

## Policies and Procedures; Hospital

This policy is in effect for Children's Hospital of The King's Daughters Health System, Inc. (CHKDHS) to include the following subsidiaries: Children's Hospital of The King's Daughters, Inc. (CHKD), Children's Medical Group, Inc., and CMG of North Carolina, Inc. (CMG), and Children's Surgical Specialty Group, Inc. (CSSG).

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### Individuals Reviewing Policy:

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Policy #: H??? Effective Date: April 1, 2010 Previous Revision: None

### Dates Reviewed:

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### SUBJECT: Pediatric Prescribing Requirements (Weight-Based Dosing)

**POLICY:** This policy applies to all medication orders, including verbal/telephone orders, written for infants and children receiving care at CHKD. In addition to writing the elements of an order outlined in Appendix A of the Professional Staff Bylaws (which requires delineation of the *route of administration, dose and frequency*), this policy adds the requirement to document the dosing basis in an effort to enhance patient safety and assure that each patient receives the correct medication dose. The policy is predicated on the inclusion of two additional elements to the order: specifying the dose basis (usually expressed as the dose for a given weight) and specifying the patient's dosing weight. Where appropriate, if dosing is based on body surface area or some other parameter, then the weight and length, or the child's body surface area or other dosing parameter should be included on the provider's medication order form.

### PROCEDURE:

1. If a physician's order sheet contains a medication order (either handwritten or preprinted order sets) the patient's current *dosing weight* in kilograms also needs to be written somewhere on the sheet. "Dosing weight" is the weight used to calculate medication doses, which may be different from the patient's actual weight.

If necessary for appropriate dosage calculations, medication orders must include the patient's current body surface area (BSA). Note: as long as the dosing weight is documented on the physician's order sheet, it does not have to be rewritten for each order or set of orders on the same page.

2. The prescriber must write a complete pediatric medication order including the *dose*, the *weight-based dosing* (dosage parameter as either mg/kg/dose, mg/kg/day, dose per BSA if applicable, or "adult" or "max dose"), *route of administration*, and *frequency* of medication administration for all medications that have a weight or body surface area basis. Appendix A contains examples of acceptable medication orders.

3. If the patient's appropriate dosage is equivalent to the adult standard dosage (typically this will occur in larger children or if the calculated weight-based dose is above the usual adult dosage), the prescriber must indicate "adult dose," "max dose," or an equivalent term on the medication order.
4. Pediatric medication orders that do not appropriately specify the patient's dosing weight and weight-based dosing or a notation of adult/standard dose/equivalent adult dose term (if applicable) will be considered incomplete and will not be dispensed or administered.
5. Medications administered by continuous infusion, such as fentanyl, midazolam or milrinone should be written to indicate the normalized dose on a weight basis rather than the total dose of medication, unless the medication is dosed on an adult basis (see Appendix A).
6. For medications that are not weight-based, the prescriber should write "standard dose," "non-weight based dose," or an equivalent phrase on the medication order. This is only acceptable for those medications that are not weight or BSA-dosed, such as those listed in Appendix B.
7. The Transfer Medication Order Form, which is used when patients are transferred between units or return from the OR, will be accepted as appropriate medication orders since the original orders should have been written correctly and were reviewed by pharmacy. Weight-based dosing is required for any medications added to the PowerChart derived transfer medication orders.

#### **Nursing and Pharmacy Procedure:**

1. Upon receiving the prescriber order, the registered nurse (RN) and/or clerk (if applicable) will review the medication order for any missing weight-based dosing and/or dosing weights. The medication order must contain the patient's dosing weight, medication dose, notation of weight-based dosing (or adult dose/standard dose/alternative adult dose equivalent term if appropriate), route, and frequency to be considered a complete medication order.
2. Prior to scanning an order to the pharmacy, if the RN/clerk identifies a medication order without the appropriate weight-based dosing and/or dosing weight then the RN will notify the prescriber and ask the prescriber to rewrite or revise the order to include the weight-based dosing.
3. If the RN/clerk does not identify any missing weight-based dosing and/or dosing weights or if the RN/clerk does not have the opportunity to review the orders prior to scanning to pharmacy, then the pharmacist will review the medication order upon receipt.
4. If upon review of the order by the pharmacist, the weight-based dosing information is missing, the pharmacist will calculate the weight-based dose for appropriateness. If the dose is appropriate the order will be processed and printed and a copy of the incomplete order will be sent to the Medical Director's office for follow-up with the prescriber. If the dose is not appropriate, the pharmacist will contact the prescriber to clarify the order and ask to have the order rewritten to contain the weight-based dosing information.
5. It is not standard practice to accept verbal medication order clarifications for incomplete medication orders including orders missing weight-based dosing information. The use of verbal medication orders will be accepted for emergency and/or patient comfort situations or at the discretion of the pharmacist and will be conducted according to policy (see C2204.1 for requirements for verbal/telephone orders).

## Appendix A

### Examples of Acceptable Medication Orders

#### Oral, injectable, and rectal dosage forms example:

- Drug A 250 mg (10 mg/kg/dose) PO q6hr
- Drug A 250 mg PO q6hr (40 mg/kg/day)
- Drug A 500 mg (adult dosing) PO q6hr
- Drug A 500 mg PO q6hr (adult dose)

**Please Note: “d” or “D” should not be used for “dose” or “day”**

#### Topical medications

- Drug B 5 mL PO swish and swallow four times daily (Standard dose)
- Drug B 5 mL PO swish and swallow four times daily (non-weight based dose)
- Drug C ointment apply to affected area PRN (standard dose)
- Drug C ointment apply to affected area PRN (non-weight based dose)

#### Continuous IV infusions utilizing Normalized dosing

- Drug D 0.05 mcg/kg/min
- Drug E 0.05 mg/kg/hr
- Drug F 2 mg/hr (adult dose)
- Drug N 0.3 units/kg/hr

## Appendix B

The following agents are not weight-based and therefore are exceptions to the requirement for weight-based dosing for pediatric patients. **Please Note: This list is not all inclusive. At the pharmacist discretion a prescriber maybe asked to provide weight-based dosing.**

1. Vaccines
2. Pancreatic enzymes
3. Glycerin, hemorrhoidal, and bisacodyl suppositories
4. Nasal sprays
5. Inhalers
6. Nebulizers
7. Tracheal washes
8. Bladder irrigations
9. Intrathecal medications
10. Intraperitoneal medications
11. Topical medications
12. Otic and ophthalmic medications
13. Maintenance IV fluids
14. Antibiotic locks
15. Heparin locks
16. Nystatin swish and swallow or other mouthwash preparations
17. Vitamin E
18. Polyethylene glycol-electrolyte solution (Miralax®)
19. Total parenteral nutrition (TPN)
20. Vitamin K (phytonadione)
21. Oral multivitamins
22. Alteplase (TPA) for intravenous line occlusion
23. Subcutaneous insulin including intensive insulin protocol orders
24. Senna
25. Simethicone
26. Lidocaine viscous solution swish and swallow
27. Throat lozenges
28. Lactobacillus
29. Vitamin A
30. Methylphenidate
31. Adderall
32. Antacids
33. Skin Tests
34. Vitamin C
35. Baclofen
36. Belladonna & Opium suppositories
37. Botulinum toxin A (Botox)