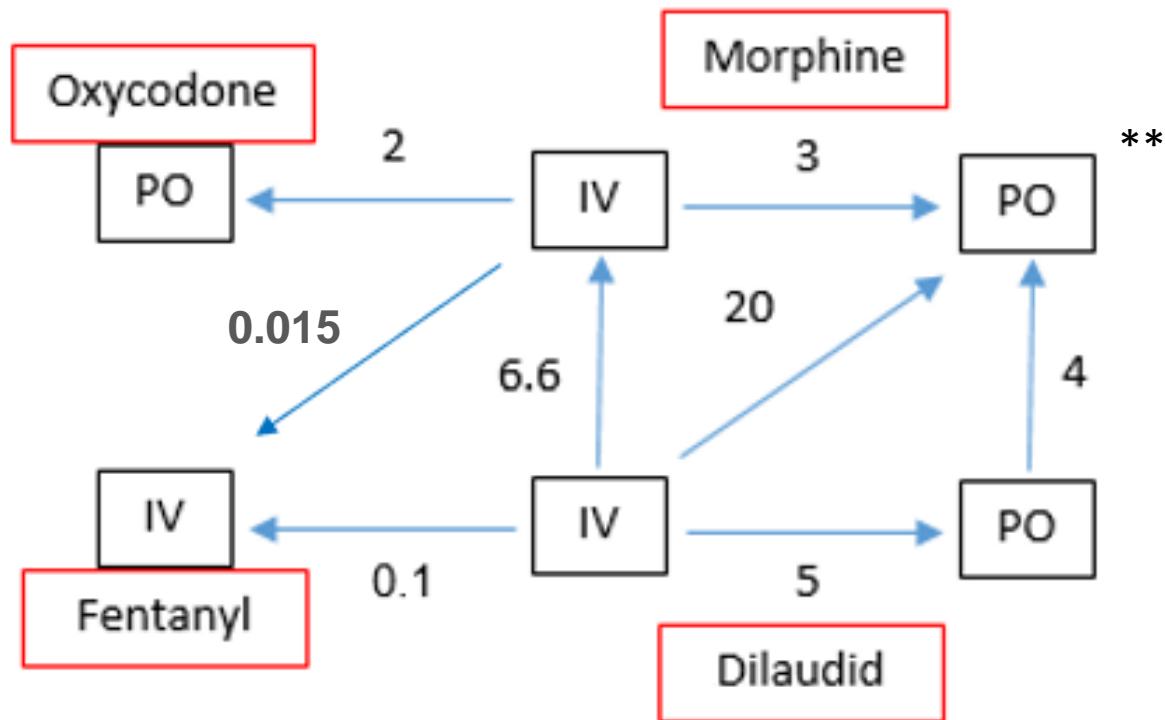


# General Principles of Opiate Conversion

- Analgesic equivalence of opiates, is doses of different opiates which are considered equivalent in the degree of pain relief provided.
- Analgesic equivalence of specific opiates is based on estimates derived from pain management literature and is therefore subject to change over time
- Analgesic equivalence ratios can be used to ensure patients receive appropriate opiate dosing for acute and/or chronic pain
- Many different methods/conversion factors exist which may provide similar or approximately similar results
- When switching to a different pain medication in an opiate tolerant individual (someone using approximate daily opiate dose > 60mg oral morphine equivalents (OME)) the administered medication dose should be reduced by 25-50% of a calculated equivalent dose as a new opiate is likely to be somewhat more potent than the medication the patient is accustomed to
- For uncontrolled pain, you may consider using the dose directly as converted with attention to patient's response to pain medication
- If you are unsure about a specific medication conversion or a safe opiate dosing strategy for a patient, especially for patients on high dose opiates, consult a clinical pharmacist, pain specialist, or palliative care specialist to ensure that dosing is appropriate

# Opioid Conversion Examples and Equianalgesic Dosing

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Drug	Equianalgesic Doses (mg)	
	Parenteral	Oral
Morphine	10	30
Buprenorphine	0.3	0.4 (sl)
Codeine	100	200
Fentanyl	0.1	NA
Hydrocodone	NA	30
Hydromorphone	1.5	7.5
Meperidine	100	300
Oxycodone	10*	20
Oxymorphone	1	10
Tramadol	100*	120

\*Not available in the US

McPherson ML. *Demystifying Opioid Conversion Calculations: A Guide For Effective Dosing*. Amer Soc of Health-Systems Pharm, Bethesda, MD, 2010. Copyright ASHP, 2010. Used with permission.

NOTE: Learner is STRONGLY encouraged to access original work to review all caveats and explanations pertaining to this chart.

\*Adapted from <http://sinaiem.org/wp-content/uploads/2018/12/Capture.png>

To convert opiate doses multiply by the coefficient in the direction of the arrow to convert from one opiate dose to an equivalent dose of a different opiate. If going in the opposite direction of the arrow divide by the coefficient to perform the conversion.

- 10mg IV morphine x 3 = 30mg of PO morphine
- 1.5mg IV dilaudid x 6.6 = 10mg of IV morphine
- 10mg IV morphine x 0.015 = 0.150mg (150 µg) IV fentanyl

- 10mg PO oxycodone ÷ 2 = 5mg IV morphine
- 30mg PO morphine ÷ 20 = 1.5 mg IV dilaudid
- 1.5mg IV dilaudid x 5 = 7.5mg PO dilaudid

Combined Conversions: 40 mg PO oxycodone ÷ 2 = 20mg IV morphine x 3 = 60mg of PO morphine

\*\*Oral morphine and hydrocodone are 1:1 so conversion to/from oral morphine or hydrocodone is the same process