

Methadone Conversion and Dosing Information

This information is provided to assist you in converting patients from a current opioid to methadone. This information is for educational purposes. Additional information and references are available at www.iadur.org. The Commission does not have all the pertinent information required to evaluate this patient's therapy and understands that patient variables require individualized treatment. Care providers should consider applicability to each specific patient prior to making any changes to the treatment plan. The patient's medical condition and age, degree of opioid exposure and tolerance, past analgesic response and adverse experiences; as well as the potency, dose, and type of previous opioid; and the accuracy and reliability of opioid conversion factors may all influence the choice of starting dose.

Methadone Conversion Instructions

1. Determine the total 24-h dose of the current opioid including use of rescue opioid.
2. Convert from current opioid to morphine equivalent dose (Please see Table #1 "Equianalgesic Opioid Conversion Ratios for Patients Receiving Other Opioids", for fentanyl, see Table #2, "Fentanyl Conversion Table"). Skip this step if patient is currently on morphine.
3. Convert from morphine equivalent dose to methadone equivalent dose using conversion ratio (See Table #3, "Conversion Ratio of Oral Morphine to Oral Methadone").
4. Reduce methadone equivalent dose to 50-67% of previous opioid dose (due to incomplete cross tolerance).
5. Divide the 24-h starting dose of methadone by the frequency of administration (usually q8h). Starting dose dependent on current level of pain control and previous tolerability to opioid medications.
6. Consider use of rescue opioid (such as immediate release morphine, oxycodone, or hydrocodone/APAP) until stable methadone dose is established. Generally, titrate dose of methadone no sooner than every 5 to 7 days (to prevent drug accumulation). Dosage intervals of 12 hours may be attempted when patients are stable at 8-hour intervals.

Opioid Agent	Oral Dose (mg)	Conversion Comments
codeine	200	Reduce the dose to 50-67% and titrate based on response
fentanyl (transdermal)	See Table #3	
hydrocodone	30	Reduce the dose to 50-67% and titrate based on response
hydromorphone	7.5	
Morphine SA tablets ³	30	
oxycodone	20	

Fentanyl Patch (mcg/hr)	Oral Morphine (mg/day)
25	30-90
50	91-150
75	151-210
100	211-270
125	271-330
150	331-390
175	391-450
200	451-510
225	511-570
250	571-630
275	631-690
300	691-750

Morphine amount (mg/day)	Conversion ratio (morphine mg/day to methadone mg/day)
<100mg	3:1 (3mg morphine: 1mg methadone)
101-300mg	5:1
301-600mg	10:1
601-800mg	12:1
801mg-1000mg	15:1
>1000mg	20:1

Examples

Example #1: Conversion from Morphine to Methadone

1. Patient currently on MS Contin 180mg bid. Total daily dose of morphine = **360 mg**.
2. *Skip this step as patient is currently on morphine.*
3. From the **Conversion Ratio Table (See Table 3)**, determine that the initial conversion dose of methadone is **10:1 ratio** (morphine mg/day to methadone mg/day).

$$\begin{array}{r} 10 \text{ morphine parts} = 360 \\ 1 \text{ methadone parts} \quad \times \\ \hline X = 36\text{mg methadone/day} \end{array}$$
4. Reduce methadone dose to ~ 50-67% of conversion dose.
36mg X 0.5-0.67 = **18-22mg/day**
5. Methadone is available in 5-mg scored tablets. The starting dose would be **5mg or 7.5mg every 8 hours (15- 22.5 mg/day)**.
6. Provide short-acting medication for breakthrough pain and titrate methadone dose at appropriate intervals depending on response and adverse effect. Generally, titrate dose of methadone no sooner than every 5 to 7 days (to prevent drug accumulation). Dosage intervals of 12 hours may be attempted when patients are stable at 8-hour intervals.

Example #2: Conversion from Oxycodone Long-Acting to Methadone

1. Patient on Oxycontin 120mg bid. Total daily dose of oxycodone = **240mg**.
2. From the **Equianalgesic Opioid Conversion Table (Table 1)** convert from oxycodone to morphine equivalents
(20mg oxycodone=30mg morphine)

$$\begin{array}{r} 20 = 240 \\ 30 \quad \times \\ \hline X=360\text{mg/day morphine} \\ \text{(equianalgesic dose)} \end{array}$$
3. From the **Conversion Ratio Table (Table 3)**, determine that the initial conversion dose of methadone is **10:1 ratio** (morphine mg/day to methadone mg/day).

$$\begin{array}{r} 10 \text{ morphine parts} = 360 \\ 1 \text{ methadone parts} \quad \times \\ \hline X=36\text{mg methadone/day} \end{array}$$
4. Reduce methadone dose to ~ 50-67% of conversion dose.
36mg X 0.5-0.67 = **18-22mg/day**
5. Methadone is available in 5-mg scored tablets. The starting dose would be **5mg or 7.5mg every 8 hours (15-22.5 mg/day)**.
6. Provide short-acting medication for breakthrough pain and titrate methadone dose at appropriate intervals depending on response and adverse effect. Generally, titrate dose of methadone no sooner than every 5 to 7 days (to prevent drug accumulation). Dosage intervals of 12 hours may be attempted when patients are stable at 8-hour intervals.

Example #3: Conversion from Fentanyl Transdermal to Methadone

1. Patient on fentanyl patch 200mcg/hr.
2. From the **Fentanyl Conversion Table (Table 2)**, convert from fentanyl to morphine equivalents. Fentanyl 200mcg/hr = 451-510 mg morphine mg/day equivalents.
3. From the **Conversion Ratio Table (Table 3)**, determine that the initial conversion dose of methadone is **10:1 ratio** (morphine mg/day to methadone mg/day).

$$\begin{array}{r} 10 \text{ morphine parts} = 451-510 \\ 1 \text{ methadone parts} \quad \times \\ \hline X=45 \text{ methadone/day} \end{array}$$
4. Reduce methadone dose to ~ 50-67% of conversion dose.
45mg X 0.5 – 0.67 = **22-30mg/day**
5. Methadone is available in 5-mg scored tablets. The starting dose would be **5mg or 7.5mg every 8 hours (22.5 - 30 mg/day)**.
6. Provide short-acting medication for breakthrough pain and titrate methadone dose at appropriate intervals depending on response and adverse effect. Generally, titrate dose of methadone no sooner than every 5 to 7 days (to prevent drug accumulation). Dosage intervals of 12 hours may be attempted when patients are stable at 8-hour intervals

References:

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