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National electronic difficult airway database and Alert Card: a UK experience

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The incidence of difficult intubation varies between 1% and 18% during a general anaesthesia.[1] A history of previous difficult intubation is regarded as the single most important predictor of subsequent difficult laryngoscopy and intubation.[2] Airway societies around the world recommend that the anaesthetist should communicate any difficulty encountered in airway management to the patient and the primary caregiver soon after the event. Despite the recognised benefits of this timely communication, this information is neither standardised nor consistent.[3] We are not aware of any other well-established national, secure, electronic difficult airway database for adult patients anywhere in the world that is accessible anytime of the day.

The Difficult Airway Society UK (DAS) ran a pilot project for 24 months to ascertain the feasibility of such a database. The interested hospitals were registered to the project through a local lead, who obtained local information governance approval. Data were submitted through a secure online form on the DAS website, after taking explicit consent from the patients. Submitted clinical data were stored anonymously on an International Organization for Standardization certified server based in the UK, and any patient identifiable information was forwarded as an encrypted message to an offline computer kept at a NHS premise. DAS sent an alert card with a unique code, which can be used to access data from the website 24/7 by doctors registered to the DAS website or are on the GMC register.

We received 230 submissions from 24 hospitals during the pilot period. The collected data included the type of event, patient characteristics, time of the procedure, grade of primary anaesthetist, and the rescue airway management method amongst other details. At the end of the pilot, we conducted a survey of the leads and their experience and suggestions were incorporated in the main project launched in November 2018. Currently the project caters for 79 hospitals across the country, and many more are in the process of joining.

Our experience suggests that it is feasible to provide a secure, national, online difficult airway database that is accessible at any time of the day. The users, both patients and the anaesthetists, have reported it to be a very useful safety initiative.

Funding

Difficult Airway Society-UK.

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Face-to-face videolaryngoscopy-assisted tracheal intubation: does the hand matter?

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Awake videolaryngoscopy is an evolving option for difficult airway management[1]. Awake videolaryngoscopy-assisted tracheal intubation (VATI) performed face to face with the patient has two crucial consequences for the operator. Firstly, if the videolaryngoscope (VS) is held in the operator's left hand (the traditional hand used to hold the handle), directing the tracheal tube (TT) with the right hand will involve a crossover of their arms. Secondly, the glottis view and the direction the tube will be manipulated is altered because of the 180° view rotation. Here we describe our investigation into the effect of the operator holding the VS in their left or right hand and directing a TT with their other hand.

Anaesthetist volunteers were asked to perform face-to-face VATI on a mannikin. The times to the glottis view and the TT passing through the vocal cords were recorded. Each participant performed the procedure twice – holding the VS and directing the TT with alternate hands. Participants were asked to rate their perceived ease of tracheal intubation for both attempts.

Table 5 Times to glottis view and tracheal tube through cords and perceived ease of videolaryngoscopy-assisted face-to-face tracheal intubation on a manikin.

	Attempt 1		Attempt 2	
Hand holding videolaryngoscope (*n*)	Left (15)	Right (8)	Left (8)	Right (15)
Mean (range) time to glottic view (s)	12 (4–35)	26 (8–102)	11 (3–25)	6 (2–10)
Mean (range) time to tube through cords (s)	42 (8–118)	45 (10–156)	20 (6–41)	50 (16–125)
Tracheal intubation in <60 s, % (*n*)	80 (12)	75 (6)	100 (8)	87 (13)
Tracheal intubation in >60 s, % (*n*)	20 (3)	25 (2)	0 (0)	13 (2)
Participant perception of procedure as easy or neutral, % (*n*)	47 (7)	63 (5)	100 (8)	60 (9)
Participant perception of procedure as difficult, % (*n*)	53 (8)	37 (3)	0 (0)	40 (6)

n, number of participants.