

DHBNZ Safe and Quality Use of Medicines Group Newsletter



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What's new

Potassium pre-mix for GIK

500ml bags of 10mmol potassium chloride in 10% glucose are available from Baxters as a Section 29 product for use in glucose, insulin, potassium regimes. Baxters have agreed to apply to Medsafe to register this product and SQM Group have written to Medsafe asking that registration be expedited.

Concentrated potassium chloride use

Have you checked what concentration of potassium your patients are being given by peripheral line? During an audit of potassium use in one DHB this case was discovered: a paediatric patient was prescribed 14mmol potassium chloride in 100ml of 0.9% sodium chloride to be given through a peripheral line –when the patient screamed that it was hurting the infusion was stopped. The fluid volume was increased to 200ml 0.9% sodium chloride with 14mmol of potassium chloride. Once again the child screamed and the infusion was stopped. 3rd time lucky for the child—the doctor charted 20mmol of potassium chloride in 500ml 0.45% sodium chloride 2.5% glucose.

In medicine there should not be luck. If potassium chloride concentrated injection had not been available on the ward this incident would have been prevented. This could easily have been an adult patient on an adult ward and the initial concentrations prescribed are too high for peripheral administration.

Across New Zealand, there is no consistency for concentration of potassium or preferred fluid for paediatric patients. There is a study underway in Australia and New Zealand to identify the most suitable intravenous fluid for paediatrics and once the study is completed work on registering a

potassium chloride pre-mix for use in the paediatric population can begin.

National Acute Medical and Surgical Inpatient Medicine Chart

The interim clinical leadership group of SMMP met to review this at the end of June. The chart design is broadly based on the 2007 design but has been modified in line with the consultation feedback and to conform with the District Health Boards medication charting standards. Two DHBs will pilot the chart starting in September 2009.

National Paediatric Inpatient Medicine Chart

It has been agreed by both SQM and SMMP that there should be a national paediatric medicine chart. Work on this will start once the adult medicine chart has been piloted.

Look alike sound alike guidelines

Medsafe have agreed to draft labelling and packaging guidelines based on guidelines produced internationally. The guidelines will be consulted on within the sector i.e. both with the pharmaceutical industry and health professionals.

Colchicine alert

This was issued in June and sent to all clinical leaders in PHOs, pharmacy facilitators, pharmacy managers in DHB hospitals, DHB Medicines Advisory Committees and for information to schools of pharmacy, medicine and nursing. The alert is available on the group website; www.safeuseofmedicine.co.nz

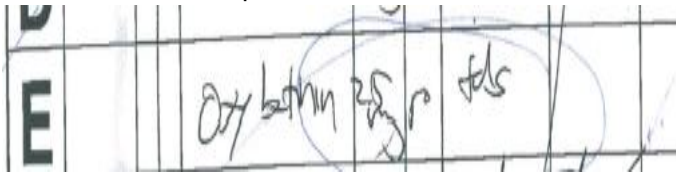
Annual report

The group agreed in May that letters would be sent advising that the report was published and available on the website rather than send hard copies. The report is available on URL: <http://www.safeuseofmedicines.co.nz/Portals/0/About/S&QuseofMeds05to07.pdf>

Incidents and Cautions

Badly written hospital prescriptions can cause errors:

Case 1: Decimal point



What dose did the doctor intend? What dose did the nurse read and administer? The patient was given 25mg instead of the 2.5mg intended because the decimal point was not clear on the prescription.

Case 2: q4hrly



How often would you give the amoxicillin? This was read as 24 hourly by the nurse, and, yes, amoxicillin would normally not be given 24 hourly so this should have prompted a question but the prescription could have been for a medicine that could be given 24 or 4 hourly. Should the abbreviation q4h or q4x be allowed—what does your DHB policy say?

Syringe Drivers

Please note that Graseby pumps should not be used after December 2009. Graseby pumps have not been available to purchase in New Zealand since October 2007 and a process for their replacement has been coordinated by a national procurement group. Graseby pumps are a familiar device to many hospital and community health professionals and this will represent a major change in practice. Please see the following two pages from the chair of the syringe driver advisory group regarding Graseby pumps and the syringe drivers replacing them.

Upcoming Events

Call for abstracts

SQM Group know of some excellent work being undertaken in New Zealand: do you or your organisation have a quality improvement initiative or new patient initiative to share? The call for abstracts for the International Forum on Quality and Safety in Healthcare 2010 is now open and closes on September 21st 2009. The 2010 forum is based in Nice, France from 20–23

April 2010. See this link for further information: <http://internationalforum.bmj.com/>

7th Australasian Conference on Quality and Safety in Health Care, Bridging the Gap, 7-9th Sept 2009, Sydney. See this link for further information: <http://www.aaqhc2009.org.au/>

International Society for Quality in Healthcare 26th International Conference, 11-14 Oct 2009, Dublin. See this link for further information—<http://www.isqua.org/>

IHI 21st National Forum on Quality Improvement in Health Care 6–9 Dec 2009, Orlando, Florida. See this link for further information—<http://www.ihl.org/IHI/Programs/ConferencesAndSeminars/21stAnnualNationalForumonQualityImprovementinHealthCare.htm>

Useful links and articles

Australian Commission on Safety and Quality in Health Care (Oct 2008), Windows into Safety and Quality in Health Care 2008, ACSQHC, Sydney. URL: [http://www.safetyandquality.gov.au/internet/safety/publishing.nsf/content/E060D889E298D039CA2574EF00721BD8/\\$File/ACSHC_National%20Report.pdf](http://www.safetyandquality.gov.au/internet/safety/publishing.nsf/content/E060D889E298D039CA2574EF00721BD8/$File/ACSHC_National%20Report.pdf)

Lowthian JA. O Diug B. et al. Who is responsible for the care of patients treated with warfarin therapy MJA 2009; 190 (12): 674-677. URL: http://www.mja.com.au/public/issues/190_12_150609/low11377_fm.html

Johnson PE. Chambers CR. Vaida AJ. Oncology Medication Safety, A3D status report 2008. J Oncol Pharm Practice 2008; 14: 169 -180

Keller S. Aiken C. The inconvenient truth about change management URL: http://www.mckinsey.com/client-service/organization-leadership/The_Inconvenient_Truth_About_Change_Management.pdf

Appendix

Syringe Drivers

The use of the Graseby syringe driver to deliver continuous subcutaneous infusions in the hospice context was first described in the literature by Dr Patrick Russell¹. Russell described the Graseby as being “simple to use, effective, reliable, fool-proof, and, being small and lightweight, allows complete mobility”. By the end of the 1980’s the Graseby MS-series syringe drivers were used extensively throughout New Zealand, Australia and the United Kingdom and had become synonymous with palliative care. It was seen as an indispensable component of providing good symptom control for those near the end of life.

Since its inception the Graseby MS-series syringe driver has remained almost unchanged in its technology and level of function. In early 2007 Medsafe, the NZ Medicines and Medical Devices Safety Authority, wrote to the suppliers of the pumps with concerns that the Graseby MS-series pumps did not meet minimum international best practice guidance for safety and efficacy of an intravenous/subcutaneous medication infusion device. The manufacturers Smiths Medical advised they would not be upgrading this range of pumps to make them adherent with the recognised standards and on that basis ceased sale of new Graseby MS-series syringe pumps in New Zealand from October 2007.

In December 2007 the New Zealand Palliative Care Working Party set up a sub group called the Syringe Driver Advisory Group (SDA) to assist with the transition and implementation of a suitable device to replace the Graseby MS-series syringe drivers. The SDA has been working in partnership with Medsafe and District Health Board New Zealand to ensure the sector remained informed. In addition the SDA began a process to develop national guidelines on the use of subcutaneous infusions in palliative care.

In February 2008 DHBNZ sought a mandate from the DHBNZ’s CEO forum to proceed with a national procurement process to identify a suitable replacement ambulatory syringe driver pump to comply with international best practice guidance on medical device design and safety. A group made up of clinical, technical and procurement representation from around the country was formed, along with representation on behalf of non-government organisations (NGOs), such as aged residential care facilities and hospices, who are significant stakeholders in this project. The DHBNZ procurement project included an evaluation process comprising a desktop evaluation of all proposals received from suppliers, presentations from those short

¹ Russell, PSB. Analgesia in terminal malignant disease. *BMJ* 1979;1:1561

listed, and clinical and technical evaluations. The outcome of the evaluation process was the selection of the Cardinal AD Syringe Driver as the device of choice to replace the Graseby MS-series throughout the participating DHBs and NGOs. The sector was informed of this decision in December 2008.

An implementation plan was developed and has been completed in the Auckland region. This includes Counties Manukau, Auckland and Waitemata District Health Boards, across hospital, hospice and aged residential care settings. During the four week implementation period Cardinal worked closely with the three DHBs and a number of non-Government organisations providing education and support, including in-service training, computer based resources, posters and reference guides, before moving on to Canterbury and Northland regions. The nation wide implementation of the Cardinal AD Syringe Driver will be completed by the end of 2009 when Medsafe have indicated that the Graseby MS-series must cease being used. Until then, many areas will be using a combination of Graseby syringe drivers and the new Cardinal AD syringe driver as services across clinical settings implement the new device. In addition some regions of New Zealand have made the decision to use the Niki T34 syringe driver instead of the Cardinal AD. The Niki T34 was also evaluated as part of the DHBNZ procurement project.

For those of us who have worked in palliative care for a long time the use of the Graseby syringe driver has become an intrinsic part of our practice. It is imperative that the change to an alternative syringe driver is managed in a planned and coordinated fashion across the country. I believe its success will depend on the active engagement of all nurses involved in the delivery of palliative care to ensure that the transition has as minimal impact on the care of our patients as possible.

If you have any questions or comments regarding this project please do not hesitate to contact me at jrobinson@adhb.govt.nz

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Chair of the Syringe Driver Advisory Group