MEDICATION SAFETY

Australian Commission on Safety and Quality in Health Care

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Evidence briefings on interventions to improve medication safety

Five evidence briefings on interventions to reduce administration and dispensing errors and improve the efficiency of medication distribution systems are now available. The evidence briefings consider:

- automated dispensing systems
- bar code medicine administration systems
- electronic medication administration records
- double-checking medicine administration
- interventions to reduce interruptions during medicines preparation and administration.

The evidence briefs provide policy makers and health service managers with current evidence in relation to the demonstrated effects of interventions on patient safety, work flow and costs in hospitals and outpatient settings. The briefings will assist in developing business cases and informing decisions about the likely value to be derived from the investment in new technology.

Also included in this issue:

- New Medication Safety Program web site
- Literature Review: Medication Safety in Australia 2013
- NIMC 2012 National Audit Report

Medicines administration in acute care remains a practice with significant risk of error. Leape et al report that administration errors constitute 38% of medication errors in hospitals with only 2% being intercepted before reaching the patient[1]. Increasingly, health services are looking to interventions, both technological and non-technological, to improve medication administration safety and efficiency.

The briefings provide the basis for a comparative analysis of the relative effectiveness of the different interventions on reducing medication administration errors. This will assist health services identify the most appropriate intervention for their service.

The evidence briefs are available from www.safetyandquality.gov.au/our-work/medication-safety/medication-administration/

[1] Leape LL, Bates DW, Cullen DJ, Cooper J, et al. Systems Analysis of Adverse Drug Events. *JAMA* 1995;274(1):35-43.

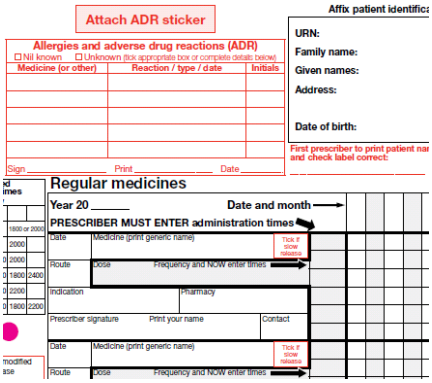
Achieving effective medicines governance

The Council of Australian Therapeutic Advisory Groups (CATAG) has released **Guiding Principles for the Roles and Responsibilities of Drug and Therapeutics Committees in Australian Public Hospitals**.

Informed by an expert advisory group, and externally reviewed and endorsed by CATAG members, the guidance consists of sixteen guiding principles which address the following aspects of a drug and therapeutics committee (DTC):

- scope and functions
- structure
- operation and processes
- communication
- resources.

The principles will enable health services to define clearly the scope and functions of a DTC and provide a framework against which the DTC can review their practice. Implementation of the principles will assist health service organisations meet the governance criteria in the National Safety and Quality Health Service Standards 1 and 4. The document can be accessed through the CATAG web site at www.catag.org.au



NIMC 2012 National Audit Report

Three hundred and twelve hospitals, nearly a third of Australian hospitals, participated in the NIMC 2012 National Audit making it the largest NIMC national audit. Of these, 241 were public hospitals and 71 private hospitals.

The 2012 audit provides a snapshot of NIMC use across Australia. A total of 13,881 patients' charts were audited and 110,690 medication orders reviewed. This provides a broader, more representative national perspective than previous audits.

The NIMC 2012 National Audit Report analyses key outcomes from the audit data. While the results demonstrate continuing improvements in the use of certain NIMC safety features and the quality of prescribing, there are a number of areas that appear resistant to improvement. These are the subject of a supplement to the report. The supplement provides guidance to hospitals on using local data to identify areas of poor performance and recommends actions for improving use of the NIMC that can be undertaken at local, state and national levels.

The NIMC 2012 National Audit Report is available from www.safetyandquality.gov.au/publications/nimc-2012-national-audit-report-2/ and supplement report from www.safetyandquality.gov.au/publications/nimc-2012-national-audit-report-supplement/ www.safetyandquality.gov.au/publications/nimc-2012-national-audit-report/

The next NIMC national audit will take place from 1 August to 30 September 2014. More information will be available from the web page shortly.

National Residential Medication Chart

A National Residential Medication Chart has been developed to standardise and improve medication charting in residential aged care facilities.

Developed by the Commission, and funded by the Commonwealth through the Fifth Community Pharmacy Agreement, the National Residential Medication Chart aims to improve the safety of medication management in residential aged care facilities through standardised medication charting and medication management practice.

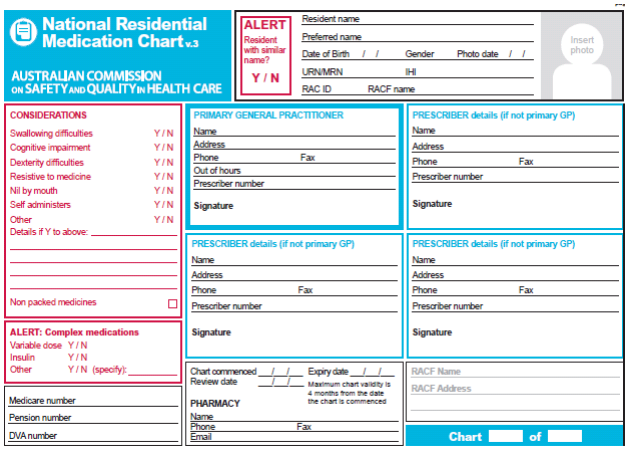
The National Residential Medication Chart (NRMC) incorporates three functions:

- prescription for dispensing medicines
- order for administration
- PBS claiming.

Because it incorporates three functions, and reduces the requirement for a separate prescription, the NRMC should improve work flows and reduce management of "owing scripts" by facilities.

The NRMC will be available for implementation from 1 April 2014. However implementation will be dependent on local state or territory legislation permitting prescriptions on a medication chart.

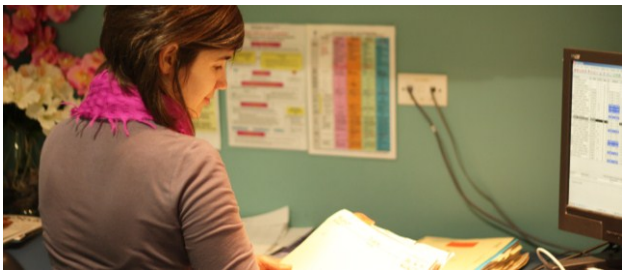
Further information on the NRMC Project is available from the Commission web site at www.safetyandquality.gov.au/our-work/medication-safety/medication-chart/nrmc/



Get it right: Taking a Best Possible Medication History

A new, video-based, online training tool is available to guide clinicians on conducting a structured, formal process for obtaining an accurate and complete medication history on admission, known as a Best Possible Medication History or BPMH - the first step in the process of medication reconciliation.

The new video includes a short, role play scenario which highlights the steps in taking a BPMH and provides some important tips when reviewing sources of medicines information. It is suitable for training nursing, medical and pharmacy staff and students. For information on how to access the video, go to www.safetyandquality.gov.au/our-work/medication-safety/medication-reconciliation/taking-a-best-possible-medication-history/



Medication Safety Standard

A set of frequently asked questions (FAQs) on National Safety and Quality Health Service Standard 4 – Medication safety is available from the Commission's website. The FAQs have been developed from the inquiries submitted to the Commission Accreditation Advice Centre and questions asked during Standard 4 network meetings.

The FAQs, along with a number of other useful resources, are available from the Standard specific resources section on the Resources to Implement the National Safety and Quality Health Service Standards web page www.safetyandquality.gov.au/our-work/accreditation/resources-to-implement-the-national-safety-and-quality-health-service-standards/

Literature Review: Medication Safety in Australia

Medicines are the most common treatment used in health care and are associated with more errors and adverse events than other aspect of health care. While resulting harm rates are low, the prevalence of medication errors is of particular concern because many of them can be avoided.

Knowing how medication errors occur, the rate at which they occur and how they can be prevented is important for understanding how we can improve the safety and quality of medicines use whether it is improvements in individual practice or systems for managing medicines.

Literature Review: Medication Safety in Australia 2013 is the third in a series surveying medication safety in Australian health care. The first was published in 2002 [2], and the second in 2008 [3].

Since the second review was published, the evidence base for medication-related problems and medication safety activities in Australia has expanded considerably. The 2013 review provides important new information on the:

- extent and nature of medication errors in Australia; and
- effectiveness of strategies to:
    - prevent errors occurring
    - minimise harm when they occur.

The review is presented in three parts:

- Part 1: The extent of medication-related problems in Australia
- Part 2: Strategies for improving medication safety in the Australian healthcare setting
- Part 3: Medication safety intervention strategies: the international evidence

The 2013 review provides further evidence on who is most at risk of an adverse medicines event, where the errors are occurring and what interventions are more successful in reducing the risk of adverse events. This information can be used by individual practitioners, healthcare facilities and policy makers to improve the quality and safety of medicines use in all healthcare settings. The review also highlights areas where evidence is lacking, including data, on the effectiveness of interventions in terms of patient outcomes and quality of life. This evidence is critical to those responsible for making decisions on the funding and delivery of health care in Australia.

Published by the Commission, the review was written by Prof Libby Roughead, Dr Susan Semple and Ms Ellie Rosenfeld of the Sansom Institute at the University of South Australia, and is available on the Commission web site at www.safetyandquality.gov.au/publications/literature-review-medication-safety-in-australia/

Pre-printed syringe labels in interventional cardiology and radiology

Recommendations are available for pre-printed syringe labels, and label sets, for interventional cardiology and radiology. Pre-printed syringe labels were evaluated in four interventional cardiology laboratories and two radiology suites. The evaluation concluded that pre-printed labels should be standardised and any colour coding should be consistent with the international anaesthetic labelling standard ISO 26825:2008.

Full recommendations for user-applied labelling of medicines in syringes in interventional cardiology and radiology are found in the report on the Commission web site at www.safetyandquality.gov.au/our-work/medication-safety/user-applied-labelling/

Health services using customised label sets should transition to standardised label sets when their existing stocks are exhausted.

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[2] Australian Council for Safety and Quality in Healthcare. *Second National Report on Patient Safety - Improving Medication Safety*. Canberra: Australian Council for Safety and Quality in Healthcare, 2002.

[3] Roughead EE, Semple S. Literature review:medication safety in acute care in Australia. Sydney. ACSQHC, 2008.

National Guidelines for Safer Onscreen Display of Medicines information

The Commission is developing guidelines on displaying medicines information on screen in electronic health records, electronic medication management systems (EMMS), medicines lists and electronic discharge systems. The goal of the project is to improve the safety of Australian e-health by describing requirements for safe on-screen display of medicines information.

The specific objectives of the project are to:

- enhance the safety of the Personally Controlled Electronic Health Record (PCEHR), clinical Information systems and consumer-facing solutions
- ensure safety when medicines information is displayed on-screen
- standardise on-screen display of medicines information
- reduce the burden on individual sector participants and vendors to develop consistent requirements
- maximise the safety return on investment in the PCEHR and in electronic medication management (EMM) by health care providers
- migrate existing national medicines information standardisations into the electronic environment including National Tall Man Lettering and acceptable abbreviations.

The project will conclude in July 2014 and result in national guidelines for safer on-screen display of medicines information, including in the PCEHR.

NIMC online training includes VTE module

The NIMC online training program has been updated to include the new venous thromboembolism (VTE) section.

Developed and hosted by NPS MedicineWise, with the support of the Commission, NIMC online training guides users through the principles of safe prescribing and demonstrates how to complete the NIMC correctly.

The updated NIMC online training is available from the NPS MedicineWise web site at learn.nps.org.au/mod/page/view.php?id=4278

Designed for hospital-based practitioners and health professional undergraduate students, NIMC online training is a series of self-paced, online training modules. Completion of the modules can earn professional development points.

The NIMC (acute) and NIMC (GP e-version) incorporate the new VTE prophylaxis section with:

- VTE risk assessment recording
- VTE pharmacological prophylaxis prescribing and administration
- VTE mechanical prophylaxis ordering and checking.

The NIMC (day surgery) incorporates a modified VTE prophylaxis section.

Further information on the latest versions of national medication charts is available from www.safetyandquality.gov.au/our-work/medication-safety/medication-chart/

NPS MedicineWise NIMC training

NIMC VTE prophylaxis section audit tool

An electronic tool is available for health services to measure use of the pre-printed NIMC VTE prophylaxis section's safety elements. The tool can be used to collect pre-implementation and post-implementation audit data and report on the data. It is supported by a user guide and is available from www.safetyandquality.gov.au/our-work/medication-safety/medication-chart/nimc/vteprophylaxis/


AUSTRALIAN COMMISSION ON SAFETY AND QUALITY IN HEALTH CARE

CLINICAL EXCELLENCE COMMISSION

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Improving the safety and quality of pharmacy dispensing labels

National round table report

25 November 2013

Pharmacy Dispensing Labels Workshop

The Australian Commission on Safety and Quality in Health Care and the NSW Clinical Excellence Commission co-hosted a national round table discussion on improving the safety and quality of pharmacy dispensing labels on Monday 25 November 2013 in Sydney.

The purpose of the round table was to engage pharmacy organisations, consumers, educators, software vendors and patient safety agencies in a discussion about actions to improve the safety and quality of information provided in pharmacy dispensing labels. The aims of the round table were to:

- formulate a set of priorities for improving pharmacy dispensing labels
- identify the appropriate agencies to lead the work required.

Participants were invited from consumer and pharmacy professional organisations, regulatory agencies, universities, medical software industry, pharmacy indemnity insurers, pharmaceutical industry and quality use of medicines experts.

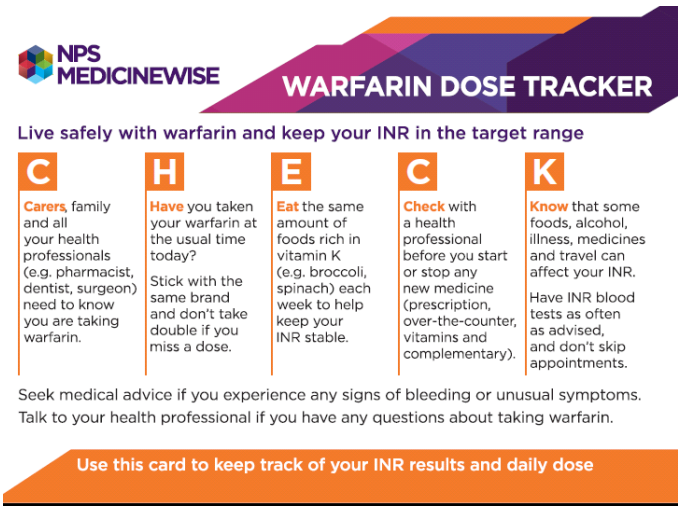
The round table report, including recommendations and next steps, is available on the Commission web site at www.safetyandquality.gov.au/publications/national-round-table-report-on-improving-the-safety-and-quality-of-pharmacy-dispensing-labels/

Warfarin resources for consumers

NPS MedicineWise has recently added two new resources to their on-line warfarin knowledge hub to help consumers safely manage their warfarin and keep their INR in target range. They include:

- Living well with warfarin fact sheet
- Warfarin dose tracker

The NPS Warfarin Dose Tracker is a passport-sized card that helps people keep track of their INR results, record any changes in their daily warfarin dose and remind them when their next INR test is due. It available in hard copy or can be downloaded from www.nps.org.au/warfarin-dose-tracker. The on-line warfarin hub can be accessed at www.nps.org.au/warfarin


NPS MEDICINEWISE

WARFARIN DOSE TRACKER

Live safely with warfarin and keep your INR in the target range

C — Carers, family and all your health professionals (e.g. pharmacist, dentist, surgeon) need to know you are taking warfarin.

H — Have you taken your warfarin at the usual time today? Stick with the same brand and don't take double if you miss a dose.

E — Eat the same amount of foods rich in vitamin K (e.g. broccoli, spinach) each week to help keep your INR stable.

C — Check with a health professional before you start or stop any new medicine (prescription, over-the-counter, vitamins and complementary).

K — Know that some foods, alcohol, illness, medicines and travel can affect your INR. Have INR blood tests as often as advised, and don't skip appointments.

Seek medical advice if you experience any signs of bleeding or unusual symptoms. Talk to your health professional if you have any questions about taking warfarin.

Use this card to keep track of your INR results and daily dose

AMH Children's Dosing Companion

Australian Medicines Handbook (AMH) has released its Children's Dosing Companion, a national online guide to prescribing and administering medicines for young people.

It is designed for healthcare professionals working in both hospital and community settings, including paediatricians, general practitioners, pharmacists and nurses, as well as students in these disciplines.

The Children's Dosing Companion provides detailed dosing information for individual drugs, with dosages arranged by indications and/or age groupings from infants to 18 years, as well as other specific information relating to each drug's paediatric use.

It also contains more general information on paediatric prescribing and managing drug use, including off-label use and other hard-to-find data.

All content is evidence-based and peer-reviewed. The initial release includes monographs on around 230 drugs, covering more than 90% of current PBS paediatric prescribing in Australia. More drugs will be added in future updates.

The AMH Children's Dosing Companion also contains links to the more comprehensive general information in AMH, including comparative data

Further information on the guide is available from https://shop.amh.net.au/cdc

Guiding principles for the quality use of off-label medicines

The Council of Australian Therapeutic Advisory Groups (CATAG) has released **Rethinking medicines decision making in Australian hospitals: Guiding principles for the quality use of off-label medicines**.

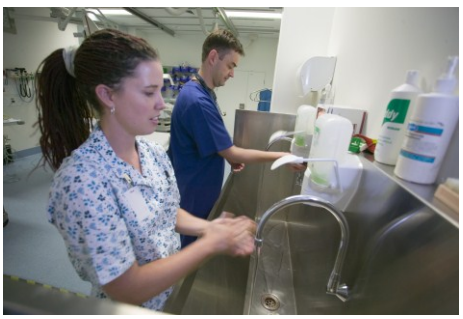
The purpose of the guiding principles is to support the quality use of off-label medicines in Australian public hospitals. The principles are intended to assist decision-making by health professionals, consumers and drug and therapeutics committees in the evaluation, approval and use of these medicines.

The term 'off-label' is applied when a medicine is used in ways other than specified in the Australian Therapeutic Goods Administration (TGA) approved product information, including when the medicine is prescribed or administered:

- for another indication
- at a different dose
- via an alternate route of administration
- for a patient of an age or gender outside the registered use.

The clinical, safety, ethical, legal and financial issues related to the off-label use of medicines, require a careful and responsible approach to ensure delivery of quality use of medicines (QUM) to the Australian public. The guiding principles seek to support QUM and to minimise unintended harm by providing a framework for decision-making.

The guiding principles are available from the CATAG web site at www.catag.org.au/wp-content/uploads/2012/08/OKA9963-CATAG-Rethinking-Medicines-Decision-Making-final.pdf



NPS MedicineWise antipsychotic monitoring tool

NPS MedicineWise has released an antipsychotic monitoring tool. Designed for health professionals, the tool Lists recommended monitoring intervals and what you need to check for in patients taking antipsychotic medicines long term. A two page document can be added to the patient's notes.

The tool is available for down-loading from the NPS MedicineWise web site at www.nps.org.au/__data/assets/pdf_file/0015/130326/NPS_Antipsychotic_Monitoring_Tool.pdf

Reliable and independent health and treatment information about medicines for psychotic conditions are available for consumers and health professionals from the NPS MedicineWise web site at www.nps.org.au/medicines/brain-and-nervous-system/medicines-for-psychotic-conditions

NIMC (subcutaneous insulin)

The Commission is currently piloting the NIMC (subcutaneous insulin). It is a national standardised subcutaneous insulin form incorporating a record of blood glucose results and clinical decision support. The form is designed to improve patient safety and better diabetes management by ensuring that blood glucose levels are available at the point of prescribing, medication errors are minimised and guidance on managing hypoglycaemia and hyperglycaemia is readily accessible.

National piloting of the NIMC (subcutaneous insulin) commenced in early 2013 and concluded in December 2013.

Initial results suggest that the pilot subcutaneous insulin form improves insulin prescribing clarity, monitoring and follow-up management of hypoglycaemia and hyperglycaemia. Some design changes to improve the useability of the form have been proposed.

Diabetes in hospitalised patients is common and insulin is frequently prescribed. Insulin prescribing is complex and not without risk. Insulin accounts for around 15% of the highest risk incidents (actual and potential) experienced in acute care and is classed as a high risk medicine.

The Commission's work is expected to result in a national subcutaneous insulin form for implementation by Australian health service organisations as part of their requirements under the National Safety and Quality Health Services Standards.

New Medication Safety Program web site

A new Medication Safety Program web site has been launched and is available at www.safetyandquality.gov.au/our-work/medication-safety/

Three new sections form entry points to the program web site:

- Improving medication safety
- Electronic medication management
- Medication safety publications

The new design should provide easier navigation to the Commission's medication safety and associated publications and other materials. Feedback on the web site is invited. Please send comments to mail@safetyandquality.gov.au

Contact us

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