Medication Safety Watch

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Health Quality & Safety Commission New Zealand
Kupu Taurangi Hauora o Aotearoa

Medication Safety Watch

A bulletin for all health professionals and health care managers working with medicines or patient safety.

Key messages

- Tall Man lettering
- Sterile talc adverse reaction
- Methotexate and Insulin errors
- Avoid abbreviations and eliminate errors

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Medication alerts

These alerts provide information and required actions about high-risk medicines and situations and are issued to health care staff, managers and organisations. For more information contact Beth Loe at Beth.Loe@hqsc.govt.nz

RELEASED: Oral Methotrexate Alert March 2012 and accompanying action plan. Available from www.hqsc.govt.nz/our-programmes/medication-safety/projects/alerts/

What's new?

Tall Man lettering

The national Medication Safety Expert Advisory Group (MSEAG) has endorsed the adaptation of the *Australian National Tall Man Lettering List* for use in New Zealand. Tall Man lettering is an error-prevention strategy used to reduce the risk of confusion between medicines whose names look or sound alike. It uses a combination of lower and upper case letters to highlight the differences between the names, like fluOXETine and fluVOXAMine, helping to make them more distinguishable particularly in electronic systems. Work on the Tall Man lettering list will begin in late 2012.

NZ community error reporting fruitful

The New Zealand Pharmacovigilance Centre (NZPhvC) is piloting a Medication Error Reporting and Prevention system (MERP) that aims to reduce and prevent medication errors in primary care. Between 1 October 2011 and 31 March 2012, 323 reports have been received and validated. Although the pilot will run to the end of May, the NZPhvC is exploring opportunities for ongoing funding and in the interim will continue monitoring and work with the MSEAG and other organisations to enable wider learning from errors. For more information see *https://nzphvc-01.otago.ac.nz/carm-adr/merp.php*

Up and Away and Out of Sight

Put your medicines Up and Away and Out of Sight is an American educational programme to remind families of the importance of safe medicine storage. Safe Kids Worldwide released a report that found, while the death rate among children from poisoning has halved since the late 1970s, the percentage of all child poisoning deaths due to medicines has nearly doubled, from 36 percent to 64 percent. Through a US network of 600 coalitions and chapters, Safe Kids will educate parents, grandparents and caregivers about the necessary behavioural changes related to safe medication storage and dosing. Check out the resources at *www.upandaway.org*

Serious adverse reaction to talc used for pleurodesis

Medsafe received a report about a patient who became unwell with hypotension, fever, respiratory distress and severe chest pain 18 hours after undergoing sterile talc pleurodesis. Symptoms lasted for 72 hours before slowly resolving. Investigation revealed that the patient had received mixed grade talc that includes particles of size less than 10 micrometre. International data indicates that mixed grade talc has been associated with more serious systemic adverse reactions than graded talc where particles smaller than 10 micrometre have been removed. Currently no talc brands have been evaluated by Medsafe or are approved for use in New Zealand. Medsafe recommends that where possible, graded talc is used for pleurodesis procedures to minimise the risk of serious adverse reactions occurring.

What's new? continued

New self-assessment tool for Medication safety in Oncology

Through a grant from the International Society of Oncology Pharmacy Practitioners (ISOPP), the Institute for Safe Medication Practices (ISMP) in the USA and Canada has developed an ISMP International Medication Safety Self Assessment® for Oncology to help organisations to evaluate oncology medication safety. Chemotherapy and biotherapy agents used in cancer treatment are considered to be 'high-alert' drugs, which are more likely to cause patient harm when involved in an error. For more information on the tool, see *www.intmedsafe.net/Contents/DisplayContent.aspx?ContentId=375*

Advise patients to keep their medicines in a cool, dry, secure place out of a child's reach but not in the bathroom. Bathroom cabinets tend to be warm and humid, an environment that can speed up the medicine degradation process.

Incidents and cautions

Four times the dose

A patient was prescribed methotrexate 2.5mg tablets but was inadvertently dispensed the 10mg tablets. The patient realised that they had the incorrect strength after taking one dose and called an ambulance. Folinic acid rescue therapy was given. *Minimise the risk of this incident happening by only prescribing or dispensing the lowest strength of methotrexate where possible.*

Double checks are more effective if they are performed independently. Sharing prior calculations or performing a double check with the person who originally completed the task can lead to a false sense of security.

Calcium label changes

Arrow Pharmaceuticals will be making changes to the label of the funded calcium product. The existing label refers to elemental calcium alone, which is a change from the previously funded product and has resulted in reports of prescribing, dispensing and administration confusion about how many calcium tablets to take. The new label will state that each tablet contains calcium carbonate equivalent to 500mg elemental calcium (calcium carbonate 1.25g) and is expected in December 2012. *Ensure the patient knows the number of tablets to take.*

Using more than a single insulin product

There have been reports of insulin vials being returned to the wrong outer cardboard packaging after use. People have ended up administering the wrong insulin because they were reading the label on the packaging, assuming that the package accurately reflects what was contained inside. *Discard the original cardboard package once it has been opened and check the vial label itself.*

Numbers in medicine names

Chatting with a newly referred Crohn's colitis patient, the doctor asked, "And you use 6-mercaptopurine?" "No," she answered, looking perplexed. "I only use one." Medicine names are confusing at the best of times but numbers that are part of a medicine name can add a new dimension. 5-ASA or 3TC anyone? *Check the patient hasn't mistaken the number in the medicine name as the number of tablets to take.*

Upcoming events

- 10th Australasian Conference on Safety and Quality in Health Care, 3-5 September 2012, Cairns, Australia. *http://wired.ivvy.com/event/FDHYLT/*
- Safety 2012 World Conference, 1-4 October 2012, Wellington. *www.hqsc.govt.nz/news-and-events/event/391/*
- 5th International Medication Safety Network Medication Safety Conference, 15-17 November 2012, Abu Dhabi.

Contribute to Medication Safety Watch

Are you or your organisation working on a new medication safety initiative? Has there been a medicine-related incident or error that has happened that you would like to warn others about? If so, please contact: Nirasha.Parsotam@hqsc.govt.nz

Error-prone abbreviations, symbols and dose designations

NOT TO USE

NATIONAL MEDICATION SAFETY PROGRAMME

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The following abbreviations, symbols and dose designations have been reported internationally as being frequently misinterpreted and involved in harmful medication errors. *They should NEVER be used when communicating medicine-related information verbally, handwritten, pre-printed or electronically.*

The use of abbreviations and acronyms may save time but can increase the potential for medication errors. Not all health practitioners interpret abbreviations and acronyms uniformly. They may have more than one meaning, the meaning may vary from place to place and/or if poorly handwritten may be mistaken for another abbreviation. 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.

DO NOT USE	Intended Meaning	Misinterpretation	Preferred Term
Abbreviated chemical names (eg, MgSO4, HCL, KCL)	MgSO4 = magnesium sulphate	Mistaken as morphine sulphate.	Write the **complete chemical name** (eg, magnesium sulphate, hydrochloric acid, potassium chloride). Drop down selection lists should contain the full chemical name.
	HCL = hydrochloric acid	Mistaken as potassium chloride.	
	KCL= potassium chloride	Mistaken as hydrochloric acid.	
Abbreviated medicine names (eg, MTX, HCT, AZT)		Mistaken MTX as methotrexate or mitozantrone.	Write the **complete medicine name**. **Prescribe generically** unless you need to give a patient a specific brand medicine. Sometimes brand names do not adequately identify the medicine being prescribed (eg, Augmentin® or Timentin® may not be identified as containing a penicillin). The funded brand often changes in New Zealand and prescribing generically enables suitable products to be dispensed or administered, saving delay and sometimes expense to the patient.
		Mistaken HCT as hydrocortisone or hydrochlorothiazide.	
		Mistaken AZT as azathioprine, zidovudine or azithromycin.	
µg or mcg	microgram	Mistaken as mg (milligrams).	Write **microgram**.
U or IU	U = unit	Mistaken U as zero, four, and cc.	Write **unit or international unit**.
	IU = international unit	Mistaken IU as IV (intravenous), 10 (ten), or as a trailing 1 (one).	
ng	nanogram	Mistaken as milligram.	Write **nanogram**.
OD, od, or O.D.	once a day, daily or every day	Mistaken as QID (four times a day) or BD (twice daily).	Write **daily** or the intended time of administration (eg, morning, night).
Q.D, q.d, qd, QD	every day (in USA only)	Mistaken as QID or BD.	Write **daily** or the intended time of administration (eg, morning, night).
SC	subcutaneous	Mistaken as SL (sublingual).	Write **subcut** or **subcutaneous**.
SL or S/L	sublingual	Mistaken as SC (subcutaneous).	Write **subling** or **sublingual**.
mEq or milliequivalent		Confusion between milliequivalent and millimole.	Use only standard international units. State required dose in **millimole** or **mmol**.
Zeros: lack of a leading zero (eg, .5mg)	.5mg = 0.5mg	Mistaken .5mg as 5mg if the decimal point is missed leading to a tenfold error.	**Avoid leading zeros** by rewriting the dose as smaller units (eg, 0.5mg = 500 micrograms). If not possible, include a leading zero (eg, 0.125mg).
Zeros: adding a trailing zero (eg, 1.0mg, 100.0g)	1.0mg = 1mg 100.0g = 100g	Mistaken 1.0mg as 10mg and 100.0g for 1000g if the decimal point is missed leading to a tenfold error.	**Never** write a zero after a decimal point. Write 1.0mg as 1mg. Write 100.0g as 100g.
Roman numerals (eg, ii, iv, x)	numbers 1, 2, 3, 4 etc	Latin is no longer the predominant language of medical literature. Not every health care professional has been trained in its use.	Use **words** or Hindu-Arabic **numbers** (ie, 1,2,3 etc).

References

1 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.safetyandquality.gov.au/wp-content/uploads/2012/01/32060v2.pdf

2 Institute of Safe Medication Practices. ISMP's List of Error Prone Abbreviations, Symbols and Dose Designations. 2011. http://www.ismp.org/tools/errorproneabbreviations.pdf