PATIENT SAFETY IN OBSTETRIC GENERAL ANAESTHESIA - A MULTI-STAGE QUALITY IMPROVEMENT PROJECT IN A TERTIARY CENTRE

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INTRODUCTION

The challenges of obstetric general anaesthesia (GA) are well recognised, with increased risk of difficult airway, failed intubation and awareness[1]. To improve patient safety and standardise management in line with Difficult Airway Society and Obstetric Anaesthetists Association guidance[2], we introduced an obstetric GA checklist, quality improvement (QI) bundle and multi-disciplinary educational programme to promote use of key recommendations.

METHODS

Obstetric GA data was collected between November 2018-2025 via questionnaires completed by intubating anaesthetists. Recorded information included use of GA checklist, low flow nasal oxygen (LFNO), bispectral index monitoring (BIS), ramped positioning, first line videolaryngoscopy (VL), and number of intubation attempts. Approval was granted by NHS Lothian Caldicott guardian.

RESULTS

Of 1705 obstetric GAs undertaken during the study period, intubation data was captured for 1527. The majority were undertaken by trainees (82.1%), as emergencies (87.7%) and out of hours (56.1%). Median BMI was 26.5 (IQR) and 24.9% were BMI >30. The GA checklist introduced in November 2020 was subsequently used in 94.3%. LFNO was used in 84.6%, BIS in 95.0%, ramped positioning in 97.1% and VL in 87.8%. Intubation attempts were successful on first pass in 95.7%. There were five failed intubations (0.3%), with surgery completed for all using iGels. Compliance with recommended QI interventions improved over the study period (Fig 1).

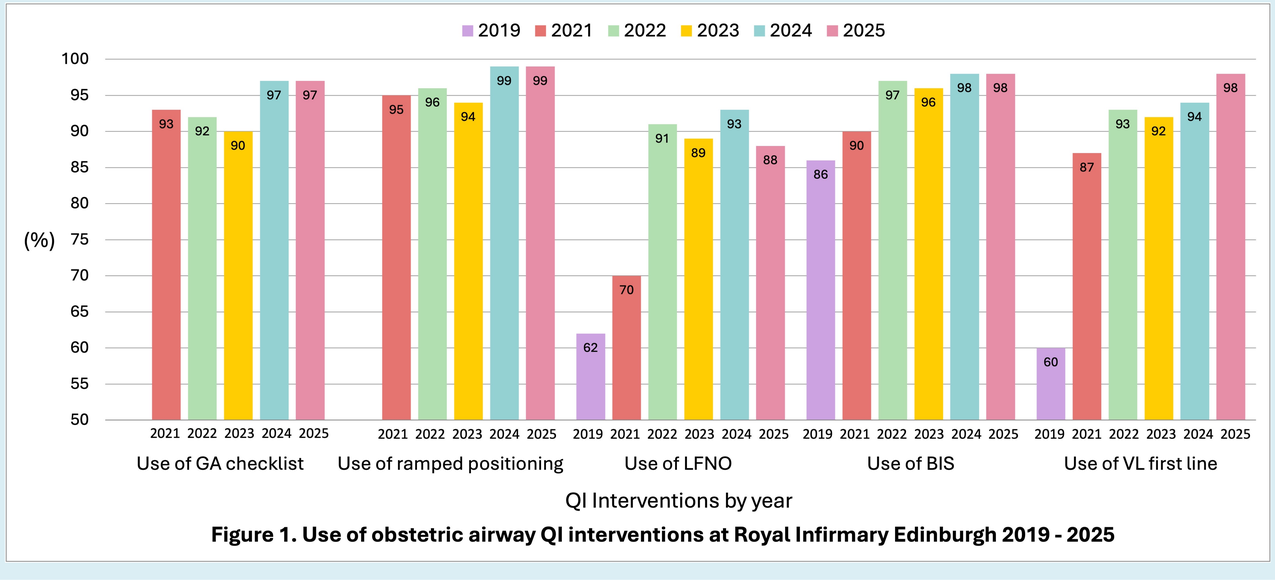

Figure 1. Use of obstetric airway QI interventions at Royal Infirmary Edinburgh 2019 - 2025

DISCUSSION

The use of systematic checklists are vital to promote patient safety and are especially important in high-pressure situations to reduce cognitive load. Despite the high percentage of obstetric GAs undertaken by trainees out of hours in emergency settings, the study showed high successful first pass rates and few failed intubations. The GA checklist use was consistently high following its introduction, as was use of LFNO, BIS, ramped positioning and VL in accordance with best practice guidance.

REFERENCES

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