Medication Incidents Reporting Programme Bulletin

醫院管理局
HOSPITAL AUTHORITY

BULLETIN 20 JANUARY 2008

A Fresh New Look

The Medication Incidents Reporting Programme (MIRP) Bulletin was last published in August 2004. Upon the successful migration of the manual reporting of medication incidents to the electronic reporting, the MIRP Bulletin was resumed with a new face.

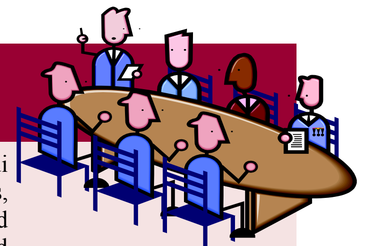
Your participation in reporting, sharing and learning is essential in providing a safe environment for our patients

Please report medication incidents including near misses

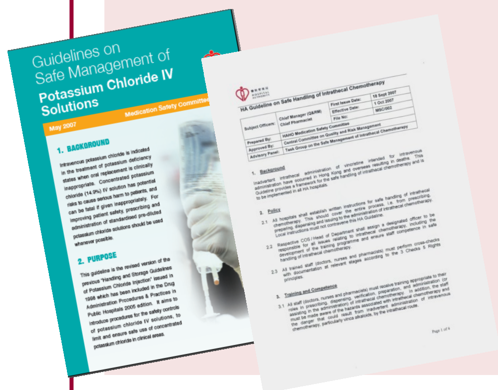
In the past few years, substantial changes have taken place both in the structure of the risk management committees and the mechanism for reporting risks. The Medication Safety Committee (MSC) was established to enhance medication safety, the Central Committee on Quality & Risk Management (CCQRM) has taken up the role of the then Head Office Risk Management Committee (HORMC). Several new initiatives were implemented, including the Sentinel Event Policy and the release of the Risk Alert publication. The Joint Commission International has also just finished the medication management tracer in November 2007, which has positive impact on the MIRP and also facilitates the MSC in the identification of target areas for improvement.

This issue of MIRP Bulletin has retained some of the features of the previous issues such as case sharing and statistics of incidents. New features include the progress of the work of MSC and the presentation of the statistical data. This Bulletin will remain as a bi-annual bulletin and will continue to serve as a forum for sharing and promoting medication safety.

Medication Safety Committee



The Medication Safety Committee was established in April 2006, chaired by Dr. Joseph Lui and members include cluster representatives nominated by Cluster Chief Executives, representatives from pharmacy departments and nursing division of HAHO, with executive and professional support by the Chief Pharmacist's Office. The MSC has developed and implemented a number of key projects to enhance medication safety. For example, the guideline on potassium chloride issued in 1998 has been revised in July 2007. The revised guideline reinforces the removal of concentrated potassium chloride from general clinical areas, and promote the use of pre-mixed solutions.



Guidelines on Safe Management of Potassium Chloride IV Solutions

In September 2007, MSC also prepared and issued the ''HA Guideline on Safe Handling of Intrathecal Chemotherapy''. Safety measures were incorporated into the policy with an aim to reduce risks and to ensure safe handling of intrathecal chemotherapy.

MSC is also committed to training and education. The Sharing Session on Medication Safety was held on the 18th October, 2007. The main theme was on *Look Alike Sound Alike Medication* (LASA). Professor David Cousins, Head of Safe Medication Practice of the National Patient Safety Agency (NPSA) from the United Kingdom shared with us the work of the NPSA and the medication safety initiatives in the UK. There were also local speakers from the hospital and the industry sharing with us various initiatives in dealing with LASA.

Wrong Patient

Gliclazide tablets issued to wrong patient

A patient was issued with gliclazide tablets after attending a medical SOPC follow up appointment. However, the gliclazide tablets were intended for another patient who also attended SOPC around the same time on the same day.

The patient involved was admitted for unresponsiveness, malaise and weakness. Haemostix glucose check was found to be low at A&E department on admission.

RECOMMENDATION

Reinforce the ticket issue policy

Monitor & manage the working environment especially during peak hours to ensure the quality & safety of the dispensing process

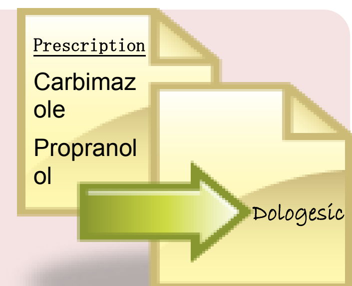
Drug Omission

Medication not transcribed to the new MAR chart

A patient was prescribed carbimazole 10mg tds and propanolol 10mg tds as his regular medication on a MAR chart along with one 'prn Dologesic tablet qds'. When Dologesic tablet was discontinued and later represcribed on a new MAR chart, the patient's regular medication was not transcribed. As a result, 4 doses of each carbimazole and propanolol were not administered to the patient. Patient's ECG had shown marked ST depression and T wave abnormality.

RECOMMENDATION

File all the MAR charts in the same drug file



- **LOOK** back on the old MAR charts when rewriting prescriptions
- Beware of multiple MAR

Look-Alike Sound-alike Medication

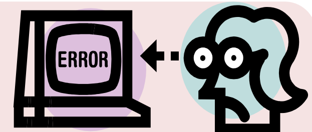
Amiodarone *vs* ***Amlodipine***

A doctor who intended to prescribe 10mg of amlodipine accidentally chose amiodarone 100mg on the MOE screen. This may possibly due to similar drug names. The strengths of the two drugs may easily be confused as well.

The patient was admitted to A&E department for bradycardia and acute renal failure requiring one session of haemodialysis.

RECOMMENDATION

Promote staff vigilance on look-a-like sound-a-like drug names



- Look Alike Sound Alike drugs are easily mixed up
- Raise awareness of the commonly confused names
- Take extra caution when there are look-alike drug names on the MOE screen

Wrong Route

Vincristine maladministration

A leukaemic patient, due to have a dose of intrathecal cytarabine chemotherapy injection, was given a dose of vincristine via the intrathecal route. Patient's outcome was fatal.

RECOMMENDATION

- ✓ **Use a formal checking procedure to ensure '5 Rights'**
- ✓ **Intrathecal chemotherapy must be dealt with in a designated area by specially trained & designated oncology staff *only***
- ✓ **Prepare vincristine in an intravenous bag**

For INTRAVENOUS use only

Fatal if given by other routes

Wrong Concentration

Fentanyl Overdose

A patient was transferred to ICU and was prescribed i.v. fentanyl. As an usual practice, an ICU nurse drew up the required i.v. fentanyl undiluted and labeled with drug name and concentration. This patient was reviewed by an anaesthetist who is used to giving diluted fentanyl in the OT department. The dose of undiluted i.v. fentanyl that was prepared by the ICU nurse was injected by the anaesthetist, who was unaware that the fentanyl had not been diluted.

As a result, the patient had 5 times more than the intended dose, became drowsy and hypoventilated.

RECOMMENDATION

Standardise fentanyl dilution regimens

Beware of possible different dilution regimens between general wards & special area

Wrong Drug

Misoprostol vs Prostaglandin E2

A pregnant patient with unfavourable cervix was given vaginal misoprostol instead of vaginal prostaglandin E2. Subsequently, the patient was admitted with frequent uterine contraction and her cardiotocographic result was unsatisfactory.

RECOMMENDATION

Stress the importance of following treatment protocol

Overdose

Self medication of Paracetamol

A patient took own brought-in paracetamol without informing the nurse on the ward. Sixteen paracetamol tablets were taken within 19 hours. In consequence, antidote injections were required with monitoring of liver function.

RECOMMENDATION

Reinforce the policy on Self-Medication on inpatient wards—advise patients not to self-medicate during their stay in the hospital

Wrong Concentration

Mis-selection of heparin vials x2 incidents

A dose of heparin **3000iu** was ordered by a surgeon verbally. Instead of **3000iu**/3ml, **15,000iu**/3ml was injected. The patient was closely monitored afterwards and the effect of heparin was reversed. In this particular incident, both concentration of the heparin vials were placed together in the same container and the injection was ***not*** second checked prior to administration.

A patient was prescribed heparin **250mg** for cardio-pulmonary bypass, **1250mg**/25ml was injected instead, 5 times more than the prescribed dose. The patient was closely monitored afterwards.

RECOMMENDATION

- ✓ **Reinforce the importance of 3 Checks & 5 Rights**
- ✓ **Increase staff awareness on the different concentration of heparin**
- ✓ **Minimise the number of different concentrations of heparin in one area**
- ✓ **Beware of the concentration and pack size of the drug**

The Number of Incidents by Severity (Jan – Jun 2007)

Severity Index	Jan - Jun 2007
0	460
1	389
2	73
3	17
4	7
5	1
6	1

Top 3 Most Common *PRESCRIBING ERROR* (Jan – Jun 2007)

Positio	In-patient	Out-patient
No. 1	Wrong Strength/ Dosage (35%)	Wrong Patient (32%)
No. 2	Wrong Drug (14%)	Wrong Strength/ Dosage (29%)
No. 3	Wrong Frequency (12%)	Wrong Drug (18%)

Top 3 Most Common *DISPENSING ERROR* (Jan – Jun 2007)

Positio	In-patient	Out-patient
No. 1	Wrong Drug (44%)	Wrong Drug (32%)
No. 2	Wrong Strength/ Dosage (24%)	Wrong Patient (22%)
No. 3	Wrong Patient (8%)	Wrong Strength/ Dosage (19%)

Top 3 Most Common *ADMINISTRATION ERROR* (Jan - Jun 2007)

Positio	In-patient	Out-patient
No. 1	Dose Omission (24%)	Wrong Patient (24%)
No. 2	Extra Dose (17%)	Extra Dose (18%)
No. 3	Wrong Drug (11%)	Wrong Drug (15%)

Summary of Incidents by Most Common Underlying Causes (Top 5) in Jan – Jun 2007

Underlying Causes			
In –patient	**Total 572**	**Out-patient**	**Total 296**
1.Failure to comply with policies or procedures	36.4%	1. Failure to comply with policies or procedures	25.3%
2. Failure in communication/misinterpretation of order	11.4%	2. Incorrect computer entry	19.6%
3. Distraction	10.1%	3. Distraction	9.8%
4. Similar drug name/appearance	7.5%	3. Inadequate knowledge/skills	9.8%
5. Inadequate knowledge/skills	5.6%	5. Similar drug name/appearance	8.8%