<u>Actual Weight in Kilograms Epic SBAR</u>

<u>Situation</u>: One in four patients under the age of 18 seen in Oregon emergency departments (EDs) do not have a current actual weight in kilograms included in their electronic health record (EHR) to be used for medication and fluid resuscitation administration calculations.

<u>Background</u>: The Emergency Medical Services for Children Innovation & Improvement Center spearheaded a quality improvement collaborative, known as the national *Pediatric Readiness Quality Collaborative* (PRQC), to improve pediatric readiness of emergency departments (EDs) through new interventions. Twenty teams across the nation participated in PRQC to improve capabilities and quality of care provided to pediatric patients. The collaborative addressed four major topics, one of which included a patient safety initiative focused on collecting and documenting pediatric patients' weight in kilograms. In our journey to be a highly reliable organization, all eight Oregon ministries participated on a team beginning in January 2018 through April 2020.

The initial focus was on securing equipment locked in kilograms to avoid caregivers continuing to obtain weights in pounds. From there, efforts have been underway to ensure caregivers are taking and documenting in Epic actual weights, not stated/historical/estimated/declined weights.

Although PRQC ended in April 2020, an Oregon regional children's actual weights in kilograms quality initiative was developed and launched in January 2021 to continue efforts, with a regional goal of reaching 95% by the close of 2021. In addition, a new regional *Weight-Based Emergency Medication Dosing for Pediatric Patients* policy was developed and implemented to support this change in practice. The year-to-date (YTD) regional average in 2020 was 62%. Currently, our YTD regional average remains just above 75% despite significant ongoing and continuous connection to the measure.

Without significantly navigating through layers of Epic, prescribing providers and pharmacists remain unaware patients did not have an actual weight in kilograms taken at the time they are performing medication and fluid resuscitation calculations. Epic automatically displays the last weight entered into the record and doesn't readily flag with a safety banner or alert if the weight was from a previous encounter and/or entered using an unacceptable method such as a stated/historical/estimated/or declined method. This creates significant risk of under and/or overdosing patients in the ED, as well as carrying over into surgical departments and inpatient admissions if the actual weight is not taken in other care settings.

<u>Assessment:</u> Approximately 25% of patients under the age of 18 seen in Oregon EDs are at risk of medication and fluid resuscitation calculation errors because of not having an actual weight in kilograms taken when presenting for care. This rate is likely higher in Providence regions who have not placed this as a quality measure with ongoing attention and effort awarded as seen in Oregon. This poses a significant risk to infants and children of under and/or overdosing errors

which can have lasting effects, including death, to our pediatric patients who require weight-based medication and fluid resuscitation dosing.

Relying solely on changing human behaviors remains insufficient to tackle advancing efforts to obtain actual weights in kilograms for pediatric patients presenting for care. Additional safety measures are needed to ensure this basic, but critical aspect of care, is routinely accomplished.

Recommendations: Adjust Epic to raise nurses' awareness when an actual weight in kilograms was not accomplished during ED visits using an acceptable method (standing, infant scale, bed/crib, or sling/swing):

- This can first be an ALERT pop-up during triage to state weight was not taken and/or method used to obtain weight is unacceptable (stated/historical/estimated/declined):
  - **NOTE:** There should be an option to identify when a patient is in critical condition and validated tool, such as a Broselow tape, was appropriately used to estimate a weight to temporarily satisfy criteria to avoid a Best Practice Advisory (BPA) to automatically fire next time an RN opens the record again.
  - BPA should begin to trigger within 6 hours for critically ill/injured patients who initially met critical criteria to postpone this after ALERT was noted as appropriately estimated using a validated tool, such as a Broselow tape.
- Next, have a BPA trigger every time RNs enter record of non-critical patients until actual weight in kilograms (using an acceptable method) is accomplished for each ED visit for all patients under the age of 18 until it has been resolved.
- Additional considerations may include raising provider/pharmacist awareness of date weight taken and method used