Buprenorphine

Buprenorphine is a potent opioid partial agonist which can cause significant respiratory depression in naïve patients

Available as:- sublingual preparation (+/- naloxone), transdermal patch or subcutaneous depot

Toxicity / Risk Assessment

Degree of clinical toxicity cannot be predicted from dose in opioid-dependent individuals.

Most significant toxicity is in opioid-naïve patients (esp. children), from either ingestion of S/L preparation or patches, application of multiple patches, or non-medical intravenous use.

Intravenous use of the combined preparation with naloxone can precipitate acute opioid withdrawal in opioid-dependent patients.

Clinical features of opioid toxicity:

(delayed, prolonged)

- Respiratory and CNS depression (respiratory depression is disproportionately more severe than sedation & more likely with co-exposure to other sedating agents)
- Miosis (not always present)

Management

Attention to airway and breathing are paramount.

Patients with SpO2 > 92% on room air have adequate ventilation.

Manage hypoventilation (SpO2 <92% RA) with naloxone, and if inadequate response, intubate and ventilate.

Decontamination:

Ingestions of any preparation: administer 50 g activated charcoal within 2 hours of ingestion if alert.

If toxicity is due to application of multiple transdermal patches, remove them.

Naloxone: (see separate naloxone guideline)

Response to naloxone is less predictable and higher doses may be required to reverse respiratory depression compared to other opioids.

If toxicity is not adequately reversed after a total of 4 mg administered in incremental doses, intubation and ventilation may be more practical than administering larger doses of naloxone.

As naloxone has a shorter duration of action than buprenorphine, repeat doses or an infusion may be required if respiratory depression reoccurs.

Disposition:

Discharge patients in daylight hours if they have no respiratory depression and normal conscious state:

- Observe 8 hours post ingestion if sublingual preparations; 12 hours post ingestion of transdermal patches
- Following injection, observe a minimum of 4 hours or until asymptomatic
- Observe at least 2 hours post a single dose of IV naloxone; 4 hours post single dose of IM naloxone; 6 hours post naloxone infusion cessation

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