

FAST FACTS AND CONCEPTS #18 SHORT-ACTING ORAL OPIOID DOSING INTERVALS

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Background Oral opioids are among the most commonly prescribed drugs in palliative care. Despite national analgesic guidelines, the use of excessive intervals for short-acting oral opioids continues to pose a significant barrier to good analgesic care. Understanding the pharmacological rationale for dosing intervals is key to proper prescribing and patient counseling.

Short-Acting Oral Opioids Short-acting products are administered as either single agents (oral morphine, hydromorphone, oxycodone and codeine) or as combination products containing acetaminophen, aspirin or ibuprofen. For all these products, the peak analgesic effect occurs in 60-90 minutes with an expected total duration of analgesia of 2-4 hours. Standard reference sources generally cite a 4 hour dosing interval for the single-agent opioids, but 4-6 or 6 hour intervals for combination products (PDR, Micromedex). However, the Agency for Health Care Policy and Research (AHCPR) Clinical Practice Guideline (1994) recommends dosing intervals for all short-acting opioids at an interval or every 3-4 hours, an interval more consistent with patient reports of pain relief and the half-life of oral opioids.

Is there a danger to more frequent drug administration? There is no danger of dosing intervals as often as every 2 hours for single agent products (e.g. morphine), *in patients with normal renal function and who are currently tolerating the opioid without sedation*, as the peak effect will be reached in 60-90 minutes and there is rapid renal excretion. For combination products, the concern is excessive acetaminophen. Thus, if patients need opioids on an every four hour basis, it is appropriate to change to single agents without acetaminophen and/or add a long-acting opioid product so as to keep the total daily acetaminophen dose at less than 4 grams.

Note: Transmucosal fentanyl citrate and oral oxymorphone have different pharmacokinetics than the agents mentioned above and are dosed differently – see *Fast Facts* #103 and #181.

Summary

- Prescribe the products listed above at intervals *no greater* than every 4 hours.
- Closely monitor daily acetaminophen intake when combination products are used.
- Provide explicit patient/family counseling regarding safe and allowable dosing intervals.
- Review your institutional opioid policies – ask if there is a hospital policy or guidelines for oral opioid dosing intervals; if not, such guidelines should be developed to help guide practice.

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References:

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