

Naloxone Regimens

- **N.B.** For naloxone guidance in palliative care patients see the [Scottish Palliative Care Guideline](#).
- Aim for reversal of respiratory depression and maintenance of airway protective reflexes, not full reversal of unconsciousness.
- The duration of action of naloxone is shorter than that of all opioid analgesics. Repeat doses of naloxone may be needed.
- Two dosing regimens exist for naloxone, depending on the circumstances of exposure.
- If response remains inadequate despite dosing guidance below, then review diagnosis and seek senior advice.

Lower Initial Naloxone Dose Regimen

For acute toxicity with respiratory depression, in patients at risk of severe pain or acute withdrawal (e.g. post-operative patients or patients on long-term opioid therapy requiring tailored reversal of accidental opioid induced respiratory depression)
[Respiratory rate 6-10/min, SpO₂ 86-92% (on air)]

IV bolus injection: 100–200micrograms IV every 60seconds

- Initial naloxone boluses should be 100micrograms. If the patient does not respond to four 100microgram boluses, subsequent bolus doses should be 200micrograms.
- Continue titrating up the dose (to a maximum dose of 2mg IV) until an adequate response is achieved.
- If still no response (after a total of 2mg) give a further 2mg dose IV and seek senior advice. Larger doses (4mg IV) may be required in a seriously poisoned patient.
- Aim for reversal of respiratory depression, not full reversal of unconsciousness.

Preparation of IV injection:

Draw up 1x400microgram naloxone vial in a 10ml syringe and make up to 10ml with saline. A 100microgram bolus will be 2.5ml and a 200microgram bolus will be 5ml.

Higher Initial Naloxone Dose Regimen

For severe opioid-induced respiratory depression / arrest following acute toxicity / overdose (associated with drug misuse and dependence)
[Respiratory rate \leq 5/min, SpO₂ <85% (on air)]

IV bolus injection: 400micrograms IV

- No response after 1 minute, give 800micrograms IV.
- Still no response after 1 minute, give a further 800micrograms IV.
- If still no response (after a total of 2mg), give 2mg IV then review diagnosis and seek senior advice.
- Large doses (more than 4mg) may be required in patients exposed to highly potent opioids and those who are severely poisoned.

IM injection: 400micrograms IM

(if there is no IV access / patient is threatening to self-discharge)

- Give a further 400micrograms IM incrementally every 2-3 minutes until effect is noted.

In both IV and IM injection regimes, aim for reversal of respiratory depression and maintenance of airway protective reflexes, not full reversal of unconsciousness.