

**Neonatal End-of-Life Symptom Management Guide<sup>1-4</sup>**

Medication	Therapeutic Effect	Route	Recommended Dose	Onset
<b>Agitation</b>				
LORazepam	Reduction of anxiety and agitation, conscious sedation	Buccal/Oral	0.03-0.1mg/kg/dose Q2-8hrs	5 minutes
		Intranasal		
Midazolam		Sublingual/Buccal	0.1-0.3mg/kg/dose Q 2-4hrs	1-5 minutes
		Intranasal		
<b>Seizures Management</b>				
LORazepam	Status epilepticus	Buccal/Oral	0.05-0.1mg/kg/dose	5 minutes
<b>Pain</b>				
Sucrose	Treatment of mild pain, procedural pain management	Oral	1 mL 24% sucrose solution	2 minutes
Morphine Sulfate	Treatment of moderate to severe pain	Oral	50-100mcg/kg/dose Q3-4hrs	30 minutes*
		Sublingual/Buccal		
FentaNYL Citrate	Treatment of moderate to severe pain	Intranasal	1-2 mcg/kg/dose Q 5-10min**	30-60 minutes
Methadone	Treatment of severe pain	Oral	0.1mcg/kg/dose Q4hrs***	5 minutes
<b>Secretions</b>				
Atropine	Reduction of excessive saliva	Sublingual	1-2 drops Q4-6hrs	15-30 minutes
Glycopyrrolate		Oral	40-100mcg/kg/dose Q3-4hrs	Variable, PO absorption poor
<b>Shortness of Air</b>				
LORazepam	Reduction of anxiety and agitation, conscious sedation	Buccal/Oral	0.03-0.1mg/kg/dose Q2-8hrs	5 minutes
		Intranasal		
Midazolam		Sublingual/Buccal	0.1-0.3mg/kg/dose Q 2-4hrs	1-5 minutes
Morphine Sulfate	Treatment of moderate to severe pain	Oral	50-100mcg/kg/dose Q3-4hrs	30 minutes*
		Sublingual/Buccal		

1. Haug S, Farooqi S, Wilson CG, Hopper A, Oei G, Carter B. Survey on neonatal end-of-life comfort care guidelines across America. *J Pain Symptom Manage.* 2018;55(3):979-984. doi:10.1016/j.jpainsymman.2017.10.023
2. Cortezzo DME, Meyer M. Neonatal end-of-Life symptom management. *Front Pediatr.* 2020;8(574121):1-12. doi:10.3389/fped.2020.574121
3. Catlin A, Brandon D, Wool C, Mendes J. *Palliative and End-of-Life Care for Newborns and Infants.* Vol 10.; 2015. doi:10.1097/ANC.0b013e31820022a8
4. Kumaran , van Manen M, Stritzke A. *Neonatal Palliative Care Guide for Neonatal Intensive Care Units, Maternal Newborn Child and Youth Strategic Clinical Network.*; 2020. <https://www.albertahealthservices.ca/assets/about/scn/ahs-scn-mncy-neonatal-palliative-care-guide-nicu.pdf>

\*Onset impacted by gestational age at birth

\*\*Up to three doses in 30 minutes

\*\*\*Up to 3 doses in first 4 hours, then every 6-12 hours