

Pediatric Medication and Fluid Administration

Site Applicability

SPH Emergency Department, PACU, and SDC

MSJ Emergency Department

Practice Level

Basic: Registered Nurses (RNs) and Registered Psychiatric Nurses (RPNs)

Licensed Practical Nurses (LPNs) may act as the second clinician required for double-checking medications but **CANNOT** administer medications to pediatric patients.

Requirements

All medication orders for pediatric patients must be ordered by a provider with the exception of PHC-approved nurse-initiated protocols, including:

- [Anaphylaxis: Initial Emergency Management \(Adult and Pediatric\)](#)
- [Asthma Exacerbation \(Acute\): Initial Management in known Asthmatics \(Pediatrics 1 year to less than 17 years of age\)](#)
- [Fever: Treatment for Discomfort and Malaise \(Pediatric age less than 17 years\)](#)
- [Pain Management: Acute Mild \(Pediatric age less than 17 years\)](#)

Need to Know

Practices for medication preparation and administration for pediatric patients (age one month to 17 years minus 1 day) and neonates (age up to 1 month) differ from those for the adult population, due to the difference in pediatric dosing compared to adult dosing, and calculations required in determining pediatric doses.

Guideline

Patient Weights for Dosing

All pediatric patients must have a measured weight documented to calculate medication dosing. Weights should be obtained at triage (in the emergency department) or on initial assessment and documented in Cerner.

Estimated weights should be avoided for medication dosing except for critically-ill patients and when life-saving interventions are required immediately. Approved methods for obtaining an estimated weight are:

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- Asking the parent/guardian for a recent weight (within the last two weeks).
- Using a Broselow tape or similar device.

Electronic Ordering of Medications

Pediatric medication orders must be entered by Computerized Provider Order Entry in Cerner prior to administration of the medication. When initiating a Nurse Initiated Protocol or Nurse Initiated Activity, the nurse must place the appropriate order in Cerner.

Verbal orders for pediatric medications may only be taken in emergent or life-threatening situations or during sterile procedures where ungloving is not practical, in accordance with the Telephone and Verbal Order Policy.

Administration of Intravenous Fluids

For neonate and pediatric patients, intravenous (IV) fluids and medications must be administered using an Alaris®PC CareFusion Infusion Pump with Guardrails or Alaris®syringe module, except when a medication is ordered for IV direct administration or a fluid bolus is being administered in an emergency situation.

The Alaris®syringe module may be used for IV fluid and medication administration by nurses who have been trained on its use. Nursing staff may also ask a NICU-trained nurse for assistance on its use.

Double-Checking of Medications and Fluids

A double-check of medication requires a qualified clinician to verify that the patient, medication, dosage, time, and route are correct. This could be either two RN/RPNs or an RN/RPN and a LPN, physician, or nurse practitioner.

Oral, Rectal, Vaginal, and Inhaled Medications

Only the first dose of all oral, rectal, vaginal, and inhaled medications is to be checked by two qualified clinicians.

Intranasal and Parenteral Medications

Each dose of intranasal and parenteral medications is to be checked by two qualified clinicians. This includes medications that are administered for cardiac arrest management.

Parenteral Fluids (including Blood and Blood Products)

IV fluid bolus and maintenance infusion rates (and changes), are to be checked by two qualified clinicians.

Topical Creams and Ointments

Topical creams and ointments (such as EMLA) do not require double-checks.

Medications for Neonates

All medications being administered to neonates must be double-checked by two qualified clinicians.

Independent Double Check (IDC) Medications

Any medication that requires an IDC per the IDC guideline must have an IDC performed.



Documentation

All medications are charted in the MAR in Cerner. When a double-check is required, the verifying clinician will sign their name in the “Witnessed by” field for medications, fluids, and IV rate changes.

Related Documents

1. [B-00-07-10098](#): Independent Double Check of Medication
2. [B-00-11-10024](#): Telephone and Verbal Orders
3. [BCD-11-11-41006](#): Medication Administration Policy
4. [BD-00-11-40028](#): High Alert Medications
5. [CA 2800](#): Medication Order Requirements Policy
6. [C-05-15-62336](#): Medication Administration – General Guidelines (BC Children’s Hospital)

References

1. Neuspiel, D. R., & Taylor, M. M. (2013). Reducing the risk of harm from medication errors in children. *Health Services Insights*, 6, 47-59.
2. Selbst, S. M., Fein, J. A., Osterhoudt, K., & Ho, W. (1999). Medication errors in a pediatric emergency department. *Pediatric Emergency Care*, 15(1), 1-4.
3. Weant, K. A., Bailey, A. M., & Baker, S. N. (2014). Strategies for reducing medication errors in the emergency department. *Open Access Emergency Medicine*, 6, 45-55.

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| First Released Date: | 30-JUN-2022 |
| Posted Date: | 20-NOV-2023 |
| Last Revised: | 20-NOV-2023 |
| Last Reviewed: | 20-NOV-2023 |
| Approved By: <i>(committee or position)</i> | PHC |
| | Professional Practice Standards Committee |
| Owners: <i>(optional)</i> | PHC |
| | Emergency Department, Surgical Program |