

## MGH Policy for Dose Range Orders

### 1. OVERVIEW

Massachusetts General Hospital is committed to optimal patient care. Such care requires multidisciplinary collaboration, inclusion of the patient in assessment and decision-making, and attention to patient safety. Patient response to the illness experience and to prescribed medications can be quite variable. MGH recognizes that dose range orders apply to many classes of medication. Range orders are an established and acceptable practice for individualizing the management of specified signs and symptoms (e.g. pain) as related to the patient condition. This policy includes the use of intravenous drugs used in patient care settings to optimize the achievement of a continuous physiological parameter (e.g. blood pressure, HR, etc.)

Range orders permit flexibility and rapid response to patient needs and facilitate the process of titrating to effect. The ordering practitioner and the nurse administering must take the following factors into consideration:

- Patient condition
- Co-morbidities respiratory insufficiency, decreased renal or hepatic function, and allergies
  - Age
  - Level of consciousness/alertness
  - Vital signs
  - Target symptom severity
- The anticipated illness trajectory
- Patient history of medication use and prior response
- Drug characteristics such as onset, time to peak effectiveness, duration of analgesia, side effects.
- Other medications the patient is receiving and potential interactions

### 2. POLICY

2.1. Medications that may be written in dose ranges include, but are not limited to analgesics, anxiolytics, antipsychotics, and antiemetics.

2.2. Dose range orders for intravenous drugs used in patient care settings to optimize the achievement of a continuous physiological parameter (e.g. blood pressure, HR, etc.) are acceptable.

2.3. Medication orders may be expressed as a range with a lower and upper limit.

2.4. The highest dose in the range may not be more than 2 times the lowest dose in the range. Exception: opioids may be 4 times the lowest dose in the range.

2.5. Frequency ranges are not permitted

3. **GUIDELINES FOR AS NEEDED DOSE RANGE ORDER:**

3.1. Choose a range that is narrow enough to be safe and wide enough to provide flexibility with professional judgment in dose selection and/or titration

3.2. Start with the lowest dose in the ordered range unless the assessment of the patient or the patient's medical history indicates a higher dose should be administered.

3.3. If symptoms are not relieved, additional doses may be given for a total amount not to exceed the maximum dose prescribed in the range order.

3.4. Contact practitioner in the event the upper range limit of the total dose has been reached in less than the specified frequency and desired outcome is not achieved.

- **Example of Acceptable Opiate Dose Range Order.**

Morphine Sulfate 2-8mg Q 4H prn pain (Acceptable Range Order)

- **Examples of Unacceptable Opiate Dose Range Orders:**

Morphine Sulfate 2-10mg Q 4H prn (greater than 4 times the lowest dose in the range)Morphine Sulfate 2-10mg Q3- 4H prn (range frequencies are not permitted.)

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Clinical Policy & Record:

Medical Policy: