

Monash Health Fellowship examination OSCE

SUBJECT AND CURRICULUM REFERENCE:

Sedation- Ketamine

- Medical Expertise
- Leadership
- Communication

Length: 10 minutes

CLINICAL SCENARIO STEM:

A 4 yo old male patient presents with a 3cm laceration over his right lower leg. He has been fasting for 6 hours and a decision is made that it can be sutured in ED under ketamine sedation.

The Candidate is asked to explain to the patients parents ketamine sedation and obtain verbal consent.

INSTRUCTIONS:

Candidate:

A 4 yo old male patient presents with a 3cm laceration over his right lower leg. He has been fasting for 6 hours. You feel that this is can be sutured in ED under ketamine sedation.

Explain to the patients parents ketamine sedation and obtain verbal consent.

The examiners will be observing and may ask you a question.

Role player- patients mother/ father

You are the mother/ father of a 4yo boy. He has sustained a 3 cm laceration over his right leg. He has been fasting for 6 hours. The doctor has decided to suture the laceration under ketamine sedation.

You are not familiar with ketamine sedation and request that the reasons for the recommendation are explained to you as well as any side effects ketamine sedation.

Examiner:

Observation.

Candidate explained thoroughly the procedure and adverse reactions.

Assessment criteria

Candidate explains:

- Reasons for recommending ketamine sedation
 - Achieve good sedation and analgesia during the procedure

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- Common
 - Relatively safe in an appropri
- Explains what do the parents should expect pre- procedure, during and after procedure / discharge criteria

Pre- procedure

- Resus cubicle
- Monitoring
- IV or IM
- may need repeat doses

During Procedure

- Nystagmus (*expected*)
- Lacrimation and hypersalivation (*up to 50% of patients*)
- Emesis (*up to 12% of patients*)
- Increased muscle tone (sometimes tonic-clonic and resembling seizures)
- Laryngospasm

Post procedure

- nursed 1:1 by an Advanced Life Support (ALS) accredited registered nurse until the patient is interactive.
- The patient must be accompanied by a nurse, relative or carer until return to pre-treatment level of awareness and verbalisation.
- Nurse in the recovery position in a quiet area with dim lighting to minimise emergence phenomena. Do not stimulate prematurely.
- pulse oximetry and continuous cardiac monitoring.
- Recording vital signs at 5 minute intervals until the patient is interactive and then at 30 minute intervals until patients is safe for discharge.
- Nil by mouth for 2 hours.

Discharge Criteria (*usually 90 to 120 minutes post procedure*)

- Normal vital signs appropriate to patient's age
 - Return to pre-treatment level of awareness and verbalisation
 - Able to tolerate liquids
 - Family/carers observation and no independent ambulation for at least 2 hours post discharge
- Adverse effects of ketamine sedation
 - Raised BP and pulse rate, particularly at induction (*expected*)
 - Nystagmus (*expected*)
 - Lacrimation and hypersalivation (*up to 50% of patients*)
 - Emesis (*up to 12% of patients*)
 - Increased muscle tone (sometimes tonic-clonic and resembling seizures)
 - Respiratory depression, associated with rapid IV administration (*rare*)
 - Raised intracranial pressure and raised intraocular pressure

- **Laryngospasm (*up to 10% of patients*)**
Rare, transient complication, manage with gentle positive pressure ventilation
- **Emergence Phenomena (*2% of children and up to 30% in adults*)**
May occur during recovery and for up to 24 hours. They include vivid (possibly unpleasant) dreams, restlessness, confusion, hallucinations and irrational behaviour. Less common in children, the elderly and after IM administration, and by minimising stimulation during the recovery period. Treatment with a small dose of midazolam titrated to effect may be necessary for severe reactions.