High Risk Situations: Pediatrics

Medical orders and clinical notes

For this vulnerable population, even a small deviation from the intended dose can result in serious harm. Yet, studies have shown a significant use of abbreviations in both medication orders and health records.[71,72] A review of handwritten prescriptions in an outpatient setting found that 50 per cent contained at least one medication error and of these errors 20 per cent had the potential for harm. Inappropriate abbreviations were the most common type of error but these were rated as having a low potential for harm.[71] A study of paediatric medical notes revealed the widespread use of abbreviations, averaging 21 abbreviations for each set of notes. These abbreviations were interpreted correctly between 31 to 63 per cent of the time by clinicians from other departments.[72]

Liquid preparations

The correct administration of liquid medications is a safety concern for paediatrics and use of abbreviations can contribute to confusion about administration of these medications in all care settings. Confusing labelling and measuring devices is thought to be a contributing factor to unintentional overdoses of non-prescription liquid products.[73] The United States Food and Drug Administration (FDA) released guidelines for the pharmaceutical industry to address this safety concern.[74] These guidelines are also relevant to dispensing and labelling multiple dose containers of liquid preparations in all care settings. Reinforce correct dose and administration by counselling parents and caregivers on the correct measuring technique with the device.

Table 22. FDA guidelines for providing liquid preparations to patients[73,74]

- All over-the-counter liquid preparations should include a measuring device.
- Directions for use on the label and the units of measurement of the device should match.
- The device should not have multiple measurements.
- The device should not hold more than the largest dose listed by the product information.
- Abbreviations should conform to national or international standards.
- Any abbreviations used should have a definition.
- Decimals and fractions should be used with care and conform to standards (e.g., use of leading zeros).
- Studies are recommended to confirm accurate use by consumers.

Adapted from Yin, 2010[73]

References

Note: Taken from the complete reference list for the Abbreviations Toolkit

71. Kaushal R, Goldman DA, Keohane CA, et al. Medication errors in paediatric outpatients. Quality & Safety in Health Care [Internet]. 2010 [cited 2014 Dec 17]; 19(6):e30. Available from: http://qualitysafety.bmj.com/content/19/6/e30.full

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