AUSTRALIAN COMMISSION ON SAFETY AND QUALITY IN HEALTH CARE

Paediatric NIMC Seminar 7 May 2009: Report

Reducing the risk of harm from medicines in children

The Australian Commission on Safety and Quality in Health Care held a seminar in Adelaide on 7 May 2009 to assist public and private hospitals safely implement paediatric versions of the NIMC.

The seminar was attended by forty representatives and clinicians from public and private hospitals and members of the Children's Hospitals Australasia's Medication Safety Expert Reference Group. The program for the seminar was developed with the assistance of the Children's Hospitals Australasia's Medication Safety Expert Reference Group and several of their members participated on the day.

The morning sessions covered issues relating to the implementation of the chart:

- sharing the lessons learned by staff from hospitals that had implemented the chart (including specialist paediatric hospitals and a tertiary hospital with a paediatric unit)
- an introduction to the resources available to aid safe implementation
- auditing and evaluating the chart.

In the afternoon, members of Children's Hospitals Australasia's Medication Safety Expert Reference Group spoke on key medication safety issues for children and tools for improving medication safety in hospitals and their relevance to paediatrics.

At the end of each session a question and answer session was held. During the final session of the day, participants identified medication safety issues for paediatrics that required national action.

Session 1: Implementing the Paediatric NIMC and sharing the lessons

Sonya Stacey (Assistant Director of Pharmacy, Children's Health Service District, Queensland) provided background to development of the paediatric NIMC and which was led by the Children's Hospital Australasia's Expert Medication Safety Advisory Group. In her presentation Paediatric National Inpatient Medication Chart Report 2009 she outlined:

- features of the chart that address specific concerns for safely prescribing and administering medicines in paediatric patients
- challenges experienced during implementation at Royal Brisbane Children's Hospital

- their approach to communication, training and education on the use of the chart.

The challenges of Implementing the paediatric NIMC within a general hospital, along with the expected problems, and the approach taken to implementation at the Flinders Medical Centre, Adelaide were described by **Mona Mostaghim** (Paediatric Pharmacist) and **Ruth Wills** (Clinical Nurse, Risk, Quality and Safety Unit). They highlighted the risks of having two medication charts in the one institution and stressed the importance of educating all staff handling medication charts including ward clerks.

In her presentation Implementing the Paediatric NIMC at RCH: Sharing the lessons, **Vanessa Lane (**Clinical Risk Manager) provided an overview of the reasons for change, the implementation strategy, key audit results and lessons learnt at the Royal Children's Hospital, Melbourne.

Madlen Gazarian (Paediatric Clinical Pharmacologist and Head Paediatric Therapeutics Program) spoke on the Sydney Children's Hospital experience and national resources for implementation. She described the factors that were important to the success of the safe prescribing guideline implementation model used at the Sydney Children's Hospital to reduce medication errors and harm. She also provided an introduction to the resources available on the Commission's web site to support the national implementation and evaluation of the paediatric NIMC.

Q and A Session 1: Implementing the Paediatric NIMC and sharing the lessons

Questions	Answers
Is there a cut off age for use of the paediatric chart?	The paediatric NIMC **MUST** be used for children under 12 years of age. Hospitals may choose to use the chart in children up to the age of 18 years, particularly where weight based dosing is being used.
Should the chart be used for neonates?	Some sites are using the paediatric NIMC for neonates. However the chart has not been evaluated in this patient group.
How can the paediatric chart be differentiated from the regular NIMC in order to avoid medicines being prescribed on the wrong chart (i.e. paediatric medicines ordered on regular (adult) NIMC and vice versa)?	Hospital solutions include: - removing adult charts from paediatric wards and paediatric emergency departments prior to implementation - applying restrictions on supply from hospital stores (only paediatric charts to be supplied to paediatric wards/departments) - educating ward clerks The NIMC Oversight Committee will be tasked with developing a national solution to "branding" the paediatric chart to enable differentiation from the regular NIMC in general hospitals.

Any suggestions for implementing in rural hospitals?	NIMC Oversight Committee will consider extending development of a four page electronic version of NIMC to include a paediatric version for GPs.
Any suggestions for educating of GPs and other doctors on use of the paediatric NIMC? How do you improve prescribers compliance with writing in administration times?	Commence education at undergraduate level (this is already occurring in Queensland Universities) and reinforce though ongoing education in the workplace. Increase utilisation of the National Prescribing Service web based learning module on the NIMC http://nimc.nps.org.au/elearning/log/register.asp

Session 2: Audit and evaluation of the paediatric NIMC

In this session information on the proposed national evaluation of the paediatric NIMC was provided by **Margaret Duguid** (Pharmaceutical Advisor, Australian Commission on Safety and Quality in Health Care) prior to seminar registrants completing an audit of a paediatric NIMC using the audit tool (link into current website) and the Audit Tool – User Guide 2009 (link into current website) available on the Commission web site.

Carol Reid (A/Team Leader, Maintenance Team, Safe Medication Practice Unit, Queensland Health) and **Sonya Stacey** answered questions and provided formal feedback on the process.

Q and A Session 2: Audit and evaluation of the paediatric NIMC

Questions	Answers
Should hospitals that are using the standard NIMC onto paediatric wards audit the adult chart on these wards before implementing the paediatric chart and audit again post implementation?	Yes. This will provide information on whether the additional safely elements of the paediatric NIMC influences the safety of medicines prescribed and administered to hospitalised children.
For auditing purposes should the child's weight be recorded on both the front and back of the chart?	The weight MUST be recorded on the front page of the chart. The weight must also be recorded on the back page if PRN doses are ordered.
Were there any specific timelines for the audit of the paediatric NIMC?	A baseline audit should be completed prior to the introduction of the chart. Subsequent auditing should be done at the same time as the annual NIMC audit. In the first year the timing of the audit should be scheduled to fit in with the implementation timetable.

What is the definition of the data element "prescriber clear"?	The prescriber is identifiable.
Will the wording for "calculated dose" be changed to be in line with the wording in QUM indicator 3.4?	Yes. The wording on the audit tool and the user guide will reflect the wording in the QUM indicator 3.4
Should the education provided as part of the implementation be included in the evaluation?	A proposal to identify and record the educational component of the implementation will be considered.

Session 3: Key medication safety issues for children

In the afternoon **Kingsley Coulthard** (Director of Pharmacy, Women's and Children's Hospital, Adelaide) provided some examples of medication safety strategies for children including:

- readily accessible dosing resources
- use of safe abbreviations and safety alerts
- value of a medication safety officer
- challenges of implementing oral syringes.

He also spoke about the importance of multidisciplinary ownership, executive sponsorship, early investigation of incidents, good communication and monitoring of outcomes to the successful implementation of safety strategies.

Sonya Stacey followed with a presentation on responding to safety alerts in the paediatric environment. She identified barriers to implementing the national safety alerts for potassium and vincristine in the paediatric environment and some of the initiatives subsequently introduced to make the delivery of these drugs safer in children. She cautioned against the introduction of adult safety strategies in paediatrics without adequate testing.

Session 4: Other tools for improving medication safety: relevance to paediatric and general hospitals

Madlen Garzarian spoke about the use of structure and process indicators for guiding and monitoring improvements in the appropriate, safe and effective use of medicines. She described the Medication Safety Self Assessment tool and Indicators for Quality Use of Medicines developed for Australian hospitals, their application to paediatric settings (three indicators are included in paediatric NIMC evaluation) and the importance of using indicators as part of ongoing quality improvement programs for medication safety in hospitals.

Session 5: Paediatric medication safety issues identified for potential national action

- Include a prompt to check immunisation history in the medication history section on the paediatric NIMC.
- Extend development of insulin charts to paediatrics.
- Explore potential to use medication history section of NIMC as a record of medicines given on transfer or immediately prior to patient transferring from a regional to a tertiary hospital.
- The Commission work with jurisdictions and the industry on a national approach to the introduction of oral syringes in hospitals.
- The Commission work with jurisdictions to develop a national strategy for the management of alerts on safe medication practice.

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Organising Committee Members

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