DAS SURVEY RESULTS - DOCUMENTATION OF VIDEOLARYNGOSCOPY

I'm in Love with the Shape of You

Documentation of videolaryngoscope blade shape and ease of tube passage into the trachea

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INTRODUCTION

- Last UK survey on documentation of tracheal intubation was in the 1990s, predating the era of videolaryngoscopy (VL) [1]
- Cormack and Lehane (C&L) grading [2] is ubiquitous for recording direct laryngoscopy (DL)
- Increasing difficulty with direct view tracheal intubation is associated with a higher C&L grade
- With VL, correlation between view and ease of intubation is not necessarily applicable because:
  1) the glottic view is highly influenced by blade shape
  2) the VL glottic view may be indirect
- This survey explores the practice amongst airway operators regarding documentation of VL: blade shape and tube passage

METHODS

- A survey of airway operators facilitated by the Difficult Airway Society in Autumn 2022

RESULTS

Total of 1153 responses
794 (25%) DAS members
23 attendees at the DAS ASM 2022
402 individuals via Twitter

~75%	routinely document VL blade shape
>10%	never document VL blade shape
33%	always documented degree of difficulty in tracheal tube passage
>40%	only comment on tracheal tube passage when difficult
~20%	only occasionally or never record tracheal tube passage

Our hospital only uses a particular VL device so no need to document blade shape.

We only use 'Glidescope' or 'McGrath'.

1. These devices may have different blade shapes

I only document blade shape when not using a Macintosh blade

I only document blade shape when not using a hyperangulated blade

2. Default blade shape varies between airway operators

I only document about tube passage if it's been difficult.

I use 'easy' to describe both glottic view and tube passage.

3.Inconsistent approach to comment on tube passage

DISCUSSION

- Reassuring to see that most respondents routinely record the blade shape used
- Details concerning tube passage are often omitted
- Inconsistent approach between individuals
- Tendency for organisation specific presumption of method/equipment used

SUMMARY

- VL enables us to 'see around the corner' – **ease of tracheal tube delivery cannot be inferred from glottic view alone**
- Whilst there are numerous VL devices available, **blade shape is typically either Macintosh or hyperangulated**
- In the age of **electronic patient records, sector-wide sharing of information and rotational staff** – it is imperative that **documentation** relating to **airway management is unambiguous**
- Review of the record should enable a clear understanding of exactly how the patient's trachea had been intubated

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DECLARATION

S Shah, M Berry, R Saini, S Soni, D Vaughan & RS Chaggar are involved with the development of the VCI Score

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Top Five Things to Document for Your Videolaryngoscopy

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INTRODUCTION

- Knowledge of how tracheal intubation was achieved is useful in planning subsequent airway management
- The documentation needs to be easily interpreted retrospectively to paint a precise picture of what was done
- Videolaryngoscopy (VL) is increasingly the first line technique for tracheal intubation
- However, documentation about this airway procedure remains highly variable
- In the absence of a universally accepted tool to describe tracheal intubation using videolaryngoscopy, the Cormack-Lehane score is often incorrectly used (1)
- Other tools used include: Cook Classification (2), Fremantle score (3), Percentage of Glottic Opening scale (4) and Video Classification of Intubation score (5)

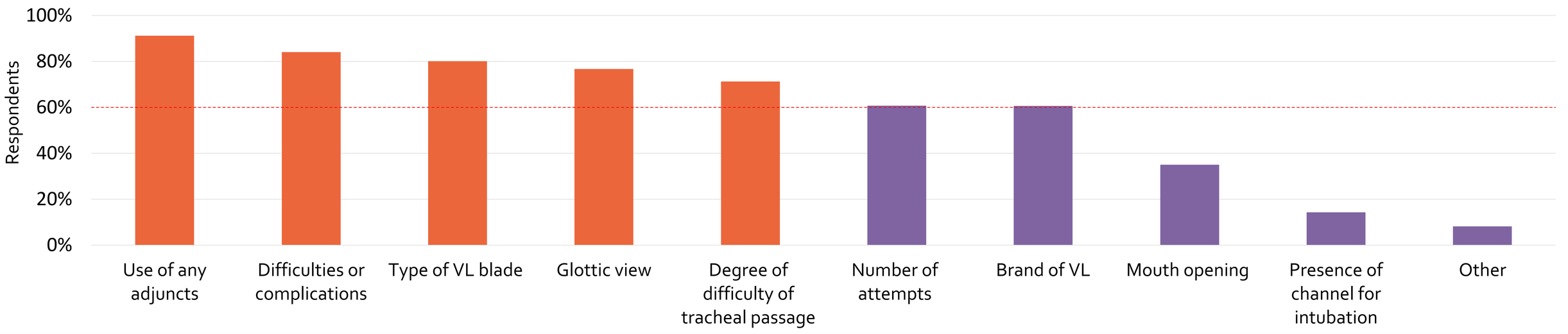
METHODS

- A survey on VL documentation facilitated by the Difficult Airway Society in Autumn 2022

RESULTS

- 794 out of 3153 DAS members responded to the email invitation (25% response rate)
- 23 responses were collected at the DAS ASM 2022
- 402 responses from non-DAS members via Twitter
- 1113 responses were included in the analysis
- Respondents' professions: doctors (88%), ODPs or equivalent professionals (8%) and anaesthetic associates or equivalent (2%)
- Among the doctors, 92% were anaesthetists and 77% had > 8 years' experience in this role

Figure 1. Airway operators' opinions regarding the essential components to record when documenting tracheal intubation performed using videolaryngoscopy



DISCUSSION

- These results form the largest collection of opinion about this subject that we are aware exists
- The findings provide valuable information about what airway operators think is essential when documenting tracheal intubation using VL
- Some of these components are included in existing VL scoring tools1 (3,5) yet these tools are not consistently used
- Irrespective of which tool (if any) is used, recording this minimum data set will likely maximise the chances of a clear understanding of how the procedure took place

CONCLUSION

- The top 5 components according to the survey respondents are:
  1. **Use of adjuncts (e.g. bougie, stylet)**
  2. **Difficulties or complications**
  3. **Type of VL blade**
  4. **Glottic view**
  5. **Degree of difficulty passing the tracheal tube**
- Adoption of a **common language for documenting VL** is crucial, with implications for both **patient safety** and **medicolegal considerations**

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1.Pearce AC, Duggan LV, El-Boghdadly K. Making the grade: has Cormack and Lehane grading stood the test of time? *Anaesthesi*a 2021; **76**: 705-9.
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DAS SURVEY RESULTS - DOCUMENTATION OF VIDEOLARYNGOSCOPY

How Do Airway Operators Record Tracheal Intubation Using VL?

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INTRODUCTION

- Cormack & Lehane (CL) grading is well-established for documenting direct laryngoscopy (DL)
- A standardised approach for videolaryngoscopy (VL), akin to CL for DL, is lacking
- This survey was conducted to establish how airway operators document tracheal intubation using VL

METHODS

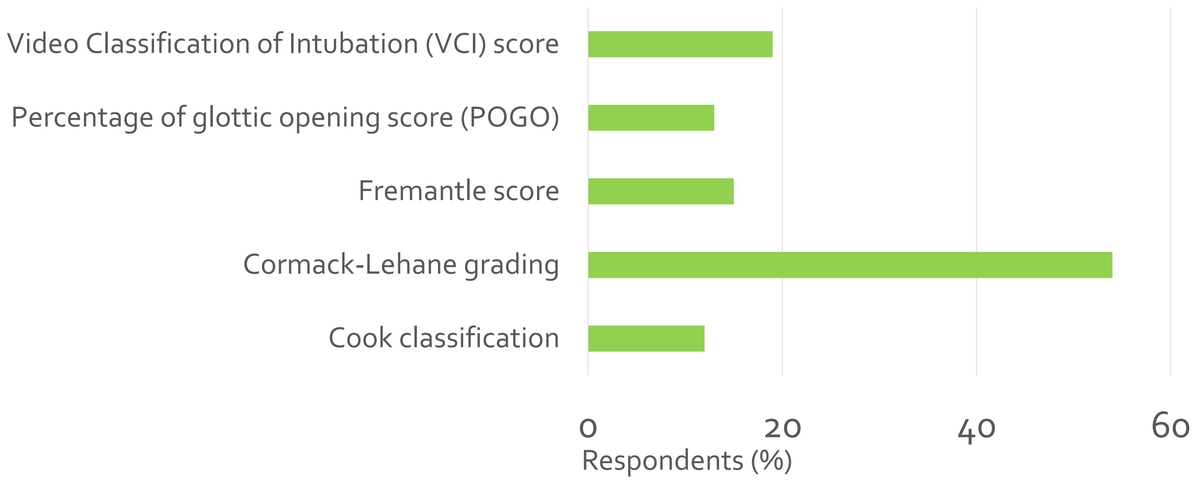
- A survey of airway operators facilitated by the Difficult Airway Society in Autumn 2022

RESULTS

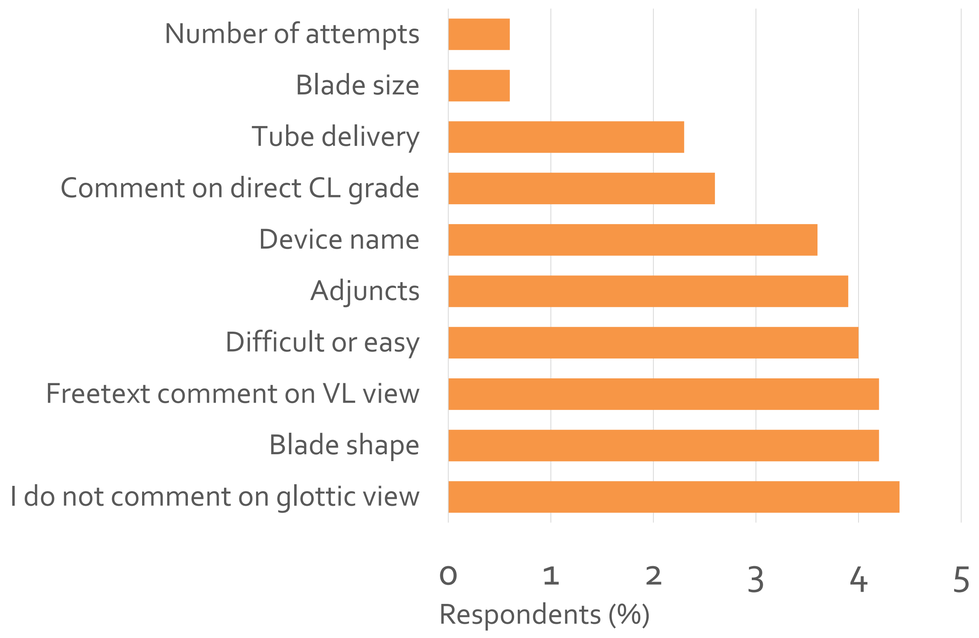
- Total of 1153 responses - 794 (25%) DAS members; 23 attendees at the DAS ASM 2022, 402 individuals via Twitter
- Respondents were asked how they personally document tracheal intubation using VL
  - Several options were provided and more than one option could be selected (Figure 1)
  - Freetext options were also possible (Figure 2)

FIGURES

1. Reported systems for documenting tracheal intubation using VL



2. Content of freetext comments regarding documenting tracheal intubation using VL



DISCUSSION

- Many only record glottic view, often using classifications such as CL grading, Cook classification or the POGO score; commenting only on glottic view poses a significant challenge:
  - It does not convey whether the view was achieved using a Macintosh-shaped or hyperangulated blade
  - It omits information regarding encountered difficulties in tube passage
- Some airway operators mentioned using tools like the Fremantle[2] or VCI[3] scores which comment on various aspects of the procedure including: device/blade shape used, glottic view obtained, ease of tube passage, use of adjuncts, and difficulties/complications encountered
- Few organisations have a standardised system for documenting tracheal intubation using VL, and where a standardised system exists, often within an electronic health record, respondents felt that this did not capture what they personally felt was important to communicate about tracheal intubation using VL

CONCLUSION

- **Several different methods are used** to document tracheal intubation using VL
- The information recorded may **not always provide all the details necessary to understand exactly** how this aspect of airway management was conducted
- **Airway operators should review their documentation practices** to ensure that retrospective review will allow an unambiguous description of how tracheal intubation using VL was achieved

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1. Pearce AC, Duggan LV, El-Boghdadly K. Making the grade: has Cormack and Lehane grading stood the test of time? Anaesthesia 2021; 76: 705-709.
2. Swann AD, English JD, O'Loughlin EJ. The development and preliminary evaluation of a proposed new scoring system for videolaryngoscopy. Anaesthesia and Intensive Care 2012; 40: 697-701.
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Past Pages, Present Plans

Do anaesthetists review previous anaesthetic records for airway planning?

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INTRODUCTION

- An **informed airway strategy often benefits from comprehensive knowledge of prior airway challenges**[1]
- Despite this, the consistency of reviewing past records among anaesthetists is not well documented
- As part of a wider project exploring the current practice of airway operators' documentation of tracheal intubation using videolaryngoscopy, **we investigated how frequently records of previous airway management are reviewed when planning airway management**

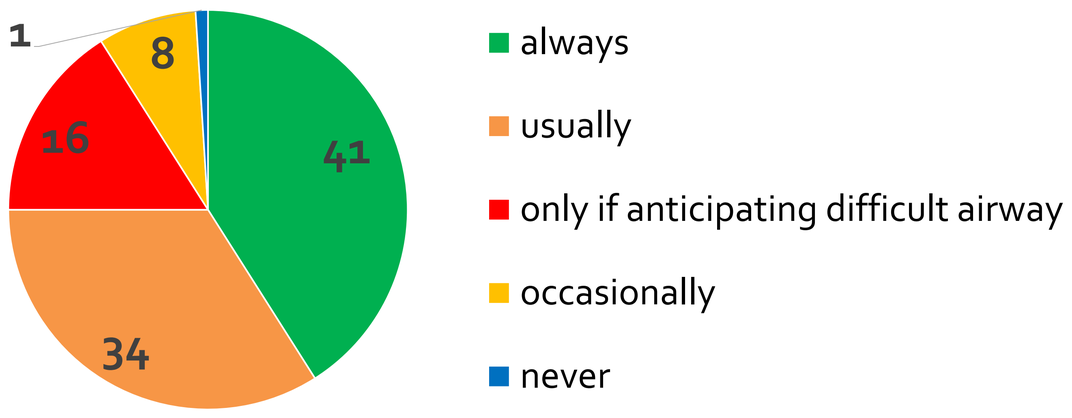
METHODS

- A survey of airway operators facilitated by the Difficult Airway Society in Autumn 2022

RESULTS

- DAS member 25% survey response rate (794 of 3153)
- 23 responses at the DAS ASM 2022
- 402 responses via Twitter
- **1022 responses from anaesthetists and anaesthetic associates** were included in this analysis

Figure 1. How often do you review previous anaesthetic records for planning airway management?



DISCUSSION

- The **majority of respondents recognise the value of previously documented airway management** when planning an airway strategy in their practice
- However, **16% of respondents limit their record reviews to patients with an anticipated difficult airway**
- **~ 4 in 10 patients have an unanticipated difficult airway**[2]
- While the **omission of comprehensive record review** may be rooted in efficiency and resource allocation, it may leave patients **vulnerable to preventable airway complications**
- Further investigation is warranted to better understand the factors influencing those who do not routinely review past airway management
- Potential barriers may include the practice setting, such as emergent airway management situations where time constraints preclude record review
- Additionally, challenges in accessing records, particularly in cases involving multiple healthcare organisations or in centres transitioning from paper to electronic health record systems, may hinder this crucial practice
- The **Difficult Airway Database**[2,3] and the associated Difficult Airway Alert[3] **is pivotal in addressing some of these challenges**
- The effectiveness of the Difficult Airway Database is currently **contingent upon patient consent** to inclusion, the **diligence of airway operators in initiating** the alert process, and the **patient's active presentation of the alert** to subsequent airway operators

CONCLUSION

- **Encouraging and facilitating access to previous airway management records** will help airway operators devise an informed airway management strategy
- Ensuring that these **records clearly communicate exactly how the airway procedure took place** will represent a significant step toward safe and best practice

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DECLARATION

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