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## **Summary Rationale for a National Medication Chart**

Ensuring a patient in a hospital bed receives the best therapy in an accurate and safe manner is a complex process involving many health professionals including doctors, pharmacists and nurses. One critical element of this process is the communication of the prescription to allow safe and accurate dispensing and administration. A body of evidence exists to suggest that this communication can be made safer if parts of this communication processes are made with a better understanding of various safety principles and with some standardisation of these processes to minimise the possibilities of inadvertent errors.

Most of the benefit of having a National Medication Chart, or at least a series of best practice principles for the design and use of a Medication Chart nationally, comes from having a greater awareness that the prescribing process can result in direct patient harm and a greater awareness of the strategies and processes to minimise this harm.

### Key principles

1. When a medication chart is first written up, the patients name should always be written at the top of the chart by hand by the prescriber, to minimise the hazard of ordering for the wrong patient by acting as a double check for pre-labelled charts.
2. When subsequent new prescriptions are written the chart should always be checked that it is the correct patient.
3. A medication chart should have a section on the chart to record adverse reaction information, which includes documentation if a reaction is unknown, the nature of the reaction (if one has previously occurred), when that reaction occurred and signed accountability. The section should be clearly visible whenever most prescriptions are written.
4. A single chart should have space to include once only and premedication orders so that they are neither on a separate chart that is dislocated from the main regular orders or part of the regular orders. This minimises the risk of missed doses from separate charts or orders being inadvertently continued, as well as providing a more complete medication history on the single chart.
5. Telephone orders should be discouraged, unless essential due to work practice restrictions (e.g. rural settings, hospitals with no resident medical staff). Where telephone orders are essential, the medication chart should contain a section that facilitates and encourages safe practice whereby two staff should independently receive the order and that the order is read back to the prescriber. These orders need to allow for up to 4 doses to be administered before counter signing.
6. There should be space on the medication chart to record medicines taken by the patient prior to admission. Currently this process is disjointed and often located in various parts of the patient record or held by pharmacy staff and neither with the record or the medication chart. Having this information always on the main medication chart facilitates communication of changes made during admission by the attending health professionals back to the GP.
7. A medication chart should have a specific section for prescribing variable dose drugs with this section facilitating the recording of and prompting for test results required to determine the next dose. It is recommended that this variable dose section be on the inside of the chart with other regular orders to reduce risk of omissions.
8. A medication chart should have a specific section for prescribing warfarin. Nearly 10% of the adult population is now on warfarin and it is regularly a drug that causes adverse events. The warfarin section will have space for documenting both INR targets and results and prompts to ensure the next dose is ordered in a timely fashion (e.g. 4pm to ensure morning results are reviewed and the next dose ordered prior to the conclusion of the day medical shift).

9. A medication chart should have a specific section for “when required” (prn) medications to remove them from cluttering the regular medication section. The prn orders should be ordered in a structured manner of dose or range of doses with minimum hourly frequency to be administered and a recommended maximum dose in 24 hours, together with an indication.
10. A medication chart should have a specific section to enable nurse initiated medication in line with State regulations and hospital practices.
11. The chart should encourage recording the date medication is started, NOT the date the chart is re-written.
12. The chart should encourage generic drug name use.
13. The chart should discourage the use of abbreviations and/or clearly identify acceptable abbreviations.
14. The chart should encourage and facilitate the prescriber recording the times of administration based on a hospital agreed standard. This reduces the possibility of transcription errors by nurses in establishing the frequency for doses to be administered.
15. The chart should have space for clinical pharmacist annotation to communicate information required for optimal administration.
16. The chart should have space for pharmacy documentation of the medication supplied.
17. The chart should be structured to facilitate the dispensing of discharge medication directly from the chart to avoid transcription errors. This may not be currently possible for those sites using the PBS system for discharge medications due to PBS administrative requirements at present.
18. The chart should have space for the prescriber to clearly identify themselves and how they can be easily contacted (e.g. page number).

A National Medication Chart that follows these principles has been developed and is about to be piloted in 20 sites around the country. The benefits of introducing a chart following these principles will be maximised if undertaken in a controlled manner with appropriate training of medical, nursing and pharmacy staff to understand the principles and how to best use the modified processes. Usually this will require the identification of staff resources that can provide dedicated time to the implementation of the changes for a period of time (e.g. 6 months).

In addition, it needs to be understood that while these principles have been tested and proven in various hospital settings, the magnitude of the benefits will vary depending upon your existing charts and processes. It is recommended that sites introducing the changes undertake pre-audits of current prescribing and administration practices and follow the introduction with follow up audits to ensure the benefits have been realised at a hospital level. To facilitate this, the Working Group is developing an audit tool kit, but again the hospital will need to allocate resources to ensure this occurs.

Suggested educational material will be available through the Safety and Quality Council as a component of the implementation process.

Finally, it should be noted that it is anticipated that the use of hand written medication charts, prescription records and administration recording will eventually be replaced with electronic prescribing and administration recording which will eliminate many of the issues currently being considered in the National Medication Chart process. In addition, electronic prescribing will have the potential to bring many more patient benefits with intelligent decision support. Hence the current National Medication Chart process needs to be seen as a parallel and complementary process to electronic prescribing and administration recording initiatives around the country.

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