

Delayed Sequence Intubation (DSI) Guidelines = Optimise the hypoxic agitated patient pre RSI

AIM: To optimise the patient prior to intubation particularly in the face of hypoxia and / or agitation

Position

- Semi-recumbent 20° head up (higher if more comfortable for pre oxygenation phase)
- Ramp patient's head, ear to sternal notch

Nasal cannula & non-rebreather

- Nasal cannula 10 liters per minute (off O2 cylinder)
- Well fitted NRBM maximal flow

Consider Ketamine for agitation

- First dose according to pt condition, try 0.3mg/kg titrate up to 1mg / kg slow IV push
- If indicated consider gastric decompression (NG tube)

Consider CPAP for hypoxia

- Use CPAP if sats <95%, aiming for >95%
- Titrate PEEP 5-15cm H₂O depending on haemodynamics and oxygenation
- or BVM with PEEP valve 5-15cm H₂O – need 2 hand mask seal

Wait

- Allow 3 minutes breathing at tidal volume or 8 maximal breaths
- Can you optimise patient further preintubation – consider other pretreatment drugs, need for fluids or blood, and need for inotropes and vasopressors

Induction

- Does the patient still need intubation?
- Give sedative-hypnotic and paralysis

Apnoeic Oxygenation

- Jaw thrust to maintain pharyngeal patency
- Nasal cannula flow to 15 l / min
- If needed CPAP or BVM with PEEP valve, consider leaving on until paralysed (≈45 secs)

Intubate

- Leave nasal cannula on throughout airway management period

NOTES

- Always use your clinical judgment
- No single “recipe” fits everyone
- All patients should be optimally prepared pre-intubation

- Consider contraindications to the various elements of DSI including:
 - cardiac and respiratory arrest
 - spinal trauma
 - facial trauma
 - severe head injury

- Consider possible complications including:
 - CPAP - aspiration and gastric distension
 - Ketamine – may cause raised ICP, laryngospasm

References

1. Weingart SD. Preoxygenation, reoxygenation, and delayed sequence intubation in the emergency department. J. Emerg. Med. 2011 40;6:661-667
2. Kunzler, M. Protocol Name: Delayed Sequence Intubation Respiratory Therapy Urban Central Region Protocol. <http://prehospitalandretreivalmedicine.files.wordpress.com/2012/06/delayed20sequence20intubation20/formal20protocol5b15d-1.pdf>
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This is not intended to be a comprehensive guide and is not to replace clinical judgment