Oral Opioid Dosing Equivalents and Conversions

Typical Oral Q4H doses of short-acting opioids shown as equivalents to morphine:

Morphine	30 mg
Oxycodone	20 mg
Hydromorphone (Dilaudid)	6 mg
Oxymorphone (Opana) *use not recommended*	10 mg
Hydrocodone (Vicodin, Norco, Lorcet)	2 x 10 mg tabs
Codeine (Tylenol #3 or #4)	2 x #4 = 120 mg codeine

Dosing Principles

For patients requiring daily opioid therapy for longer than a few days to a few weeks, consider switching from short-acting opioids to long-acting oral therapy. Fentanyl patches are another option, but are expensive and difficult to titrate. Conversion to methadone is appropriate for opioid use greater than several months, assuming opioids *are effective* for the patient. Buprenorphine (Suboxone®) is an option if opioid abuse, misuse or extreme opioid tolerance is a risk.

First, convert any opioid in use to its equivalent amount of morphine in mg/day. Then, divide into BID (or, occasionally TID) Morphine ER doses. Methadone and fentanyl conversions follow.

Morphine to Methadone Conversion

Typical pain doses of methadone are 15-40 mg/day, given in divided doses. As the degree of addiction increases in a patient, doses may reach those used for heroin-addicted patients in the range of 80-120 mg/day. Due to its function through NMDA receptors in addition to *mu*-receptors as well as its accumulation and excretion into the circulation from the liver, the relative potency of methadone to morphine increases *considerably* as morphine doses increase. Approximate equivalencies:

Morphine PO	Methadone PO
30-90 mg	One fourth the morphine dose
90-300 mg	One eighth (200 mg/day morphine = 25 mg methadone)
300-500 mg	One twelfth the morphine dose
> 500 mg	One twentieth the morphine dose

Morphine to Fentanyl Patch Conversion

Each 2 mg PO morphine approximately equivalent to 1 mcg/hr fentanyl patch (e.g., morphine 100 mg/day → 50 mcg/hr patch applied q3days). Caution should be used in older adults or patients with cachexia—fentanyl is lipid soluble and requires subcutaneous fat for proper absorption.

Opoid Taper

Typical taper. Taper every week by 10% of original dose until 20% remains. Then taper the remaining 20% by 5% of original dose each week until off or at goal.

Rapid taper. Reduce by 25% every 3–7 days, depending upon short vs. longer drug half life.