

#### Definition

Administration of medications for short-term sedation/dissociation, to induce a state where the patient will tolerate painful procedures (eg. extrication, fracture reduction) whilst maintaining their cardio-respiratory function.

# All patients undergoing procedural sedation should have:

- Venous or intraosseous access\*
- Full monitoring (ECG, BP, HR, Oxygen sats) and a printout for the PRF
- Titrated oxygen to maintain saturation 94-99%
- Non-invasive capnography

\* On rare occasions, acute control of a cerebrally agitated patient may require the administration of intramuscular doses. Vascular access should then be obtained at the earliest opportunity.

## Procedural sedation SOP

#### **KETAMINE**

Ketamine is the most frequently used agent for prehospital procedural sedation due to its efficacy and favourable safety profile.

0.5mg/kg (consider divided doses in frail/compromised))

Intranasal

**IV/IO** 

2mg/kg

→ 4mg/kg Intramuscular

Repeated divided doses may be necessary for more protracted cases.

Co-administration of midazolam (0.02mg/kg) may reduce the incidence of unpleasant dysphoric effects, but will prolong recovery time. It should be considered on a case by case basis.

GNAAS clinicians will usually accompany patients to hospital if they have administered ketamine, unless the patient has made a full recovery to GCS 15, in which case they may be left in the care of a paramedic crew.

### Other agents

In compliant patients, short-acting opioids such as **fentanyl** in combination with entonox can provide excellent sedation for very short procedures such as reduction/splinting of isolated limb fractures. Note that entonox is no longer carried by GNAAS.

Midazolam alone (0.01-0.05mg/Kg, repeated as required) is often the agent of choice in patients with acute behavioural disturbance/excited delirium, although recent studies have also confirmed the safety of ketamine in this setting.

Nasal diamorphine is an excellent analgesic in young children and has some mild sedative properties which will usually permit fracture splinting.

#### **Post-ROSC** sedation

For post-ROSC patients who require sedation to permit optimal clinical care (eg. to tolerate an airway device or for safe transportation), drug choice and dosage should be tailored to their physiology.

NO

BULANCE