

Opinion Corner: The competence-experience gap (Part 2)- The problem with plastic

"Quick, get the machine that goes ping, the hospital administrator are coming" is a favourite line from Monty Python's, *The Meaning of Life*. Technology impresses many as if it will offer some super human advantage over the fallible human brain. High fidelity simulation conjures up images of expensive technology that can talk, blink, wheeze, have trismus and laryngospasm at the click of a button (watch *Grey's Anatomy* [METI Stan](#)). How does training on plastic help learners attain and maintain their airway skills? How do these learned skills transfer to human tissue. The answer is not as clear as we might think. There currently is no single manikin that reinforces key laryngoscopy optimization manoeuvres (best look laryngoscopy/aka bimanual laryngoscopy ie ELM, Head lift), allows BMV optimization with chest rise, will accept various supraglottic devices and provide a realistic model for performing an emergency surgical airway. In contrast most of the video laryngoscopy equipment (which is tested/developed on manikins) is easily performed on plastic. This bias favours technology and de-emphasizes core airway skills.



For those of us who regularly teach airway management skills using clinical cadavers (prepared in a manner that makes them almost indistinguishable from live human tissue) this gap between plastic and human tissue seems vast even with today's new high fidelity simulators. The mean POGO by a novice on a manikin by DL compared with VL will always favour the large screen image of the pearly white cords. In the real world (on live patients) a poor view with DL is usually easily managed with a simple head lift or manipulating the larynx and tube placement handled with the aid of a bougie. More and more I watch clinicians abandon the patient after failed DL without having tried any optimization manoeuvres and calling for the "machine that goes ping". Don't get me wrong, I am a tech guy to the core and have spent both time and money developing video laryngoscopy technology. High fidelity airway simulation and video laryngoscopy have added great value to patient care however technology often breeds more technology.

The use such clinical cadavers allow us to problem solve use of devices that continue to enter the market without having ever being tested on human tissue. Unfortunately many universities are abandoning the use of anatomical specimens for learning. With this loss they are missing the opportunity to develop clinical cadaver programs to help close the competence-experience gap. For simulation to be effective it has to do what the term implies and simulate real life. I can assure you that most medical trainees can intubate a Meti, a Truecorp, a Laerdal but what about the possible 7 billion plus other faces that may need our skills.