# **Ketamine SOP**

#### PGD

BULANCE

Further reading

https://bnf.nice.org.uk/drug/ketamine.html NICE CG39 - Major trauma assessment and initial management GNAAS Ketamine PGD

# Indications

- i) Analgesia for severe pain
- ii) Procedural sedation
- iii) Induction and maintenance of anaesthesia HEMS Team Only
- iv) Life-threatening asthma HEMS Team Only

### Effects and side-effects

An NMDA receptor antagonist that provides a dose-dependant dissociative state, in combination with sympathomimetic effects such as tachycardia, hypertension, broncholdilation. May cause GI upset including vomiting. Sub-anaesthetic doses cause significant dysphoria which can include unpleasant hallucinations. Rarely can lead to laryngospasm.

### Presentation

A clear and colourless solution of 500mg ketamine in 10mls (50mg/ml). This is currently the only concentration carried by GNAAS.

Intravenous administration requires further dilution to 10mg/ml

For intramuscular or intranasal administration use undiluted



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### **Administration**

For all ages:

### Severe pain

0.25mg/kg by intravenous or intraosseous injection, repeated as required 1mg/kg by intranasal route, repeated as required

## **Procedural sedation**

IV/IO 0.5mg/kg (consider divided doses in frail/compromised) Intranasal 2mg/kg Intramuscular 4mg/kg Repeated divided doses may be required for more protracted cases

# **PHEA induction**

Usually 1-2mg/kg via intravenous or intraosseous route. Rarely, higher doses up to 3mg/kg may be required in 'excitatory' conditions (e.g. status epilepticus/burns)

Small doses may be used at regular intervals to maintain anaesthesia during transport, particularly in unstable patients in whom midazolam/morphine may worsen hypotension.

### Life-threatening asthma

0.5mg/kg via the intravenous or intraosseous route may improve symptoms in lifethreatening asthma avoiding the need for intubation.

However, it is strongly recommended that all preparations for PHEA including the kit-dump and checklist have already been done if at this stage. Failure to respond will require rapid conversion to intubation and ventilation.

# **Contra-indications**

In the context of the emergency presentations likely to be encountered by GNAAS, the only absolute contraindication is known anaphylaxis to ketamine.

For review