# PURPOSE:

Outline process to routinely obtain an actual weight in kilograms (kg) upon arrival for care, select appropriate *Pediatric Code Sheet* for emergency medication management, and identify appropriate Broselow Cart drawer based on patient's age and weight to reduce risk of medication errors and improve medication administration safety to pediatric patients receiving care within the Oregon Region.

# POLICY STATEMENT:

To reduce risk of medication errors and improve medication administration safety, pediatric patients will have:

* An actual weight in kg taken upon arrival for care entered into their electronic health record (EHR), included method used to correctly measure patients.
* Identification of Broselow Cart drawer color appropriate for size and age of patient
* An appropriate *Pediatric Code Sheet* for emergency medication management created specific to patient's actual weight in kg

Applies to patients care for in the following areas:

* Emergency Departments (ED)
* Inpatient Pediatric Unit (IPPED)
* Pediatric Intensive Care Unit (PICU)
* Surgical Departments, including short stay and post-anesthesia care units (SD)
* Adult Medical/Surgical or Intensive Care Units who admit patients under 18 years of age
* Mother Baby Units (MBU) who readmit newborns

# DEFINITIONS:

**ED** - Emergency Department

**EHR** - Electronic Health Record

**IPPED** - Inpatient Pediatric Unit

**kg** - Kilograms

**MBU** - Mother Baby Units

**PICU** - Pediatric Intensive Care Unit

**RN** - Registered Nurse

**SD** - Surgical Departments, including short stay and post-anesthesia care units

# PROCEDURE:

### Obtaining an Actual Weight in Kilograms:

* An actual weight in kg is taken upon arrival for care, including method used to correctly measure patients, and entered into patient's EHR following the *Entering Actual Weights in Kilograms during Pediatric ED Visits in Epic Cheat Sheet* (Attachment A). Acceptable methods include:
  + Standing
  + Infant scale or
  + Bed/crib scale
  + Broselow tape will be used for critically ill/injured patients where delaying care to obtain an actual scale weight or moving patient presents a negative risk to health outcomes.
  + **NOTE:** Stated, estimated, or declined are unacceptable methods which should be avoided.
* Use appropriate scale for child. Weigh children less than 24 months without clothing or a diaper. Children over the age of 24 months may be weighed while wearing light clothing unless otherwise specified. Ideally the child should be weighed wearing only hospital gown or pajamas. **Measure and document weight in kilograms only.**
* Repeat measurements will follow PSJH *Universal Pediatric Guideline: Assessment, Care Planning, and Discharge* policy and as clinically indicated.

### Identifying Broselow Cart Drawer Color Appropriate for Size and Age of Patient:

* **HEAD to RED:** Measure patient to determine weight/color zone when obtaining an actual weight in kg is not possible. If a patient appears overweight consider utilizing one zone higher for medication dosing only. Always use reference tape measured length zone for equipment selection regardless of body habitus.
* Place correlating drawer color sticker on patient's *Pediatric Code Sheet* and identification band.

|  |  |  |
| --- | --- | --- |
| **Drawer Color** | **Weight Range** | **Age** |
| Gray (located in shared pink/red drawer) | 3-5 kg | <3 months |
| Pink (located in shared pink/red drawer) | 6-7 kg | 3-5 months |
| Red (located in shared pink/red drawer) | 8-9 kg | 6-11 months |
| Purple | 10-11 kg | 12-24 months |
| Yellow | 12-14 kg | 2 years |
| White | 15-18 kg | 3-4 years |
| Blue | 19-23 kg | 5-6 years |
| Orange | 24-29 kg | 7-9 years |
| Green | 30-36 kg | 10-11 years |
| Green drawer supplies may be appropriate for patients > 36kg and/or >11 years of age, but may require a transition to adult-sized emergency equipment and supplies not located in Broselow cart. Participate in consultation with licensed independent practitioner to validate utilization of green drawer contents when a patient exceeds weight range and age limits listed above. | | |

### Creating/Selecting Appropriate *Pediatric Code Sheet* for Emergency Medication Management Specific to Patients' Actual Weight in Kilograms:

* Pre-made *Pediatric Code Sheets* are available from 3.0 to 22.0 kgs in 1.0 kg increments, then in 2.0 kgs increments up to 60 kgs which can be accessed in the:
  + Regional Children's Health SharePoint site *Pediatric Emergency Resources* folder and
  + *Regional Broselow Cart Manual,* located on top of Broselow Carts
* Manual entry of patient's weight should be entered into *Pediatric Code Sheets* for weight-based auto-calculations to be performed in the sheet closest, but just above, to the patient's actual weight (ex: patient weighs 7.4 kg select 8.0 kg sheet, change 8.0 to 7.4 kg in upper right hand excel cell correlating to weight, sheet auto-calculates all measurements to 7.4 kg dosing).
* When technology does not allow manual entry of patients' weights, the following should be performed:
  + Select the *Pediatric Code Sheet* closest, but just above, the patient's actual weight (ex: patient weighs 7.4 kg select 8.0 kg sheet, doses are retained for a 8.0 kg patient)
* Patients under 3.0 kg - consult a licensed independent practitioner
* Patients over 60 kg should continue to use 60 kg sheet as all maximum adult doses have been reached by 60 kg

# REVIEWED & APPROVED BY:

Oregon Regional Children's Services Operations Council

Oregon Regional Children's Services Quality Assurance Committee

Oregon Regional Emergency Department Collaborative Committee

# CROSS REFERENCES:

PSJH OR PSVMC *PICU - Minimum Standards of Care* policy

PSJH OR Hospitals Regional *Nursing Minimum Documentation Reference* policy

PSJH OR Hospital *Universal Pediatric Guideline: Assessment, Care Planning, and Discharge* policy

# REFERENCES:

American Academy of Pediatrics (2017). Statement of Endorsement: Weighing All Patients in Kilograms. Available at [PEDS\_20172476 1..1 (oregon.gov)](https://www.oregon.gov/oha/PH/PROVIDERPARTNERRESOURCES/EMSTRAUMASYSTEMS/EMSFORCHILDREN/PRPResources/AAP-Endorsement-of-ENA-Position-Statement-(AAP).pdf)

Broselow, J., Luten, R., Zaritsky, A., et al. (2019). *Broselow Pediatric Emergency Reference Tape*. Armstrong Medical Industries, Inc. Mettawa, IL

Institute for Safe Medication Practices (2021). *ISMP* *Targeted Medication Safety Best Practices for Hospitals.*

Emergency Nurses Association (2021). *Position Statement: Weighing All Patients in Kilograms.* Available at [weighingallpatientsinkilograms.pdf (ena.org)](https://www.ena.org/docs/default-source/resource-library/practice-resources/position-statements/weighingallpatientsinkilograms.pdf?sfvrsn=9c0709e_6)

The Joint Commission (2020). *A Best Practice in Kilograms*. Available at [A Best Practice in Kilograms | The Joint Commission](https://www.jointcommission.org/resources/news-and-multimedia/blogs/dateline-tjc/2020/06/17/a-best-practice-in-kilograms/)