

Jurisdictional Guidelines for Local Management of the National Inpatient Medication Chart

This document provides guidance on the scope of changes to the National Inpatient Medication Chart (NIMC) which can be authorised at State and Territory levels without compromising the safety benefits of the NIMC.

Goal

Each jurisdictional NIMC oversight body has the responsibility to respond in a timely manner to NIMC issues raised locally. This document should assist jurisdictional bodies to maintain the value of the NIMC in enhancing patient safety by managing issues, such as proposals for change, at the local level or referring issues to the NIMC Oversight Committee.

Premises

The work of jurisdictional NIMC oversight bodies is based on the following premises:

- standardisation of practice is desirable where possible and can reduce the risk of error
- incorporation of proven safety principles into the medication administration chart can improve medication safety (see Attachment 1)
- version control is an essential feature of the NIMC
- implementation experience with the paper-based NIMC will be transferred to the electronic environment.

Managing proposals for change

The following is a suggested process for managing proposals for change to the NIMC.

Stage 1: Collate and classify proposals for change

Collate and classify suggested changes to the NIMC by:

- maintaining a jurisdictional change register for NIMC change proposals
- classifying all suggested changes to the NIMC using the following process:

1. Does the proposed change comply with the Guidelines on Version Control of the NIMC?

- Yes – change is approved by the jurisdictional NIMC body and conveyed to the NIMC Oversight Committee for information
- No – go to question 2

2. Is there local evidence* that there is an issue with the current format and patient safety?

- Yes – Go to question 3
- No – jurisdictional NIMC body rejects the proposal for change

** Local evidence may comprise risk assessments, case reports, surveys, audits and incident reports.*

3. Does local evidence suggest that a proposed change will improve patient safety?

- Yes – notify the NIMC Oversight Committee (for its consideration and possible further evaluation)
- No – jurisdictional NIMC body rejects the proposal for change

Stage 2: Reporting to the National NIMC Oversight Committee

The jurisdictional NIMC body submits a report to the NIMC Oversight Committee which includes:

- proposed changes, together with evidence and rationale
- recommendations to approve, reject or further investigate the proposed changes

Recommendations made by the National NIMC will be considered and ratified by the Commission before they become effective. Approved changes to the NIMC will be incorporated into the next scheduled version update (usually January of each year).

Step 3: Reporting decisions to stakeholders

- The jurisdictional NIMC body will
 - inform stakeholders whether their proposed change has been accepted, rejected or referred to the NIMC Oversight Committee, providing a rationale for the decision
 - facilitate state-wide change management of proposed changes that have been endorsed by the Office of the Commission for inclusion in the NIMC.
- The National NIMC body, through the Office of the Commission, will
 - inform jurisdictional bodies of Commission decisions, and the rationale for those decisions
 - provide details of approved revisions in a format that facilitates alignment of national version control and local process control

Arrangements for jurisdictional NIMC bodies

Membership of jurisdictional NIMC oversight bodies is determined by each jurisdiction. However, to reflect the full, multi-disciplinary medication perspective, the following interests and expertise are suggested for inclusion:

- NIMC Oversight Committee jurisdictional representative
- representative from a local medication safety program
- pharmacist
- senior doctor
- junior doctor
- clinical nurse
- clinical risk manager.

It is recommended rural, regional and metropolitan representation is reflected in memberships.

From time to time, the NIMC Oversight Committee invites organisations or individuals with specific issues or proposed changes to its meetings for advice or guidance on specific matters. This may be useful for jurisdictional NIMC bodies.

Meetings

It is recommended that jurisdictional NIMC bodies meet sufficiently frequently to assess and report on all suggested changes to the NIMC. The chair and secretary, in consultation with body members, should determine a calendar of meetings so stakeholders are able to have issues considered in a timely manner. Out of session meetings, either in person or by other means, are recommended should more urgent matters need to be resolved. Terms of reference may assist expediting business.

Reporting arrangements

While each jurisdictional NIMC body reports locally, annual reporting to the NIMC Oversight Committee is an important part of national version control. Additional reporting to the NIMC Oversight Committee may be determined at the jurisdictional level.

The NIMC Oversight Committee maintains a national register of change proposals considered by it on the Australian Commission on Safety and Quality of Health Care website. The NIMC Oversight Committee looks to jurisdictional NIMC bodies for additional information useful to the medication community which can be included on the webpage.

Confidentiality

Documents circulated to jurisdictional NIMC bodies by the NIMC Oversight Committee noted as confidential or not for circulation are for the exclusive use of the jurisdictional NIMC bodies and are not copied or circulated unless authorisation is provided.

Appendix 1 – Summary Rationale for the NIMC

Appendix 2 – Guidelines on Version Control of the NIMC

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Attachment 1

Summary rationale for the National Inpatient Medication Chart

Ensuring hospital patients receive the best therapy in a safe and effective manner is a complex process involving many health professionals often working in teams. One critical component of this process is the communication of prescriptions to allow safe and accurate dispensing, administration and reconciliation of medicines. Evidence suggests that communication can be made safer through education of safe prescribing and administration principles and with standardisation of best practice to reduce the potential for errors.

Additional potential benefits in patient safety are derived from:

- standardisation of best practice throughout the medication management cycle, within and between healthcare organisations
- standardisation of undergraduate, postgraduate and continuing professional education in the medication management cycle.

Key principles

1. When a medication chart is first written up, the patient's name should always be handwritten at the top of the chart by the prescriber. This acts as a double check for pre-labelled charts and reduces the risk of ordering medication for the wrong patient.
2. When subsequent new prescriptions are written, the chart should be checked to ensure it is for the correct patient.
3. A medication chart should include a section for recording adverse drug reaction information. This section should enable documentation of whether a reaction has previously occurred, the nature of the reaction (if one has occurred previously), the date the reaction occurred and the signature of the healthcare professional recording the information. If no previous reactions have occurred, this should be explicitly documented (eg 'nil known'). If no information is available about previous reactions (eg if the patient is unable to communicate), this should also be documented (eg 'unknown') This section should be clearly visible where most regular prescriptions are written to reduce the risk of inadvertent exposure to a drug to which the patient is allergic.
4. A single chart should include a section for 'once only' and premedication orders so that they are neither on a separate chart nor included with regular orders. This minimises the risk of doses being missed or orders being continued inadvertently, as well as providing a more complete medication history on a single chart.
5. Telephone orders should be discouraged, unless essential due to work practice restrictions (for example, hospitals with no resident medical staff). Where telephone orders are unavoidable, the medication chart should contain a section that facilitates the safe practice of two staff independently receiving and reading back the order to the prescriber. These orders should allow no

- more than four doses to be administered before being signed by the prescriber.
6. There should be a section on the medication chart for recording medicines taken by the patient prior to admission, except when a facility uses a dedicated medication reconciliation chart that accompanies the current medication chart. The inclusion of this information on the medication chart, or on a dedicated chart, facilitates reconciliation of pre-admission medication with medications prescribed whilst the patient is in hospital and at transfer. It also aids communication of changes to medication regimens made during admission to patients and primary care clinicians.
 7. A medication chart should include a specific section for prescribing variable doses of drugs. This section should facilitate ordering and documentation of drug levels, as appropriate, to assist selection of suitable subsequent doses. It is recommended that this variable dose section be on the inside of the chart with other regular orders to reduce the risk of dose omissions.
 8. A medication chart should include a specific section for prescribing warfarin. Warfarin is associated with adverse events both through underdosing and overdosing. The warfarin section should enable documentation of both the Internationalised Normal Ration (INR) target range and INR results to facilitate dosing decisions. Ideally, warfarin should be prescribed at 4pm to ensure morning results are reviewed and the next dose is ordered by medical staff familiar with the patient's medication management, rather than by 'after-hours' medical staff.
 9. A medication chart should have a separate section for 'when required' (PRN) medications in order to distinguish them from medicines that need to be given regularly. The PRN orders should be unambiguous, with clearly defined doses or dose ranges, minimum hourly frequency of administration and a recommended maximum dose in 24 hours, together with the indication for use.
 10. A medication chart should include a specific section for nurse-initiated medication, in accordance with state regulations and hospital practices.
 11. Medication management review is aided by documenting medication starting dates rather than the date the chart is re-written. However, the date of the current order should take precedence if required by state regulations.
 12. The chart should encourage prescribing using generic drug names. This is to reduce the risk of duplicate orders of the same drug being made because of unfamiliarity with different trade names. In addition, medication is usually stocked on the ward alphabetically by generic name, therefore generic prescribing facilitates location of the drug.
 13. The chart should discourage the use of abbreviations, particularly those known to be error-prone. This reduces the risk of misinterpretation.
 14. The chart should facilitate recording of the administration times by the prescriber, based on a hospital agreed standard. This reduces the potential for nurses to misinterpret prescribed administration frequency instructions.
 15. The chart should include a section for clinical pharmacist annotation regarding optimal supply and administration. In addition, a section enabling pharmacists to sign the chart following pharmaceutical review facilitates peer review and improves communication with pharmacists covering the same ward.
 16. The chart should facilitate dispensing of discharge medication directly from the medication chart, to avoid transcription errors. This may not be applicable for those sites using the PBS for discharge medications or where separate discharge prescriptions are used. In such cases, local procedures should be

- developed to ensure that transcription errors are minimised and full medication reconciliation at discharge is facilitated.
17. The chart should include a section for prescriber contact details (for example, pager number), so that they can be easily contacted.

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Executive Summary

On 23 April 2004, Australian Health Ministers, in a joint communiqué, advised that:

'To reduce the harm to patients from medication errors, by June 2006, all public hospitals will be using a common medication chart. This means that the same chart will be used wherever a doctor or nurse works and wherever the patient is within a hospital'.

The NIMC Oversight Committee was established in 2007 to maintain NIMC national version control, to recommend changes to the NIMC and to identify national impediments to implementation. Jurisdictional NIMC working groups play a vital role in the process of managing local implementation and recommending issues for the NIMC Oversight Committee's consideration.

The NIMC Oversight Committee has advised that:

- version E of the NIMC is the approved version
- the NIMC will be updated only when there is a powerful, evidence-based case for change put to the NIMC Oversight Committee. The Commission's Inter Jurisdictional Committee will advise on timing of the introduction of any changes as these affect the public sector
- ancillary charts will also be endorsed by the National Oversight Committee.

Table 1: Summary of sections of the NIMC that can or cannot be changed

NIMC sections that cannot be altered	NIMC sections that can be altered
Patient identification	The logo
Chart numbering	Recommended administration times
Allergies and adverse drug reaction alerts	A coloured strip may be added to the NIMC to assist with rapid chart identification
Once only, pre-medication orders and nurse initiated medicines	A medical record number or bar code may be added
Telephone orders	The number of days for administration
Medicines taken prior to presentation to hospital (where a facility has a dedicated medicine reconciliation form, a note should be made in this section to refer to the alternate form)	The list of additional charts may be increased
Regular medicines	The general colours used on the chart, except for the sections highlighted in red.

Discharge supply (where PBS discharge prescriptions are used or other local regulatory requirements are in place, this section need not be used, but formatting should remain on the chart)	
Patient weight and height	
PRN medications	

Table 2: General principles for use of the NIMC

Principle	Rationale
Generic name	This is to minimise the risk of the same medication being prescribed twice, through lack of familiarity with different brand names. In addition medications are usually stored alphabetically according to generic name and are therefore easier to find if prescribed generically. Specified exceptions may be authorised locally (eg for combination products or 'look-alike' / 'sound-alike' products).
Sequencing	The sequence: drug, route, dose and frequency encourages prescribers to consider the correct dose in relation to the route prescribed, for example ranitidine iv 50mg three times daily or ranitidine orally 150mg twice daily.
Prescriber name and contact details	The prescriber must be clearly identifiable to minimise delays in clarifying the order when required. Some prescribers will enter a pager number, whilst others will enter a prescriber number, in accordance with local policies.
Abbreviations	Abbreviations are discouraged, as they may lead to misunderstandings. A number of abbreviations are particularly error-prone and these should be prohibited.

Table 3: Sections of the NIMC that may be altered by jurisdictional NIMC working groups

Section	Rationale
Logo	Insertion of the hospital logo will assist in identification of the origin of the chart.
Administration times	These may be adapted to be consistent with local practice. Feedback has indicated that standardisation of local administration times and targeted education supports medical staff in their role of completing administration times.
Coloured strip	This may be added to the side margin to assist in identifying the NIMC when filed in the case notes.
Medical record number or bar code	This may be added to assist with identification and ordering of medication charts, in accordance with local hospital information service requirements.
Ancillary charts	The list of ancillary charts may be amended to suit local needs. It is acknowledged that fewer charts will reduce the risk of prescribing and administration error.
Colours	Red, black and grey have been used to alert and differentiate between sections of the chart. These colours may be varied, however, it is recommended that consideration be given to legibility after faxing and printing to ensure that safety is not compromised. Use of additional colours may generate additional printing costs.
Number of days	The number of days for administration may be adjusted to meet local requirements. The need for transcription should be minimised as this can increase medication error.
Folds and copies	Provided the sections and their relative positions are unchanged, carbon copies and extra folds are permitted. Opportunities for error in interpretation exist with use of carbon copies instead of original orders. Local procedures should ensure that carbon copies are not used as the primary reference document for dispensing or administration.

Table 4: Sections of the NIMC that must not be altered without Commission approval

Section	Rationale
Patient identification	Either a patient identification label should be attached, or the patient's name, date of birth, gender and unit record number must be printed legibly. If an identification label is used, the first prescriber must print the patient's full name by hand under the label, to reduce the risk of ordering for the wrong patient. Writing the patient's name is in addition to attaching a label and acts as a double check for pre-labelled charts.
Chart numbering	The number of charts in use must be identified, for example chart 1 of 2. Any additional ancillary charts must also be identified on the main chart. This is to provide an alert to minimise the risk of omission of medication or inappropriate prescribing.
Allergies and adverse drug reaction alerts	<p>The NIMC includes a section to record the drug and the reaction, if known. This is to assist prescribing decisions.</p> <p>The ADR section must be clearly visible whenever most prescriptions are written. Red is used to draw attention to this important section.</p>
Once only, pre-medication orders and nurse initiated medicines	The NIMC includes a separate section for once only, pre-medication and nurse initiated medicines to distinguish them from regular medicines and therefore minimise the risk of unnecessary administration. It is important that this section is included on the NIMC rather than a separate chart to minimise the risk of omission and to provide a complete medication history.
Telephone orders	Telephone orders should generally be discouraged, unless they are essential due to work practice restrictions, such as rural and private hospitals and facilities without resident medical staff. Some metropolitan sites have limited telephone orders to one dose, by blacking out the remaining three of the four boxes. Capacity has been allowed on the medication chart for two nurses to sign for a telephone order, which must be co-signed by the prescriber within 24 hours of the order.
Medicines taken prior to presentation to hospital	There must be space on the medication chart to record medicines taken by the patient prior to admission. This will assist with the medication reconciliation process on admission, during transfer and at discharge. Where dedicated medication reconciliation forms are used, sites may refer to the alternate form in the 'medicines taken prior to presentation' section. Dedicated medication reconciliation forms must accompany the current medication chart

	at all times.
Regular medications	<p>Variable dose section:</p> <ul style="list-style-type: none"> • The format of this section facilitates ordering of medications that require variable doses based on pathology results or as a reduction protocol. • The drug level should be entered together with the date. The doctor's initials, actual administration time and the initials of the nurse administering the dose must accompany each dose. • If a second variable dose medication is required, or twice daily dosing is appropriate, the regular medications section should be used following the format for variable dose orders described above. <p>Warfarin section:</p> <ul style="list-style-type: none"> • The warfarin section is highlighted in red to indicate that it is a high risk medication. • A recommended standard dose time (such as 1600 hours) allows the medical staff responsible for the care of the patient to review the INR (international normalised ratio) result and prescribe the dose, rather than an on-call doctor who may not be familiar with the patient's medical history. This dose time may be modified to a later time for rural or private facilities, where a visiting medical officer cares for the patient. • The indication and target INR range must be documented when warfarin is initially ordered. • The INR should be documented at a frequency appropriate to the patient's condition. The dose, doctor's initials, initials of the nurse administering the warfarin and the initials of the second nurse checking the administration should also be documented. • The NIMC includes a warfarin education record to indicate that the patient has received verbal and written information, as appropriate. <p>Regular medications section:</p> <ul style="list-style-type: none"> • Prescribers should enter administration times, as this minimises the risk of errors that may result from incorrect interpretation of the instructions by the nursing staff. • In addition to signing the order, prescribers must also print their name and provide contact details, such as pager number or prescriber number, to minimise delays in clarifying orders. • Recommended administration times must be listed in the centre margin for easy reference. The suggested administration times may be amended to meet local needs. Hospitals may find it helpful to ensure that administration times are standardised between wards.

	<ul style="list-style-type: none"> • Pharmacy box must be included to provide space for pharmacist's annotation • Indication box must be included to provide clarity, especially where a medication may be used for more than one indication. • The red 'tick if slow release' box is included as a prompt to prescribers to consider whether a modified release or immediate release preparation is required. • The administration record provides space to record up to eleven days of therapy. The last column is partially blocked out to ensure that a new chart is written during the day. • Codes for not administering medicines must be listed in the centre of the chart for easy reference. • A section for clinical pharmacist review must be included to ensure that all orders are clear, safe and appropriate for that individual patient, to minimise the risk of an adverse drug event.
Discharge supply	<ul style="list-style-type: none"> • A section has been included on the chart to minimise the risk of transcription errors for discharge medications. For each drug the prescriber should indicate whether discharge supply is required, including the duration/quantity. Prescribers must provide their signature, printed name and the date the discharge medication is ordered. The pharmacist should ensure the discharge information is complete and also sign and date this section. • When there is a change in dose for a discharge medication, a new order should be written, the discharge section completed and the administration section crossed out. • This section need not be used in jurisdictions that use the Pharmaceutical Benefits Scheme for discharge prescriptions or where local regulatory requirements for separate prescriptions exist, but formatting should remain on the chart. In such cases, local procedures should be developed to ensure that transcription errors are minimised and full medication reconciliation at discharge is facilitated.
Patient weight and height	<ul style="list-style-type: none"> • Patient weight and height must be documented to assist staff in calculating doses safely, especially for paediatric patients, and for certain high risk medicines.
As required ('PRN' medicines)	<ul style="list-style-type: none"> • A specific section must be included on the medication chart for 'when required' (PRN) medications, rather than including them in the regular medications section, to minimise the risk of being administered regularly.

- The prescriber must document the dose and hourly frequency, as 'PRN' does not provide sufficient information for the medication to be administered correctly. Indication and maximum daily dose (that is, maximum dose in twenty four hours) must be provided to ensure safe and appropriate administration and to minimise the risk of overdose. Where appropriate, the prescriber may indicate the maximum number of doses to be administered or maximum duration for the order by crossing out parts of the administration section.
- Staff administering the medication must document the actual dose given. The person administering each dose is responsible for checking that the maximum daily dosage has not been exceeded.

Acknowledgement

These guidelines are adapted from the *'Interim specifications for the print ready version of the national inpatient medication chart'* document, produced by the Office of the Safety and Quality Council, March 2005.