HEALTH QUALITY & SAFETY COMMISSION NEW ZEALAND
Kupu Taurangi Hauora o Aotearoa

Alert 4 (revised) October 2012

Medication Alert

Error-prone abbreviations, symbols and dose designations NOT TO USE

For action by: Private Hospitals, Primary Health Organisations, Aged Residential Care Providers, Pharmaceutical Industry, Medical Information Systems and Technology Providers, Medical Communications and Publishers, Government Agencies, Professional Colleges, Bodies and Regulatory Authorities, Schools of Medicine, Nursing & Midwifery and Pharmacy

For information to: Chief Executive Officers, Chief Pharmacists, Directors of Nursing, Chief Medical Officers, Quality & Risk Managers, Clinical Records, Directors of Information Systems and/or Technology, Chairs of Medication Safety or Medicine Advisory Committees, NICLG, Regional IS/IT groups

Purpose of this alert

To eliminate the risk associated with the use of error-prone abbreviations, symbols and dose designations when communicating any type of medicine-related information verbally, handwritten, pre-printed or electronically.

REQUIRED ACTION

1. Eliminate the use of error-prone abbreviations, symbols and dose designations when reviewing or writing medicine-related communication, documentation and systems. This includes:
   - policies
   - procedures
   - guidelines
   - protocols
   - publications
   - education and training materials
   - templates/forms/charts (paper/electronic)
   - product labelling and packaging
   - promotional materials (graphics and text)
   - software and medical device design.
2. Educate on the risks associated with using error-prone abbreviations, dose designations and symbols using real examples that have led to errors and serious patient harm. This could be at staff/student induction or training sessions. The training should use real examples that have led to errors and patient harm. Additional educational resources can be found at http://www.hqsc.govt.nz/our-programmes/medication-safety/publications-and-resources/publication/455/.
3. Display 'error-prone abbreviation, symbols and dose designations NOT TO USE' posters in appropriate areas as a reminder.
4. Add the 'not to use error-prone abbreviations, symbols and dose designations list' in the organisation's editorial, publishing style or communication guides.
5. Conduct regular checks or audits to ensure use of error-prone abbreviations, symbols and dose designations has been eliminated.

Background to this Medication Alert

- **One of the major causes of preventable medication errors is the use of known error-prone abbreviations, symbols and dose designations.**

- **The use of abbreviations and acronyms may save time but is known to increase the potential for medication errors because:**
  - **not all health care staff interpret abbreviations uniformly**
  - **the abbreviations and acronyms may have more than one meaning**
  - **the meaning may vary from place to place**
  - **abbreviations and acronyms may be mistaken for another abbreviation if poorly handwritten.**

- **An audit of paper medication charts across four District Health Board sites found that 38 percent of medicine orders contained at least one error-prone abbreviation.[1] This is comparable to other literature, although the error-prone abbreviations, symbols and dose designations lists studied were different.[2]**

- **Nearly 5 percent of errors reported to a national database for medication errors from 2004 to 2006 involved abbreviations, according to a study published in the September 2007 issue of the Joint Commission Journal on Quality and Patient Safety. The majority of these errors (81 percent) occurred during prescribing.[3]**

- **A recent medication safety poll (June 2012) run on the Commission website showed that a handwritten mcg (error-prone abbreviation for microgram) can be mistaken for mg (milligram).**

- **The first 'do not use error-prone abbreviations, symbols and dose designations list' and associated alert was issued by the Safe and Quality Use of Medicines group (SQM) in 2007. The list has been reviewed against current international lists. The use of roman numerals has been added to the list by the national medication safety expert advisory group.[4,5]**

- **This list is not all-inclusive and there may be circumstances where organisations may wish to add other error-prone abbreviations, symbols and dose designations to their own lists.**

- **Error-prone abbreviations, symbols and dose designations should NEVER be used when communicating medicine-related information verbally, handwritten, pre-printed or electronically. Doing so gives the impression that they are acceptable.**

References

1. Parsotam N. Evaluation of the National Medication Chart (NMC), Version 1. Health Quality & Safety Commission July 2011 (unpublished).
2. Garbutt J, Milligan P, McNaughton C *et al*. A Practical Approach to Measure the Quality of Handwritten Medication Orders. J Patient Saf 2005; 1:195-200.
3. Brunetti L, Santell JP, Hicks RW. The Impact of Abbreviations on Patient Safety. The Joint Commission Journal on Quality and Patient Safety 2007, Vol 33; No 9: 576-583.
4. Australian Commission on Safety and Quality in Healthcare. Recommendations for terminology, abbreviations and symbols to be used in the prescribing and administering of medicines. January 2012. http://www.health.vic.gov.au/qum/downloads/acsqhc_recommendations.pdf (last accessed July 2012).
5. Institute of Safe Medication Practices. ISMP's List of Error-Prone Abbreviations, Symbols and Dose Designations. 2011. http://www.ismp.org/tools/errorproneabbreviations.pdf (last accessed July 2012).

For an electronic version of this alert, download from: www.hqsc.govt.nz
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These recommendations are based on a review of currently available information in order to assist practitioners. Recommendations are general guidelines only and are not intended to be a substitute for individual clinical decision-making in specific cases.