

A Position Statement on the Use of “As-Needed” Range Orders For Opioid Analgesics in the Management of Pain

A Consensus Statement of the American Society of Pain Management Nurses and the American Pain Society

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Position:

Effective pain management requires careful individual titration of analgesics that is based on a valid and reliable assessment of pain and pain relief. A registered nurse, who is competent in pain assessment and analgesic administration, can safely interpret and implement properly written “as-needed” or “PRN” range orders for analgesic medications. The American Society of Pain Management Nurses (ASPMN) and the American Pain Society (APS) support safe medication practices and the appropriate use of PRN range orders for opioid analgesics in the management of pain.

Background:

As needed (PRN) range orders for opioids (e.g., “morphine 2 to 6 mg IV every 2h PRN for pain” or “oxycodone 5-10mg PO q 4 hrs PRN pain”) are commonly used to provide flexibility in dosing to meet individual-needs. A wide variability exists in patients’ responses to analgesics. Some of the patient-specific factors influencing this variability include the individual’s prior opioid exposure (opioid naivety or tolerance), age, renal and liver function, pain severity, and comorbidities. Non-patient specific factors include drug kinetics and concurrent administration of other sedating drugs. Clear and thoughtful consideration of all these factors is necessary for safe and effective dosing. Review of evidence-based literature supports the need for individual initiation and titration of opioid dosing. (Gordon, Pellino, Higgins, Pasero, & Murphy-Ende, 2008).

Range orders enable necessary and safe adjustments in doses based on individual responses to treatment. In order to promote patient safety and reduce medication errors, it is critical that physicians, nurses, and pharmacists share a common understanding of how to properly write, interpret, and carry out PRN range orders.

Ethics:

Health care professionals are obliged to provide pain management and comfort to all patients under the ethical principles of beneficence and nonmaleficence. (Herr, Coyne, McCaffery, Manworren, & Merkel, 2011) Beneficence is defined as taking positive action to help others; desire to do good; a core principle of patient advocacy (Beauchamp, & Childress, 2009) The second principle of nonmaleficence is defined as the duty to do no harm.

Recommendations:**Prescribers:**

- Construct orders that contain a dosage range with a fixed time interval.
- Consider patient and drug characteristics including, but not limited to type and intensity of pain, duration of pain, patient age, past exposure and prior response to analgesics (both pain relief and side effects), comorbidities, end organ function, concomitant administration of other drugs, and pharmacokinetics of the analgesic to be ordered.
- Prescribing a specific dose, based solely on a unimodal pain intensity rating, is not appropriate or safe. A subjective pain intensity score is just one of several factors that influence a patient's dose. (See previous bullet).
- Provide a dosage range that is adequate enough to permit appropriate and safe dose titration based on the patient's opioid naivety or tolerance.
- Avoid therapeutic duplications of opioid medications consisting of more than one type of PRN opioid by the same route. (eg. Concurrent availability of oral oxycodone and hydrocodone/APAP or intravenous morphine and hydromorphone).
- If PRN opioids from different routes are ordered concurrently, give clear indications for use. (E.g. Use oral route unless patient is NPO or vomiting).
- The dosing interval should be appropriate for the drug and route of administration, taking into account usual absorption and distribution characteristics, time to onset, time to peak effect, and duration of action.
- Evaluate interactions of opioids with other adjuvant medications that may increase deleterious side-effects. (I.e. Sedating anti-nausea medication, sedating muscle relaxers, sleeping medication or benzodiazepines.)
- Ambiguous open-ended orders such as "titrate to comfort" are not acceptable.

Nurses:

- Base decisions about the implementation of range orders on a thorough pain assessment and knowledge of the drug to be administered. Assessment should include at minimum: pain intensity, temporal (time or pattern) characteristics of the pain, and the patient's previous response to this or other analgesics (e.g., pain relief, side effects, and impact on function).
- Use pain assessment tools that are valid and reliable, individualized to the patient, and used consistently for that individual. In the pediatric population, use an assessment tool that is age and developmentally appropriate for the patient. In the cognitively impaired patient, use appropriate behavioral assessments tools.

- The pharmacokinetics of the opioid should be considered: Absorption, bioavailability, protein binding, metabolism, excretion, half-life, accumulation. In the pediatric and geriatric population, be aware of specific considerations related to the pharmacokinetics of the opioid in those populations. (E.g. Elderly patients present with increased fat mass, decreased muscle mass, and decreased body water which effects drug distribution.) (Kaye, Baluch, & Scott,2010)
- Avoid administration of partial doses at more frequent intervals so as to not underdose a patient with small, frequent, ineffective doses from within a range. (i.e. Giving oxycodone 10 mg every 2 hours when the order reads oxycodone 10 to 20 mg every 3 hours PRN).
- Avoid making a patient wait a full time interval after giving a partial dose within the allowed range.
- Wait until peak effect of the first dose has been reached before giving a subsequent dose.
- Verify patient's drug allergy status.
- Tell the patient the name of the drug and the dose to be administered.
- Evaluate the patient's response to the analgesic dose and dosing interval.
- Ensure complete documentation and communication of patient's response to dose and dosing interval.
- Assist with the development of policies and processes that enhance patient comfort, ensure medication safety and ensure consistent interpretation of PRN range orders.

Institutions:

- Ensure that the prescriber is writing appropriate range orders for analgesics.
- Assess competency of nursing staff to interpret and implement range orders for analgesics.
- Provide ongoing education for safe medication practices for prescribers, nurses and pharmacists.
- Ensure the implementation of policies and processes that provide safe, consistent, effective dosing of analgesics.

Further Research:

The continued variability in prescribing and interpretation of PRN range orders for opioids requires more scrutiny and better understanding of the barriers to standardization. Does a common interpretation and standard implementation within an institution improve patient outcomes and satisfaction with pain management?

Summary:

- The treatment of pain requires individual titration of analgesics by a practitioner competent in pain assessment, analgesic administration, and evaluation of response to treatment.
- PRN range orders for analgesics must be written in accordance with evidence based clinical practice guidelines.

- Institutions should allow PRN range orders for opioid analgesics in order to meet the mandate for safe and effective pain management. Processes are required to ensure staff competency in the writing, interpretation, and implementation of these orders. Safety and quality of pain management practices must be monitored.

Resources

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