

# Clinical Resource Guide: Alternatives to Oxycontin® and Xtampza®

## INTRODUCTION

Pain can be a distressing symptom at the end of life, and if not appropriately managed, can result in patient suffering and decreased quality of life. Thankfully, most hospice clinicians have experience managing moderate-to-severe pain by utilizing available medications, including opioids, in the setting of uncontrolled pain. Long-acting opioid therapy is often required for patients with persistent pain in the hospice setting to provide sustained periods of relief and reduce the need to take immediate-release formulations every few hours throughout the day. The most used long-acting opioids in the hospice setting are methadone, extended-release morphine, extended-release oxycodone (*Oxycontin*®, *Xtampza*®), and transdermal fentanyl. This Pharmacist Corner was created to serve as a resource to hospice administrators and clinicians by providing guidance on the following:

### Pharmacist Corner Objectives

1. Acknowledge the significantly increased therapy cost of Oxycontin® and Xtampza® without notable differences in efficacy or tolerability.
2. Describe strategies for transitioning from Oxycontin® or Xtampza® to another equally or more effective long-acting opioid at a significantly lower therapy cost.

## LONG-ACTING OPIOIDS COMMONLY USED IN HOSPICE

Opioid	Estimated Monthly Price*	Advantages of Use	Equianalgesic Conversion Factor
Oxycontin®	\$300-\$2600	No advantages over alternatives listed	1.5mg oxy: 1mg morphine
Xtampza®	\$360-\$1800	Abuse-deterrent formulation	1.5mg oxy: 1mg morphine
Methadone	\$7-\$60	<ul style="list-style-type: none"> <li>• Safe in renal failure</li> <li>• Tabs can be crushed</li> <li>• Available in liquid form</li> <li>• Multiple mechanisms of action</li> <li>• Inexpensive</li> </ul>	See table on page 3
Morphine SR	\$14-\$290	<ul style="list-style-type: none"> <li>• Generally well tolerated</li> <li>• Inexpensive</li> </ul>	N/A
Fentanyl Patch	\$60-\$500	Non-oral route of administration	25mcg/hr:60mg morphine

\*Dependent upon dose, fill location

## COMPARING EFFICACY AND TOLERABILITY OF LONG-ACTING OPIOIDS

Discussions with hospice clinicians regarding rationale for Oxycontin® or Xtampza® prescribing often results in mention of patient has an “morphine allergy” or believes the extended-release oxycodone formulation is more effective for their pain. Regarding the allergy claim, it is important to note that morphine and oxycodone are both in the same opioid chemical class, meaning if a patient truly has a morphine allergy, there would be an extremely high likelihood of also having a similar response to oxycodone. If a patient had a negative response to morphine, but not oxycodone, it is likely that they experienced a side effect and not a true allergy. Most opioid side effects are transient, often resolving within a few days of exposure.

While each patient is unique and may respond differently, a review of the available medical literature in which oxycodone is directly compared to morphine for management of pain reveals there is often no difference in pain relief or side effect profiles when comparing morphine to oxycodone for management of cancer pain (Annals of Oncology, Cochrane Database Review).

## TRANSITIONING FROM EXTENDED-RELEASE OXYCODONE

The table below outlines a 5-step process for transitioning from extended-release oxycodone to alternative long-acting opioid:

<b>Step 1</b>	Complete a comprehensive pain assessment to determine status of pain, and to review proposed pathophysiology of pain to help guide opioid rotation selection
<b>Step 2</b>	Calculate the total daily usage of the current opioid. This should include all long-acting and breakthrough opioid doses.
<b>Step 3</b>	Decide which opioid analgesic to transition to and refer to the opioid conversion table adopted by agency to determine dose of new opioid to initiate. Methadone should be strongly considered due to the multiple mechanism of action, ability to use in renal failure, crushable tablets or oral liquid formulation and low therapy cost
<b>Step 4</b>	Individualize dose based on assessment information gathered in Step 1 and ensure adequate access to breakthrough medication
<b>Step 5</b>	Determine monitoring plan to assess safety, efficacy and tolerability of newly initiated opioid regimen and make adjustment to therapy as appropriate.

## EXAMPLE CALCUATION

69-year-old male with metastatic renal cell carcinoma

Pain medication regimen

- Oxycontin SR 40mg po every 8 hours
- Oxycodone IR 10mg po every 4 hours prn breakthrough pain
- Morphine oral solution 20mg/ml take 10mg (0.5ml) po every 2 hours prn pain/dyspnea

Step 1: Determine total daily oral morphine equivalent

- Will need to know how many prn oxycodone IR and morphine oral liquid doses used/day
- For calculation one, it is documented patient uses all three Oxycontin<sup>®</sup> doses, plus four doses of oxycodone IR and two doses of morphine oral liquid/day
- The conversion factor for oxycodone to morphine is 1:1.5 (40mg of oxy=60mg of morphine)
- Total oral morphine equivalent from current opioid usage=260mg

Step 2: Convert to methadone equivalent using the following conversion factors

Methadone Conversion in an Opioid-Tolerant Patient	
24 Hour Morphine Usage	Morphine: Methadone Ratio
< 60mg	Use opioid-naïve dosing recs
MEDD: 60-200mg <i>AND</i> pt ≤ 65 years of age	10:1
MEDD > 200mg or pt > 65 years of age	20:1

- Since patient > 65 years of age, use 20:1 ratio; Morphine 260mg = methadone 13mg/day

Step 3: Determine starting methadone dose and frequency

- Initiate at either 5mg po every 12 hours (10mg/day) or 5mg po every 8 hours (15mg/day)

Step 4: Determine starting time:

-Initiate methadone in place of Oxycontin<sup>®</sup> at time next due

Step 5: Monitoring and Follow-up

- Continue immediate-release opioid to ensure patient has option available for breakthrough pain
- Educate patient/caregivers that until methadone steady state is achieved (3-5 days), patient may use more doses of immediate-release opioids/day, but this is to be expected.

## SUMMARY

Methadone and extended-release morphine are cost-effective alternatives to the extended-release oxycodone formulations, with comparable efficacy and side effect profiles with significantly lower therapy costs. Utilizing the five-step opioid rotation process can help to ensure a safe and effective transition to an alternative opioid regimen designed to optimize patient pain management, tolerability, and therapy cost. For questions regarding a patient-specific clinical scenario, please call BetterRX for a Clinical Pharmacy Consultation.

## References

- 1.) McPherson, ML. Demystifying opioid conversions calculations: a guide for effective dosing. American Society of Health-Systems Pharmacists, Inc., Bethesda, MD. 2018
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- 4.) Gammaitoni AR, Fine P, Alvarez N, et al. Clinical application of opioid equianalgesic data. *Clin J Pain*. 2003; 19: 286-297
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- 8.) Corli O, Floriani I, Montanari M, Galli F et al. Are strong opioids equally effective and safe in the treatment of chronic cancer pain? A multicenter randomized phase IV ‘real life’ trial on the variability of response to opioids. *Annals of Oncology*. 2016; 27:1107-1115,