

Access to difficult airway equipment and staff education

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INTRODUCTION

Most people think of a difficult airway as an anatomical or physiological problem, but it can also result from a logistical or educational cause. Logistical problems can include an overcrowded environment, poor communication, absolute lack of equipment availability, and lack of personnel. Educational problems relate to the procedure itself and unfamiliarity with equipment and its location.¹ A truly difficult airway, in a controlled environment, is a rare event. But the failure to properly manage it has catastrophic consequences. Data from the United States indicates that 34% of claims in the anesthesiology closed claims database are “respiratory events” but 85% of those resulted in death or brain damage. Furthermore, in the United Kingdom, The National Health Service Litigation authority data shows that while only 12% of all claims were related to airway and respiratory causes but accounted for 53% of deaths.²

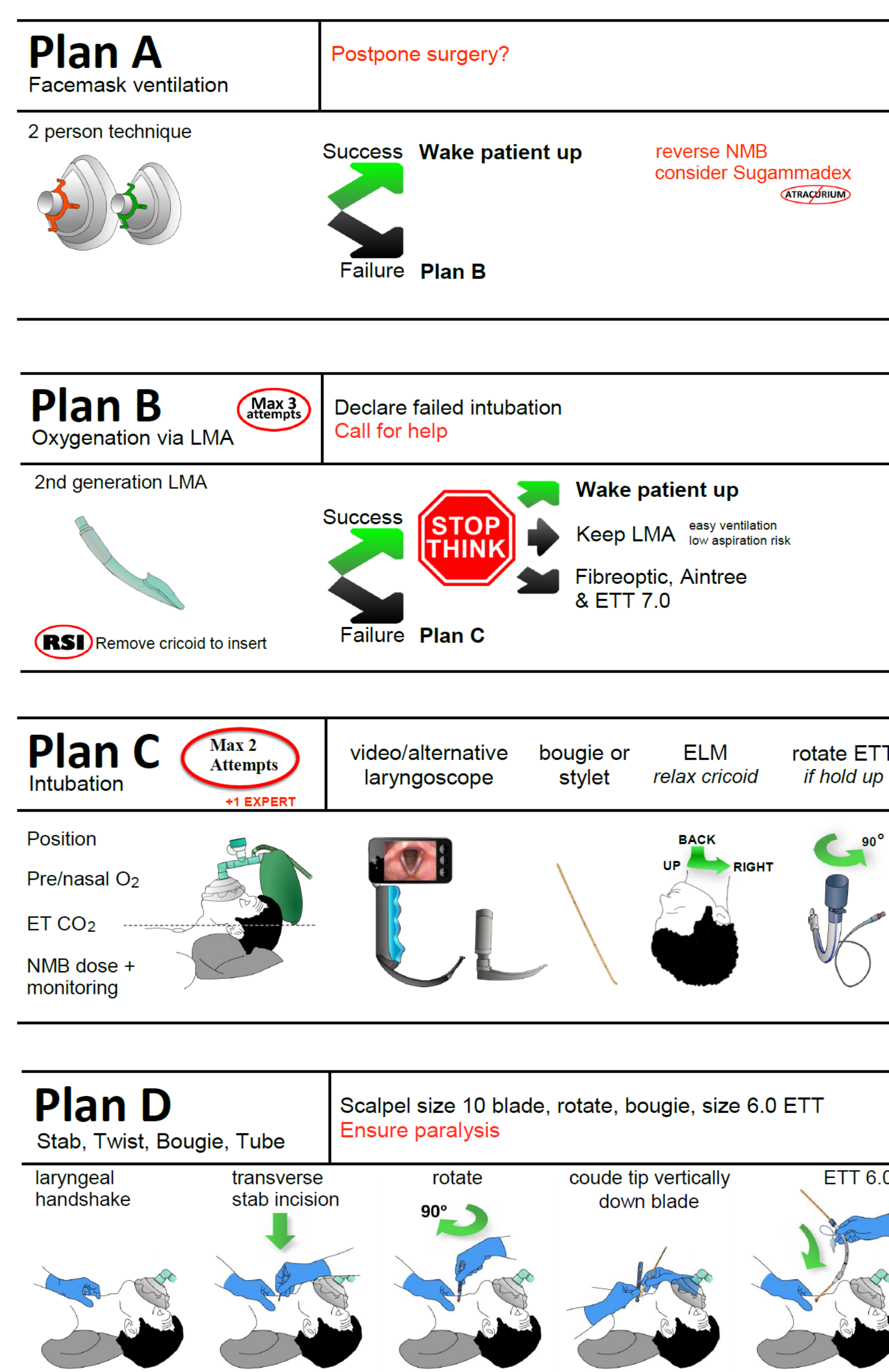
This was highlighted during a recent case, that occurred offsite. A difficult airway was encountered unexpectedly and the approximate time to retrieve advanced airway equipment such as a video laryngoscope took more than 5 minutes.

AIM Statement

To provide ancillary staff with education and visual cues with easily recognizable icons to facilitate familiarity with the difficult airway cart. And to update the difficult airway cart with current practice equipment and provide a video laryngoscope dedicated to the gastrointestinal suite.

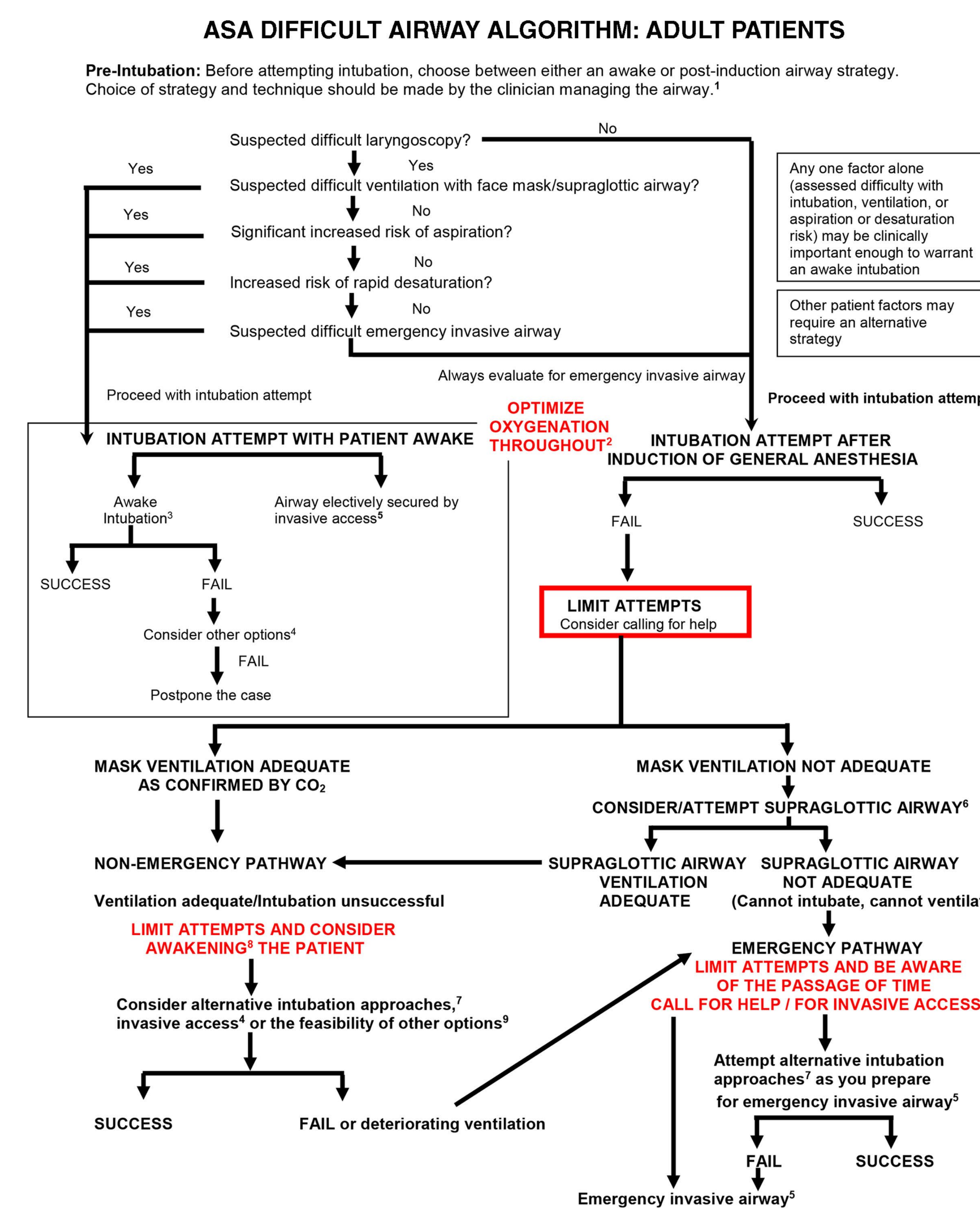


Layout of Difficult Airway Cart



Patient Severity

2022 Updated ASA Algorithm



METHODS

A difficult airway in a remote location highlighted the importance of having the right equipment and training. We reviewed our remote sites, noting deficiencies in easy access to video laryngoscopes. We conducted a retrospective literature review for best practices in managing difficult airways. In our review, we noted that the ASA updated the difficult airway algorithm. We conducted an inventory of our difficult airway cart and asked ancillary staff to find vital equipment that we needed. We noted deficiencies and prolonged times to obtain equipment.

After these retrospective reviews, we implemented the following changes: Purchase of two additional video laryngoscopes (McGrath models) and placement in remote location anesthesia carts to ensure availability at any remote location. We reformatted the layout of our difficult airway cart, with transitioning drawers for patient severity in a more logistical layout. We conducted didactics with attendings, residents, and ancillary staff over the new ASA algorithm.

CONCLUSION

Negative outcomes in airway management are particularly rare in an outpatient setting such as a GI suite but they are almost always catastrophic. When an unplanned emergent airway arises the best chance for success and a positive outcome lies in a team approach where all team members are familiar with the sequential steps of difficult airway management and with the location and basic operation of airway equipment. It is also imperative to have advanced laryngoscopy dedicated to the area so that it is always readily available.

REFERENCES

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Icons to easily identify equipment location:

