

**Iron supplementation: recommended dosing schedules**

**THERE ARE TWO FORMS OF IRON DEFICIENCY:** (2, 3, 14)

**1. PATIENTS WITH ABSOLUTE IRON DEFICIENCY:**

[Ferritin < 200 ng/ml and TSAT < 20%]

- **(Regime A)**

[Ferritin < 200 ng/ml and TSAT 20 – 50%]

- **(Regime B)**

**2. PATIENTS WITH FUNCTIONAL IRON DEFICIENCY:**

[Ferritin within normal range (200 – 800 ng/ml) and TSAT < 20%]

- **(Regime C)**

**Treatment for Iron Deficiency:**

- IV iron 100 mg each dialysis session for 10 consecutive sessions unless contraindicated
- Check Fe studies 1 month after completion of course
- Once optimal iron parameters are achieved, titrate IV iron to a monthly dose

**Initial infusion:**

- Renal Team/RMO needs to be advised prior to the first infusion
- Dilute 100mg IV iron in 100 mls 0.9% normal saline and infuse via an infusion control device at a rate of 15 mls/hr for the first 30 minutes (rate 15mls/hr, volume 7.5mls)
- In the absence of any reaction, increase pump speed to 120 mls/hr

**Subsequent infusions:**

- Draw up 100 mg IV iron into a 20 ml syringe and dilute to a volume of 10 mls with 0.9% normal saline
- Infuse via the heparin pump on the haemodialysis machine over the last 60 minutes of treatment
- Alternatively, draw up 100 mg IV iron and dilute to a volume of 5 mls with 0.9% normal saline and bolus over 5 minutes

## St George Hospital Renal Department: INTERNAL ONLY

### REPEAT IRON STUDIES 1 MONTH AFTER 1<sup>ST</sup> COURSE OF IRON:

- If Ferritin still < 200 ng/ml and TSAT still < 20%
  - Administer 2<sup>nd</sup> course of IV iron as above
- **Repeat Iron Studies 1 month after 2<sup>nd</sup> course of iron:**
- If Ferritin remains < 200 ng/ml and TSAT remains < 20%
  - Revert to monthly iron until review by Nephrologist
  - Advise Nephrologist of non-response to iron in clinic letter and initiate review of possible causes
- **After a 2<sup>nd</sup> course of iron:**
- If Ferritin 200 – 800 and TSAT still < 20%
  - **(Regime F)**
  - Revert to monthly iron until review by Nephrologist
- If Hb > 120 g/L and Ferritin 100 – 200 ng/ml with TSAT > 20%
  - **(Regime G)**
  - Revert to monthly iron until review by Nephrologist

### IN PATIENTS WHO ARE IRON REplete: (2, 3)

[Ferritin 200 to 800 ng/ml and TSAT 20 to 50%]

- **(Regime E)**
- Monthly maintenance IV iron 100 mg unless contraindicated

### IN PATIENTS WITH IRON OVERLOAD: (2, 3)

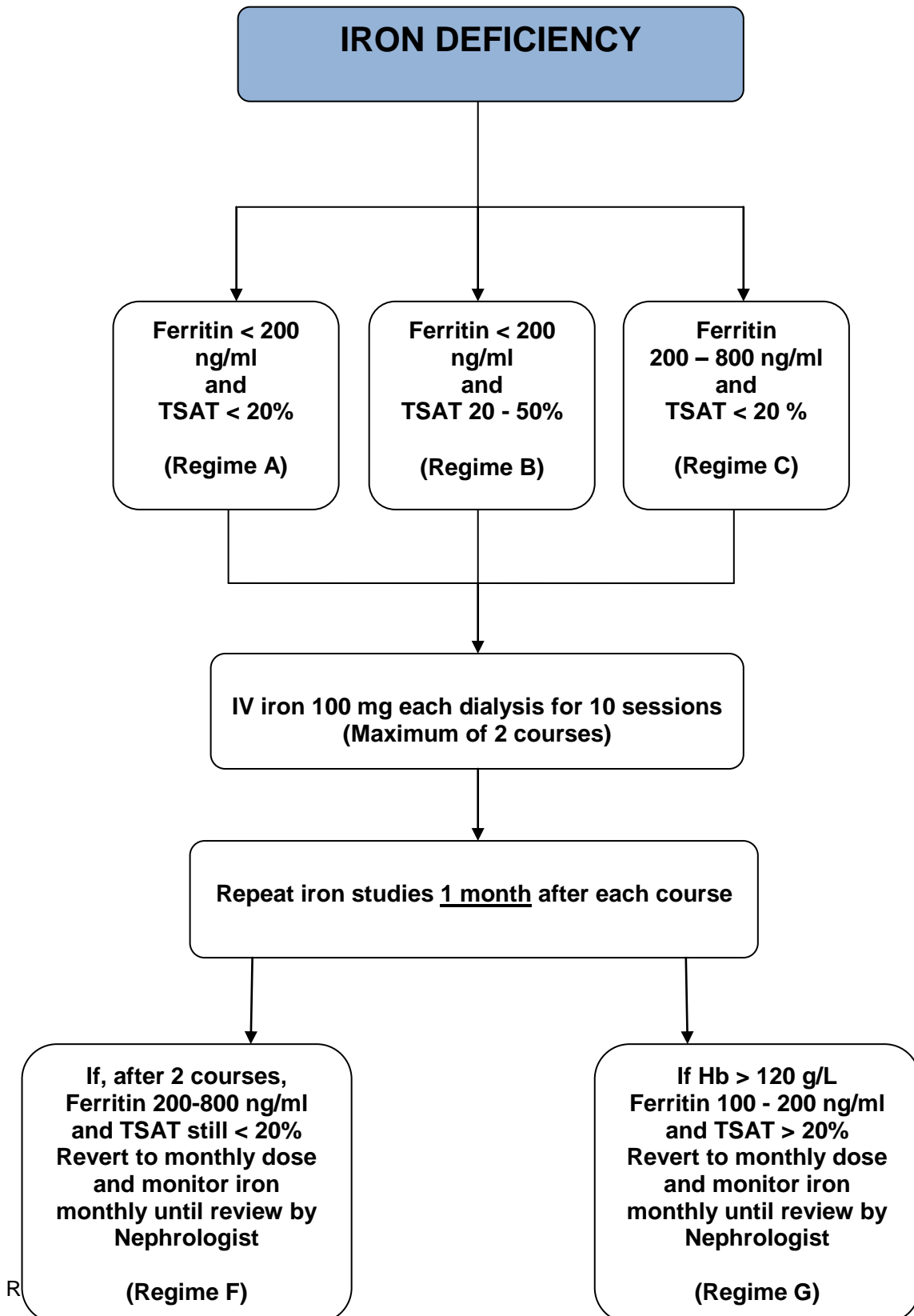
[Ferritin > 800 ng/ml or TSAT > 50%]

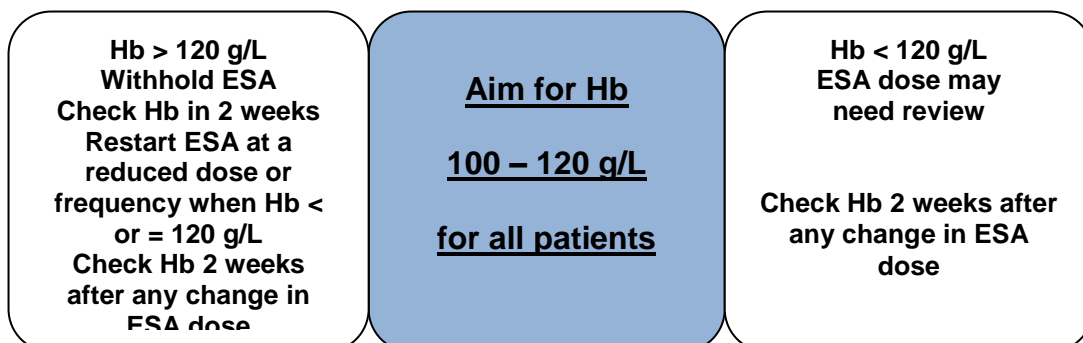
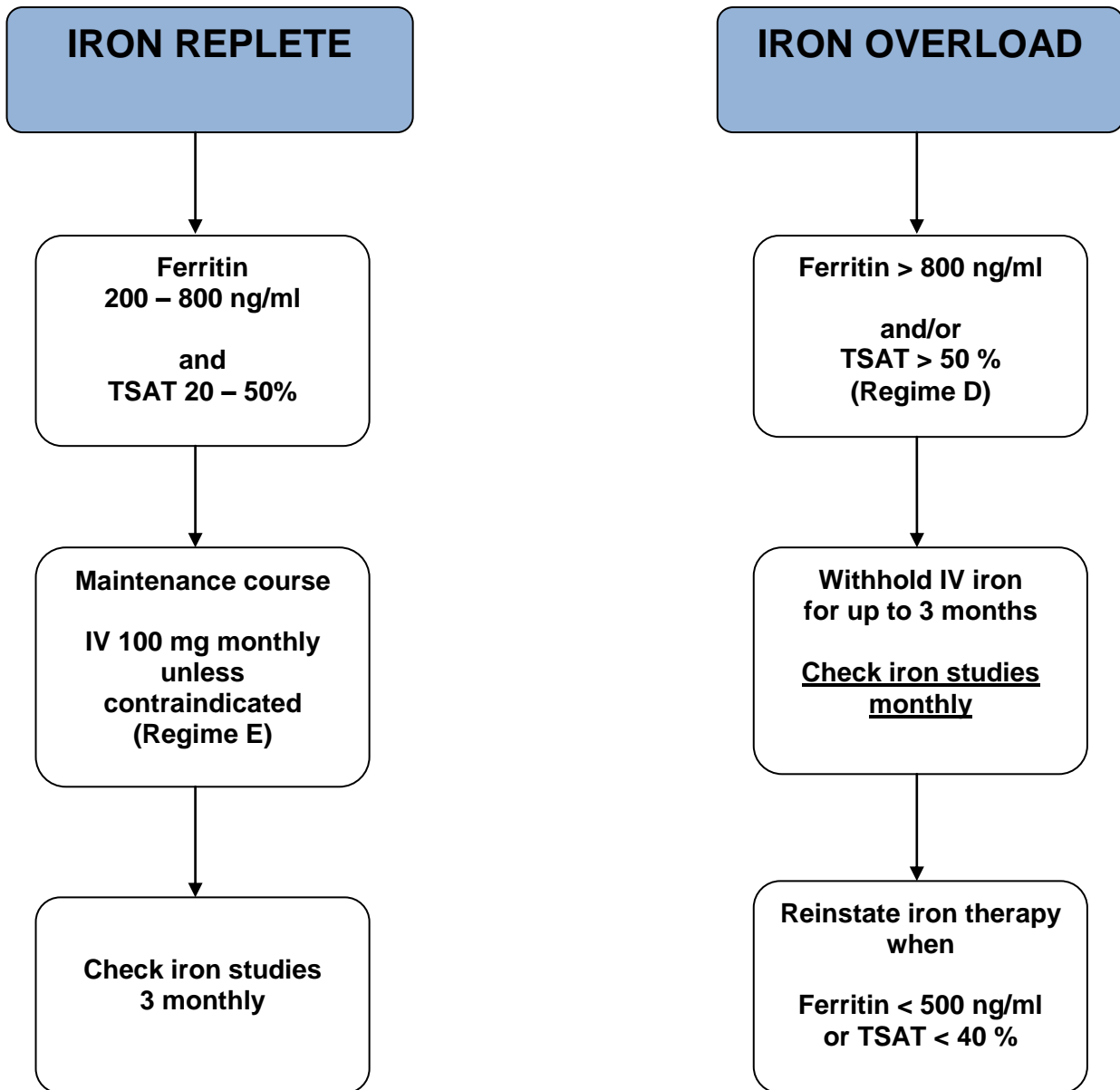
- **(Regime D)**
- Withhold iron for up to 3 months
- Check Fe studies monthly
- Once Ferritin < 500 ng/ml OR TSAT < 40 %
  - Recommence monthly iron

**HAEMODIALYSIS NURSE INITIATED IV IRON REPLACEMENT CHART:**

Regime	Iron Studies Result	IV Iron	Regime	Iron Studies Result	IV Iron
<b>A</b>	Ferritin < 200ng/ml and TSAT < 20%	Iron 100mg for 10 sessions (max 2 courses) Retest Iron Studies 1 month post course	<b>F</b>	If, after 2 courses of iron Ferritin 200 – 800 ng/ml and TSAT still < 20%	Revert to monthly maintenance dose & monitor Fe studies monthly until review by Nephrologist at next clinic
<b>B</b>	Ferritin < 200ng/ml and TSAT 20% - 50%	Iron 100mg for 10 sessions (max 2 courses) Retest Iron Studies 1 month post course	<b>G</b>	If Hb > 120 g/L, Ferritin 100 – 200 ng/ml and TSAT > 20 %	Revert to monthly maintenance dose & monitor Fe studies monthly until review by Nephrologist at next clinic
<b>C</b>	Ferritin 200 – 800 ng/ml and TSAT < 20%	Iron 100mg for 10 sessions (max 2 courses) Retest Iron Studies 1 month post course	<p><b>Target Hb:</b> <b><u>Aim for 100-120 g/L for all patients</u></b></p> <p>If Hb &gt; 120 g/L withhold ESA unless otherwise advised by Nephrologist</p> <ul style="list-style-type: none"> <li>➤ Note Hb and date withheld on ESA medication chart</li> <li>➤ Check Hb in 2 weeks (place note in diary)</li> <li>➤ Restart ESA at a reduced dose or frequency when Hb &lt; or = to 120 g/L</li> <li>➤ <u>Always recheck Hb 2 weeks after ceasing, commencing or changing a dose of ESA (place note in diary)</u></li> <li>➤ PN to identify Hb fluctuations in next Clinic letter</li> <li>➤ Doctor to review ESA and Fe Regime at next Clinic appt</li> <li>➤ Once Hb within range, check Hb monthly</li> <li>➤ Do not withhold monthly Fe unless Hb &gt; 130 g/L</li> </ul> <p style="text-align: right;">(December 2010)</p>		
<b>D</b>	Ferritin > 800 ng/ml  <b><u>OR</u></b>  TSAT > 50%	Withhold Iron for up to 3 months. <u>Check Fe studies monthly.</u> Reinstate Fe Regime when <b>Ferritin &lt; 500ng/ml <u>OR</u> TSAT &lt; 40%</b>			
<b>E</b>	Ferritin 200-800 ng/ml and TSAT 20-50%	Iron 100mg monthly unless contraindicated. Check Fe studies 3 monthly			

**NURSE INITIATED IV IRON REPLACEMENT FLOW CHART (Dec 2010)**





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