# *Những tiến bộ trong kiểm soát đường thở khó*

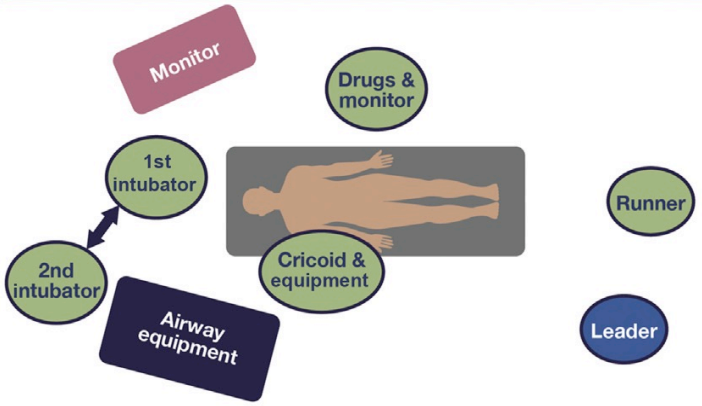
TS.BS Phan Tôn Ngọc Vũ

# *Đặt vấn đề*

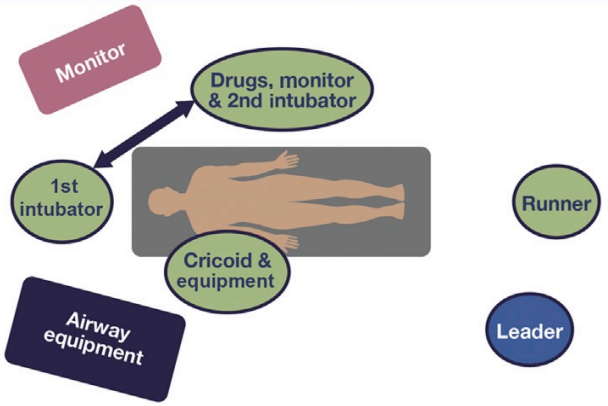
- Kiểm soát đường thở là nhiệm vụ hàng đầu của người làm gây mê hồi sức
- Đóng vai trò sống còn đối với bệnh nhân
- Cần thực hiện trong thời gian ngắn, khẩn cấp
- Có thể có nhiều tai biến
- Tổ chức: teamwork, plan, thiết bị

# Team

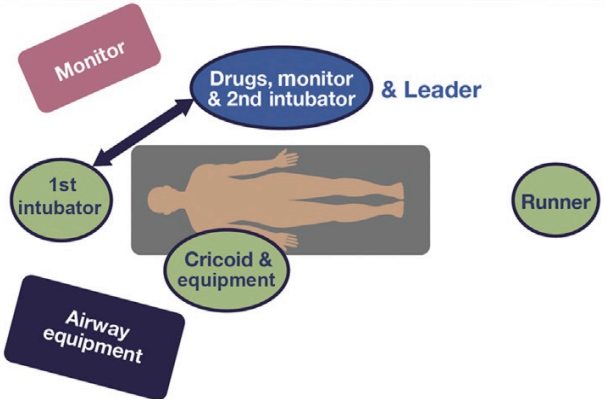
A. Six member intubation team (if only one intubator then 2nd intubator role not applicable)



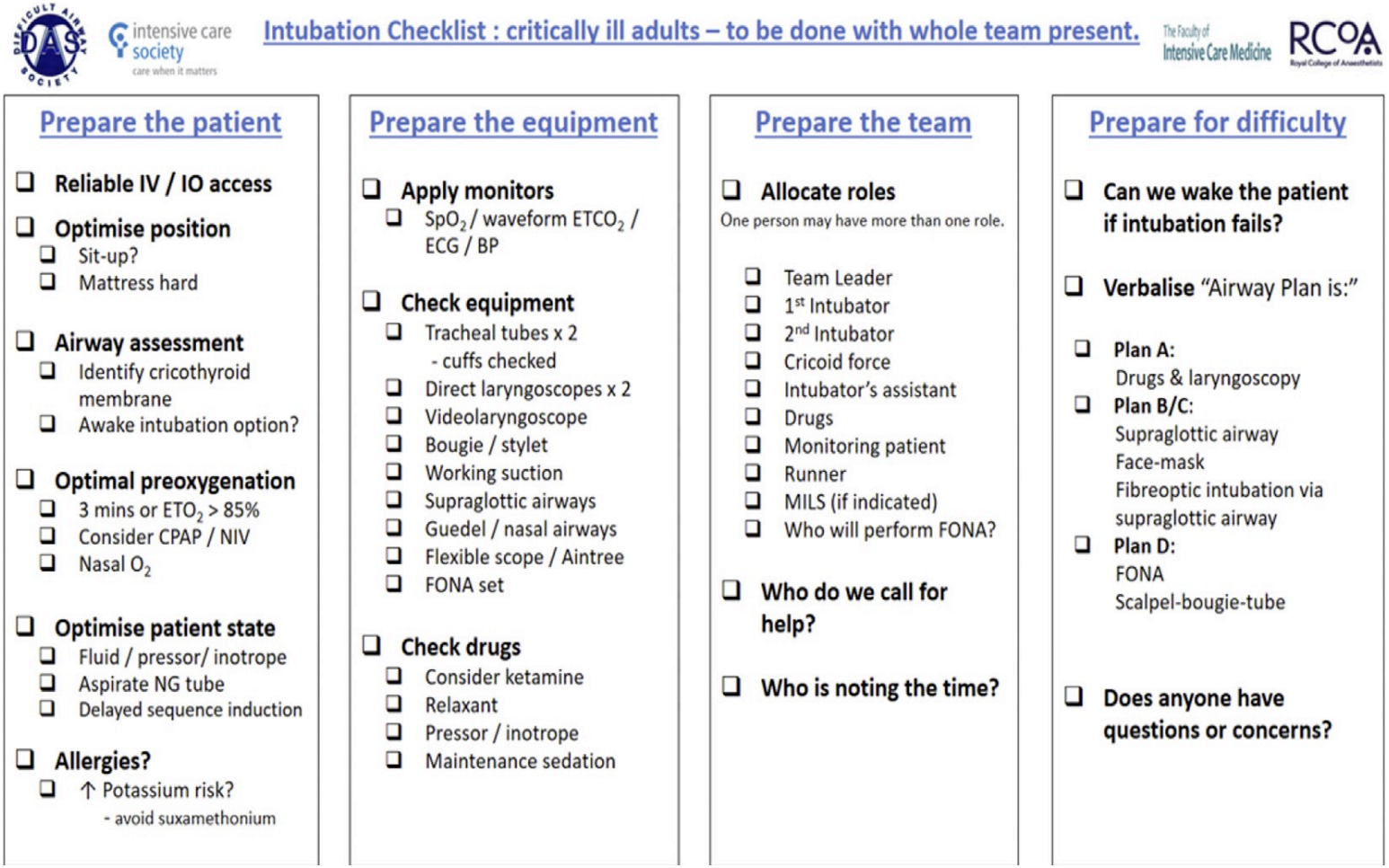

B. Five member intubation team (if only one intubator then 2nd intubator role not applicable)




C. Four member intubation team (if only one intubator then 2nd intubator role not applicable)



# Chesklist



Intubation Checklist : critically ill adults – to be done with whole team present.

**Prepare the patient**

- ❑ **Reliable IV / IO access**
- ❑ **Optimise position**
  - ❑ Sit-up?
  - ❑ Mattress hard
- ❑ **Airway assessment**
  - ❑ Identify cricothyroid membrane
  - ❑ Awake intubation option?
- ❑ **Optimal preoxygenation**
  - ❑ 3 mins or $ETO_2$ > 85%
  - ❑ Consider CPAP / NIV
  - ❑ Nasal $O_2$
- ❑ **Optimise patient state**
  - ❑ Fluid / pressor/ inotrope
  - ❑ Aspirate NG tube
  - ❑ Delayed sequence induction
- ❑ **Allergies?**
  - ❑ ↑ Potassium risk?
    - avoid suxamethonium

**Prepare the equipment**

- ❑ **Apply monitors**
  - ❑ $SpO_2$ / waveform $ETCO_2$ / ECG / BP
- ❑ **Check equipment**
  - ❑ Tracheal tubes x 2
    - cuffs checked
  - ❑ Direct laryngoscopes x 2
  - ❑ Videolaryngoscope
  - ❑ Bougie / stylet
  - ❑ Working suction
  - ❑ Supraglottic airways
  - ❑ Guedel / nasal airways
  - ❑ Flexible scope / Aintree
  - ❑ FONA set
- ❑ **Check drugs**
  - ❑ Consider ketamine
  - ❑ Relaxant
  - ❑ Pressor / inotrope
  - ❑ Maintenance sedation

**Prepare the team**

- ❑ **Allocate roles**

One person may have more than one role.

- ❑ Team Leader
- ❑ 1st Intubator
- ❑ 2nd Intubator
- ❑ Cricoid force
- ❑ Intubator's assistant
- ❑ Drugs
- ❑ Monitoring patient
- ❑ Runner
- ❑ MILS (if indicated)
- ❑ Who will perform FONA?

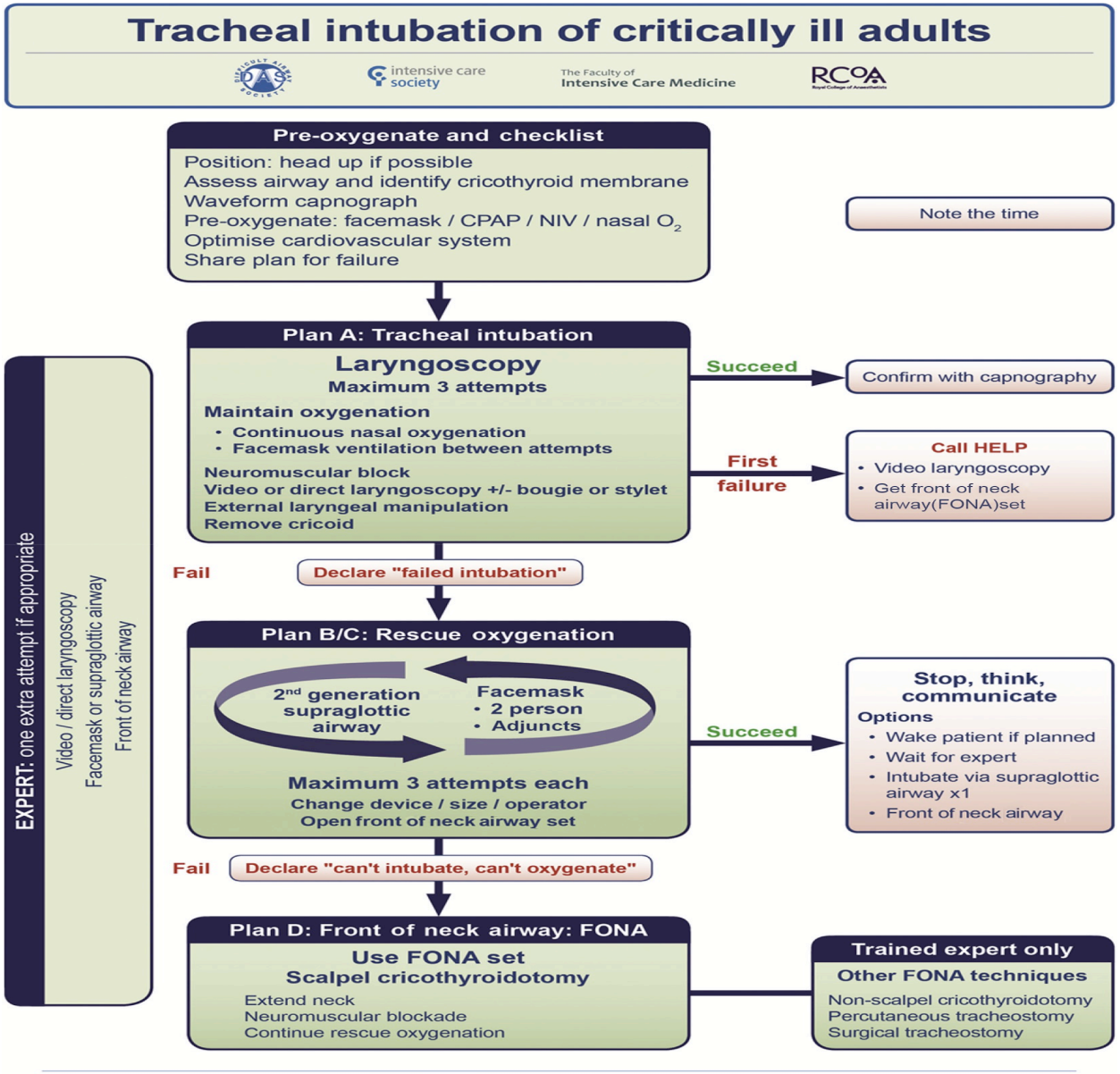
- ❑ **Who do we call for help?**
- ❑ **Who is noting the time?**

**Prepare for difficulty**

- ❑ **Can we wake the patient if intubation fails?**
- ❑ **Verbalise** "Airway Plan is:"
  - ❑ **Plan A:**
    Drugs & laryngoscopy
  - ❑ **Plan B/C:**
    Supraglottic airway
    Face-mask
    Fibreoptic intubation via supraglottic airway
  - ❑ **Plan D:**
    FONA
    Scalpel-bougie-tube
- ❑ **Does anyone have questions or concerns?**

Intubation checklist. Modified from checklist described in NAP4.11 IV: intravenous. IO: intra-osseous. ETO2: end-tidal oxygen. CPAP: continuous positive airway pressure. NIV: non-invasive ventilation. NG: naso-gastric.

# Plan


Tracheal intubation of critically ill adults
intensive care society
The Faculty of Intensive Care Medicine
RCoA
Pre-oxygenate and checklist
Position: head up if possible
Assess airway and identify cricothyroid membrane
Waveform capnograph
Pre-oxygenate: facemask / CPAP / NIV / nasal $O_2$
Optimise cardiovascular system
Share plan for failure
Note the time
Plan A: Tracheal intubation
Laryngoscopy
Maximum 3 attempts
Maintain oxygenation
• Continuous nasal oxygenation
• Facemask ventilation between attempts
Neuromuscular block
Video or direct laryngoscopy +/- bougie or stylet
External laryngeal manipulation
Remove cricoid
Succeed
Confirm with capnography
First failure
Call HELP
• Video laryngoscopy
• Get front of neck airway(FONA)set
Fail
Declare "failed intubation"
EXPERT: one extra attempt if appropriate
Video / direct laryngoscopy
Facemask or supraglottic airway
Front of neck airway
Plan B/C: Rescue oxygenation
2nd generation supraglottic airway
Facemask
• 2 person
• Adjuncts
Maximum 3 attempts each
Change device / size / operator
Open front of neck airway set
Succeed
Stop, think, communicate
Options
• Wake patient if planned
• Wait for expert
• Intubate via supraglottic airway x1
• Front of neck airway
Fail
Declare "can't intubate, can't oxygenate"
Plan D: Front of neck airway: FONA
Use FONA set
Scalpel cricothyroidotomy
Extend neck
Neuromuscular blockade
Continue rescue oxygenation
Trained expert only
Other FONA techniques
Non-scalpel cricothyroidotomy
Percutaneous tracheostomy
Surgical tracheostomy
This flowchart forms part of the DAS, ICS, FICM, RCoA guideline for tracheal intubation in critically ill adults and should be used in conjunction with the text.

# Plan

## Can't Intubate, Can't Oxygenate (CICO) in critically ill adults

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**CALL FOR HELP**

**Declare "Can't Intubate, Can't Oxygenate"**

**Plan D:** Front Of Neck Airway: FONA

Extend neck
Ensure neuromuscular blockade
Continue rescue oxygenation
Exclude oxygen failure and blocked circuit

### Scalpel cricothyroidotomy

**Equipment:**
1. Scalpel (wide blade e.g. number 10 or 20)
2. Bougie (≤ 14 French gauge)
3. Tube (cuffed 5.0-6.0mm ID)

**Laryngeal handshake to identify cricothyroid membrane**

**Palpable cricothyroid membrane**
- Transverse stab incision through cricothyroid membrane
- Turn blade through 90° (sharp edge towards the feet)
- Slide Coudé tip of bougie along blade into trachea
- Railroad lubricated cuffed tube into trachea
- Inflate cuff, ventilate and confirm position with capnography
- Secure tube

**Impalpable cricothyroid membrane**
- Make a large midline vertical incision
- Blunt dissection with fingers to separate tissues
- Identify and stabilise the larynx
- Proceed with technique for palpable cricothyroid membrane as above

**Trained expert only**

**Other FONA techniques**
Non-scalpel cricothyroidotomy
Percutaneous tracheostomy
Surgical tracheostomy

**Post-FONA care and follow up**
- Tracheal suction
- Recruitment manoeuvre (if haemodynamically stable)
- Chest X-ray
- Monitor for complications
- Surgical review of FONA site
- Agree airway plan with senior clinicians
- Document and complete airway alert

This flowchart forms part of the DAS, ICS, FICM, RCoA Guideline for tracheal intubation in critically ill adults and should be used in conjunction with the text.

# *Tiên đoán trước đường thở khó dựa vào các tiêu chí lâm sàng*

# *Nhận biết đường thở khó*

- Tiền sử bệnh
- Khám lâm sàng
- Khoảng cách giáp cằm
- Qui luật LEMON
- Phân loại Mallampati

# *Tiền sử, bệnh sử*

- Thấp khớp hay các bệnh lý về đốt sống cổ
- Viêm khớp hàm gây cứng khớp hàm
- Nhiễm trùng vùng miệng, tuyến nước bọt, amydales .
- Khối u có thể làm tắc nghẽn đường thở .
- Bệnh nhân béo phì .
- Hội chứng Klippel-Fiel: cổ bạnh ngắn, giảm số lượng đốt sống cổ, có thể dính các đốt sống kèm theo

# *Tiền sử, bệnh sử*

- Hội chứng Pierre Robin
- Bệnh xơ cứng bì .
- Bệnh nhân bị 3 nhiễm sắc thể thứ 21 .
- Lùn .
- Những dị tật bẩm sinh khác như sứt môi, hở hàm ếch, bất thường sọ mặt…

# *Thăm khám lâm sàng*

- Những nguyên nhân gây giới hạn vận động cổ
- Sẹo vùng cổ do phẫu thuật hay bỏng
- Tật gù
- Chấn thương làm thay đổi cấu trúc mặt và cổ

# *Khoảng cách giáp cằm*

- Đo từ bờ trên của sụn giáp đến cằm khi đầu ngữa tối đa
- > 7 cm tiên lượng dễ
- < 6 cm tiên lượng NKQ khó
- Phải đánh giá kèm nhiều PP khác

# *Dr. Binnions Lemon Law*

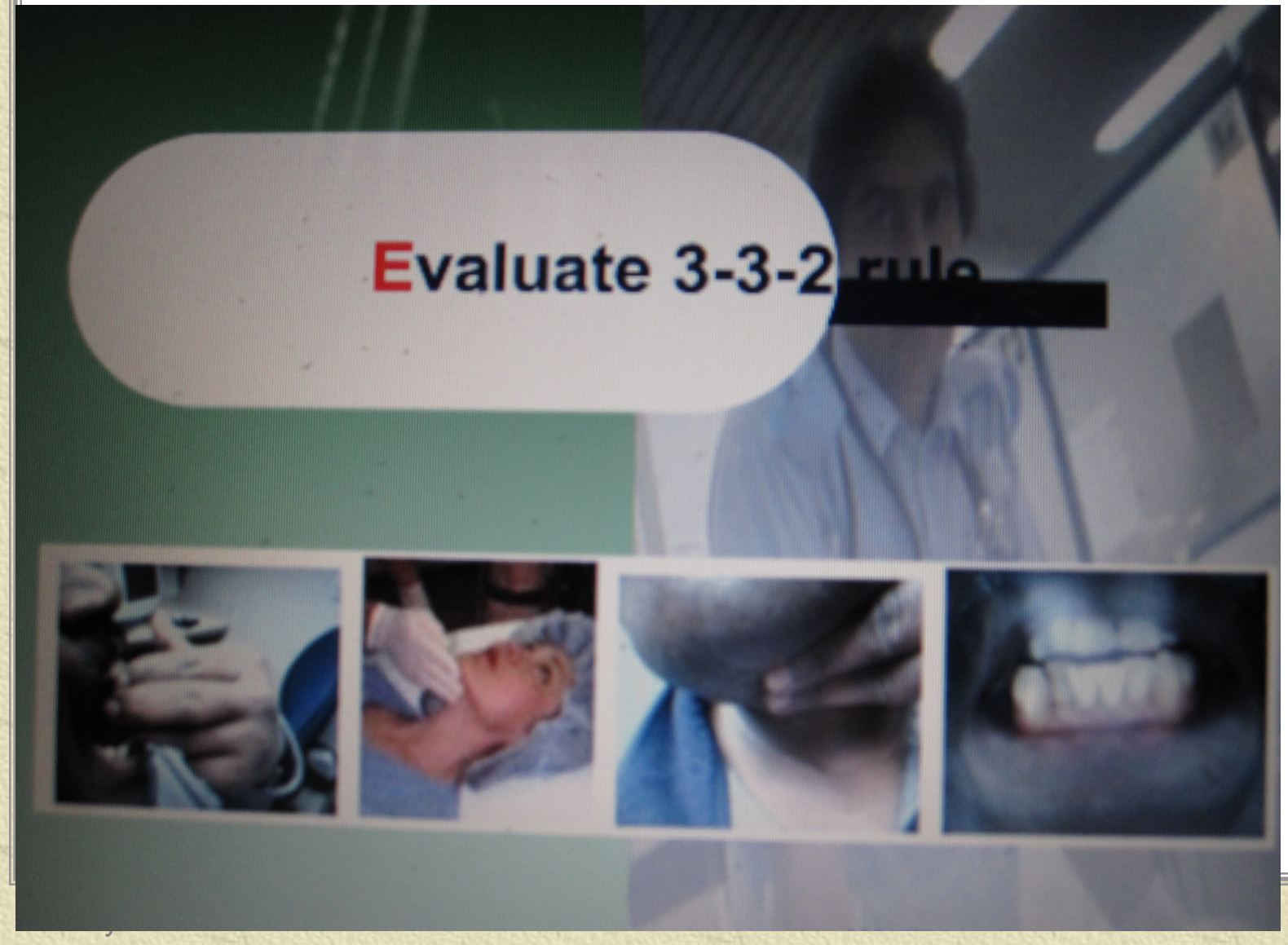
- Nhìn yếu tố khó từ bên ngoài
- Qui luật 3-3-2
- Đánh giá Mallampati
- Có tắt nghẽn ?
- Di động cổ

**L**ook externally.
**E**valuate the 3-3-2 rule.
**M**allampati.
**O**bstruction?
**N**eck mobility.

# *Nhìn bên ngoài*

- Béo phì hoặc rất nhỏ con
- Cơ cổ ngắn
- Vú to
- Răng cửa nhô lên trên
- Quai hàm ra sau ( răng giả)
- Bỏng
- Tổn thương cân
- Thở khò khè…

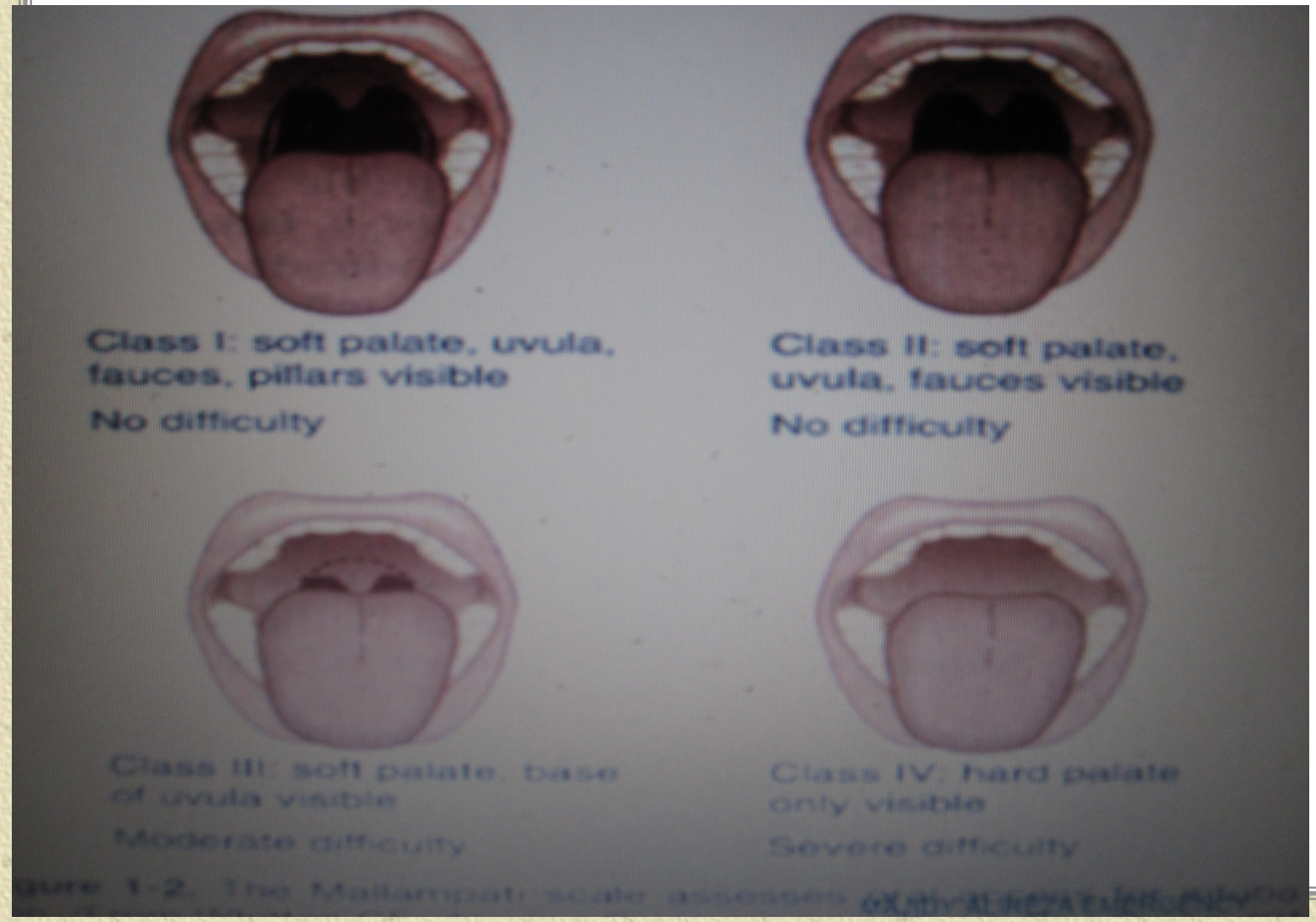
# *Luật 3-3-2*



# *Luật 3-3-2*

- Khoảng cách từ quai hàm đến cổ>3 khoát ngón tay
- Quai hàm rộng hơn 3 khoát ngón tay
- Miệng mở rộng hơn 2 khoát ngón tay

# *Phân loại Mallampati*



# *Phân độ Cormack & Lehane*

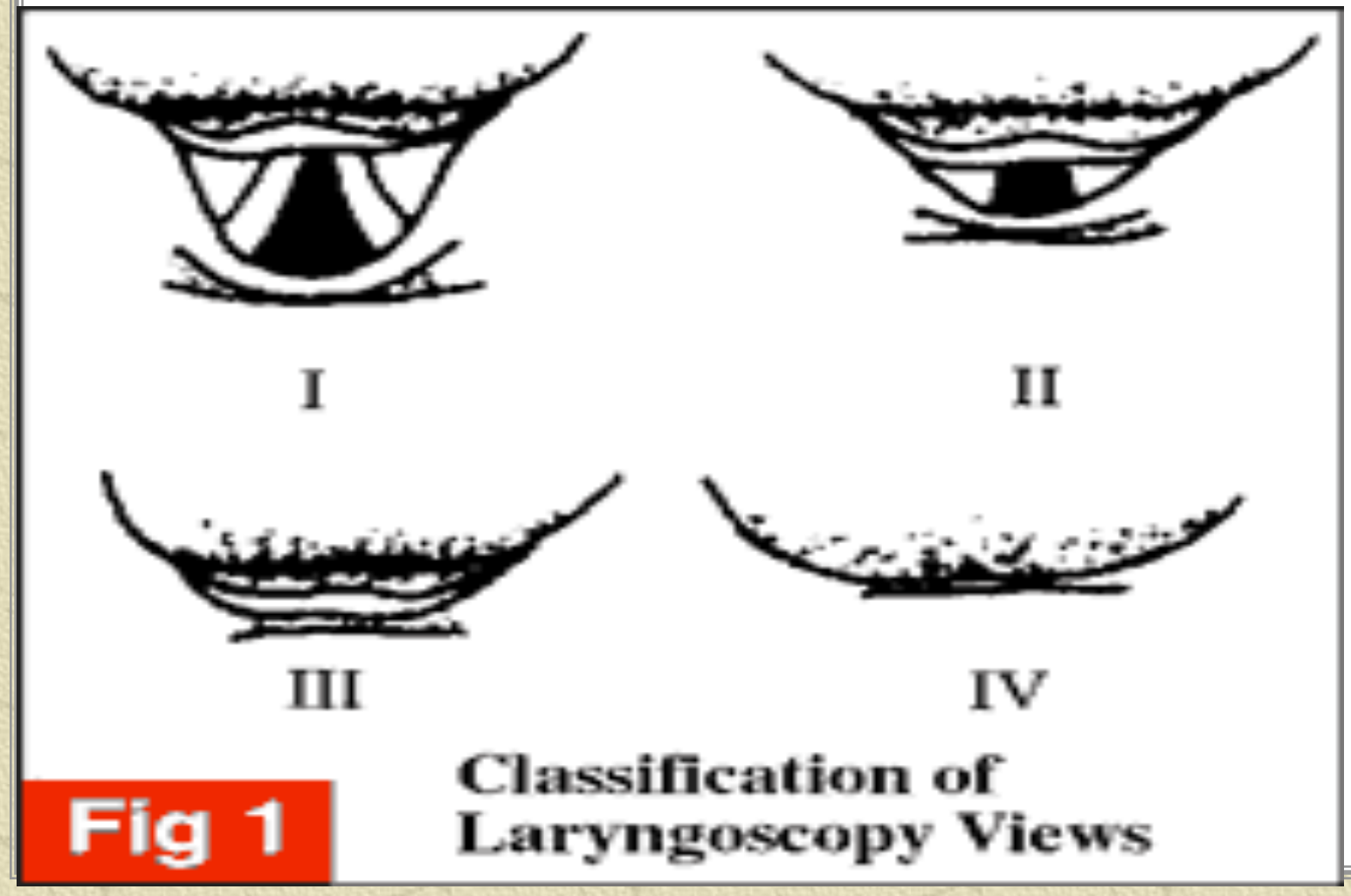



**Fig 1** **Classification of Laryngoscopy Views**

# *Tắt nghẽn*

- Máu
- Chất nôn
- Răng giả, răng gãy
- Nắp thanh quản
- U
- Đồ vật xiên qua

# *Di động cổ*

- Bất thường về cột sống
- Vật lạ xiên qua

# *Đánh giá đặt biệt*

- Soi thanh quản .
- XQ phổi, đốt sống cổ.
- CT , MRI .
- Đo chức năng hô hấp .
- Đo khí máu động mạch

***Chúng ta phải làm gì khi gặp đường thở khó?***

# *Trước khi đặt NKQ*

- Luôn nhớ có những việc làm cần thiết khác trước khi nổ lực đặt NKQ (đặc biệt trong tình huống khẩn cấp)
- Máy thở: CPAP?
- Cần đặt đường mũi hay không?
- Có đủ hết tất cả sự hổ trợ cần thiết? Dụng cụ cần thiết? ( máy hút)

# *Trang thiết bị đủ => an toàn*

## PLAN A - INITIAL INTUBATION STRATEGY

**ELECTIVE INTUBATION** *max 4 attempts*

**RAPID SEQUENCE INTUBATION** *max 3 attempts*

OPTIMISE POSITION
USE BOUGIE OR STYLET
ALTERNATIVE BLADE / SCOPE
ALTERNATIVE OPERATOR


BOUGIE


ALTERNATE BLADE


AIRTRAQ


VIDEO LARYNGOSCOPE

## PLAN B - SECONDARY INTUBATION STRATEGY

PLAN B not appropriate in elective RSI

CLASSIC LMA (cLMA)
INTUBATING LMA (iLMA)
*eg : Fast Trach or AirQ*


cLMA
iLMA

+


FIBREOPTIC STYLET
OR FLEXIBLE FIBREOPTIC SCOPE

FIBREOPTIC INTUBATION THROUGH iLMA
MALLEABLE FIBREOPTIC STYLET *(eg : Levitan)*
FIBREOPTIC SCOPE *(eg : Ambu Ascope 2)*

## PLAN C - MAINTAIN OXYGENATION & VENTILATION

**ATTEMPT TO WAKE PATIENT UP**

**CONSIDER SUGGAMADEX IF AVAILABLE**


MASK, NPO, GUEDEL

FACE MASK
NASOPHARYNGEAL AIRWAY
GUEDEL AIRWAY
CLASSIC LMA (cLMA)
INTUBATING LMA (iLMA) *eg : Fast Trach or AirQ*


cLMA, iLMA

## PLAN D - RESCUE TECHNIQUES FOR 'CAN'T INTUBATE, CAN'T VENTILATE'

| | | |
|---|---|---|
| Bag 1 a, b, c | Paediatric or Easy Anatomy | NEEDLE CRICOTHYROIDOTOMY |
| Bag 2 | Adult or Easy Anatomy | SCALPEL-BOUGIE-ETT (greater success in NAP4) |
| Bag 3 | Impossible Anatomy | SCALPEL-FINGER-NEEDLE |

**Refer to CICV FLOWCHART and NURSING PROMPT CARDS overleaf**


MELKER KIT

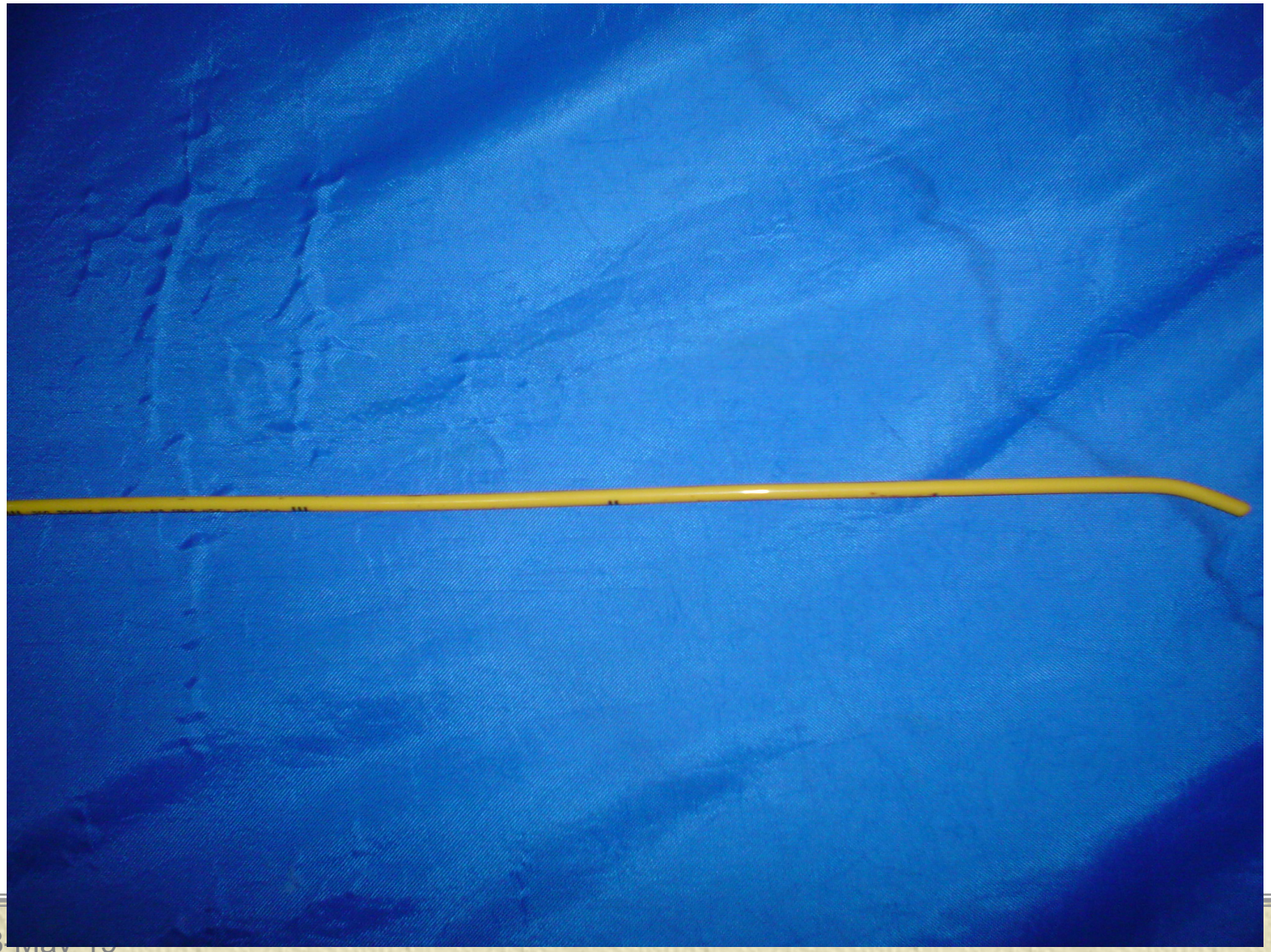

QUICK TRACH


OXYGENATION DEVICE

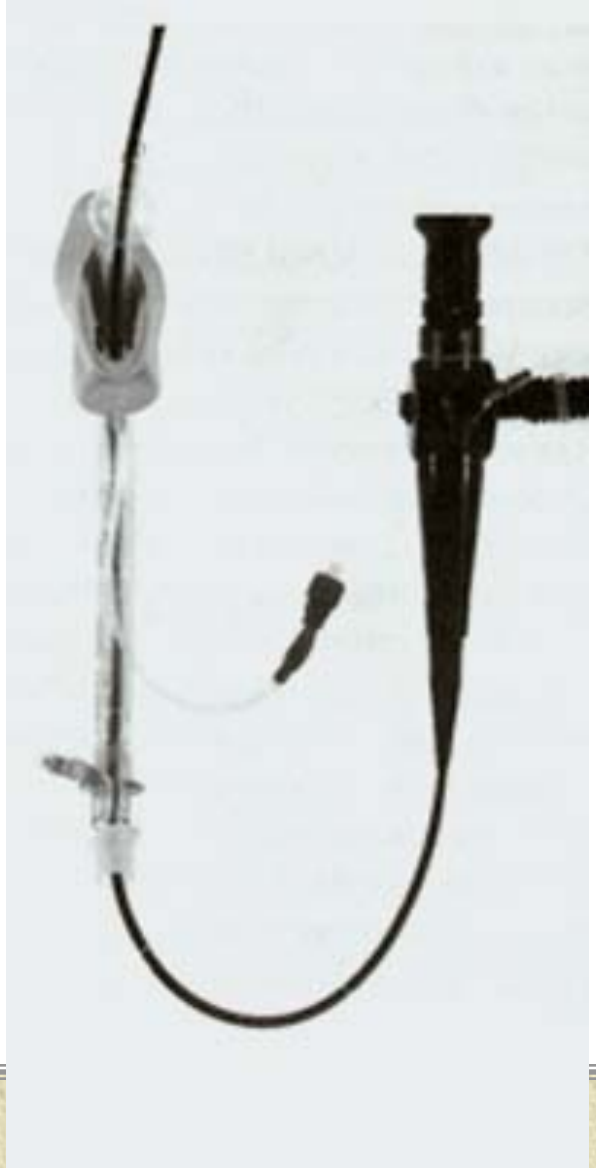

SCALPEL BOUGIE - ETT

# Sẵn sàng

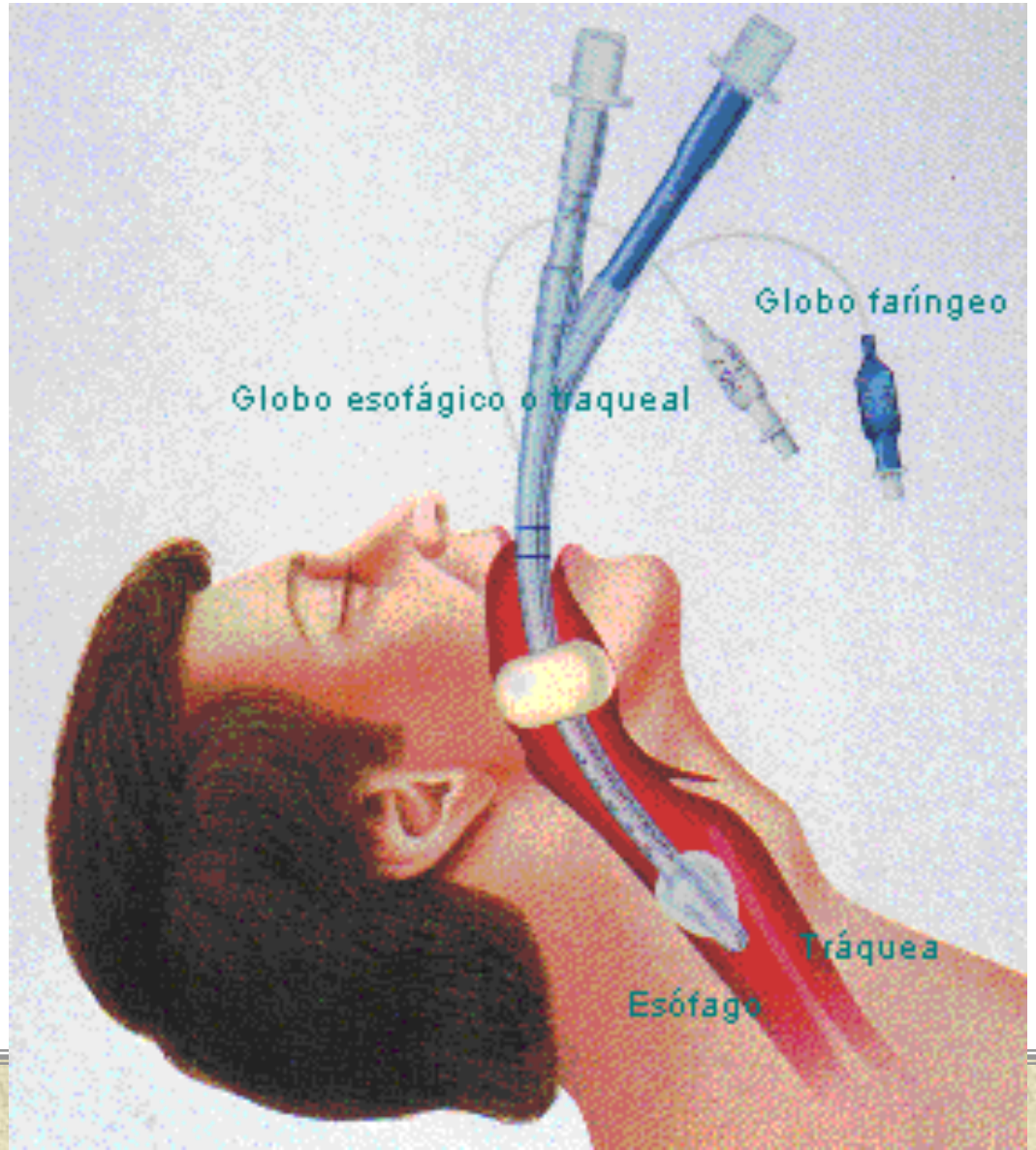
# *Que dẫn đường*



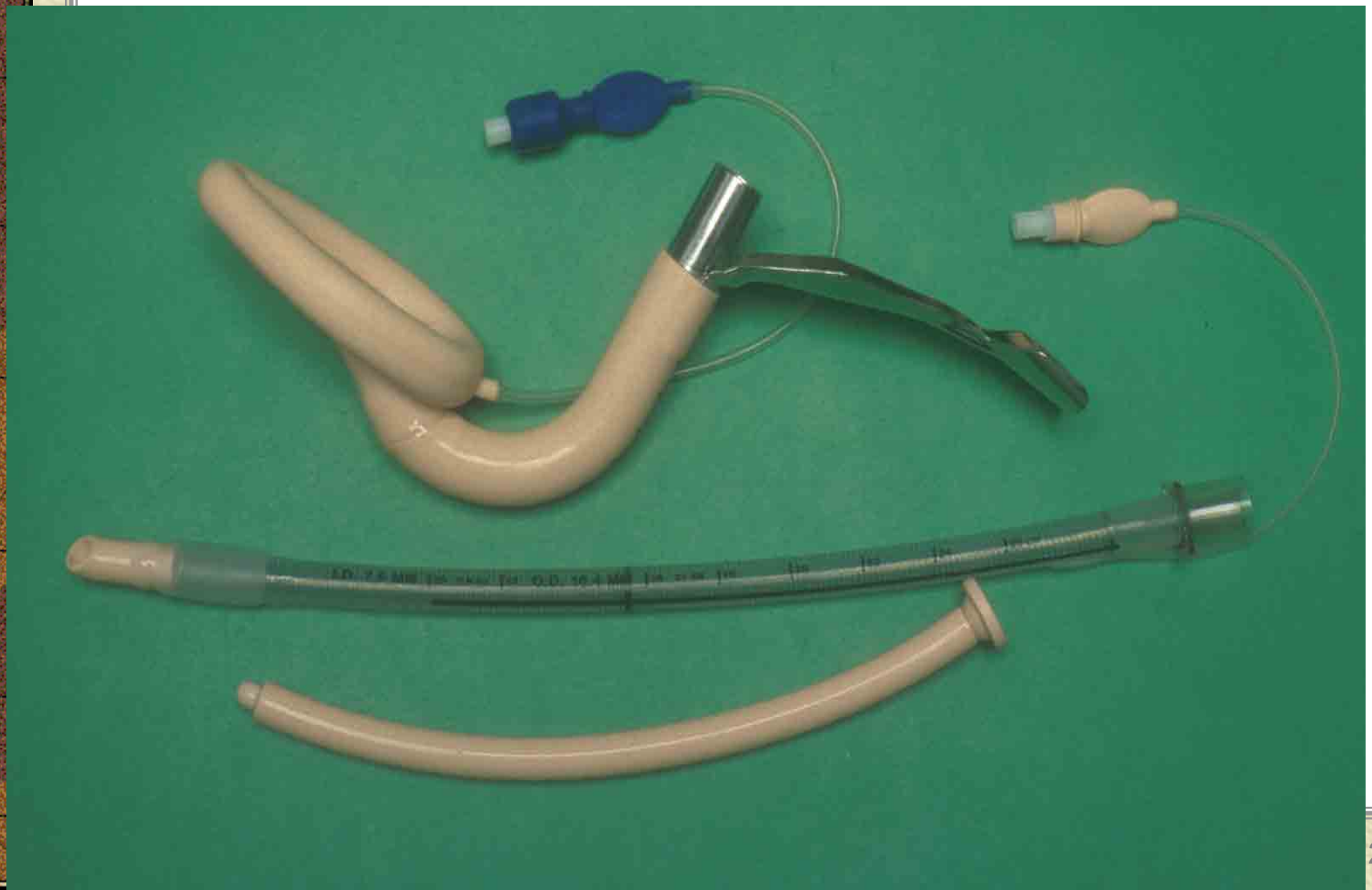
# *Ống nội soi mềm*



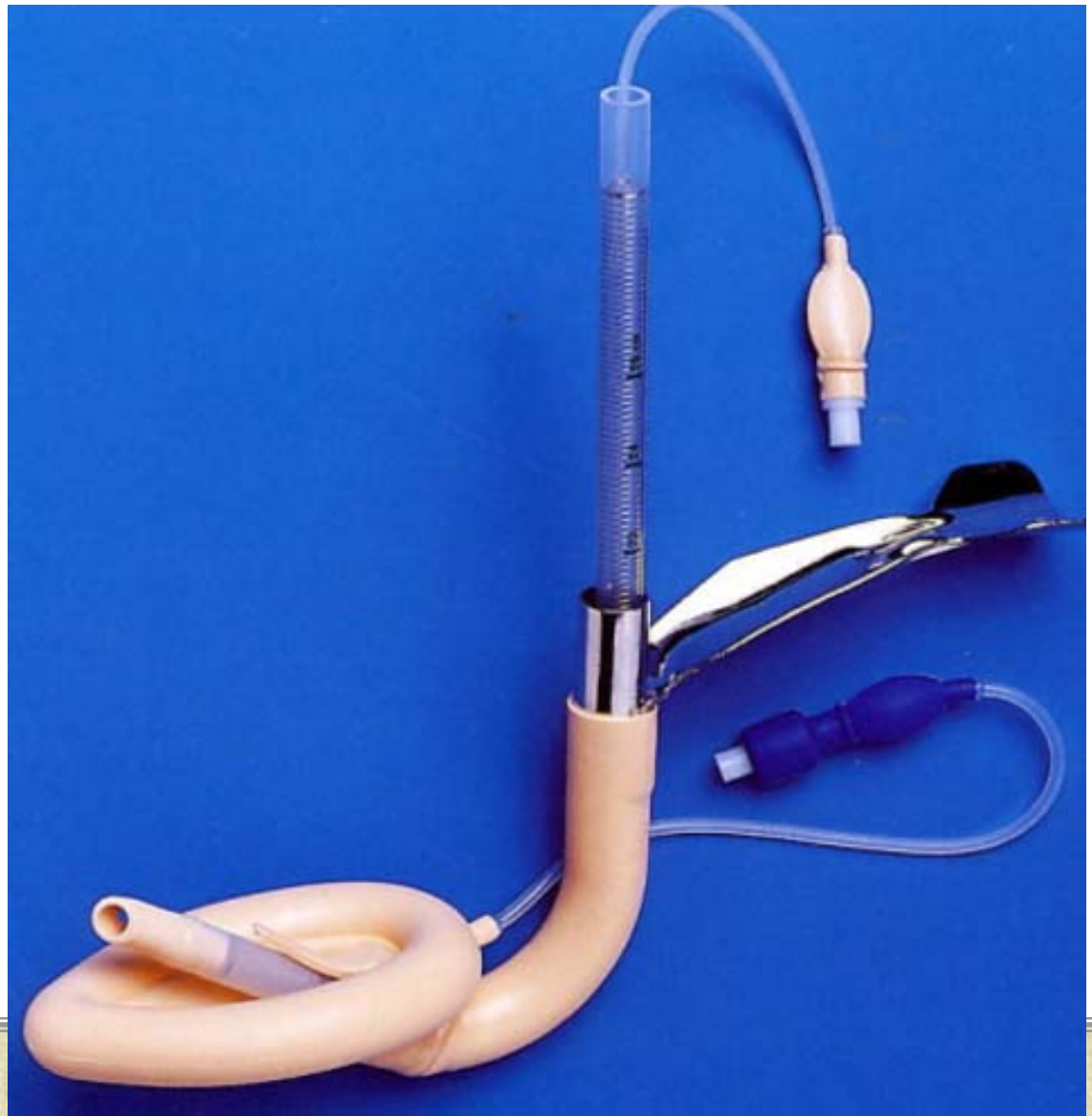
# *Combite tube*



# *Fast track*



# *Fast track*



# Mốc giải phẫu màng giáp nhẫn

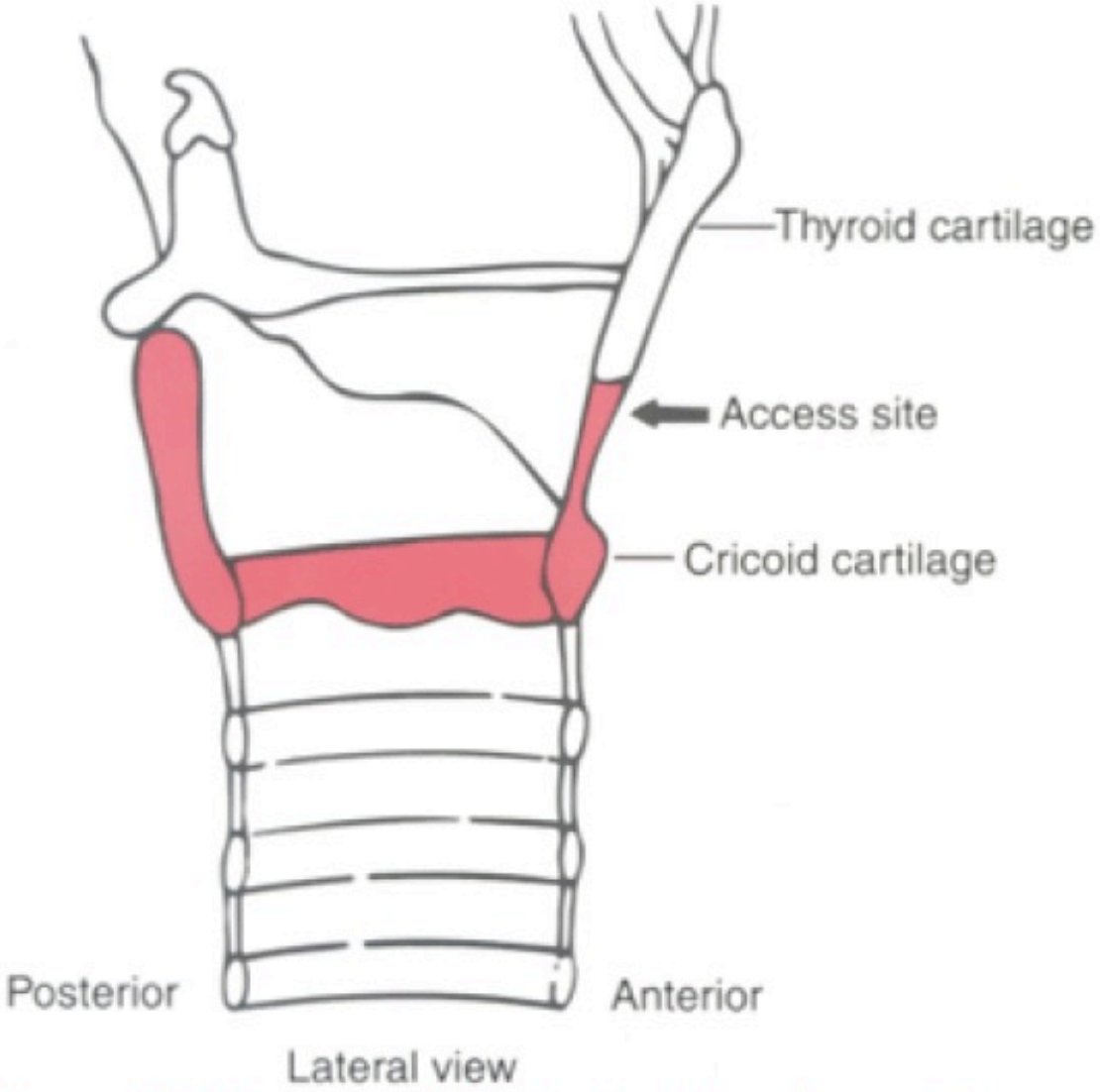
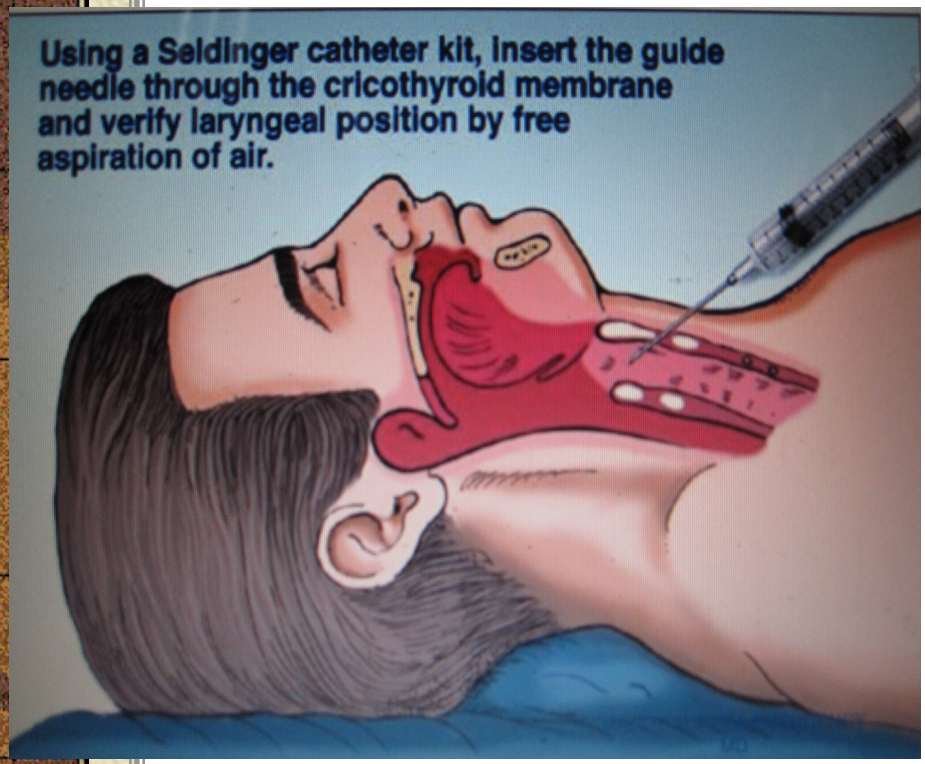
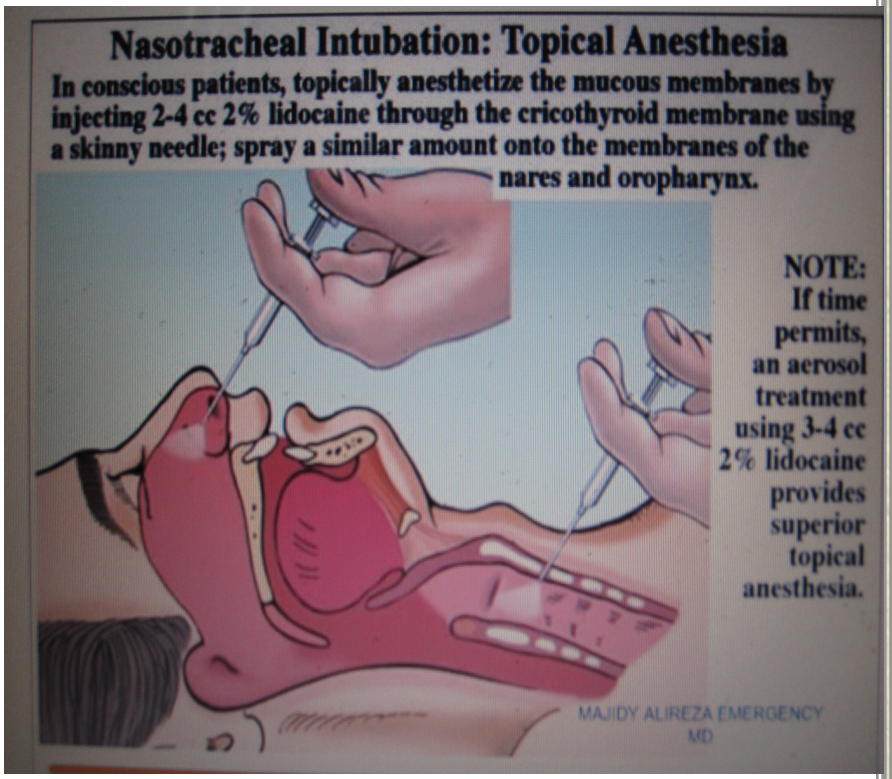


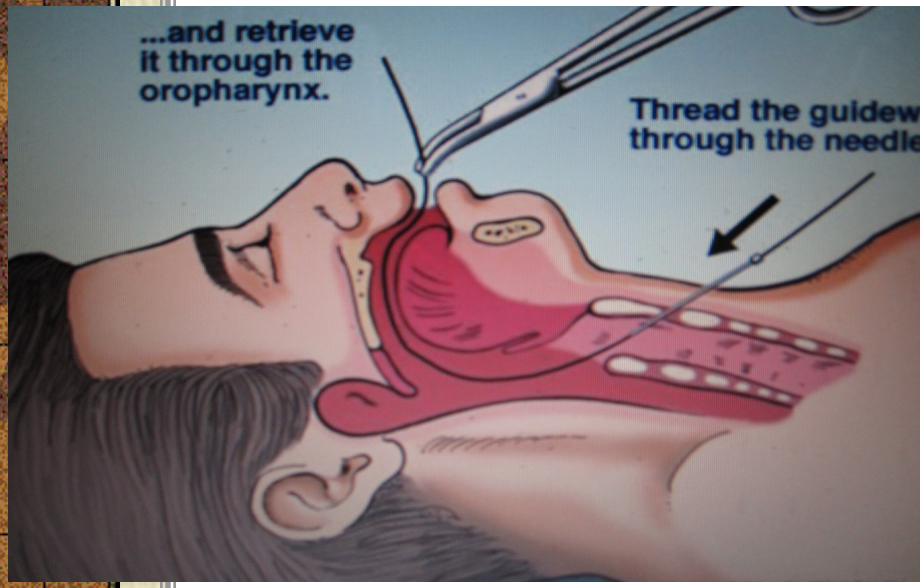

**Figure 42-25** Anatomy of the cricothyroid membrane. *(Courtesy of Cook Critical Care, Bloomington, IN.)*

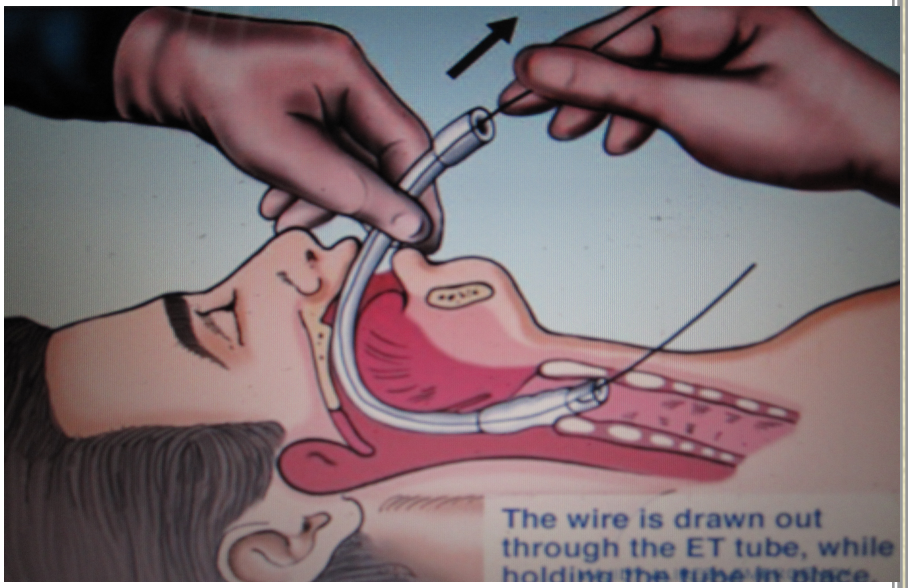
# *Kỹ thuật*

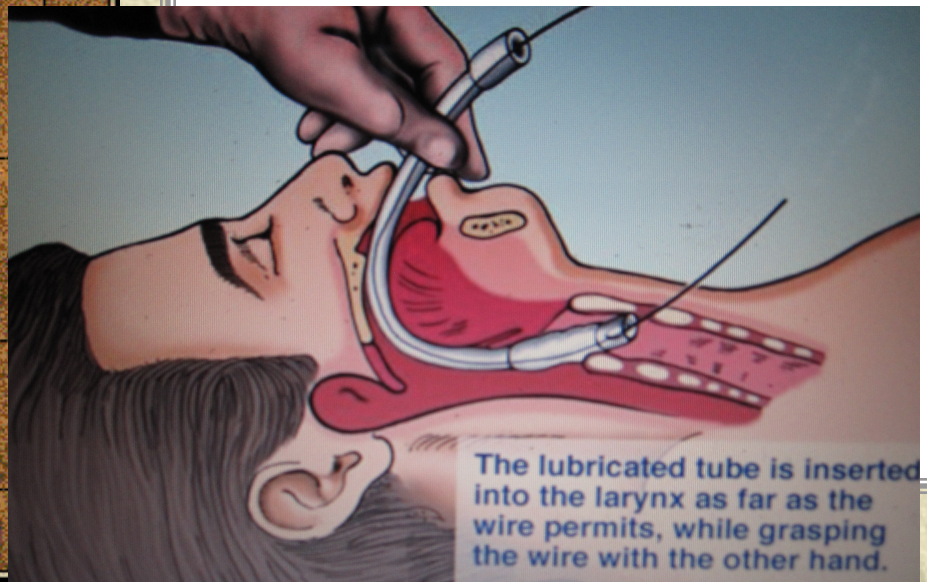

Using a Seldinger catheter kit, insert the guide needle through the cricothyroid membrane and verify laryngeal position by free aspiration of air.

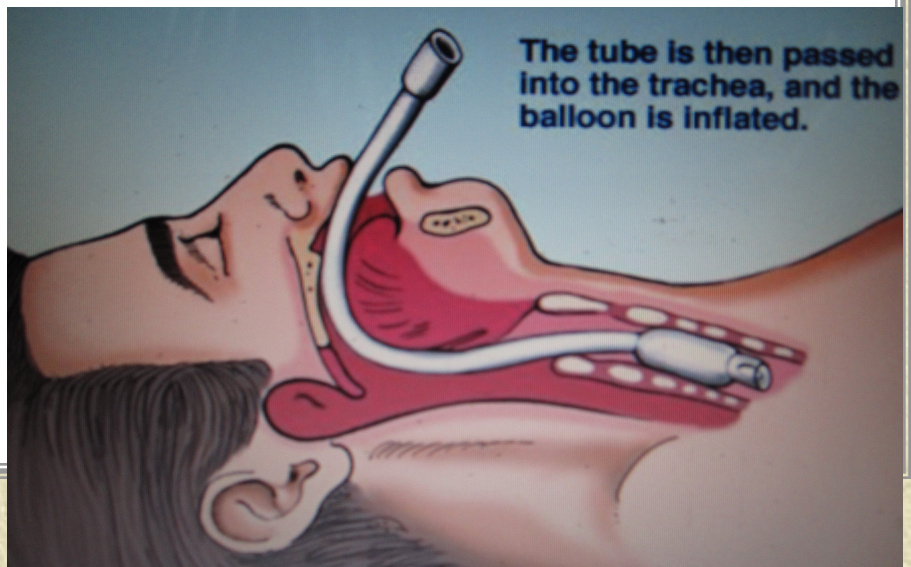

Nasotracheal Intubation: Topical Anesthesia
In conscious patients, topically anesthetize the mucous membranes by injecting 2-4 cc 2% lidocaine through the cricothyroid membrane using a skinny needle; spray a similar amount onto the membranes of the nares and oropharynx.
NOTE: If time permits, an aerosol treatment using 3-4 cc 2% lidocaine provides superior topical anesthesia.
MAJIDY ALIREZA EMERGENCY MD

# Đặt NKQ ngược dòng



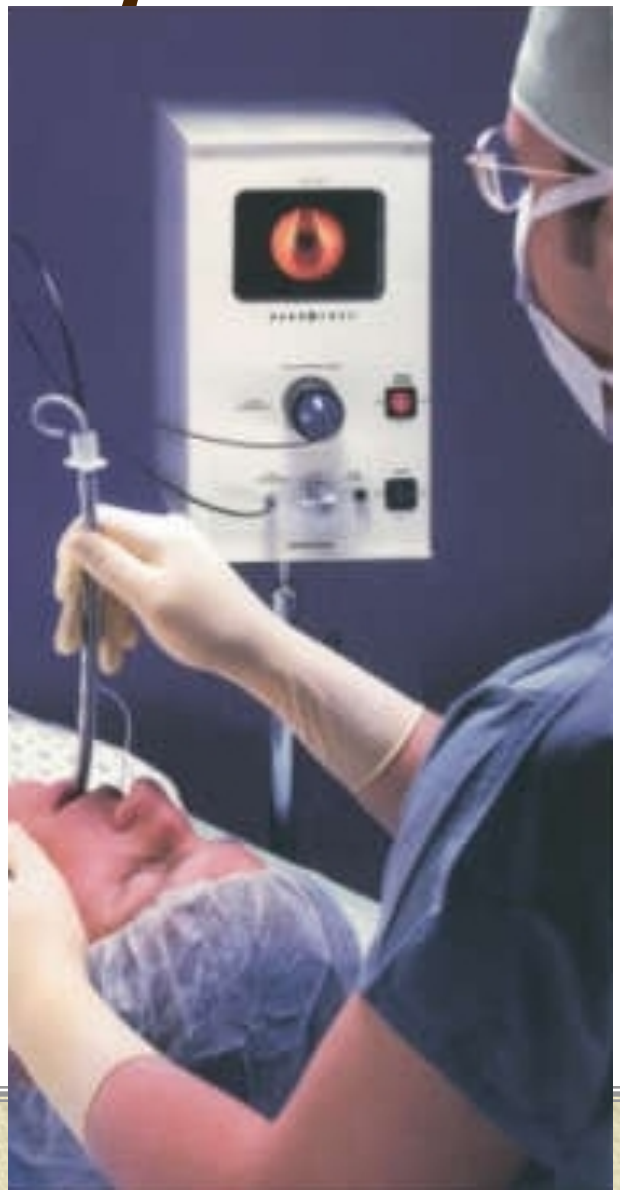



# *Đèn tăng sáng*

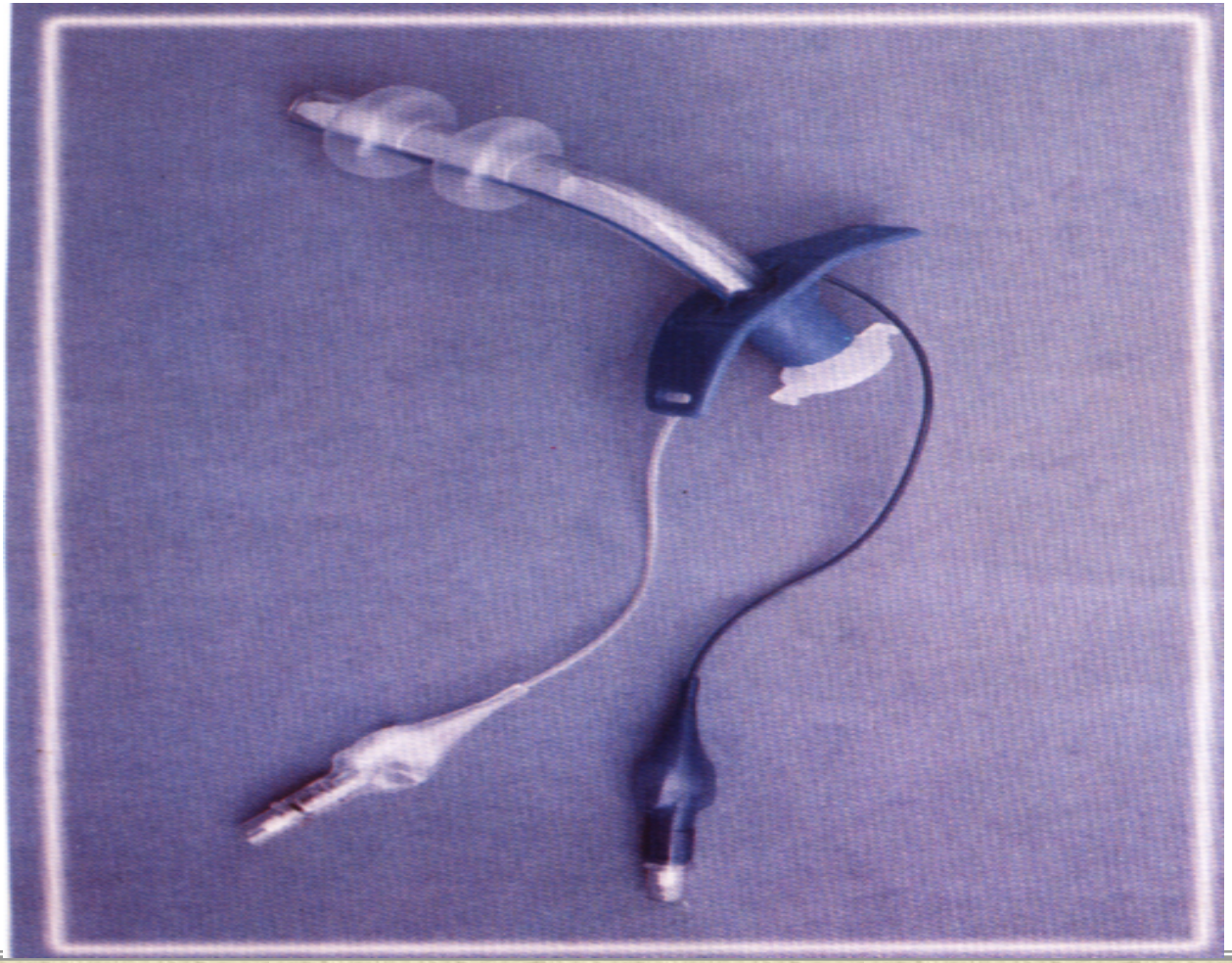
# *Airway Scope*



# *Jet ventilation*

# *Jet ventilation*

# ống mở khí quản

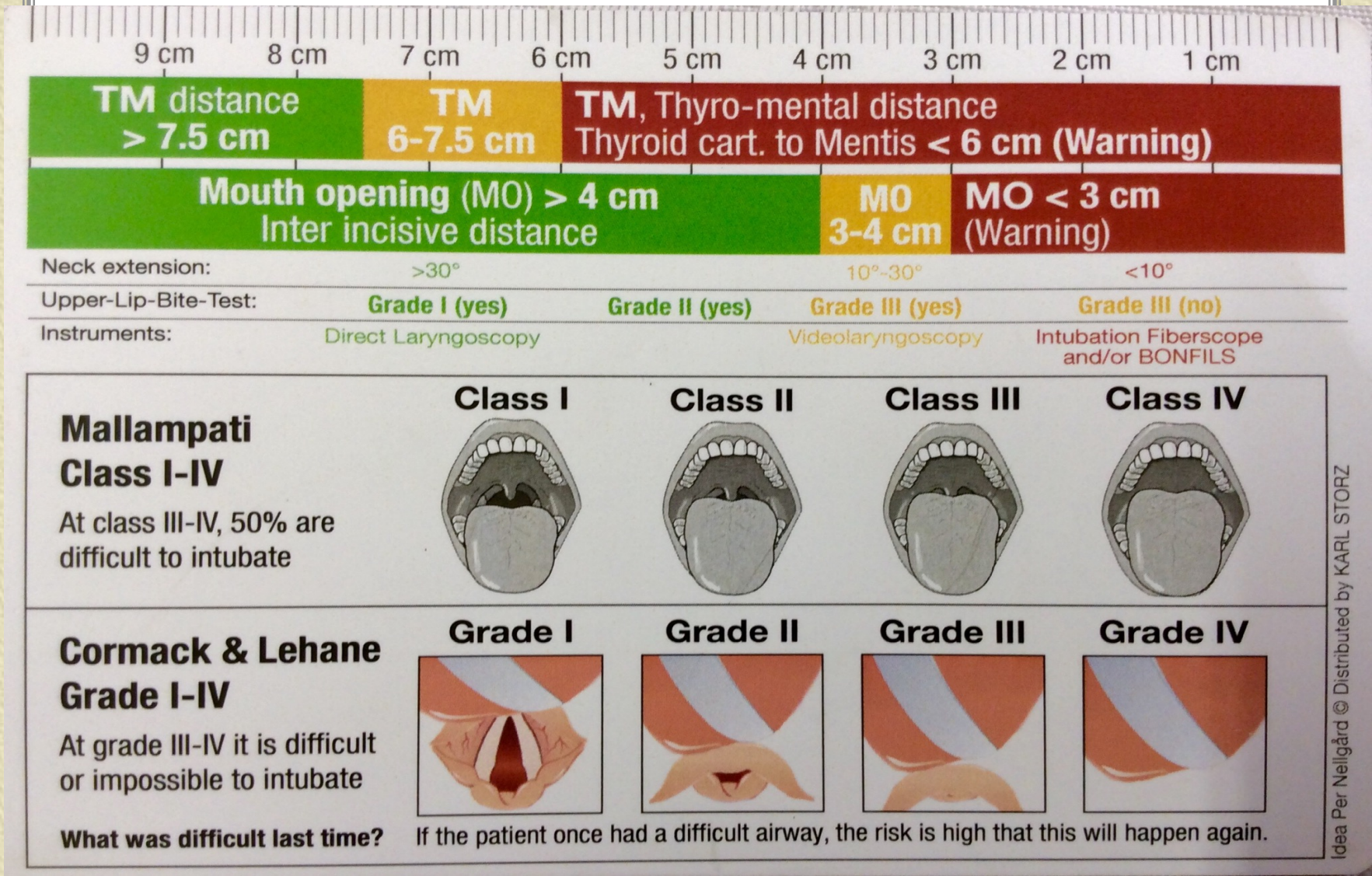


# *Kế hoạch A*

- Duy trì oxy là hàng đầu và cho tất cả bệnh nhân
- Tư thế đầu lý tưởng
- Dãn cơ hợp lý
- Nhấn mạnh vai trò của đèn soi thanh quản có video (videolaryngoscopy)
- Tất cả các nhân viên GMHS phải có kỹ năng sử dụng videolaryngoscopy

***British Journal of Anaesthesia, 115 (6): 827–48 (2015)***

# Đèn soi thanh quản có video với NKQ khó



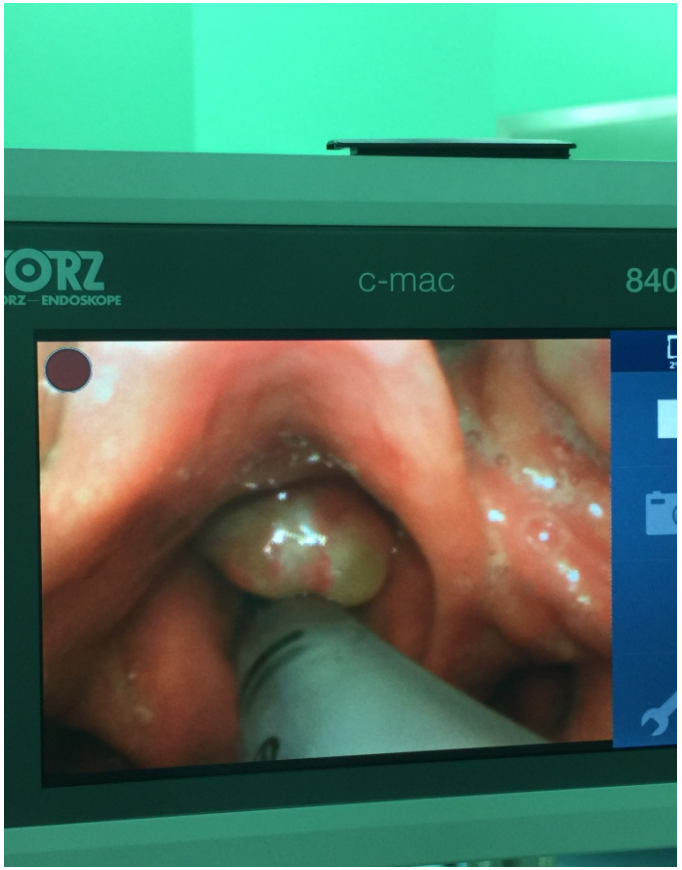

STORZ


SATURN

# *Trường hợp lâm sàng*

- Đặt với đèn soi thường
- Cormack-Lehane = 3
- Bướu dạng nang ở gốc tiểu thiệt

=>Chuẩn bị C-MAC



# *Đặt với C-MAC*

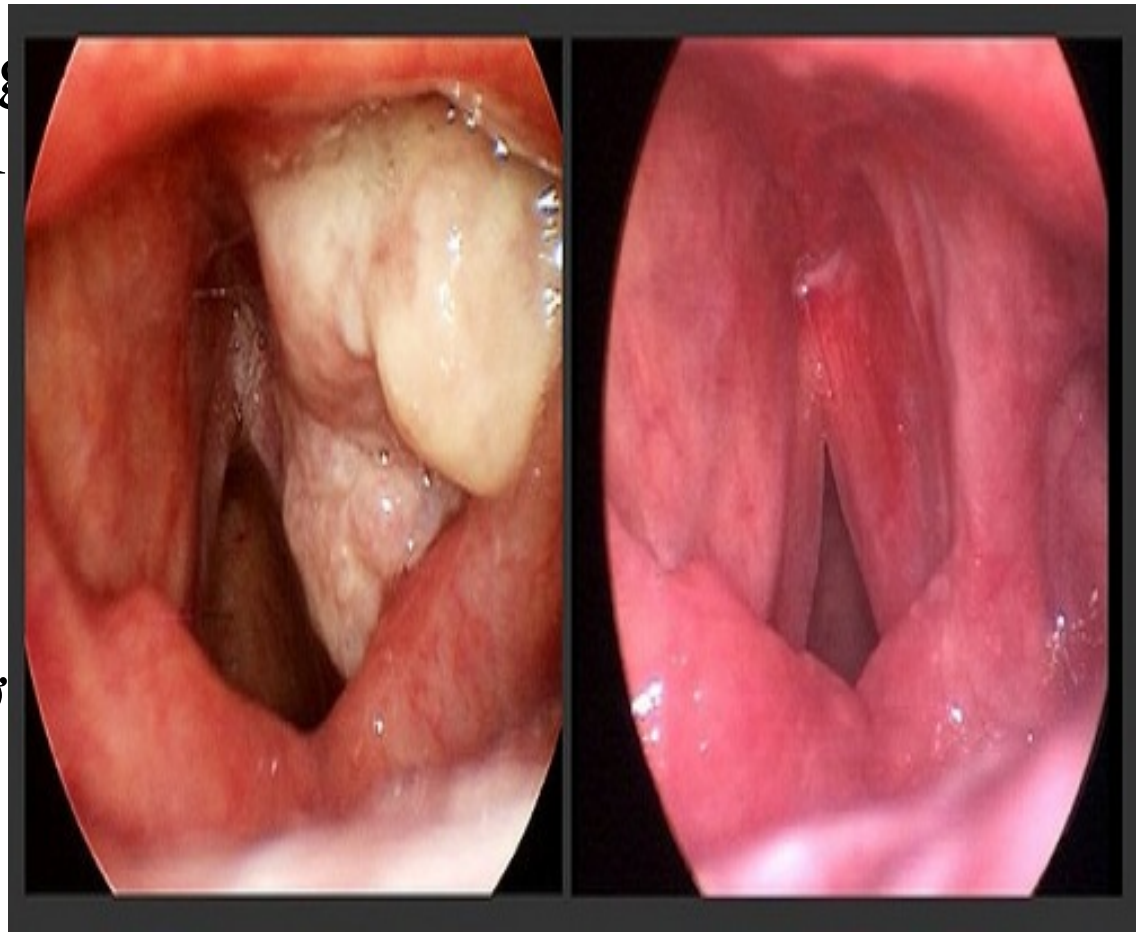
- Chuẩn bị hệ thống
- Các cỡ lưỡi đèn
- Oxy đầy đủ
- Dùng giãn cơ
- Chuẩn bị các phương tiện hỗ trợ: LMA, nội soi mềm
- Thuốc: sugamadex*

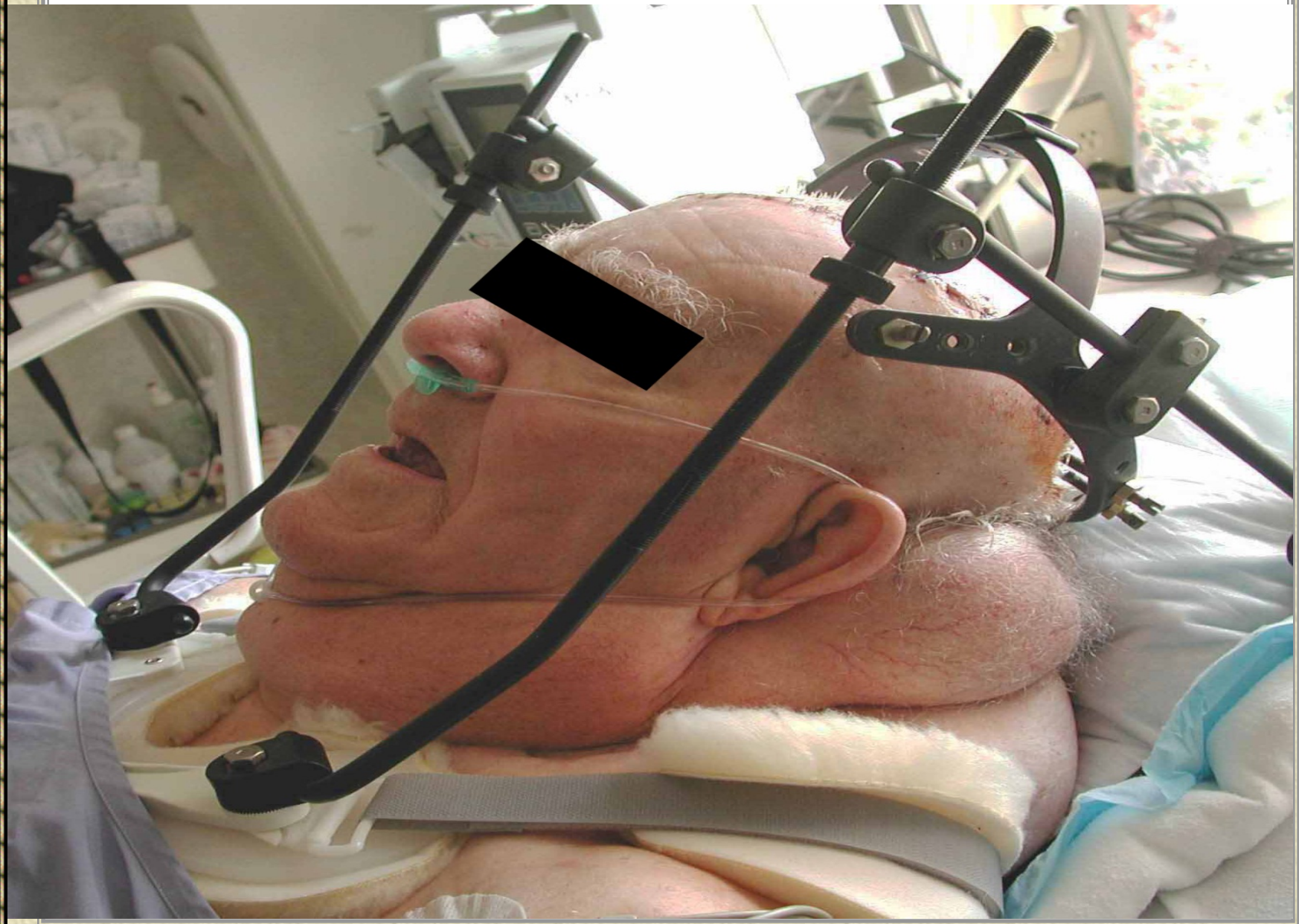
# *Xử lý thuận lợi*

- Đặt bougie
- Luồn NKQ
- Phẫu thuật cắt túi mật nội soi
- Mời BS tai mũi họng hội chẩn
- Xử lý nang ở vị trí tiểu thiệt

# *Các trường hợp khác*

- Đặt nkq trong phẫu thuật K thanh quản
- An toàn
- Tránh chảy máu do tổn thương u
- Rút ngắn thời gian phẫu thuật





# Effectiveness of the C-MAC video laryngoscope in the management of unexpected failed intubations

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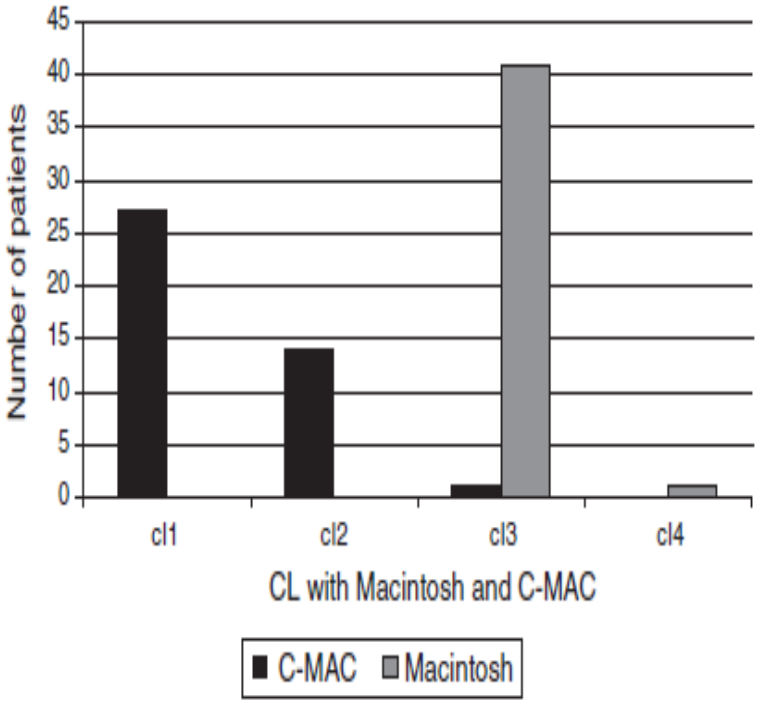
Received 2 December 2012; accepted 20 March 2013

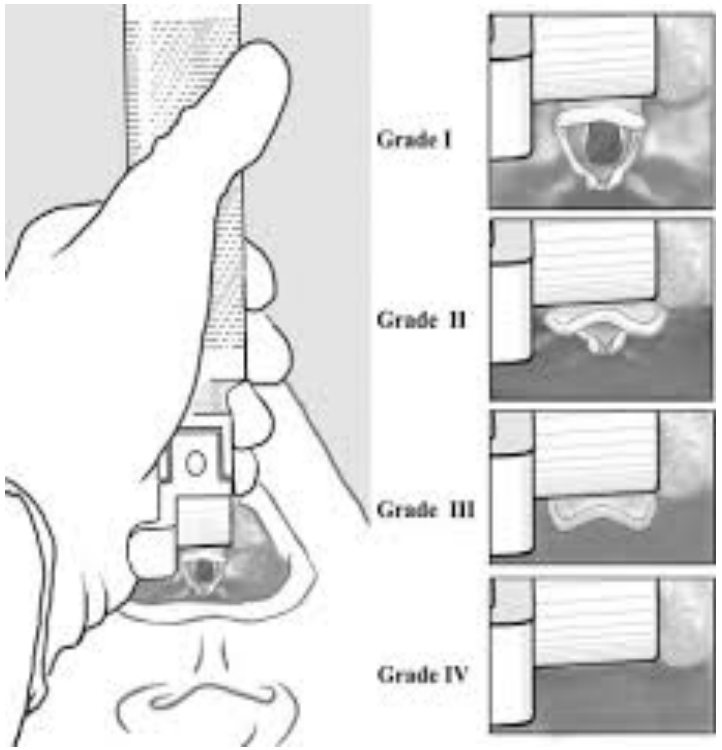
*Methods:* Data were analyzed from 42 patients whose intubation attempts using Macintosh direct laryngoscopes had failed, and on whom a C-MAC videolaryngoscope was utilized as the primary rescue device. The success rate of C-MAC in intubation was assessed, and laryngeal views from both devices were compared.

*Results:* The Cormack and Lehane score was III in 41 patients, and IV in one patient, with the Macintosh laryngoscope, while Cormack and Lehane score was I in 27 patients, II in 14 and III in one with CMAC. Tracheal intubation with CMAC was successful on the first attempt in 36 patients (86%), and on the second attempt in 6 patients (14%). No complications were observed other than minor damage (blood on blade) in 8 patients (19%).

*Conclusion:* These data provide evidence for the clinical effectiveness of C-MAC videolaryngoscope in managing the unexpected failed intubations in routine anesthesia care. The C-MAC videolaryngoscope is efficient and safe as a primary rescue device in unexpected failed intubations.

# Giảm độ Comack-Lehand



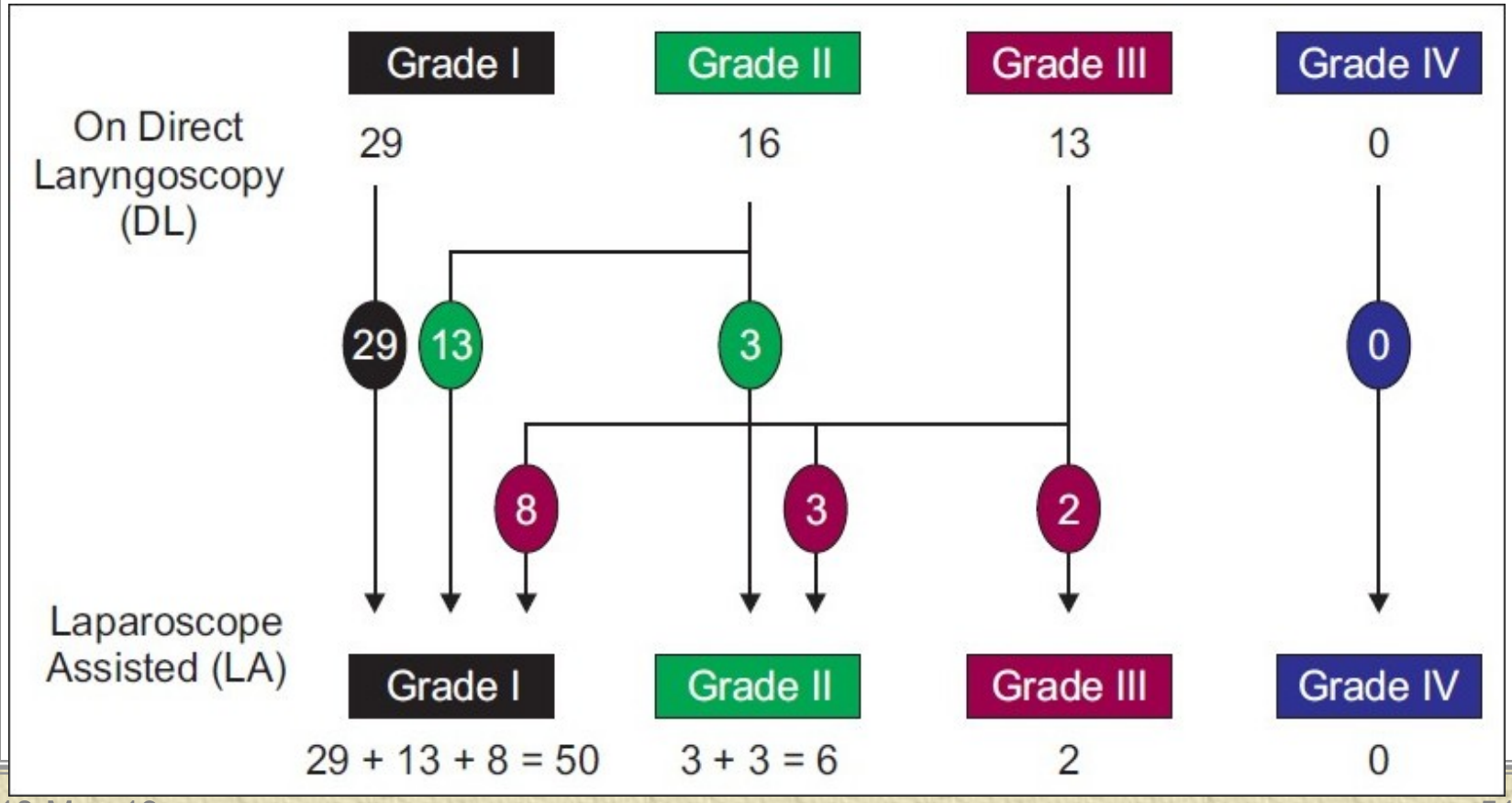



# *Videolaryngoscopy in the management of the difficult airway: a comparison with the Macintosh blade*

- Methods: One hundred and twelve patients with an estimated difficult intubation, scheduled to undergo surgical operations, requiring general anaesthesia and endotracheal intubation, were included in the study. Direct laryngoscopy with a Macintosh blade was performed, followed by videolaryngoscopy and intubation attempt(s). The laryngeal views obtained by each method were recorded according to the Cormack/Lehane scale.
- Results: The percentage of Cormack–Lehane I and II views obtained by conventional laryngoscopy rose from 63.4 to 90.2% ($P < 0.0005$) with videolaryngoscopy, whereas Cormack–Lehane III and IV views declined from 36.6 to 9.8% ($P < 0.0005$). Intubation was successful in 98.2% of the cases.
- Conclusion: In patients with an anticipated difficult airway, videolaryngoscopy significantly improved the laryngeal exposure thus facilitating endotracheal intubation.

European Journal of Anaesthesiology: March 2009 - Volume 26 - Issue 3 - p 218–222

# *Nghiên cứu từ Ấn Độ*



KJA
Korean Journal of Anesthesiology

Editorial
pISSN 2005-6419 • eISSN 2005-7563

# A good laryngeal view does not guarantee perfectly successful tracheal intubation

In this issue of the *Korean Journal of Anesthesiology*, Shim et al. [10] compared GlideScope® and McGrath® laryngoscopes in simulated cases of difficult intubation. They used a four-grade videoscopic view. However, they did not precisely describe the grade. In addition, a tube exchanger and vascular forceps were used instead of a rigid stylet, which can be associated with complications [8]. Although a difficult airway was simulated with an extrication collar, actual patients with difficult airways were excluded. In the simulation, the first-attempt success rates were 82.8% (GlideScope® group) and 83.8% (McGrath® group).

## The C-MAC Videolaryngoscope: First Experiences with a New Device for Videolaryngoscopy-Guided Intubation

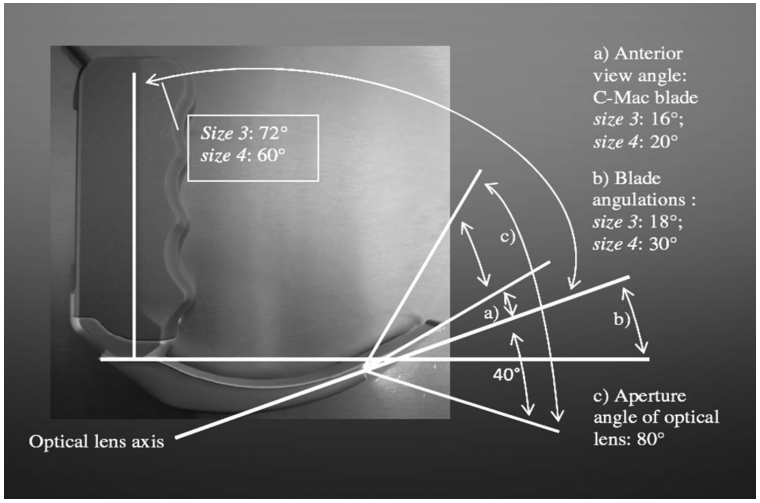
GlideScope® and McGrath®) do not provide visualization of the tip of the blade and, therefore, demand a tube stylet to guide the endotracheal tube through the glottis.

The C-MAC® videolaryngoscope (Karl Storz, Tuttlingen, Germany) is a new videolaryngoscope using a modified Macintosh blade, which may be a useful alternative both for routine and difficult airway management and for educational purposes. In this study, we describe for the first time the use of the C-MAC videolaryngoscope for tracheal intubation in 60 patients during routine induction of anesthesia.

Anesth Analg 2010;110:473–7)

# *Ưu điểm của C-MAC*

- Đặt thành công với C-MAC 100% (8/60 bn dùng gum-elactic)
- Kết luận: nên đưa vào dùng thường qui trong đặt NKQ khó và giảng dạy






Anesth Analg 2010;110:473–7

# Comparison of ease of intubation between GlideScope® and C-MAC® Videolaryngoscopes for novices

- **Results:** More novices in the GlideScope® Group (14.3%) required more than one intubation attempts optimisation manoeuvres compared to those in the C-MAC® Group.

  The intubation time for successful first attempt was significantly longer in the GlideScope® Group compared to the C-MAC® Group (median 51.0 vs 37.0 seconds).

- **Conclusion:**

  CMAC® videolaryngoscope significantly provided ease of intubation for novices compared to GlideScope® videolaryngoscope in patients without


***Brunei Int Med J.*** *2015; 11 (3): 139-146*

# *Kết luận*

- Trang bị phương tiện tốt giúp an toàn cho bệnh nhân phẫu thuật
- Đèn soi thanh quản có video là phương tiện bổ sung tốt trong thực hành đặt NKQ khó
- Cần có nhiều nghiên cứu hơn ở Việt Nam để hướng dẫn và đào tạo cho nhân viên GMHS sử dụng linh hoạt Videolaryngoscopy

# *Kế hoạch B ( thông khí bằng mask có túi khí, kỹ thuật đặt mù)*

- Xem có thông khí bằng mask được không ( có sự hổ trợ airway mũi, miệng)
- Sử dụng combi-tube
- Mask thanh quản
- Đặt NKQ ngược dòng

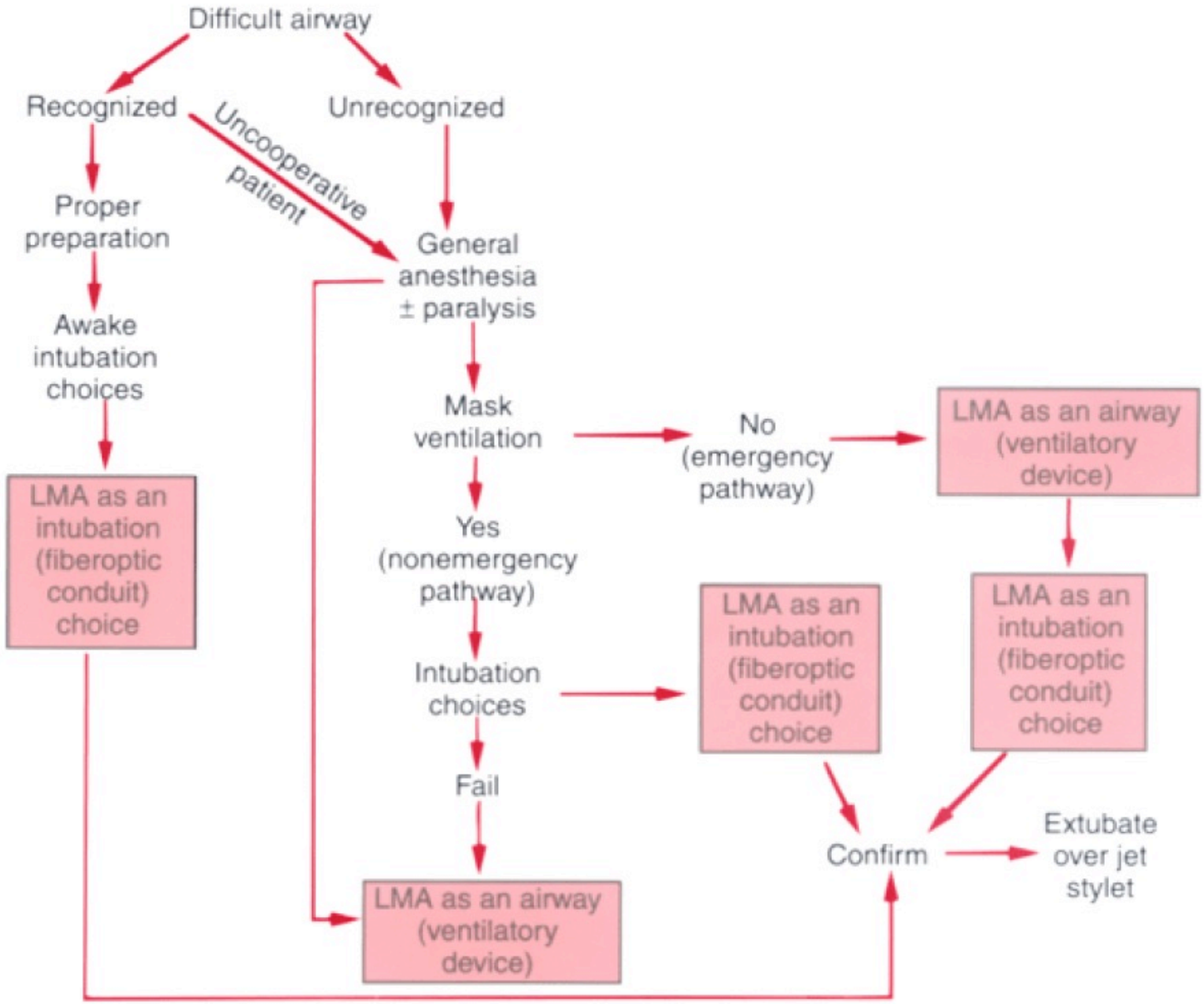



**Figure 42-24** Role of the laryngeal mask airway (LMA) in the American Society of Anesthesiologists (ASA) Difficult Airway Algorithm. *(Adapted from Benumof JL: Laryngeal mask airway and the ASA difficult airway algorithm. Anesthesiology 84:686, 1996.)*

# Trường hợp 1

BN Đinh Thị Lệ D-52 tuổi

- Chẩn đoán: chảy máu não thất/cao HA => suy hô hấp
- Có CĐ đặt NKQ thở máy
- Comack and Lehane 4, BS hồi sức đặt thất bại mời BS gây mê (thất bại với nhiều phương tiện)
- Tình trạng BN xấu: SpO2 <70%

=>CĐ MNTQ proseal, BN thông khí tốt SpO2 cải thiện, sau 30 phút qua LMA đặt dây dẫn và thay ống NKQ để thông khí kéo dài

# Bàn luận

- Là trường hợp đường thở khó không dự đoán trước
- "cannot ventilate, cannot intubate CVCI" không thể thông khí, không thể đặt NKQ
- ASA (1993) đã đưa Guidline và MNTQ là lựa chọn đầu tiên
- Vai trò hỗ trợ của cây dẫn GEB
- (Gum Elastic Bougie) trong dẫn đ MNTQ để đặt NKQ
- MNTQ-Fastrach được thiết kế để giá thành còn cao

# *Trường hợp 2*

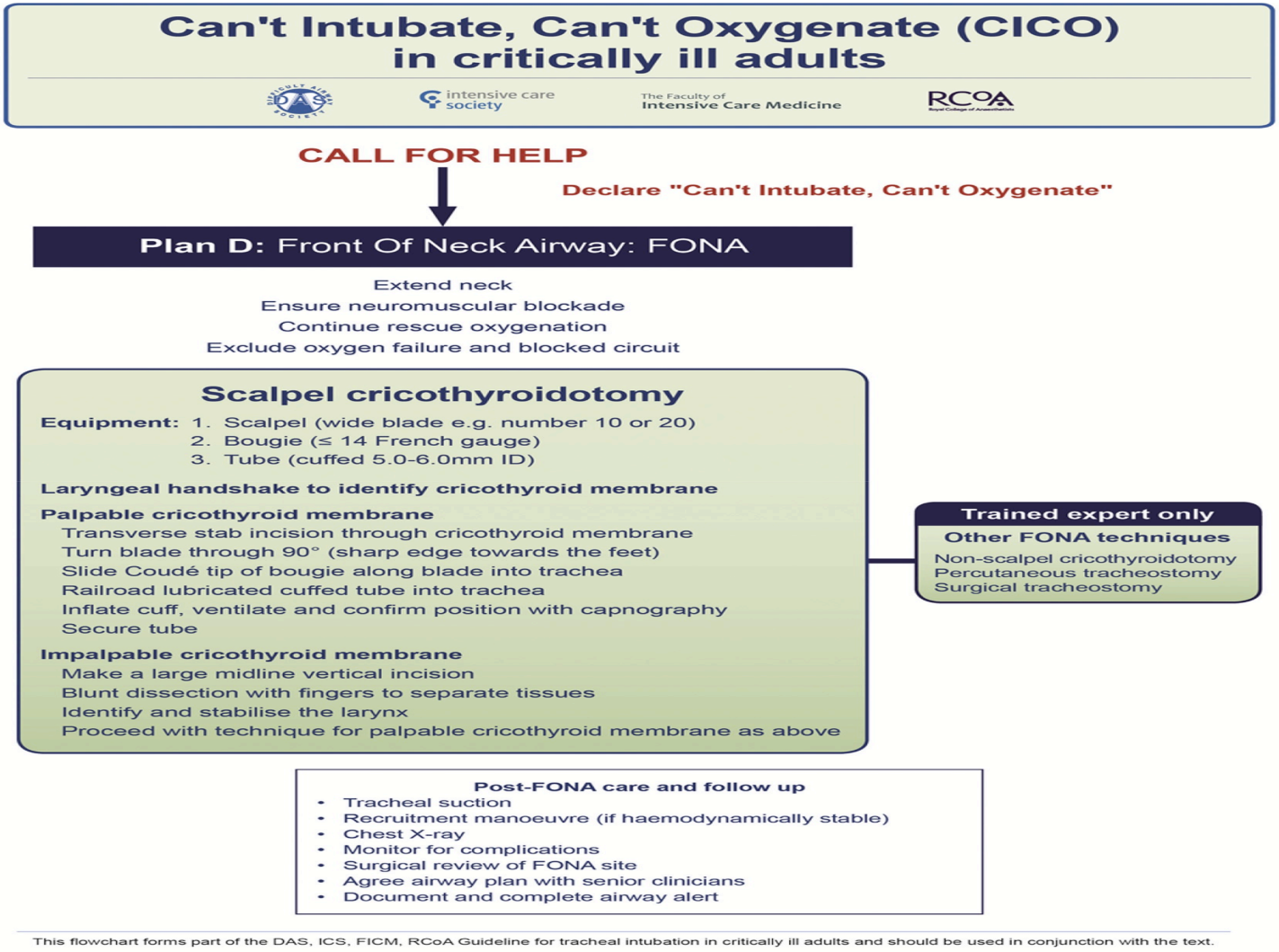
BN Lê Thị L- 45 tuổi

- Chẩn đoán: sỏi khúc nối bể thận
- Mallampati 4, BMI 25, răng hô => tiên lượng đặt NKQ khó
- Chỉ định sử dụng MNTQ proseal số 3, thông khí tốt, thời gian PT 50 phút, rút MNTQ tại phòng mổ, bệnh ổn định.

# Bàn luận

- Vai trò thay thế chủ động của LMA tránh gây tổn thương hầu họng khi cố gắng thông khí với NKQ
- Có thể thông khí LMA proseal với tư thế nghiêng
- Tỉnh mê nhẹ nhàng

# Kế hoạch D


Can't Intubate, Can't Oxygenate (CICO)
in critically ill adults
intensive care society
The Faculty of Intensive Care Medicine
RCoA
CALL FOR HELP
Declare "Can't Intubate, Can't Oxygenate"
Plan D: Front Of Neck Airway: FONA
Extend neck
Ensure neuromuscular blockade
Continue rescue oxygenation
Exclude oxygen failure and blocked circuit
Scalpel cricothyroidotomy
Equipment: 1. Scalpel (wide blade e.g. number 10 or 20)
2. Bougie (≤ 14 French gauge)
3. Tube (cuffed 5.0-6.0mm ID)
Laryngeal handshake to identify cricothyroid membrane
Palpable cricothyroid membrane
Transverse stab incision through cricothyroid membrane
Turn blade through 90° (sharp edge towards the feet)
Slide Coudé tip of bougie along blade into trachea
Railroad lubricated cuffed tube into trachea
Inflate cuff, ventilate and confirm position with capnography
Secure tube
Impalpable cricothyroid membrane
Make a large midline vertical incision
Blunt dissection with fingers to separate tissues
Identify and stabilise the larynx
Proceed with technique for palpable cricothyroid membrane as above
Trained expert only
Other FONA techniques
Non-scalpel cricothyroidotomy
Percutaneous tracheostomy
Surgical tracheostomy
Post-FONA care and follow up
Tracheal suction
Recruitment manoeuvre (if haemodynamically stable)
Chest X-ray
Monitor for complications
Surgical review of FONA site
Agree airway plan with senior clinicians
Document and complete airway alert
This flowchart forms part of the DAS, ICS, FICM, RCoA Guideline for tracheal intubation in critically ill adults and should be used in conjunction with the text.