

Practice Guidelines for Management of the Difficult Airway

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A difficult airway is defined as the clinical situation in which a conventionally trained anesthesiologist experiences difficulty with facemask ventilation of the upper airway, difficulty with tracheal intubation, or both.

The difficult airway represents a complex interaction between:

- *patient factors*
- *the clinical setting*
- *the skills of the practitioner.*

Recommendations for Evaluation of the Airway

History - should be conducted, whenever feasible, before the initiation of anesthetic care and airway management in all patients.

Physical Examination - should be conducted, whenever feasible, before the initiation of anesthetic care and airway management in all patients.

Additional Evaluation. Additional evaluation may be indicated in some patients to characterize the likelihood or nature of the anticipated airway difficulty.

Airway Examination Component

Nonreassuring Findings

Length of upper incisors

Relatively long

Relationship of maxillary and mandibular incisors during normal jaw closure

Prominent “overbite” (maxillary incisors anterior to mandibular incisors)

Relationship of maxillary and mandibular incisors during voluntary protrusion of mandible

Patient cannot bring mandibular incisors anterior to (in front of) maxillary incisors

Interincisor distance

Less than 3 cm

Visibility of uvula

Not visible when tongue is protruded with patient in sitting position (e.g., Mallampati class >2)

Shape of palate

Highly arched or very narrow

Compliance of mandibular space

Stiff, indurated, occupied by mass, or nonresilient

Thyromental distance

Less than three ordinary finger breadths

Length of neck

Short

Thickness of neck

Thick

Range of motion of head and neck

Patient cannot touch tip of chin to chest or cannot extend neck

Basic Preparation for Difficult Airway Management

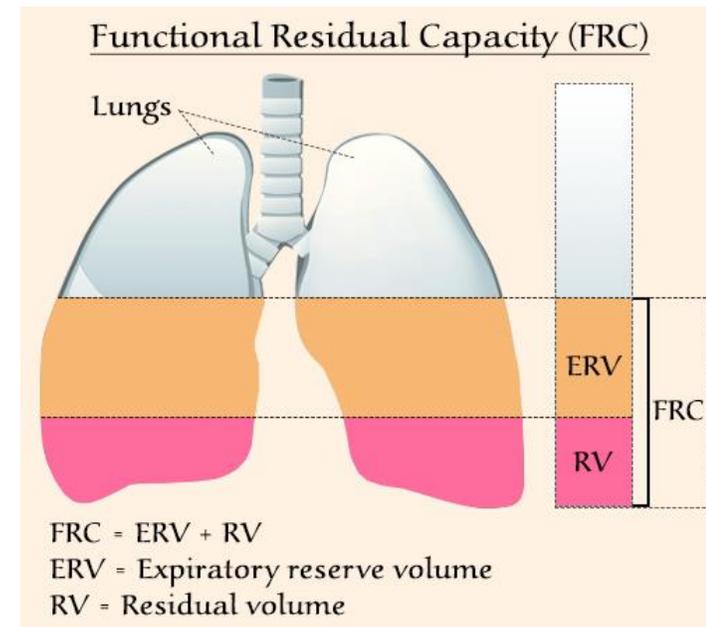
Basic preparation for difficult airway management includes:

- availability of equipment for management of a difficult airway*
- informing the patient*
- assigning an individual to provide assistance when a difficult airway is encountered*
- preanesthetic preoxygenation by mask*
- administration of supplemental oxygen throughout the process of difficult airway management.*

Preoxygenation

Two RCTs indicate that 3 min of preoxygenation maintains higher SaO₂ values compared with 1 min preoxygenation (Category A2-B evidence)

SaO₂ levels after preoxygenation are equivocal when comparing preoxygenation for 3 min with fast-track preoxygenation of four maximal breaths in 30 s (Category A1-E evidence)



~~Plan A~~
~~Plan B~~
Plan C



~~MINI~~
B



Table 3. Techniques for Difficult Airway Management

Techniques for Difficult
Intubation

Awake intubation
Blind intubation (oral or nasal)
Fiberoptic intubation
Intubating stylet or
tube-changer
Supraglottic airway as an
intubating conduit
Laryngoscope blades of
varying design and size
Light wand
Videolaryngoscope

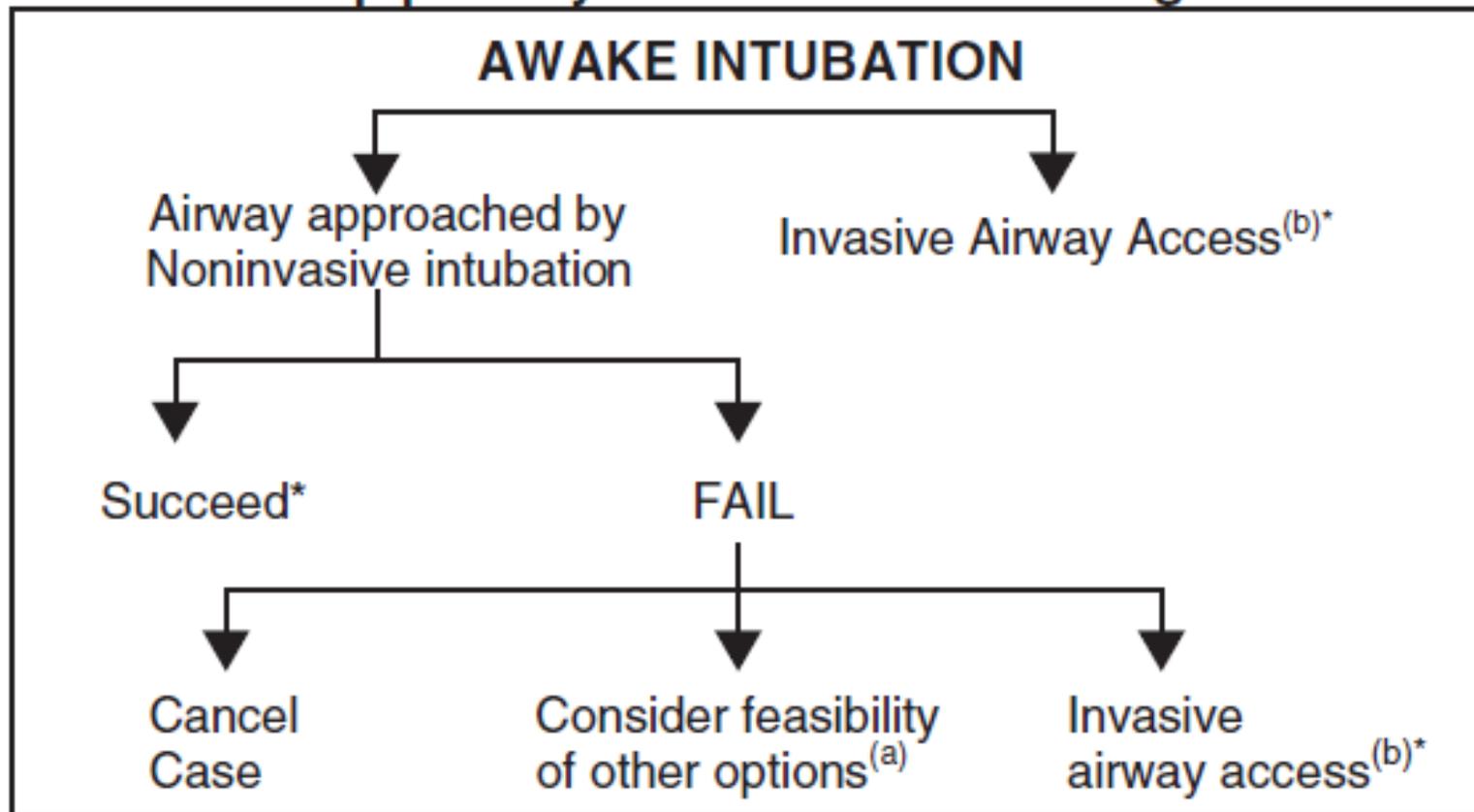
Techniques for Difficult
Ventilation

Intratracheal jet stylet
Invasive airway access
Supraglottic airway
Oral and nasopharyn-
geal airways
Rigid ventilating
bronchoscope
Two-person mask
ventilation



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Muhammad ibn Musa al-Khwarizmi



a. Other options include (but are not limited to): surgery utilizing face mask or supraglottic airway (SGA) anesthesia (e.g., LMA, ILMA, laryngeal tube), local anesthesia infiltration or regional nerve blockade.

b. Invasive airway access includes surgical or percutaneous airway, jet ventilation, and retrograde intubation.

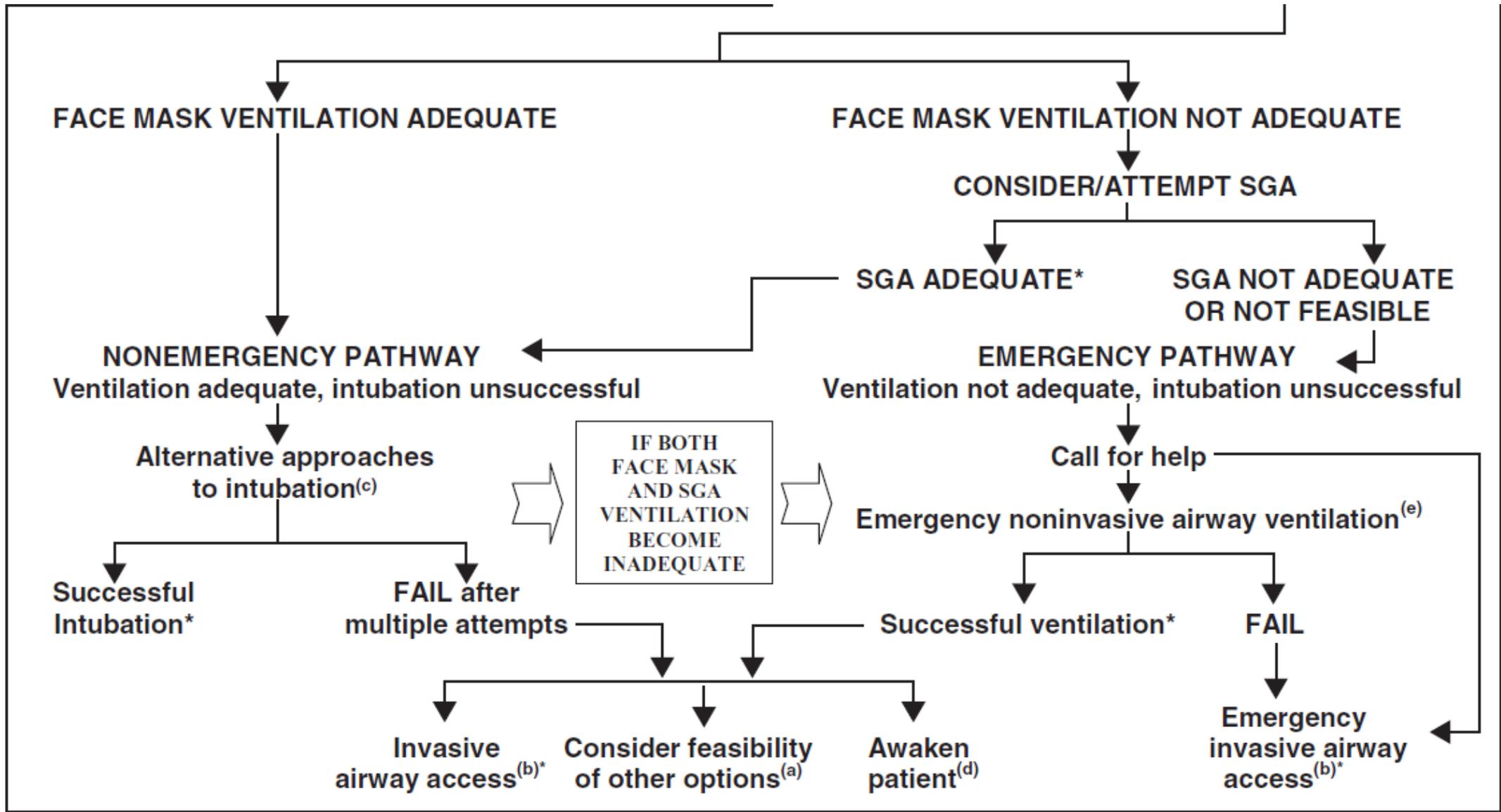
INTUBATION AFTER INDUCTION OF GENERAL ANESTHESIA

Initial intubation
attempts successful*

Initial intubation
Attempts UNSUCCESSFUL

FROM THIS POINT ONWARDS
CONSIDER:

1. Calling for help.
2. Returning to
spontaneous ventilation.
3. Awakening the patient.



c. Alternative difficult intubation approaches include (but are not limited to): video-assisted laryngoscopy, alternative laryngoscope blades, SGA (e.g., LMA or ILMA) as an intubation conduit (with or without fiberoptic guidance), fiberoptic intubation, intubating stylet or tube changer, light wand, and blind oral or nasal intubation.

d. Consider re-preparation of the patient for awake intubation or canceling surgery.

e. Emergency non-invasive airway ventilation consists of a SGA.

Thank You for Your Time!