**Communication of anticipated difficult airway: A QI project to improve patient safety in the OR**

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### Context

Clear and effective communication is crucial to patient safety, especially when the care of patients involves multiple disciplines and teams. Lapses in communication and organizational structure have been identified as a common cause of intraoperative delays in care.1

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### Sentinel Case

60yo man presented with a neck mass undergoing a routine procedure was found to have a difficult airway during intubation. Required materials were not available, which led to a delay in the case. He later suffered a myocardial infarction and died intraoperatively.

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### Aim

The goal of this project is to improve communication between head and neck surgeons and anesthesiologists in order to improve patient outcomes by:

- Increasing compliance in early communication between anesthesiologists and otorharyngologists
- Documenting potential airway difficulties that may be missed on physical exam alone
- Anticipating additional instruments and assistance for airway management
- Decreasing intraoperative errors

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### Intervention

This project aims to improve one potential cause of this error: communication between surgeons and anesthesiologists. The preoperative airway assessment (PAA) sheet was created by a team of otorharyngologists and anesthesiologists for all patients undergoing head and neck procedures at Tulane Medical Center. The airway assessment sheet identifies patients who potentially have difficult airways so that the anesthesiologist is aware of the cause of their difficult airway.

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### Actions Taken

**Sentinel Case**

![Image of a sentinel case](image)

**Root Cause Analysis**

- Lack of or ineffective communication
- Patient anatomy/pathology: difficult airway, comorbidities
- Organizational structure: equipment, coordination
- Training or knowledge gap: lack of monitoring, unfamiliarity

**Survey Results**

- 65% of anesthesia providers are aware of the PAA sheet
- 22% anesthesia providers used the PAA sheet prior to the day of surgery

**Conclusions**

This intervention has anecdotally improved communication and reduced errors by addressing unsuspecting anatomy/pathology while providing more information and formal documentation. Although the majority of Anesthesia providers were aware of the PAA sheet and used it to prepare the anesthetic plan, we identified many areas of improvement in compliance with the intended uses of the PAA sheet.

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### Next Steps

Upon approval with the Institutional Review Board, our team plans to continue this improvement project with a retrospective chart review to:

- Design and execute educational session on purpose of the PAA sheet for Anaesthesiology and Otolaryngology grand rounds
- Analyze compliance of usage of the airway assessment sheet between two Head and Neck surgeons
- Compare patient outcomes from two years before and after the initiation of the airway assessment sheet
  - Intraoperative death
  - Documented failed intubation

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### References


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