

Rapid Sequence Induction Agent Guidance

Emergency Department, Royal Infirmary of Edinburgh
Collaboration between Emergency Medicine, Anaesthetics and Critical Care

- All induction agents can cause severe hypotension so take note of cardiovascular status, age and conscious level; the full dose of induction agent may not be appropriate

First choice



- Ketamine 1-2mg/kg + Rocuronium 1mg/kg

In the rare event of needing to immediately reverse muscle relaxation, use Sugammadex 16 mg/kg

Special circumstances

Concerned about raised ICP	➤ Consider adding Fentanyl 1-2 micrograms/kg
Concerned about raised ICP with systemic hypertension	➤ Thiopentone 2-5mg/kg ➤ Fentanyl 1-2 micrograms/kg ➤ Rocuronium 1mg/kg
Significant tachycardia or severe cardiac disease with hypotension	➤ Etomidate 0.1-0.3mg/kg ➤ Fentanyl 1-2 micrograms/kg ➤ Rocuronium 1mg/kg
Status epilepticus	➤ Thiopentone 2-5mg/kg + Rocuronium 1mg/kg
Major trauma including isolated head injuries	➤ See separate guideline below

PLEASE NOTE: Propofol is a poor 1st choice in critically ill patients due to its narrow therapeutic index and should be avoided for induction in this patient group.

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Major Trauma RSI

Pre-RSI phase



- Standard pre induction preparation/checks
- Prepare:
 - Ketamine 200 mg/20mls
 - Rocuronium 100 mg/10mls
 - Fentanyl 500 micrograms/10mls
- Determine degree/cause of shock

Euvolaemia (3,2,1)	<ul style="list-style-type: none"> ➤ Fentanyl – 3 micrograms /kg ➤ Ketamine – 2mg/kg ➤ Rocuronium – 1mg/kg
Hypovolaemia (1,1,1)	<ul style="list-style-type: none"> ➤ Fentanyl – 1 microgram/kg ➤ Ketamine – 1mg/kg ➤ Rocuronium – 1mg/kg
Severe hypovolaemia (1,1)	<ul style="list-style-type: none"> ➤ Ketamine – 1mg/kg ➤ Rocuronium – 1mg/kg
Peri arrest (1)	<ul style="list-style-type: none"> ➤ Rocuronium – 1mg/kg

Notes

Euvolaemia (3,2,1) Regimen

- This strategy is aimed at the trauma patient requiring anaesthesia without coexisting hypovolaemia e.g. combative patient with or without head injury, burns patient etc
- Tachycardia/hypertension are not usually an issue post induction if an appropriate dose of opiate is used

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