monitor. Starting in 2004, we began using a VL in conjunction with a patient simulator to teach DL/I skills to anesthesiology residents and paramedic and medical students. The VL enables us to demonstrate to multiple students simultaneously the anatomy of the airway as DL is performed and to see the correct placement of the ETT. The VL also allows us to confirm a student's knowledge about the anatomical structures as she performs DL/I, give feedback on how to improve her laryngoscopic view, and watch as she inserts the ETT. Subsequently, the students practice DL/I skills with a traditional laryngoscope.

Impact:

With the use of the VL, students appear to master DL/I skills more quickly than with the traditional method. We plan to formally study the impact of the VL in teaching DL/I skills to a variety of residents and students.

References:

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