



**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

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# 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





# 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



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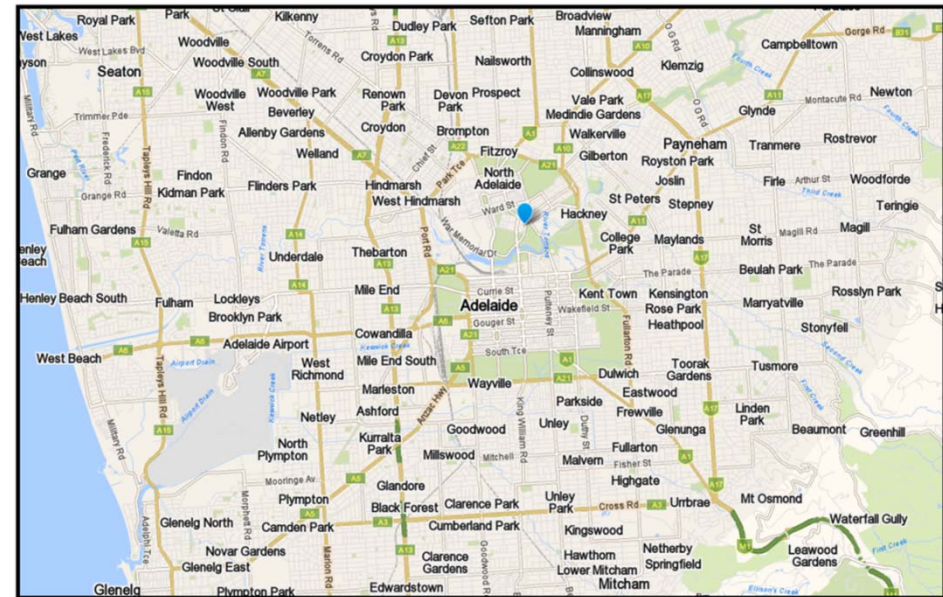
# Women and Children's Health Network

## 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.

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 Women's and Children's Hospital

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Services	Patients & Visitors	Support WCH	Research	Professionals
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**For Medical Practitioners**

For Medical Practitioners  
 SA Health Clinical Practice Guidelines  
 Referral Criteria

**For Medical Practitioners**

Welcome to the Medical Practitioners web page.

The Women's and Children's Health Network has undertaken a review regarding management from Medical Practitioners to all Outpatient Departments within Children's Hospital (WCH).

This has involved reviewing the way in which referrals are received, prioritised the hospital.

Criteria for referral into WCH Outpatient departments has been developed to ensure Practitioners have the tools available to make a comprehensive referral to ensure appropriate appointment.

**Contents**

Paediatric Outpatients

- Contact
- Referral Criteria
- Referral Forms (web-based, downloads for practice software and PDF version)
  - How to use the web based Referral Form
  - Current Clinic and Doctor listing

Women's Outpatients

- Contact
- Referral Criteria
- Referral Forms (web-based, downloads for practice software and PDF version)
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  - Current Clinic and Doctor listing

**Paediatric Outpatients**

Contact the Admin Hub

**Medical Practitioners**

- SA Health Clinical Practice Guidelines
- WCHN Library
- Centre for Education and Training
- TeleHealth
- Careers
- Human Resources
- Toxinology
- Helen Mayo House Annual Conference 2016

## Gynaecology referral guidelines

The WCHN Gynaecology Unit provides a general gynaecological service for women, but has a focus on advanced endoscopic procedures. Broad Areas of service provision include;

Contents	Page
<a href="#">Priority Access</a>	2
<a href="#">Adolescent Gynaecology</a>	3
<a href="#">Contraceptive Services</a>	4
Implanon	4
IUD	4
Sterilisation	4
<a href="#">Dysplasia</a>	5
Abnormal pap tests	5
Cervical warts	5
Vulval disorders	6
Vulval ulcers	6
<a href="#">Endometriosis</a>	7
<a href="#">Family Advisory Services</a>	7
Terminations of Pregnancy	7
<a href="#">Gynaecology Endoscopy</a>	8
Fibroids	8
Ovarian Cysts	8
Pelvic Inflammatory disease	8
<a href="#">Menopause Management - Complicated</a>	9
<a href="#">Menstrual Management</a>	10
<a href="#">Pelvic Floor / Urogynaecology</a>	11
Incontinence/ Recurrent UTI	11
Vaginal Prolapse	11
<a href="#">Reproductive Medicine</a>	12
Infertility Assessment	12
Endocrine problems (Polycystic Ovarian Syndrome)	13
Recurrent miscarriage	13

Mandatory referral content
<b>Demographic</b>
> Patient's full name
> Date of Birth
> Next of kin
> Postal Address
> Phone number
> Medicare Number
> Referring GP details
> Interpreter requirements
<b>Clinical</b>
> Reason for referral
> Clinical urgency
> Duration of symptoms
> Management to date and response to treatment
> Past medical history, including Obstetric
> Current medications
> Functional status
> Family history
> Relevant pathology and imaging reports as per referral guidelines
<b>HEAD OF UNIT</b>
Dr Prabhath Wagaarachchi

### MENSTRUAL MANAGEMENT

Initial pre-referral workup	GP management	Guidelines for specialist referral
<b>Clinical history</b> Detailed history and clinical examination for referral Past gynaecological history, evidence of any genital tract abnormalities/ abdominal mass Drug history Family/ personal history of haematological disorders Sexual history (PID) Ability to cope with bleeding investigations Recent Pap smear FBE/ iron studies TFT Pelvic US Pregnancy Test Urine or BHCG HVS STI - High Vaginal	Hormone control, OCP / HRT Non steroidal Treat anaemia Dietary advice Manage other abnormal investigations eg. hypo / hyper thyroidism	<b>Routine</b> Not responsive to treatment Abnormal pap smear Pelvic Mass <b>Semi Urgent</b> Anaemia Hb <100g/l <b>Urgent</b> Post-menopausal bleeding Anaemia Hb <80g/l

# 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)  
 Allergic  Unknown risk associated with or complex drug history  
Medicine (or other) Reaction / Type / Date Initials  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
**COMPLETE ALERTY SHEET IN MEDICAL RECORD**  
Sign: \_\_\_\_\_ 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 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. **CNS:** Common: headache, dizziness  
Uncommon: pruritus, fatigue, peripheral oedema. **Respiratory:** Rare: Dyspnoea  
**Hypersensitivity:** Including anaphylactoid reactions (uncommon). **Gastrointestinal:** Common: nausea, Uncommon: vomiting  
Life threatening reactions are rare. **Musculoskeletal:** Uncommon: myalgia, back pain, arthralgia  
**Vascular:** Uncommon: hypotension, flushing. **Dermatological:** Common: rash, Uncommon: purpura, urticaria  
Common (> 1/100, < 1/10), Uncommon (> 1/1000, < 1/100), Rare (> 1/10,000, < 1/1,000)

February 2016 Page 1 of 2

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<sup>+</sup>, Ferrogl<sup>®</sup>), Iron Sucrose (Venofer<sup>®</sup>) 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<sup>+</sup>, Ferrogl<sup>®</sup>) 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: 1800 mg 1st dose: 1000 mg 2nd dose: 800 mg*	Total iron deficit: 3000 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 > 30). If underweight use actual body weight. Quick guide: if height ≥ 157 cm, the woman's ideal body weight will be a 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			
...../...../.....	Second dose (if required): ..... mg At least 1 week later. Remainder of total body iron deficit not exceeding 20 mg/kg up to 1000 mg of elemental iron given a 1 week later			

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

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

Page 2 of 2

# 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

