National Inpatient Medication Chart (NIMC) 2014 National Audit

The second nationally coordinated NIMC audit commenced on 1 August and will finish 30 September 2014. The audit is conducted every second year and is part of the ongoing quality improvement process for the NIMC. Hospitals can conduct their audits at any time during August and September, but must submit their results to the NIMC Audit System website by 30 September 2014. User guides can also be found via the link above.

All public and private hospitals using a conforming NIMC are invited to participate. The charts included in the audit are:

- NIMC (acute) and private hospital version
- NIMC (long-stay) and private hospital
- NIMC (paediatric)
- NIMC (paediatric long-stay)
- NIMC (GP e-version).

Hospitals with non-conforming charts or using electronic medication management systems can conduct audits, but should not submit their results as part of the national audit.

Participating in the national audit of the NIMC provides hospitals with the opportunity to:

- identify areas for improvement and intervention
- use the results to calculate relevant national Quality Use of Medicines Indicators
- conduct internal benchmarking over time through repeat auditing
- assess their performance against peer group/state/national results.

The audit will provide evidence to assist health service organisations verify their services against Action Items in National Safety and Quality Health Service Standard 4: Medication Safety.

The national audit is part of national NIMC quality improvement process. It helps ensure the NIMC continues to assist in reducing the risk of harm to patients from medication errors and preventable adverse medicine events. In 2014, the audit has a focus on the variable dose section of the Chart, to assess its utility. Auditors are requested to address this section carefully.

Also included in this issue:

- National Quality of Use of Medicines Indicators for Australian Hospitals
- PBS Hospital Medication Chart Project
- WHO High 5s Project Interim Report
- Best Possible Medication History online learning module
- Update on the National Subcutaneous Insulin Form Pilot
- Be Medicinewise Week 13 – 19 October 2014

Participants are asked to read this information before auditing.

---

National Quality Use of Medicines Indicators

The Commission engaged the NSW Therapeutic Advisory Group to revise the Quality Use of Medicines in Australian Hospitals 2007 (QUM Indicators 2007)\(^1\), and develop new indicators in the areas of mental health and continuity of care.

The National Quality Use of Medicines Indicators for Australian Hospitals 2014 (QUM 2014) comprises 37 process indicators. These indicators are intended to support local monitoring of compliance with processes of care related to medicines management that have been shown to improve health outcomes.

The 2014 indicators include:

- 30 revised indicators from QUM Indicators 2007. Four of these have been significantly modified;
- Two new indicators to measure the accuracy of medicines information communicated at discharge from hospital; and
- Five new indicators for acute mental health services.

The indicators have been designed for local use. They support measurement of safety and quality of medicines use, and drive changes in healthcare practice and quality improvement.

All the indicators have been mapped to the National Safety and Quality Health Service Standards. QUM 2014 includes tables to allow hospitals to identify which indicators can be used to provide evidence for specific action items in the Standards.

The indicator set is accompanied by data collection tools for local use. There are tools for each indicator, enabling local results reporting and review. QUM 2014 and the data collection tools will be available electronically from the Commission and the NSW Therapeutic Advisory Group websites.

---

Pharmaceutical Benefit Scheme Hospital Medication Chart Project

The Commission is developing a national standard medication chart for use in public and private hospitals. This chart will provide for the prescribing, dispensing and claiming of Pharmaceutical Benefits Scheme (PBS) medicines, including discharge medicines, directly from the chart, as appropriate. The chart will also accommodate non-PBS medicines. The PBS Hospital Medication Chart Project aims to improve work flows for health professionals as well as improve the safety of medication management through standardised medication charting and medication management practice. This project builds on the Commission’s earlier work on the development of the National Inpatient Medication Charts, and incorporation of PBS claiming fields into the National Residential Medication Chart for residential aged care facilities.

---

\(^1\) Indicators for Quality Use of Medicines in Australian Hospitals: NSW Therapeutic Advisory Group, 2007.
Piloting the PBS Hospital Medication Chart in private hospital inpatient settings is scheduled to commence in March 2015, and in public hospital outpatient settings in May 2015. The charts are expected to be available nationally in 2016.

**WHO High 5s Project Interim Report released**

The High 5s Project is a collaboration of WHO, The Joint Commission and Lead Technical Agencies from Australia, Germany, France, the Netherlands, Singapore, Trinidad & Tobago and the United States of America. The Commission is the lead technical agency for Australia, one of four countries implementing the patient safety solution Assuring Medication Accuracy at Transitions of Care through the process of medication reconciliation.

The High 5s Project is scheduled to commence in March 2015, and in public hospital outpatient settings in May 2015. The charts are expected to be available nationally in 2016.

The aim of the High 5s project is to determine:

- the feasibility of implementing standard operating protocols (SOPs) for correct site surgery and medication reconciliation in different countries with different health care environments and cultures; and
- whether the SOPs were effective in improving patient safety.

The Australian five-year project commenced in January 2010 with the recruitment of 18 health services.

Health services were required to:

- implement the medication reconciliation SOP using quality improvement methodology;
- evaluate improvements; and
- spread the medication reconciliation process to all eligible patients (those 65 years and older admitted to the hospital via the emergency department) in all locations of the health service.

The SOP required health services to implement a formal process for reconciling medicines within 24 hours of admission. The process was to be multidisciplinary and involve patients and carers.

A multifaceted evaluation strategy was used. Information was collected on health service implementation experiences, the volume and quality of medication reconciliation performed, and possible SOP-related adverse events.

Interim results from 13 health services demonstrate that implementation of the SOP is feasible across multiple hospitals and countries. It has a positive impact in improving the quality of the medication histories obtained, resolving medication discrepancies, and raising awareness about medication safety.

Results from the Australian arm of the project show that hospitals have substantially reduced the number of outstanding medication discrepancies on admission, and met the project’s international quality benchmarks.


**Best Possible Medication History Online Learning Module**

The Commission has worked with NPS MedicineWise to develop an online learning module on taking a Best Possible Medication History for acute care settings. The module

---

2 Information on the High 5s Project can be accessed at [https://www.high5s.org/bin/view/Main/WebHome](https://www.high5s.org/bin/view/Main/WebHome)
incorporates the Get it right! Taking a Best Possible Medication History training video released by the Commission mid-2013, and includes a set of self-assessment questions. Those successfully completing the module are eligible for continuing professional development (CPD) points.

The module provides guidance for clinicians on conducting a structured, formal process of obtaining an accurate and complete medication history on admission. It is suitable for training nursing, medical and pharmacy staff and students.

The module will be available on 3 October 2014 from the NPS MedicineWise online learning web page at http://learn.nps.org.au

Consumer wallets

Due to popular demand, the Commission has printed a further quantity of consumer wallets. The resource was jointly developed by the Commission and NPS MedicineWise. It highlights to consumers the importance of knowing about the medicines they use, and keeping an up-to-date medicines list.

The A5 sized wallet provides helpful tips on how patients can help prevent medication errors at admission and discharge from hospital, or when seeing different health professionals in the community.

A leaflet providing the same helpful tips is also available for download from www.safetyandquality.gov.au/our-work/medication-safety/medication-reconciliation/

The NPS MedicineWise Medicines List web page also provides a range of options for consumers to use to maintain a current list of their medicines. This includes a paper medicines list, an “e-list”, and a smartphone app.

These resources are available at http://www.nps.org.au/topics/how-to-be-medicinewise/managing-your-medicines/medicines-list

Guidelines for safer presentation of medicines information in e-health

The Commission is developing guidelines for safer on-screen display of medicines information in electronic health records, electronic medication management systems (eMMS), medicines lists and electronic discharge summary systems. The objectives of the project are to:

- enhance the safety of the Personally Controlled Electronic Health Record (PCEHR) and clinical information systems
- 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 (eMMS)
- migrate existing national medicines information standardisations into the electronic environment.

The project will conclude in late 2014.
Completion log for online learning modules
NPS MedicineWise has introduced a service enabling health service organisations to subscribe to monthly reports of staff completion of the online learning modules. Currently the report includes completion data for the National inpatient medication chart and Medication safety training courses. From January 2015 new completions of the Antimicrobial modules will also be included. This resource can provide hospitals with evidence of staff training for accreditation purposes. Details of the service are available from http://learn.nps.org.au/mod/page/view.php?id=4444, or the dedicated support desk number (02) 8217 8642.

National Inpatient Medication Chart (NIMC) - updates to the User Guide
Documentation requirements for the NIMC have been revised following consideration of issues reported to the Commission. These have been reflected in the NIMC User Guide Version 1.9

• Recording the dose calculation in paediatric phone orders
Clinicians documenting a phone order on the NIMC are required to obtain and record the basis for the dose calculation, as part of the order (e.g. mg/kg/dose). This aligns with existing documentation requirements in the regular and PRN medicines sections of the NIMC paediatric, and reduces the risk of potential dosing errors.

• Documenting VTE Risk Assessment where the patient has multiple charts
For patients with multiple charts, VTE risk assessment should be documented on the first chart only. Reassessment of VTE risk may be required later during the admission. In these instances, VTE risk assessment should be documented on a subsequent chart.

• Anticoagulant education record
The warfarin education record on the NIMC can be used to document all anticoagulant education provided to patients at initiation of their treatment, where treatment is ongoing. e.g. rivaroxaban, dabigatran, enoxaparin. This section of the chart can be amended to reflect the anticoagulant prescribed, and information provided to the patient. An example is shown below. Please refer to the NIMC User Guide Version 1.9 for further information.

National Subcutaneous Insulin Form Pilot
The Commission has completed a pilot of a standardised National Subcutaneous Insulin Form (pilot insulin form) to evaluate its effect on the safety of insulin prescribing and administration in hospitals. The form provides a combined record of glucose blood monitoring with insulin prescribing and administration.

Eight public and private hospitals from three states and territories piloted the form during 2013.

Prior to introduction of this insulin form, hospitals were required to conduct a baseline audit of their existing medication charts and forms used to prescribe and administer subcutaneous insulin and record blood glucose levels (BGLs). The pilot insulin form was introduced on all adults wards following extensive education of medical, nursing and pharmacy staff using materials provided by the Commission.

In the pilot, hospitals reported issues, including adverse events resulting from the use of the insulin form. Post-implementation audit data was collected six months after introducing the form. Qualitative research, consisting of two implementation experience surveys and focus groups in selected sites, was conducted at the end of the intervention.
Overall the pilot subcutaneous insulin form improved:

- clarity of insulin orders and administration documentation; and
- blood glucose level (BGL) management and documentation.

There were fewer instances of hypoglycaemia, and hyperglycaemia above 20 mmol/L. However, there was an increase in BGLs in the upper range (12 - 20mmol/L).

An unexpected consequence of the form was an increase in the number of missing routine doses of insulin. This was largely attributed to the requirement for medical officers to review and write daily routine insulin orders in response to patient BGLs.

The eight pilot hospitals agreed that the pilot subcutaneous insulin form was safer than their previous subcutaneous insulin chart. However, they recommended some design changes to the form’s usability. The revised form will be tested in the latter half of 2014.

Medicine Shortages Information Initiative
The Therapeutic Goods Administration (TGA) has established a web page that provides information on prescription medicine shortages in Australia. The information advises on temporary or permanent disruptions to the supply of a prescription medicine in Australia. This information is largely provided by sponsors reporting to the TGA.


Health professionals can subscribe to the medicines shortage email list and receive an email when there is a new or updated medicine shortage reported by sponsors to the TGA and published on the website.

Be Medicinewise Week 2014: Are your medicines helping or hindering?
NPS MedicineWise will again launch Be Medicinewise Week. This year it will be held 13-19 October 2014, with the medication safety theme ‘Are your medicines helping or hindering?’
Throughout the week there will be a daily focus on a topic related to medication safety, including painkillers and analgesia, adverse medicines events and interactions and inadvertent medicines misuse. The Commission will be promoting the week as a time to raise awareness about medication safety.

Keep an eye out for updates on the NPS MedicineWise website over the coming month www.nps.org.au. Alternatively contact Alex Chapman on (02) 8217 8733 or email media@nps.org.au.

Opioid use in children
ISMP Canada and its member organisations have recognised the issues associated with opioid use in children and have been working to prevent harmful medication incidents.

This work includes a Paediatric Opioid Safety Resource Kit that contains guidelines, recommendations, resources and tools to standardise the approach to opioid safety.

The toolkit is available at http://ken.caphc.org/xwiki/bin/view/PaediatricOpioidSafetyResourceKit/WebHome.

Follow us on Twitter @ACSQHC