

PR17: Procedural Sedation

Mike Sugimoto

Applicable To

- ACP and higher

Introduction

Procedural sedation and analgesia (PSA) is a medication administration strategy that uses several small serial doses of a medication to produce analgesia, sedation, and amnesia to allow paramedics to accomplish patient care tasks.

Indications

Any instance where analgesia, sedation, and amnesia are required to allow paramedics to accomplish patient care tasks. Examples of these tasks include extrication, fracture management, cardioversion, and airway management.

Contraindications

- ABSOLUTE: INABILITY TO MONITOR OXYGENATION AND VENTILATION
- ABSOLUTE: INABILITY TO PERFORM AIRWAY INTERVENTIONS
- Relative: traumatic brain injuries
- Relative: hypotension and shock

Procedure

OniCall consultation required prior to undertaking procedure on patients under 12 years of age.

OniCall consultation recommended to discuss care planning options for all other patients, where possible.

1. Ensure adequate oxygenation and ventilation at all times. Consider use of high-flow nasal cannula with PEEP and bag-valve mask as necessary. Monitor oxygen saturation and ventilation closely.
2. If not already in place, establish vascular access with running fluid.
3. Choose dosing strategy for ketamine:
 - Initial dose: 0.5 mg/kg
 - Subsequent doses: 0.25 mg/kg
 - Give ketamine slowly, waiting 60 seconds between doses, until the desired level of sedation is reached.
 - In patients who are hypotensive or in shock, consider lower doses.
 - **OniCall consultation recommended** to discuss care planning options.
4. Some patients will experience emergence reactions from ketamine sedation and analgesia. These include hallucinations, vocalizations, and can have physical manifestations. Treat emergence reactions only if they occur and are sustained:
 - In adults: midazolam 1-2 mg IV/IO every 2-5 minutes as required.
 - In children: midazolam 0.05 mg/kg IV/IO every 2-5 minutes as required.

