

	IV injection [§] or SC injection	15 mcg/kg every 3-6 h
Methadone	Oral (immediate release)	100-200 mcg/kg Every 4 h for the first two to three doses, then every 6-12 h (maximum: 5 mg/dose initially) [†]
	IV injection ^a and SC injection	
Oxycodone	Oral (immediate release)	125-200 mcg/kg every 4 h (maximum: 5 mg/dose)
	Oral (prolonged release)	5 mg every 12 h

*Administer IV morphine slowly over at least 5 minutes.

†Administer IV fentanyl slowly over 3 to 5 minutes.

‡Hydromorphone is a potent opioid, and significant differences exist between oral and IV dosing. Use extreme caution when converting from one route to another. In converting from parenteral hydromorphone to oral hydromorphone, doses may need to be titrated up to five times the IV dose.

§Administer IV hydromorphone slowly over 2 to 3 minutes.

||Due to the complex nature and wide interindividual variation in the pharmacokinetics of methadone, methadone should only be commenced by practitioners experienced with its use.

†Methadone should initially be titrated like other strong opioids. The dosage may need to be reduced by 50% 2 to 3 days after the effective dose has been found to prevent adverse effects due to methadone accumulation. From then on, dosage increases should be performed at intervals of 1 week or over and with a maximum increase of 50%.

^aAdminister IV methadone slowly over 3 to 5 minutes.

IV, Intravenous; SC, subcutaneous.

From World Health Organization: *WHO guidelines on the pharmacological treatment of persisting pain in children with medical illnesses*, Geneva, 2012, World Health Organization.

TABLE 5-6

Starting Dosages for Opioid Analgesics for Opioid-Naive Neonates

Medicine	Route of Administration	Starting Dosage
Morphine	IV injection [*]	25-50 mcg/kg every 6 h
	SC injection	
	IV infusion	Initial IV dose [*] 25-50 mcg/kg, then 5-10 mcg/kg/h 100 mcg/kg every 4 or 6 h
Fentanyl	IV injection [†]	1-2 mcg/kg every 2-4 h [†]
	IV infusion [†]	Initial IV dose [†] 1-2 mcg/kg, then 0.5-1 mcg/kg/h

*Administer intravenous (IV) morphine slowly over at least 5 minutes.

†The IV doses for neonates are based on acute pain management and sedation dosing information. Lower doses are required for non-ventilated neonates.

‡Administer IV fentanyl slowly over 3 to 5 minutes.