



Position Statement

915 Lee Street, Des Plaines, IL 60016-6569 ▪ 800.900.9659 ▪ www.ena.org

Weighing All Patients in Kilograms

Description

Medication errors are a major cause of preventable morbidity.¹ Research has demonstrated that up to 18% of serious preventable medication errors are the result of not having essential information at the time of prescribing, dispensing, and administering medications.² Reports to the U.S. Food and Drug Administration (FDA) indicate that dosing errors comprise more than 40% of fatal medication errors.³ A 2009 analysis of 479 errors in weight-based medication dosing found that over 25% were due to “confusion between pounds and kilograms, and that simply having the option to weigh in either unit contributed to wrong weight entries.”⁴

Developmental differences and dosing complexities unique to pediatrics put children at particularly high risk for both medication errors and for serious consequences as a result of those errors.^{2,5,6,7} While dosing based upon the patient’s weight in kilograms is standard in pediatrics, it is also the method of dosing for many adult medications such as critical care drips and cancer therapies. As a result, patients of all ages are at risk for potentially fatal medication errors due to wrong weight documentation in the emergency department.¹

ENA Position

It is the position of the Emergency Nurses Association that:

1. Patient weights are measured, recorded, and displayed in a prominent place on the medical record in kilograms only.
2. Multiple types of scales are available in the emergency setting, all configured to record weights in kilograms only (e.g., examples are stretchers with built-in scales, built-in floor scales, chair scales, and portable standing scales).
3. For patients under 18 years of age, clinical decision support (CDS) functions are used to compare entered weight with expected weight (e.g., based on growth charts) and provide real-time alerts whenever under-dose or overdose is suspected.
4. Electronic medical records (EMRs) only allow for weight entries in kilograms.
5. Institutions consider integrating digital scales with the EMR to eliminate or reduce the need for data entry.
6. The patient’s actual weight is considered part of the mandatory nursing assessment, is taken at each visit, and is repeated as warranted in response to changes in the patient’s condition unless life-threatening circumstances do not allow it.
7. The patient’s weight in kilograms is included in all inter- and intra-disciplinary patient hand-offs.
8. The patient’s weight in kilograms is included on any prescription issued for a patient.

Background

Emergency departments are one of the top three areas where high medical error rates with serious consequences are known to occur;⁸ they occur more frequently when census is high and when patients are sicker.¹ Even with the most advanced computerized point of entry (CPOE) software, a wrong weight entry can inevitably lead to dosing errors.⁹ A large study of outpatient prescriptions demonstrated that clinical decision support systems integrated with CPOE significantly reduced both near misses and actual medication errors.¹⁰

Medication errors due to an incorrect weight recorded in the emergency department can easily be passed on to other units throughout the patient’s hospital stay^{2,4} and continue after discharge if prescriptions are written based on an erroneous weight.⁷

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Medication errors are often system failures. Therefore, as potential sources of errors are detected, it is important that these systems be updated.¹¹ National healthcare, quality, and safety organizations have recognized the impact of obtaining and recording patient weights in kilograms only on decreasing medication errors and support a standardized, system-wide strategy for this practice.^{4,9,11-15} It is the responsibility of institutional leadership to introduce this strategy and the responsibility of individual practitioners to use it to avoid medication errors.¹⁶

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