



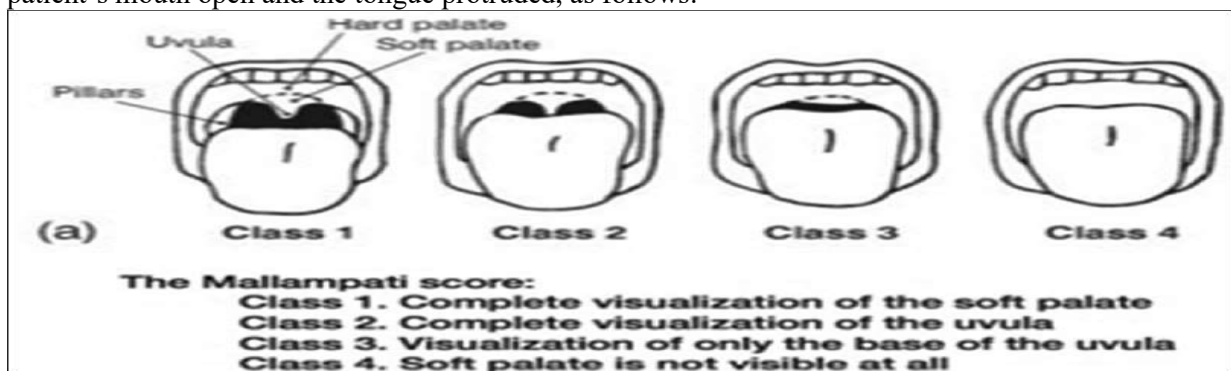
Airway Management

1) B

Predictors of difficult airway include: Prior difficult intubation, Interincisor (intergingival in edentulous patients) gap <4 cm, Thyromental distance <6 cm, Sternomental distance <12 cm, Head and neck extension <30 degrees from neutral, Mallampati oropharyngeal classification class III or IV, Inadequate mandibular protrusion (inability to place lower incisors in front of upper incisors), Upper Lip Bite Test Class III, Neck circumference >40 cm, and Lack of sub-mental compliance (hard and noncompliant)

2) B

The Mallampati classification is based on the clinician's ability to view oropharyngeal structures with the patient's mouth open and the tongue protruded, as follows:



3) D

LMAs (figure 1) are usually inserted blindly and does not need expertise in insertion. Intubating LMAs (figure 2) are modifications of regular LMA that allows a regular endotracheal tube (ETT) to be inserted through it. Given its position above the larynx and the incomplete seal of the upper airways, vomiting can cause aspiration materials to enter the upper airway and it should not be used in such condition. Additionally the high airway pressures caused by severe airway obstruction can make LMA less useful in such cases.



Figure 1



Figure 2

4) A

The Macintosh blade (curved) is usually placed at the vallecula and raised up to lift the epiglottis and view the vocal cords, versus the Miller blade (straight) which is usually placed post the epiglottis (figure below).

There is no sufficient evidence of superiority of each over the other. The Miller blade can cause more trauma to airways compared to the Mac blade.



5) D

Video laryngoscopy comes in various models and screens. They have shown to be superior to direct laryngoscopy in first time success of ETT insertion. It can allow wider view of the pharynx and larynx than direct laryngoscopy. Additionally it allows other viewers and trainees to view the airway, save pictures or videos of interesting cases

6) D

There are multiple algorithms by different societies for the difficult to intubate patients that include variety of alternatives to direct laryngoscopy. The first step is always call for help

7) D

There are different shapes of ETT introducers, Bougie tube is one of them. Studies showed that it can help in the difficult airways and the success of securing the airway. Usually it is inserted with the bent end as a hook under the epiglottis in the limited views.

8) A

Flexible bronchoscopy can be very useful in the difficult airways and in cervical trauma where sniff position is contraindicated but need expertise to use it. Chest x-ray is unnecessary as the tip of ETT can be confirmed by direct vision of the carina, unless x-ray is necessary to rule out alternative problems like pneumothorax.

9) D

Though rarely done, it can be a life saving procedure and training on competence of performing it is very important. No surgical expertise is required, and there are no contraindications on doing it as a lifesaving procedure. There is no evidence of superiority of the surgical versus the percutaneous techniques, though the percutaneous one might be faster to perform.

10) C

Combi tube have 2 balloons and 2 ports (figure), the distal one usually enters the esophagus while the proximal is above the airways. Usually used in the field prehospital and inserted blindly. Vomiting and aspiration can happen. The tube can not be used for long term and needs to be changed if the patient needs to stay on the ventilator even if oxygenation and ventilation are adequate. Esophageal injuries are higher with those tubes.

