PRACTITIONER PRE-PRINTED ORDERS
Intravenous Iron Therapy

To complete the order form, fill in required blanks and/or check the appropriate boxes. Bulleted items will be initiated automatically. To delete orders, draw one line through the item and initial.

Allergies: See Allergy / Intolerance Record

<table>
<thead>
<tr>
<th>Patient Weight</th>
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<tbody>
<tr>
<td>Est. _____kg</td>
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Diagnoses and Inclusion Criteria (Choose One)

- □ Iron-deficiency anemia (IDA) in chronic kidney disease, not on in-centre hemodialysis
- □ IDA in non-renal patients unable to tolerate or absorb oral iron therapy
- □ All patients who have failed oral iron therapy and:
  - □ Require a surgical procedure at high risk of blood loss AND hemoglobin less than 130g/L
  - □ Pregnant with hemoglobin less than 110g/L
  - □ Signed Blood Products Refusal form
  - □ Inpatients: Post-operative or post-partum hemoglobin between 50-120g/L

Investigations or Tests

NOTE: If Transferrin Saturation (TSAT) is greater than 50% or ferritin greater than 500mcg/L, notify ordering physician

- □ CBC (1 month prior to planned surgery for pre-operative patients)
- □ Ferritin if not already done
- □ Iron, TIBC if not already done

Additional Blood Work for patients receiving Maintenance IV Iron Therapy

- □ CBC, Iron and TIBC monthly x3, then q3 months
- □ Ferritin q3months at least 1 week after last dose IV iron

Consults / Referrals

NOTE: For inpatient use only; outpatient facilities to use existing methods of consultation

- □ Gastroenterology
- □ Hematology
- □ Other: ____________________________

Treatments

- □ Initiate 250 mL 0.9% sodium chloride IV at 30 mL/hr

Observation

- Refer to Intravenous Iron Therapy Care Plan (RQHR 1598)
- Baseline vital signs prior to start of iron infusion and at end of infusion
- Observe peripheral IV site for pain, redness or swelling prior to initiating infusion and q15-30 minutes until infusion complete
- Observe for signs of allergic reactions (Refer to Appendix A) for first 15 minutes after initiation of all doses and q15min during infusion, and 30 minutes after end of infusion

Date & Time

Practitioner Signature:

Practitioner Name (printed):

Version: April 2020
Divisions of Transfusion Medicine, Nephrology and Family Medicine
Revision Date: May 2021
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**Allergies:**

See Allergy / Intolerance Record

Patient Weight

*Est._____kg*  Actual _____kg

**ORDERS AND SIGNATURE**

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<th>ORDERS AND SIGNATURE</th>
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<tr>
<td><strong>Medication</strong></td>
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- Hold oral iron while receiving IV iron
- Administer 1st dose IV iron in monitored resuscitative facility where physician/code team available
- Complete for one of the indications listed below:

1. **Iron-Deficiency Anemia in Chronic Kidney Disease (Not on in-centre hemodialysis) or Non-Renal Patients unable to use oral iron**
   
   **Loading Dose:**
   - iron sucrose (Venofer®) 300 mg IV q2weeks x 3 doses
   - iron gluconate (Ferrlecit®) 125 mg IV TWICE weekly x 3 weeks (Total 6 doses)
   - Other: ______________

   **Maintenance Dose:**
   - iron sucrose (Venofer®) 200 mg IV q month x _____ months
   - iron gluconate (Ferrlecit®) 125 mg IV q month x _____ months
   - Other: ______________

2. **Pre-operative Patients**
   
   Recommended Dose: Total iron deficit = Weight[kg] x (130 – Actual Hgb in g/L) x 0.24 + iron stores[mg]
   
   **NOTE:** 500 mg iron for iron stores is recommended if body weight is greater than 35 kg. If less than 35 kg, use 15 mg/kg. **Give doses at least 24 hours apart; Max 1000 mg per week**
   - iron sucrose (Venofer®) (preferred) – Select dose:
     - 100 mg  
     - 200 mg  
     - 300 mg IV q __________ days x _______ doses
   - iron gluconate (Ferrlecit®) 125 mg IV q __________ days x _______ doses

3. **Post-operative Patients**
   - iron sucrose (Venofer®) (preferred) – Select dose:
     - 100 mg  
     - 200 mg  
     - 300 mg IV q __________ days x _______ doses
   - iron Gluconate (Ferrlecit®) 125 mg IV q __________ days x _______ doses

4. **Post-partum and Post Caesarean section Patients**
   - iron sucrose (Venofer®) (preferred) – Select dose:
     - 100 mg  
     - 200 mg  
     - 300 mg IV once daily x 2 doses
   - iron Gluconate (Ferrlecit®) 125 mg IV once daily x 2 doses

**Date & Time**

**Practitioner Signature:**

**Practitioner Name (printed):**
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Allergies:
See Allergy / Intolerance Record

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<th>Est. _____ kg Actual _____ kg</th>
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Orders and Signature

Management of Acute Hypersensitivity Reactions (All patients) - Refer to Appendix A
- If allergic reaction, STOP iron infusion, and inform MRP
- Have readily available and administer PRN for acute hypersensitivity reactions:
  - 300 mL 0.9% sodium chloride IV bolus x1 per gravity tubing
  - hydrocortisone 100 mg IV once
  - salbutamol METERED DOSE INHALER (MDI) 100 mcg 2 – 4 puffs q15 – 20 min x 3 doses for respiratory symptoms
  - EPINEPHrine IM STAT if directed by prescriber. Repeat q5min PRN x 2. Dose by weight using 1 mg/mL concentration:

<table>
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<tr>
<th>Weight (kg)</th>
<th>Dose (mL)</th>
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<tbody>
<tr>
<td>45 kg or greater</td>
<td>0.5</td>
</tr>
<tr>
<td>35 - 44.9</td>
<td>0.4</td>
</tr>
<tr>
<td>25 - 34.9</td>
<td>0.3</td>
</tr>
<tr>
<td>15 - 24.9</td>
<td>0.2</td>
</tr>
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</table>

Or if available, administer EpiPen® 0.3 mg dose. Repeat q5min PRN x 2

Discharge
- If patient requires outpatient IV Iron Therapy, fax orders to:
  - Infusion Clinic (Pasqua Hospital) at 306-766-2881
  - Other: ____________________________
- # of doses given in hospital: ____________ Last dose given: ____________________________ (Date)
  (Nurse completing above information initials ____________)
- If stable after acute hypersensitivity reaction for 1 – 4 hours, may discharge patient home

Other

Date & Time

Practitioner Signature:

Practitioner Name (printed):
Appendix A: Iron Infusion Hypersensitivity Reactions Management Algorithm

Increased risk and/or severity of Reactions

- Previous reaction to IV iron
- History of drug allergy or allergies
- Severe asthma or eczema
- Severe respiratory or cardiac disease
- Systemic inflammatory disease (e.g. Rheumatoid arthritis, lupus)

- Elderly (65 years old and above)
- Pregnancy (first trimester)
- Treatment with beta-blockers, ACE inhibitors
- Mastocytosis (increased mast cells)
- Anxiety

MILD HYPERSENSITIVE REACTION
Itching, flushing, urticaria, sensation of heat, slight chest tightness, hypertension, back/joint pains

MANAGEMENT
- Stop iron infusion for 15 min or more
- Inform MRP
- Monitor pulse, BP, RR, spO2
- Wait and watch for 15 min (progression or resolution of symptoms)

PATIENT WELL
- Restart iron infusion at a reduced rate
- If tolerating well, complete infusion

PATIENT NOT WELL
- After 5-10 minutes, or deteriorating

SYMPTOMS RECUR
- Stop iron infusion
- Manage as above
- Document event

PATIENT NOT WELL
- After 5-10 minutes, or deteriorating

PATIENT WELL
- Observe for 1-4 hours
- Document event and discharge home if stable
- Consider future treatment strategy

MODERATE HYPERSENSITIVE REACTION
Same as Mild reaction + transient cough, flushing, chest tightness, nausea, shortness of breath, urticaria, tachycardia, hypotension – (systolic BP drop of 25mmHg or greater)

MANAGEMENT
- Treat as for Mild Reaction AND
- Stop iron infusion
- Inform MRP
- Place in supine position
- O2 by non-rebreather face mask (equal to or greater than 10L/min)
- Consider increasing Volume Load (e.g. Give 300 mL IV NS bolus)
- Consider Hydrocortisone
- Consider Salbutamol

PATIENT NOT WELL
- After 5-10 minutes, or deteriorating

PATIENT NOT WELL
MRP may consider transfer to higher level of care or intensive care facility

SEVERE/ LIFE THREATENING HYPERSENSITIVE REACTION
Sudden onset and rapid aggravation of symptoms + wheezing/ stridor, periorbital edema, increased pallor and clamminess, cyanosis, loss of consciousness, cardiac/respiratory arrest

MANAGEMENT
- Treat as for Moderate Reaction AND
- Stop iron infusion
- Call CODE Blue/MRP/EMS (911)
- Place in supine position
- O2 by non-rebreather face mask (equal to or greater than 10L/min)
- Consider increasing Volume Load (e.g., Give 300 mL IV NS bolus)
- Hydrocortisone 100 mg IV x 1
- Salbutamol 100 mcg 2 – 4 puffs by Metered Dose Inhaler (MDI) q15 - 20min X 3 doses
- Epinephrine 1mg/mL or Epipen® IM STAT (dose per weight)
- ACLS (if necessary)

PATIENT NOT WELL
- After 5-10 minutes, or deteriorating

PATIENT NOT WELL
- Document event and discharge home if stable
- Consider future treatment strategy