

## KETAMINE For bronchodilation in asthma

**PRESENTATION:** Vial containing 500mg in 10ml (50mg/ml) of ketamine

**INDICATION:** Refractory status asthmaticus in ventilated patients not responding to conventional treatments (**unlicensed indication**). The evidence on the use of ketamine for this indication is limited and is mostly based on isolated case reports.

### DOSE AND ADMINISTRATION:

#### ICU STANDARD CONTINUOUS INFUSION

2500mg in 50mL (undiluted).

Start at 0.5mg/kg/hr and adjust rate according to the response. Maintenance infusion range is 0.15-2.5 mg/kg/hr (Use ideal body weight in obese patients).

For example, for a 70kg patient commence at 35mg/hour (0.5mg/kg/hour), which equates to 0.7ml/hour.

Administer intravenously via central access device.

Ketamine has a low pH and may cause venous irritation and tissue damage in cases of extravasation.

Ketamine does **not** need to be administered in a locked syringe in intensive care.

**CONCENTRATION:** 50mg/ml

**STABILITY:** Physically and chemically stable for 24 hours at room temperature. Protect from light.

#### References

1. Summary of Product Characteristics, Ketamine 50mg/ml injection, Hameln pharmaceuticals, [www.medicines.org.uk/emc/product/6935/smpc](http://www.medicines.org.uk/emc/product/6935/smpc) last updated on EMC 26/06/2020. Accessed 02/11/2023.
2. Intravenous-Adult. Ketamine. Injectable Medicines Guide. <https://medusa.wales.nhs.uk/>. Date published 10/05/22. Accessed 02/11/23.
3. Stanley D, Tunnincliffe W, Management of life-threatening asthma in adults; Continuing Education in Anaesthesia Critical Care & Pain, Vol 8( 3);2008;p95–99
4. Goyal S, Agrawal A, Ketamine in status asthmaticus: A review; Indian Journal of Critical Care Medicine, vol17(3); 2013;p 154-161
5. Luigi L, Filippo S. Use of ketamine in patients with refractory severe asthma exacerbations: systematic review of prospective studies (2022). European Journal of Clinical Pharmacology, vol 78, p1613-1622. Available from: [Systematic review 2022 ketamine in asthma.pdf](https://journal.chestnet.org/article/S0012-3692(21)01513-0/fulltext)
6. Ueoka M et al. Chest. Vol 160, Issue 4, supplement A5 , October 2021 [https://journal.chestnet.org/article/S0012-3692\(21\)01513-0/fulltext](https://journal.chestnet.org/article/S0012-3692(21)01513-0/fulltext)