Utility of the Bougie in a district general hospital 40 years on

Parminder Gill Kainth, Laura Williams, Declan Maloney, Jason Walker
Ysbyty Gwynedd, Bangor

OBJECTIVE Use of the bougie is one of the first considerations in Plan A of the Unexpected Difficulty Airway drill when faced with a poor view of the cords at direct laryngoscopy [1]. As it’s the 40th anniversary of the bougie [2] we decided to survey its usefulness in modern anaesthetic practice in a district general hospital.

METHODS
A questionnaire was designed to include questions on: usefulness of the bougie, preferred type and additional features, method of placement confirmation, use with videoscopes, additional uses, and trauma resulting from its use, decontamination and storage. A 10cm visual analogue scale was used to quantify how useful staff found it. All anaesthetists and operating department practitioners (ODPs) were surveyed in Ysbyty Gwynedd. Minitab® 16 was used for statistical analysis.

RESULTS
Questionnaires were completed by 37/49 anaesthetists (75.5%) and 14/32 ODPs (43.7%) during the period May–June 2014. The main outcome measure was a visual analogue scale of the usefulness of the bougie with a median of 9.700 (Inter-Quartile Range [8.8-9.9]). A Kruskall-Wallis test failed to identify any difference in reported usefulness between grades (P = 0.262).

The most popular technique used by anaesthetists to confirm placement of the bougie was eliciting clicks with 31/37 (83.8%) opting for this method. The most popular bougie by far was the Gum Elastic Bougie™ (GEB) at 33/37 (89.2%) anaesthetists. It was noted that 26/37 (70.3%) anaesthetists had experience of using the bougie with videoscopes. In suspected cervical spine injury patients, 14/37 (37.8%) would use a videoscope alone, compared with 9/37 (24.3%) Storz CMAC™ videoscope plus GEB™ and only 2/37 (5.4%) with the traditional McCoy blade and GEB. Of note none of the participants knew how to sterilise a reusable bougie.

CONCLUSIONS
The bougie continues to be a useful piece of equipment despite the advances in airway management although a changing trend in practice with cervical spine injury was emerging. However, it does appear that mild trauma can be expected with its use and in view of the dearth of knowledge regarding sterilisation even with ODPs that disposable versions will have to be strongly considered.

References: