IRON SUCROSE: GUIDELINES FOR ADMINISTRATION

POLICY

Obstetric Internal Medicine, Haematology and Maternal Fetal Medicine Physicians order IV Iron Sucrose for all patients requiring IV iron replacement when oral therapy has failed or not likely to be effective.

Eligibility:

1. **Antepartum Indication:** Iron deficiency anemia (IDA) is defined as a haemoglobin of <105 and a ferritin of <20 during pregnancy.

2. **Postpartum Indication:** For a haemoglobin of <90 in the immediate postpartum period.

3. **Patients are not eligible for IV Iron when:**
   
   i) The patient has evidence of ongoing bleeding
   
   ii) The patient has sepsis or suspected systemic infection
   
   iii) The patient’s haemoglobin is low and she is symptomatic

Monitor for signs and symptoms of anaphylaxis.

Applicability: Intravenous iron sucrose is administered in the Birthing and Antepartum/Postpartum areas within the Maternal/Gyne Program.

PROCEDURE

1.1 Gather Materials

- Normal Saline 1000 mL for mainline IV
- Normal saline 250 mL
- (2) IV infusion sets
- Intravenous (IV) catheter, #18 or # 20 gauge
- Medication labels
- Antiseptic swabs - 2% chlorhexidine/70 % isopropyl alcohol
- Iron sucrose ampoules
- Alaris Infusion pump
- Dynamap
- Anaphylaxis kit must be readily available

1.2 Medication Administration

- Establish a mainline intravenous (IV) of normal saline using Alaris pump and infuse at 50 mL per hour.
- Prepare a secondary solution with the iron sucrose diluted in the 250 mL normal saline bag. Typical ordered iron sucrose dose is 100-300 mg (diluted to 0.5-2 mg/mL).
- **Note:** Iron sucrose is only compatible with normal saline.
- Prime infusion set with prepared iron sucrose.
- Piggy back prepared iron sucrose infusion through Alaris pump to the normal saline mainline infusion at the lowest port.
- Program infusion pump – iron sucrose is under ‘Guardrails IV Fluids’.
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- Stop mainline infusion of normal saline during iron sucrose infusion.
- Maximum recommended single dose: 300 mg (See Prescriber’s Orders).
- Maximum infusion rate: 100 mg / hour (Slow infusion rate of iron sucrose is recommended to minimize adverse reactions, especially hypotension)
- Frequency of infusion: Dose may be repeated up to 3 times weekly to provide total iron dose.
- Test Dose: Not required.

Iron Dose Guidelines for Physicians

Total Iron Dose (Iron Deficit) Calculation:

\[ \text{Iron deficit} = \text{Body weight [kg]} \times (\text{target HgB} - \text{actual HgB}) \text{[g/L]} \times 0.24 + 500 \text{ mg} \]

(Note: 0.24 is the correction factor; 500 mg is the iron depot)

Example:

Patient weight (kg) = 70   Target HgB = 120 g/L   Patient HgB = 100 g/L

\[ \text{Iron deficit:} \ 70 \text{ kg} \times (120 - 100) \times 0.24 + 500 \text{ mg} = 836 \text{ mg} \rightarrow \text{total of 800 mg of iron is indicated (given over the three doses).} \]

1.3 Maternal monitoring during infusion

Prior to Infusion:
- Perform vital signs (BP, temperature, pulse, respirations) within 30 minutes prior to start of infusion.

During Infusion:
- Perform vital signs (BP, temperature, pulse, respirations) hourly until the infusion is complete.

1.4 Fetal Monitoring – Antepartum Guidelines

Prior to Infusion
- Auscultate the fetal heart within 30 min prior to starting infusion.

During Infusion
- Auscultate the fetal heart rate hourly until the infusion is complete.
- Apply EFM if any adverse maternal reactions arise.

1.5 Cautions / Adverse Reactions

Anaphylaxis kit must be readily available.
Slow infusion is recommended to minimize adverse reactions, especially hypotension (maximum infusion rate is 100mg per hour).
## Iron Sucrose: Guidelines for Administration

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<td>• Flushing</td>
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### 1.6 Nursing Intervention for Adverse Reactions

**For ‘Mild’ maternal adverse reactions:**
- Continue infusion at ordered rate
- Perform maternal vital signs and auscultate the fetal heart (if antepartum patient)
- Closely monitor maternal condition for worsening adverse reactions
- Inform the physician who ordered the Iron Sucrose

**For ‘Moderate’ maternal adverse reactions:**
- Stop the iron infusion and administer normal saline at 125 mL/hour.
- Notify the physician who ordered the Iron Sucrose for assessment of the woman.
- Monitor maternal vital signs every 15 minutes until stable.
- Apply EFM to assess fetal well being (if antepartum patient)
- Consult the physician who ordered the Iron Sucrose for ongoing treatment plan

**NOTE:** For Obstetrical concerns, and if the woman does not have a primary care provider from BCW, call the Level One Obstetrician

**For ‘Severe’ maternal adverse reactions:**
- Stop the iron infusion immediately and administer normal saline at 125 mL/hour.
- Notify the physician who ordered the Iron Sucrose for urgent assessment of the woman.
- Monitor maternal vital signs every 5 minutes and remain with the patient.
• Apply EFM to assess fetal well being (if antepartum patient).
• Consult with physician who ordered the Iron Sucrose for ongoing treatment plan

**NOTE:** For Obstetrical concerns, and if the woman does not have a primary care provider from BCW, call the Level One Obstetrician

**In case of anaphylaxis, bronchospasm or dyspnea:**
• Stop the iron infusion immediately and administer normal saline at 125 mL/hour.
• **Call Adult Code Blue (33)** and notify the physician who ordered the Iron Sucrose for immediate assessment.
• Gather anaphylactic kit, maternal drug tray and code blue cart.
• Prepare to administer necessary medications (Anaphylaxis Policy WW.03.17A)
• Apply EFM once maternal condition stabilized to assess fetal well being (if antepartum patient).

**DOCUMENTATION**

• Added medication label
• Interprofessional Notes
• Medication administration record
• In and out record
• Prescriber’s Orders
• Physician history and progress notes
• Special Clinical Record

**REFERENCES**


