

Medication Safety



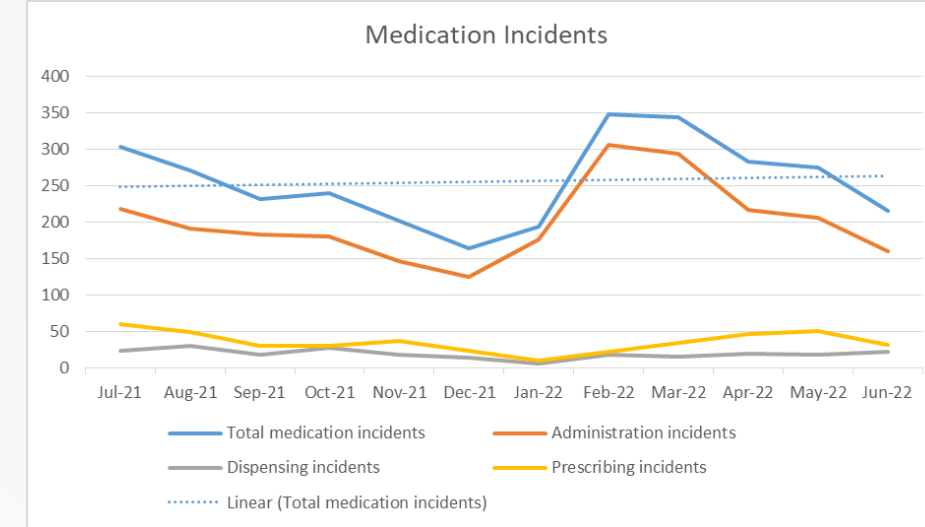
National Standards Accreditation 2022

Prof Michelle Leech and Wendy Ewing on behalf of the
Medication Safety and Therapeutics Committee



Quality processes

- Medication incident review
 - Prescribing, administration, dispensing incidents
 - All medication related incidents reviewed by Quality Use of Medicines pharmacist
- Key Performance Indicator reporting
 - ISR 1 and 2 medication incidents
 - Medication prescribed and administered despite known allergy
 - Medicine administered to wrong patient
 - Wrong medicine administered
- Audit schedule
- Document review
 - 218 Prompt Procedures, Clinical Guidelines & Medication Profiles reviewed in 2021
- Project implementation
- Formulary management
 - 11 medication formulary applications evaluated in 2021
 - 1,003 single patient use requests reviewed by Single Patient Use Subcommittee in 2021
 - Framework for evaluation of complex requests to facilitate consistency in decision making



Consumer engagement

- Medication Safety and Therapeutics Committee membership
 - Two consumer representative committee members
- Patient Information Leaflet review
 - All patient information leaflets are reviewed by consumers and feedback incorporated
- Medication Safety improvement project engagement
 - Adrenaline (epinephrine) auto injectors stored at the bedside
 - Complementary and Alternative Medicines Procedure
 - Changing directions on dispensing labels
 - Iron infusions patient information and consent
- Patient experience surveys
- Consumer engagement in decision making for their own health care



Iron infusions

Patient feedback of skin staining incidents: patients unaware of risks prior to infusion

Consumer engagement

Procedure review including evidence and benchmarking

Requirement for written consent

Patient information leaflet

Identification of procedures: various iron formulations for adult, paediatric, maternity and HITH

Audits of written consent:
Pre = 49%,
Immediately post = 90% (17/19),
12 months later = 94% (109/116)

Revised leaflet with photograph and guidance to immediately report signs and symptoms associated with staining

Inclusion of evidence based practices to reduce risk, e.g. cannulation

Inclusion of consent requirements

Information for patients, families and carers



Iron infusions

Who is this information for?

This information is for patients receiving an iron infusion, and their families and carers.

What is an iron infusion?

This is a minor procedure to replenish the iron stores in your body. An iron-containing medicine (e.g. Ferinject®, Ferrosig®, Venofer®, Monofer®) is given directly into your blood stream through an intravenous (IV) 'drip'. Iron is an essential element for the red blood cells to carry oxygen that is necessary for life.

When is an iron infusion recommended?

- Some of the reasons for needing an iron infusion are:
- Blood tests show low levels of iron in your body (iron deficient not improved with iron tablets or iron liquid).
 - When you do not tolerate iron tablets or iron liquid due to side upset and constipation.
 - When you have low iron levels and are unable to have a blood religious reasons or beliefs.

What do I need to do on the day of the iron infusion?

- At Monash Health, an iron infusion can be given in one of the hot centres, Hospital in the Home (HITH) clinics or on the ward if you in the hospital. You will be told where you are having your infusion.
- Before the infusion starts, the nurse will take your pulse, blood pressure and temperature.
- A small tube ('IV drip') is put into a vein in your arm.
- Depending on the type of iron infusion and the amount ordered by your doctor, it can take 20 minutes to 5 hours through the IV drip. You will be told by the nurse for an estimate on how long your infusion will take.
- You will be monitored during the infusion.
- Tell your nurse or doctor immediately if you experience breathing difficulty or neck or mouth swelling, or pain in your arm during the infusion.
- After the infusion, you may need to stay for 15 to 30 minutes to see if you have a reaction to it. Then you can return home, unless you feel unwell or your doctor requires other treatment or care.
- You will have a blood test in the weeks after your infusion to measure your iron levels (haemoglobin) and iron stores. If your levels are still low, your doctor will advise you on what to do.

What are the possible side effects?

Side effects and severe reactions are very rare. However, you should be aware of what they are.

- About 1 to 10% of patients experience: headache, dizziness, flushing, feeling sick (nausea), abdominal pain, muscle cramps, diarrhoea, constipation, low or high blood pressure and reactions where the needle is inserted (site of the infusion).
- Rarely, for less than 1% of patients, serious allergic reactions such as anaphylaxis may occur. Symptoms of anaphylaxis can include swelling of the face, lips, eyes and/or tongue and difficulty breathing. You will therefore be monitored closely during and after the infusion.
- A very rare but significant complication of iron infusions is permanent skin staining that can occur if some of the iron leaks outside the vein during the infusion. Let the nurse know immediately if you experience any pain or burning in the arm, or dark colour around where the needle is inserted, during the infusion.



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What other information do I need to know?

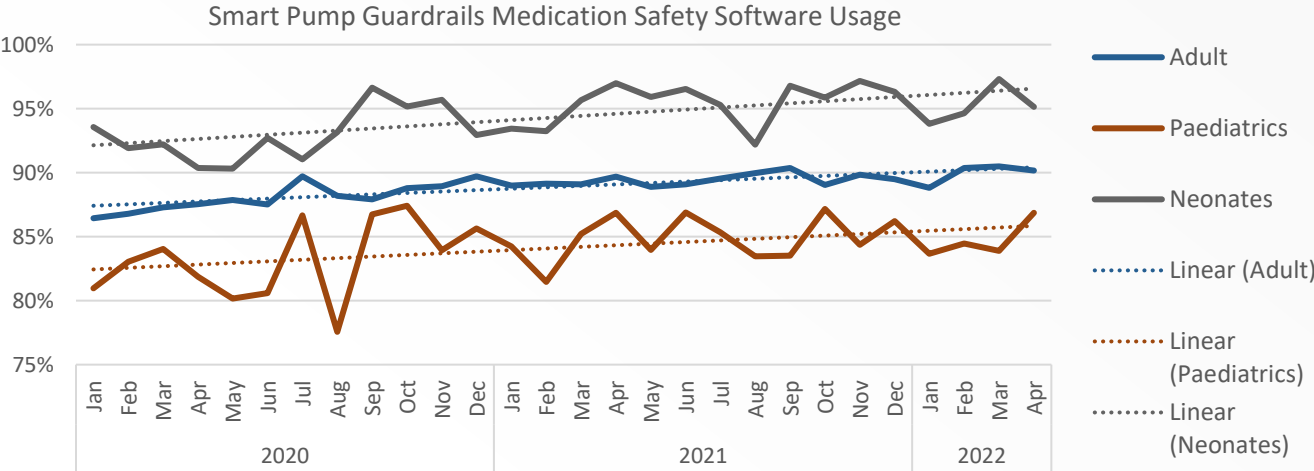
- If you have ever had an allergic reaction, including anaphylaxis, to iron given to you through a drip, you must let your doctor and nurse know. The doctor will decide on whether to:
 - Give you a different type of iron infusion and/or medicine to reduce allergic reactions immediately before the infusion.
 - OR
 - Advise you to avoid all iron infusions.
- Do not take oral iron tablets or liquid after your iron infusion, unless told by your doctor. Wait until after your blood has been retested (and haemoglobin and iron results are available).





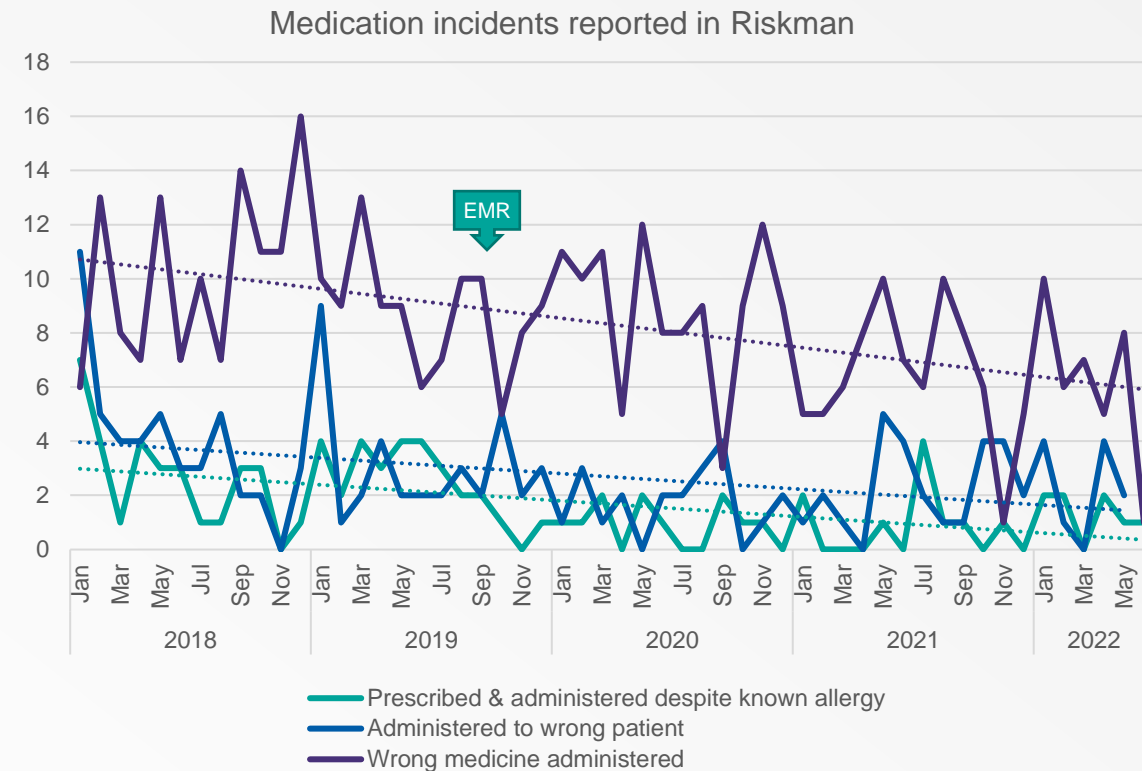
Key achievements

- Smart Pumps implementation:
 - Over 4500 intermittent and continuous medications, fluids and blood products built into medication library over 10 dataset profiles
 - Over 89% of infusions run via a Smart Pump use Guardrails® error reduction software, reducing potential for patient harm (2.2 million infusions in 2021)
 - User acceptability survey revealed 90% of users found the pumps easy to use
 - Smart Pump pharmacist reviews usage data, feedback and new/revised medication profiles to inform updates (approximately quarterly)
 - Victorian Heart Hospital: interoperability with EMR



Key achievements

- Implementation of EMR
 - Impact on medication errors
 - Optimisation:
 - Allergy/ADR mandatory fields
 - Mpage for pharmacists
 - In response to incidents/improvements
 - Dashboards:
 - Drives documentation improvement
 - Future focus:
 - Enhanced dashboards, e.g. pharmaceutical review
 - EMR generated medication list
 - Medication barcode scanning at VHH



Key achievements



Proximity card medication safes

- Installation in high risk clinical areas and new/redeveloped areas
- Dual access



Pharmaceutical waste

- Red pharmaceutical bins in clinical areas with medication safes
- Ensure compliance with EPA Guidelines and Schedule 8 medicine legislation



ENFit implementation

- Syringes and bottle adaptors in all adult, paediatric and neonatal areas
- Oral and enteral medicine and fluid administration



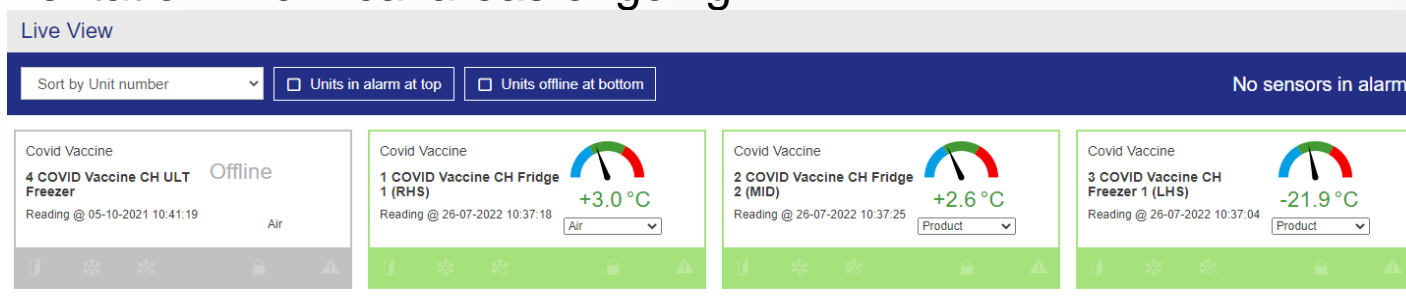
Medication Safety training

- Changed online training package to reflect EMR environment and learner feedback
- Additional 'Medication Safety for Nurses & Midwives' focusing on 6 rights of medication safety, including double checks for Schedule 8 and Schedule 4D medicines



Areas of focus

- Medication and vaccine refrigerator temperature monitoring:
 - Centralised refrigerator/freezer monitoring for pharmacy and vaccine refrigerators complete
 - Implementation in clinical areas ongoing



- EMR Dashboard: enhancements and data utilisation
- Partnered Pharmacist Medication Charting project expansion
 - General Medicine, haematology/oncology and ICU
- Anticoagulant Stewardship Program implementation
- Hazardous medicines
 - Implementation of VicTAG Guidelines





Surveyor feedback

- Schedule 8 and 4D medication management - best they've seen
- EMR well designed and used to assist with medication management
- Complimented pharmacy in-ward support and contribution to safe care: staff extremely grateful for support
- Consumer engagement impressive – patient information, warfarin sheet is fantastic
- Committee minutes brilliant, best they have seen in detail, discussion, actions
- Incident monitoring excellent, EMR has reduced incidents
- Audits extensive with great follow-up
- Medication history and reconciliation rates are improving – keep working on
- Proximity cards for safes are loved
- Pharmacy technician in ICU project – brilliant!

