

Airway Safety Project: Bournemouth Hospital Intensive Care Unit

Implementation of the Bedside “Airway Information Form”; A Quality Improvement Project

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Background:

- The NAP4 study of major airway events occurring in the United Kingdom demonstrated that a disproportionate number of adverse airway incidents (20%) occurred within Intensive Care Units.¹
- Suggested reasons: **a failure to plan airway strategies**, skill mix (particularly out of hours), ICU environment and familiarity.
- Recommendations: Basic airway assessments be completed for ICU patients with a plan put in place for failure, which is clearly communicated to the ICU staff caring for the patients.²

Aims:

1. To review ICU staff opinions on how airway information was documented prior to the introduction of the ICU airway information form.
2. To improve patient safety through better accessibility of airway information.
3. To encourage routine basic airway assessments of all ICU patients so that appropriate plans are in place for when more junior clinicians are staffing the ICU out of hours.

Methodology:

An online survey was sent to Bournemouth ICU staff; assessing opinions on current documentation of airway information and possible changes. As a result of this, laminated airway information forms (see Figure One) were developed. The forms were designed to be visible on the wall behind the bed space. A follow up survey was subsequently carried out.

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ICU AIRWAY INFORMATION FORM

Name _____ Date: _____

Anaesthetic drug allergy _____

Airway	ETT	Tracheostomy - date:	Laryngectomy			
Size:		Length :	Type:			
Intubation	Unknown	I	IIa	IIb	III	IV
Laryngoscope	MAC 3	MAC 4	McGrath	Glidescope		
	Bougie	BURP				
Anticipated difficulty with intubation or mask ventilation?						
Airway plan						
Plan A						
Plan B						
Plan C						
Plan D						

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Figure One: ICU Airway Information Form

Results:

- The initial survey yielded 40 responses from ICU staff including consultants, junior doctors, physios and nursing staff (bands 5-8).
- 61% of respondents to the initial survey felt that airway information was not documented reliably for ICU patients, and 87.5% felt that safety would be improved with the implementation of personalised bedside airway information forms.
- The second survey had 26 respondents. 92% stated that they felt patient safety had improved following the advent of the bedside airway information forms, and 100% felt they should become a permanent feature of our ICU.
- In the second survey 61.5% of staff working on Bournemouth ICU were confident they could source key airway information to prepare for an emergency intubation, compared to only 25% in the initial survey.

Conclusion:

- Bedside Airway Information forms have improved rapid availability of key airway information.
- Our quality improvement project potentially reduces the risk of major airway complications occurring.
- Bedside Airway Information forms have brought our trust in line with standards recommended by DAS ICU Intubation Guidelines 2018.²
- Following feedback from ICU staff, the airway information forms will be re-printed in A3 size and on yellow paper to make them more visible.

References:

- ¹2011. NAP 4: Major complications of airway management in the United Kingdom. National Audit Projects. [online] London: The Royal College of anaesthetists and the Difficult airway society. Available at: <https://www.nationalauditprojects.org.uk/NAP4-Report#pt>
- ²Higgs A, McGrath B, Goddard C, et al. Guidelines for the management of tracheal intubation in critically ill adults. *BJA*. 2018; 120(2); 323-352.