RAPID SEQUENCE INDUCTION (RSI)
(Revised: January 2010)

THIS IS A PROCEDURE OF LAST RESORT!
EXPLORE ALL OTHER OPTIONS AND ALTERNATIVES FIRST!

INDICATIONS

The unconscious patient with unequivocal, life threatening airway compromise and clinical evidence of severe hypoxia.

OR

The unconscious patient with potential airway compromise where extrication procedures will make it impossible to provide adequate airway control.

CONSIDERATIONS

The following essential considerations must be taken into account prior to utilisation of this guideline.

Clinical need

- airway compromise, clear & obvious
- Glasgow Coma Score < 9
- hypoxia – Oxygen saturation < 90% OR centrally cyanosed
- time to hospital (should include extrication, load & transport time)

Patients who are not trapped or where extrication is not difficult, and are within 5 – 6 minutes time to hospital, WOULD NOT be candidates for rapid sequence induction.

Assessment of the difficulty of intubation

Based on:

- anatomical,
- acquired and situational factors.
- confidence and experience of the operator.

Response to basic treatment

- try everything – posture, guedels, nasal, suction, O2, ventilation by mask, etc.
- give basic options a chance to work.
- only proceed to rapid sequence induction if patient remains critical.

Consequences and outcomes

Worse case scenario:

- Breathing patient with compromised airway
- becomes a “can’t intubate, can’t ventilate” scenario.
Fall back position

Do not continue with futile attempts to intubate.
Return to basics & re-ventilate.

Attempt placement with:
  - Digital placement
  - LMA
  - Surgical airway – as a last resort.

Paediatrics – ONE attempt at endotracheal intubation only.

**PROCEDURE**

Basic airway management.

**Oxygenation**
  - aim for the highest O2 saturations by the most efficient method.

**IV access**
  - establish a fast flowing line that is reliable & secure.
  - a second IV line is sound insurance.

The most experienced operator is to tube.
Do not debate this issue - make a choice and proceed!
This is not a teaching opportunity for intubation skills.

Prepare patient:
1. Correct any hypotension / hypovolaemia
   10 ml/kg Normal Saline unless in pulmonary oedema.
2. Pre-oxygenate
3. Monitor Patient; ECG / Oximetry
4. Correct any bradycardia
5. Prepare and check equipment

**This is vital** and includes:
  - Laryngoscope
  - Suction
  - ETT - syringe, ties etc.
  - LMA
  - Surgical airway kit

6. Brief your assistant
7. Check allergies
8. Draw up drugs and check
9. Ask assistant to apply cricothyroid pressure

10. Commence intubation

11. Check tube position
   - Visualisation of tube between cords
   - Oesophageal detector device
   - Auscultation
   - Chest movement
   - Mistig in the tube
   - EtCO2
   - Pulse oximetry

12. Tie in securely

**DRUG SEQUENCE**

**Adult**
- Midazolam 0.05 mg/kg, Slow IV dose
- NOTE: Watch BP!
- Prior to Suxamethonium, if bradycardic rate < 50
- Atropine 0.01mg/kg, fast push.
- Suxamethonium 1.5 mg/kg, over 30 – 60 seconds.

Post intubation to maintain tube and level of sedation,
Alternating doses of:
- Midazolam up to 0.1mg/kg, slow IV dose
- Morphine up to 0.05 mg/kg, slow IV dose

NOTE: Watch BP!

Suxamethonium causes bradycardia, if patient is still bradycardic once ETT is tied in, consider a dose of Atropine.

**Paediatric**
- Midazolam 0.05 mg/kg  As slowly as possible.
- NOTE: Watch BP!
- Atropine  0.01mg/kg, fast push
- Suxamethonium 1.5 mg/kg, over 30 – 60 seconds
- Post intubation to maintain tube and level of sedation alternating doses of:
  - Midazolam up to 0.1mg/kg, slow IV dose
  - Morphine up to 0.05 mg/kg, slow IV dose
- NOTE: Watch BP!

**IF INTUBATION FAILS**

Re-oxygenate / re-ventilate the patient – utilise basic techniques.

There is no second dose of Suxamethonium!
If intubation is still unsuccessful move to a fallback option, following the Failed Intubation Drill procedure.

- Digital Placement
- LMA
- Surgical Airway

Consider urgent transport

**FOLLOW UP**

1. All relevant details will be carefully documented on the PCR. This especially applies to details concerning the need for sedation, the checks on correct placement of the ETT and the results of the procedure.

2. An Incident Report must be sent to QSRM by the end of shift; the hard copy is to be sent via satchel. There are no exceptions.

3. All pharmacologically facilitated intubations will be subject to routine, mandatory Clinical Advisory Committee Review.

**FINAL NOTE**

As stated previously, this is a procedure of last resort!

It is anticipated that this procedure will only be utilised in the most exceptional of circumstances.