

Adherence to the Institute for Safe Medication Practices Canada's "Do Not Use" List of Dangerous Abbreviations in Paper and Electronic Medication Orders

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Background: Dangerous abbreviations on the Institute for Safe Medication Practices (ISMP) Canada's "Do Not Use" list have resulted in harmful medication errors. Data comparing the rates of dangerous abbreviation use in paper and electronic medication orders are limited.

Objectives: To compare the rates of dangerous abbreviation use, defined by ISMP Canada's "Do Not Use" list, in paper and electronic medication orders. Secondary objectives include determining the proportion of patients at risk of medication errors due to dangerous abbreviations and those most commonly used.

Methods: We conducted 1-day cross-sectional audits of medication orders using a convenience sample of 5 patients per nursing unit at a 6-site teaching hospital organization in December 2013 and January 2014. Proportions of paper and electronic medication orders containing dangerous abbreviation(s) were compared using a Chi-squared test. Proportion of patients with at least 1 medication order containing dangerous abbreviation(s) and the top 5 dangerous abbreviations used were described.

Results: Overall, 258 charts were reviewed, with 3 excluded as patients were discharged before electronic orders could be reviewed. The proportions of paper and electronic medication orders containing dangerous abbreviation(s) were 172/714 (24.1%) and 9/2207 (0.4%), respectively ($p < 0.001$). Overall, 76 out of 255 (29.8%) patients had at least 1 medication order containing dangerous abbreviation(s). Those most commonly used were "D/C", drug name abbreviations, "OD", "U", and "cc".

Conclusions: Electronic medication orders have significantly lower rates of dangerous abbreviation use than paper medication orders. Almost one-third of patients are at risk of harmful medication errors from dangerous abbreviation use.