

HYDROmorphine and Morphine: A BIG Difference

HYDROmorphine is up to 7 times stronger than morphine. ISMP reports that HYDROmorphine is commonly associated with harmful medication incidents. Ensure that all members of your healthcare team know the difference between HYDROmorphine and morphine. Common dosage calculations for these opioid injectable medications are included below.

Injectable Dosage Calculations

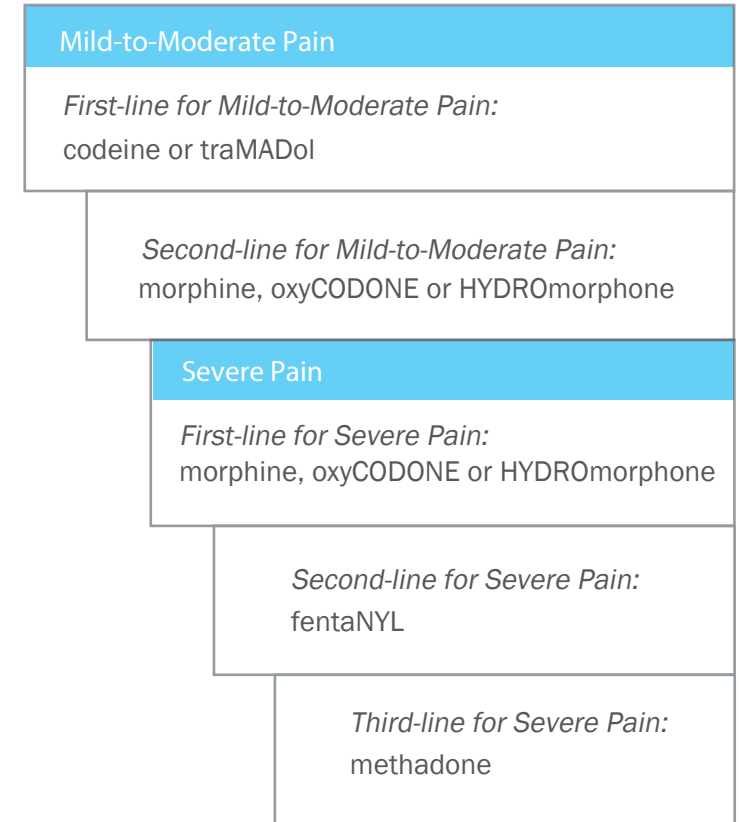
HYDROmorphine 2 MG/ML			Morphine 10 MG/ML			Morphine 15 MG/ML	
STRENGTH REQUIRED	VOLUME REQUIRED		STRENGTH REQUIRED	VOLUME REQUIRED		STRENGTH REQUIRED	VOLUME REQUIRED
2 MG	1 ML	≠ (Not The Same As)	15 MG	1.5 ML	≠ (Not The Same As)	15 MG	1 ML
1.8 MG	0.9 ML		14 MG	1.4 ML		14 MG	0.93 ML
1.6 MG	0.80 ML		13 MG	1.3 ML		13 MG	0.87 ML
1.5 MG	0.75 ML		12 MG	1.2 ML		12 MG	0.8 ML
1.4 MG	0.7 ML		11 MG	1.1 ML		11 MG	0.73 ML
1.2 MG	0.6 ML		10 MG	1 ML		10 MG	0.67 ML
1.0 MG	0.5 ML		9 MG	0.9 ML		9 MG	0.6 ML
0.8 MG	0.4 ML		8 MG	0.8 ML		8 MG	0.53 ML
0.75 MG	0.375 ML		7 MG	0.7 ML		7 MG	0.47 ML
0.6 MG	0.3 ML		6 MG	0.6 ML		6 MG	0.4 ML
0.5 MG	0.25 ML		5 MG	0.5 ML		5 MG	0.33 ML
0.4 MG	0.2 ML		4 MG	0.4 ML		4 MG	0.27 ML
0.3 MG	0.15 ML		3 MG	0.3 ML		3 MG	0.2 ML
0.2 MG	0.1 ML		2 MG	0.2 ML		2 MG	0.13 ML
0.1 MG	0.05 ML		1 MG	0.1 ML		1 MG	0.07 ML
0.05 MG	0.025 ML		0.5 MG	0.05 ML		0.5 MG	0.03 ML

*Reference: Canadian Guideline for Safe and Effective use of Opioids for Chronic Non-Cancer Pain. Practice Toolkit.

Canadian Guideline <http://nationalpaincentre.mcmaster.ca/opioid/>

Stepped Approach To Opioid Selection*

The most appropriate drug for an opioid trial depends on the resident's clinical profile and individual circumstances.



Most Common Adverse Effects of Opioids

- Nausea
- Constipation
- Somnolence/drowsiness
- Dizziness/vertigo
- Dry-skin/itching/pruritus
- Vomiting

