Government of South Australia

SA Health

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Presentation to the NPBMC Showcase

Friday 2 June 2017

National Patient Blood Management Collaborative

Government of South Australia

SA Health

Karen Olson, Project Co-ordinator, LMH

National Patient Blood Management Collaborative

The Northern Adelaide Local Health Network

NALHN includes

- Lyell McEwin Hospital
- Modbury Hospital
- GP Plus Health Care Centres and Super Clinics
  - Modbury
  - Elizabeth Vale
  - Giles Plains

Population 320,795 people

NPBMC Partnerships

- GPs, in the Northern Adelaide Health Network

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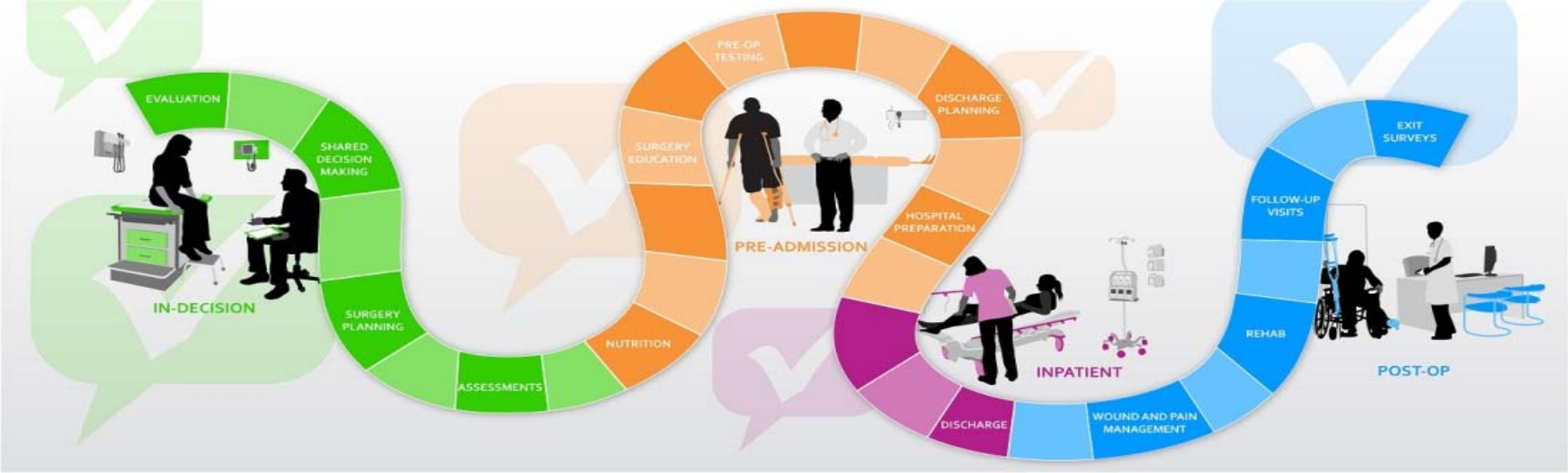
National Patient Blood Management Collaborative

Aim

a) Promote preoperative blood management as a standard of care for pre-surgical work up, encompassing the scope of the patient journey.

b) Bring PBM guidelines & resources into everyday use.



‘No Barriers, just horizons’

To successfully complete a project, it become necessary to open channels of communication and treatment options for between the Lyell McEwin Hospital and General Practitioners (GP’s) within the network.

- How do we develop a partnership with the GP’s?
- How do we effectively and consistently communicate within/outside of the hospital?

Everything takes time…

- 2015 ✓ Worked on reviewing current processes and developing ideas
- 2016 ✓ Development of ideas, consultation and approval
- 2017 ✓ Implementation.

Enablers

- ✓ NALHN Hospital Executive Committee
- ✓ NALHN Division of Surgery and Anaesthetics
- ✓ Northern Adelaide Health Network
  - CEO
  - Education Officer
- ✓ BloodSafe program
  - Development of an IV iron infusion service at Modbury GP Plus Super Clinic

Achievements

- ✓ Development of a patient blood management care plan
- ✓ Development of ‘one stop’ sources for Patient Blood Management information & resources
- ✓ GP letter templates with information attached to the template.
- ✓ Consumer letter templates with information and diary attached to the template.
- ✓ Development of a generic PBM email to assist GP’s with access support and advice
- ✓ Introduction of IV Iron infusion service for GP’s to access in the community.
- ✓ IV Iron infusion referrals
- ✓ Intravenous iron infusion referrals for LMH day surgery and Modbury GP Plus super clinic
- ✓ Promotion of preoperative patient blood management
  - ➢ Medical education
  - ➢ Nursing education
  - ➢ Northern Adelaide Health Network

Conclusion

The key learning in implementing this QI process?

The courage to create and implement ideas.

Key message for other Health Services for PBM?

a) To create a flow chart of how patients enter the hospital and progress through the healthcare system. Step through each time point and question "what are we currently doing?" and "how can we improve?"

b) Remember "feedback is a gift and ideas are the currency of our next success. Let people see that you value both feedback and ideas."

– Jim Trinka and Les Wallace

How the Collaborative made a difference to your hospital and your patients

The NALHN PBMC project team aimed to provide a service to the local health network and the community which is effective, efficient and sustainable beyond the NPBMC project.

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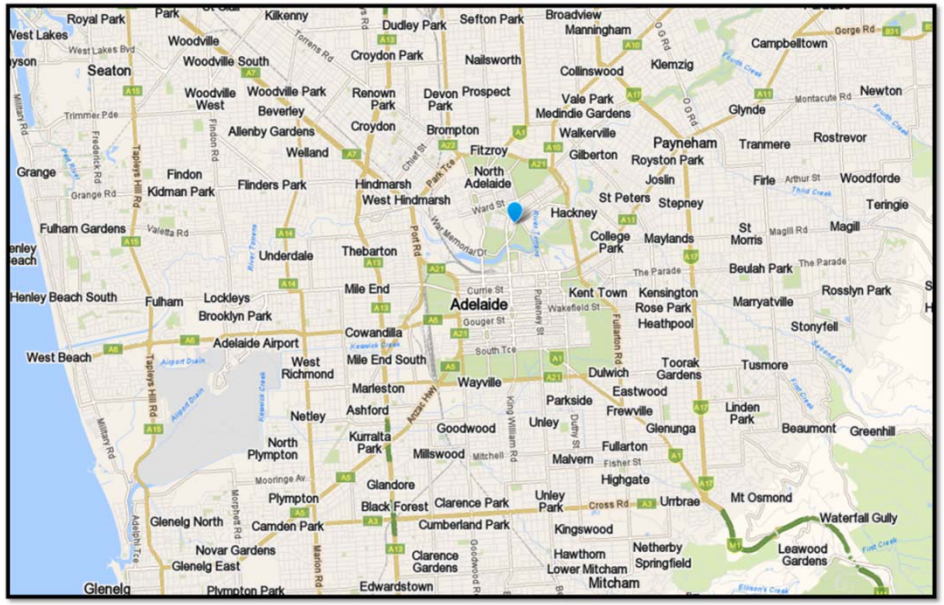
Jodie Grech, Project Co-ordinator
Women and Children's Health Network

National Patient Blood Management Collaborative

Women and Children's Health Network

Gynaecology stream only

– Hysterectomy for non-malignancy



WCH Gynaecology Service:

– Early pregnancy assessment
– Management of menstrual disorders
– Contraceptive services
– Family advisory services
– Reproductive endocrinology
– Pelvic floor dysfunction
– Colposcopy
– Menopausal management
– Other acute and chronic gynaecological disorders

Early focus on referral to gynaecology service

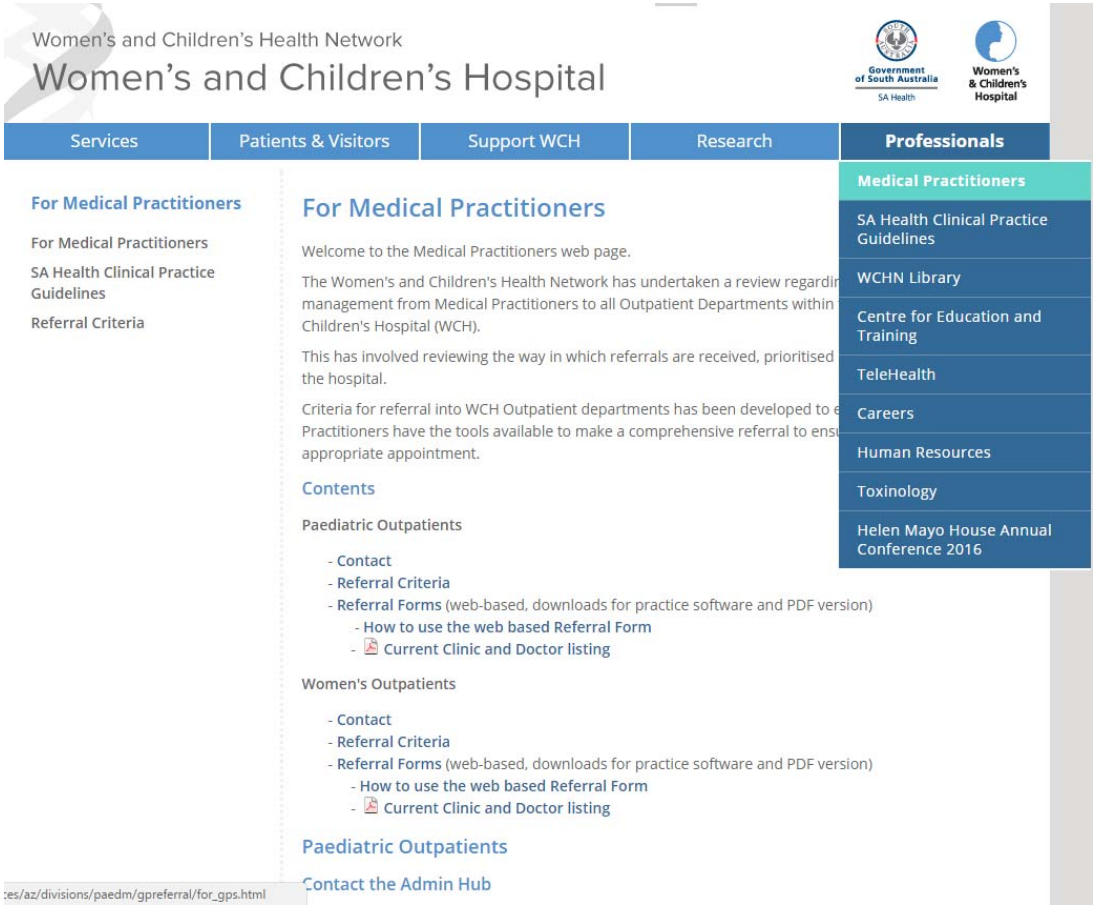
- GP letter with identification template developed
- Difficult, focus changed to hospital based management

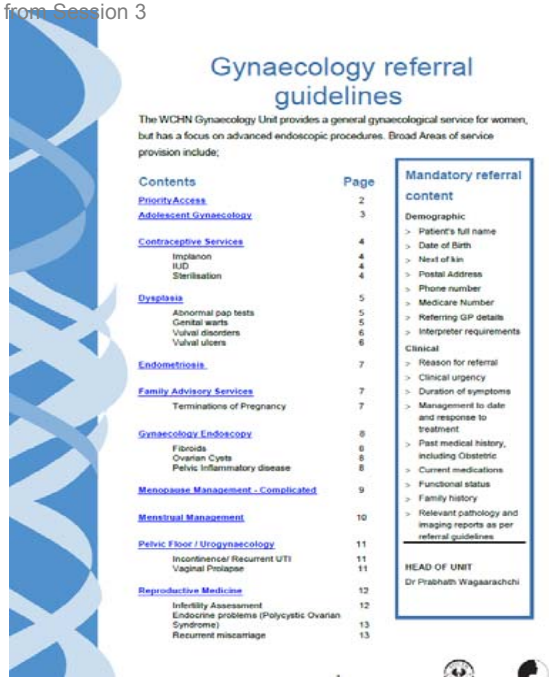
Hospital management - Implemented key points for testing

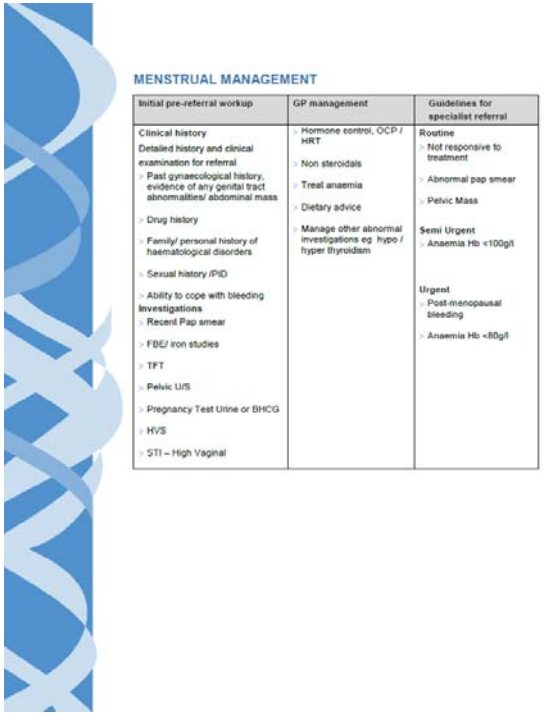
- On waitlisting for surgery
- At preoperative clinic appointment

Referral Process

- PBMC coincided with review of WCH outpatient referral process.
- Access to referral information now easily accessible and process clearly outlined.





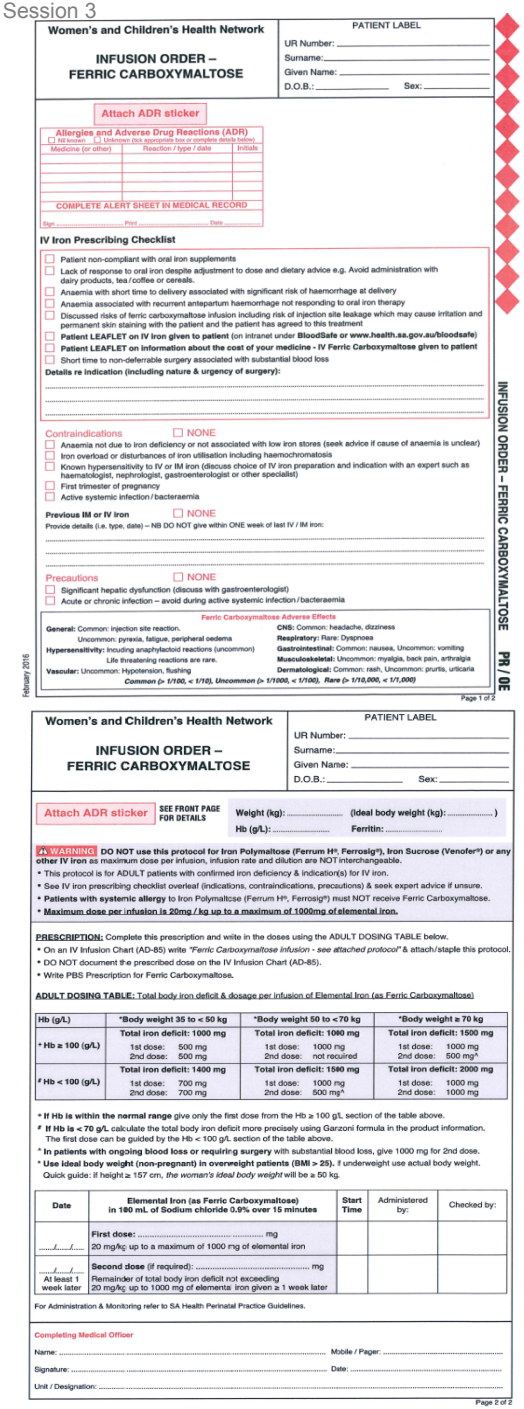


Enablers

- Small team, junior medical staff keen to lead
- Small patient numbers = minimal burden on workload
- Process for IV iron infusions already in place

Barriers

- Time
- Small numbers – problem not profoundly visible
- Referrals from across wider Adelaide
- Review/restructure of outpatient referral process



Women's and Children's Health Network

INFUSION ORDER – FERRIC CARBOXYMALTOSE

PATIENT LABEL
UR Number:
Surname:
Given Name:
D.O.B.: Sex:

Attach ADR sticker

Allergies and Adverse Drug Reactions (ADR)
Nil known Unknown (tick appropriate box or complete details below)
Medicine (or other) | Reaction / type / date | Initials
COMPLETE ALERT SHEET IN MEDICAL RECORD
Sign Print Date

IV Iron Prescribing Checklist
- Patient non-compliant with oral iron supplements
- Lack of response to oral iron despite adjustment to dose and dietary advice e.g. Avoid administration with dairy products, tea / coffee or cereals.
- Anaemia with short time to delivery associated with significant risk of haemorrhage at delivery
- Anaemia associated with recurrent antepartum haemorrhage not responding to oral iron therapy
- Discussed risks of ferric carboxymaltose infusion including risk of injection site leakage which may cause irritation and permanent skin staining with the patient and the patient has agreed to this treatment
- **Patient LEAFLET on IV iron given to patient** (on intranet under **BloodSafe or www.health.sa.gov.au/bloodsafe**)
- **Patient LEAFLET on information about the cost of your medicine - IV Ferric Carboxymaltose given to patient**
- Short time to non-deferrable surgery associated with substantial blood loss

Details re indication (including nature & urgency of surgery):

Contraindications ☐ NONE
- Anaemia not due to iron deficiency or not associated with low iron stores (seek advice if cause of anaemia is unclear)
- Iron overload or disturbances of iron utilisation including haemochromatosis
- Known hypersensitivity to IV or IM iron (discuss choice of IV iron preparation and indication with an expert such as haematologist, nephrologist, gastroenterologist or other specialist)
- First trimester of pregnancy
- Active systemic infection / bacteraemia

Previous IM or IV iron ☐ NONE
Provide details (i.e. type, date) – NB DO NOT give within ONE week of last IV / IM iron:

Precautions ☐ NONE
- Significant hepatic dysfunction (discuss with gastroenterologist)
- Acute or chronic infection – avoid during active systemic infection / bacteraemia

Ferric Carboxymaltose Adverse Effects
General: Common: injection site reaction. Uncommon: pyrexia, fatigue, peripheral oedema
Hypersensitivity: Incuding anaphylactoid reactions (uncommon) Life threatening reactions are rare.
Vascular: Uncommon: Hypotension, flushing
CNS: Common: headache, dizziness
Respiratory: Rare: Dyspnoea
Gastrointestinal: Common: nausea, Uncommon: vomiting
Musculoskeletal: Uncommon: myalgia, back pain, arthralgia
Dermatological: Common: rash, Uncommon: pruritis, urticaria
Common (≥ 1/100, < 1/10), Uncommon (≥ 1/1000, < 1/100), Rare (≥ 1/10,000, < 1/1,000)

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INFUSION ORDER – FERRIC CARBOXYMALTOSE PR / OE

Women's and Children's Health Network

INFUSION ORDER – FERRIC CARBOXYMALTOSE

PATIENT LABEL
UR Number:
Surname:
Given Name:
D.O.B.: Sex:

Attach ADR sticker SEE FRONT PAGE FOR DETAILS

Weight (kg): (Ideal body weight (kg):)
Hb (g/L): Ferritin:

⚠ WARNING **DO NOT use this protocol for Iron Polymaltose (Ferrum H®, Ferrosig®), Iron Sucrose (Venofer®) or any other IV iron as maximum dose per infusion, infusion rate and dilution are NOT interchangeable.**
- This protocol is for ADULT patients with confirmed iron deficiency & indication(s) for IV iron.
- See IV iron prescribing checklist overleaf (indications, contraindications, precautions) & seek expert advice if unsure.
- **Patients with systemic allergy** to Iron Polymaltose (Ferrum H®, Ferrosig®) must NOT receive Ferric Carboxymaltose.
- **Maximum dose per infusion is 20mg / kg up to a maximum of 1000mg of elemental iron.**

PRESCRIPTION: Complete this prescription and write in the doses using the ADULT DOSING TABLE below.
- On an IV Infusion Chart (AD-85) write *"Ferric Carboxymaltose Infusion - see attached protocol"* & attach/staple this protocol.
- DO NOT document the prescribed dose on the IV Infusion Chart (AD-85).
- Write PBS Prescription for Ferric Carboxymaltose.

ADULT DOSING TABLE: Total body iron deficit & dosage per infusion of Elemental Iron (as Ferric Carboxymaltose)

Hb (g/L)	*Body weight 35 to < 50 kg	*Body weight 50 to < 70 kg	*Body weight ≥ 70 kg
* Hb ≥ 100 (g/L)	**Total iron deficit: 1000 mg** 1st dose: 500 mg 2nd dose: 500 mg	**Total iron deficit: 1000 mg** 1st dose: 1000 mg 2nd dose: not required	**Total iron deficit: 1500 mg** 1st dose: 1000 mg 2nd dose: 500 mg^
# Hb < 100 (g/L)	**Total iron deficit: 1400 mg** 1st dose: 700 mg 2nd dose: 700 mg	**Total iron deficit: 1500 mg** 1st dose: 1000 mg 2nd dose: 500 mg^	**Total iron deficit: 2000 mg** 1st dose: 1000 mg 2nd dose: 1000 mg

* **If Hb is within the normal range** give only the first dose from the Hb ≥ 100 g/L section of the table above.
\# **If Hb is < 70 g/L** calculate the total body iron deficit more precisely using Garzoni formula in the product information. The first dose can be guided by the Hb < 100 g/L section of the table above.
^ **In patients with ongoing blood loss or requiring surgery** with substantial blood loss, give 1000 mg for 2nd dose.
* **Use ideal body weight (non-pregnant) in overweight patients (BMI > 25).** If underweight use actual body weight. Quick guide: if height ≥ 157 cm, *the woman's ideal body weight* will be ≥ 50 kg.

Date	Elemental Iron (as Ferric Carboxymaltose) in 100 mL of Sodium chloride 0.9% over 15 minutes	Start Time	Administered by:	Checked by:
...../...../.....	**First dose:** ..... mg 20 mg/kg up to a maximum of 1000 mg of elemental iron			
...../...../..... At least 1 week later	**Second dose** (if required): ..... mg Remainder of total body iron deficit not exceeding 20 mg/kg up to 1000 mg of elemental iron given ≥ 1 week later			

For Administration & Monitoring refer to SA Health Perinatal Practice Guidelines.

Completing Medical Officer
Name: Mobile / Pager:
Signature: Date:
Unit / Designation:

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Achievements

- Improvement on identification and management of iron deficiency in patient population
- Improved documentation in medical record regarding investigation and management of these women

Conclusion

The key learning in implementing this QI process?

Team, Takes Time, and Training

Key message for other Health Services for PBM?

Take care with planting your seed and nurture it well. It takes time to establish.

How the Collaborative made a difference to your hospital and your patients

Small beginnings but hope for sustained spread