Australian Red Cross Lifeblood

Haemoglobin Assessment and Optimisation in Maternity

A guide for health professionals involved in antenatal care

Haemoglobin Assessment and Optimisation in Maternity

First trimester

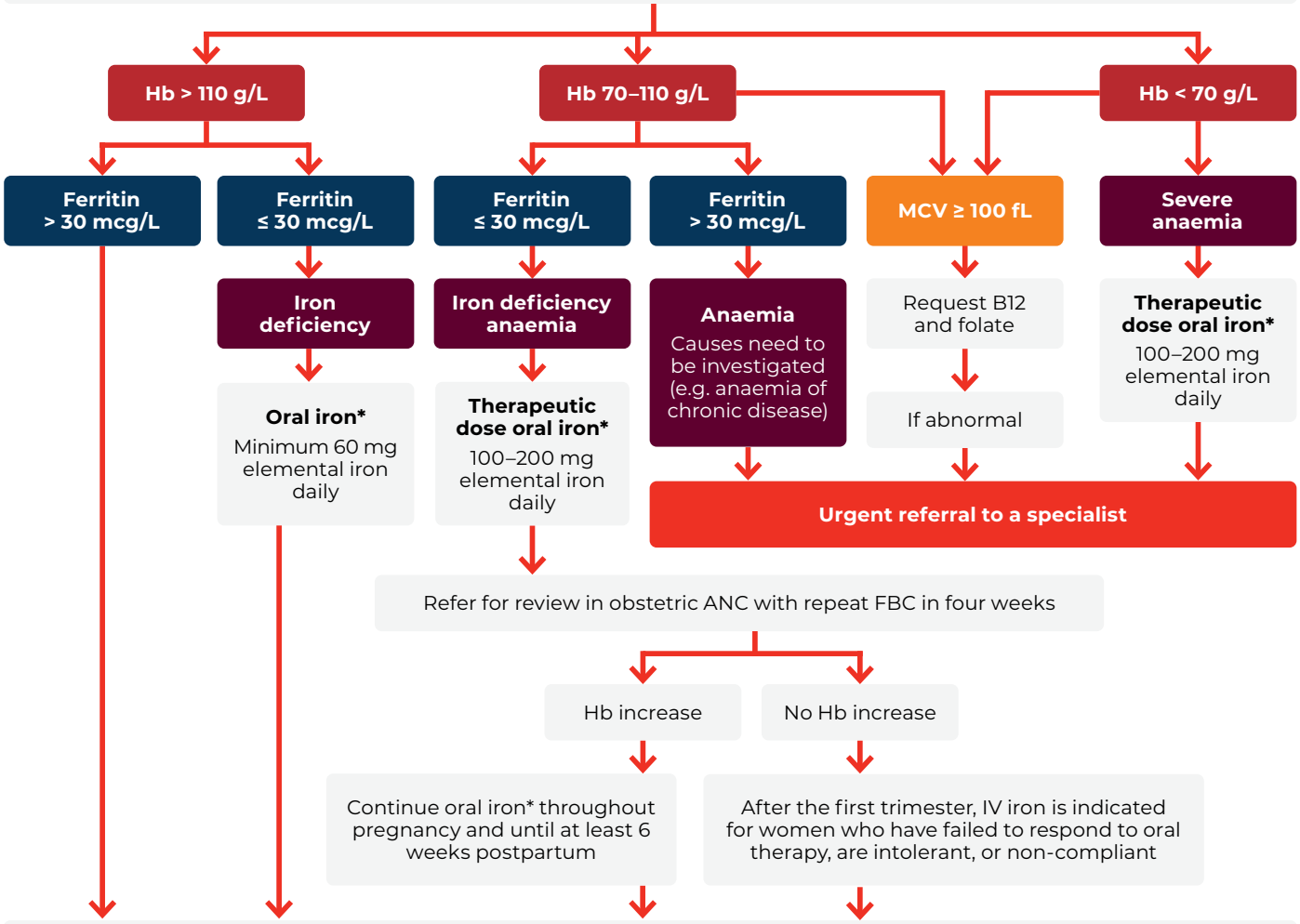
Australian Red Cross Lifeblood

First antenatal visit ≤ 20 weeks (booking visit)

- Document risk factors for anaemia: Previous anaemia, inter-pregnancy interval < 1 year, multiple pregnancy, parity ≥ 3, vegetarian/vegan, teenage pregnancy, recent history of bleeding, Aboriginal and Torres Strait Islander.
- **Important:** Request full blood count (FBC) and ferritin on all women if recent bloods not available.
- Perform haemoglobinopathy screening if risk factors (women with a family history of anaemia, thalassaemia or other abnormal haemoglobin variant; and any woman from a high-risk ethnic background who has not previously been tested) **or** the booking FBC shows a MCV ≤ 80 fL and/or MCH < 27 pg.

Second antenatal visit (follow-up visit)

- If a haemoglobinopathy is detected, perform partner screening as soon as possible. Add the woman's details to the request form and refer her to the obstetric antenatal clinic (ANC).
- Review booking blood results and use the flowchart to determine if iron is required.*



Repeat FBC as part of the routine 26–28 week blood tests

Refer to *Haemoglobin Assessment and Optimisation in Maternity: Second trimester*

***If iron therapy is required:**

- Continue iron rich diet and pregnancy multivitamins.
- Provide the woman with the following handouts: Lifeblood's *Oral Iron Choices for Maternity* and Bloodsafe's *A Guide to Taking Iron Tablets*.
- Document iron preparation and dose in the patient's record.
- Assess adherence (dose and timing) and ask about side effects at every visit. Refer to Bloodsafe's *A Guide to Taking Iron Tablets* to address side effects.

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Haemoglobin Assessment and Optimisation in Maternity

Second trimester

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Second trimester visit (26–28 weeks)
Request full blood count (FBC) and ferritin on all women.

Hb > 105 g/L

Ferritin > 30 mcg/L

Did the woman have iron deficiency earlier in pregnancy?

No

Has there been a ≥ 15 g/L fall in Hb compared to the booking result?
or
Is the woman at risk for postpartum haemorrhage?
or
Would she decline a blood transfusion?

Estimation and optimisation of iron stores is necessary in non-anaemic women where significant blood loss may occur at delivery or transfusion is not possible: Jehovah's witnesses, recent history of bleeding, previous postpartum haemorrhage, placenta previa/accreta. Follow local policy to ensure multidisciplinary action plan is in place.

No

Continue routine antenatal care

Yes

Continue oral iron* throughout pregnancy and until at least 6 weeks postpartum

Yes

Ferritin ≤ 30 mcg/L

Iron deficiency

Oral iron*
Minimum 60 mg elemental iron daily

Hb 70–105 g/L

Anaemia

Therapeutic dose oral iron*
100–200 mg elemental iron daily

Hb < 70 g/L

Severe anaemia

Therapeutic dose oral iron*
100–200 mg elemental iron daily

Urgent referral to a specialist

Repeat FBC as part of the routine 32–36 week blood tests
Refer to *Haemoglobin Assessment and Optimisation in Maternity: Third trimester*

***If iron therapy is required:**

- Continue iron rich diet and pregnancy multivitamins.
- Provide the woman with the following handouts: Lifeblood's *Oral Iron Choices for Maternity* and Bloodsafe's *A Guide to Taking Iron Tablets*.
- Document iron preparation and dose in the patient's record.
- Assess adherence (dose and timing) and ask about side effects at every visit. Refer to Bloodsafe's *A Guide to Taking Iron Tablets* to address side effects.

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Haemoglobin Assessment and Optimisation in Maternity

Third trimester

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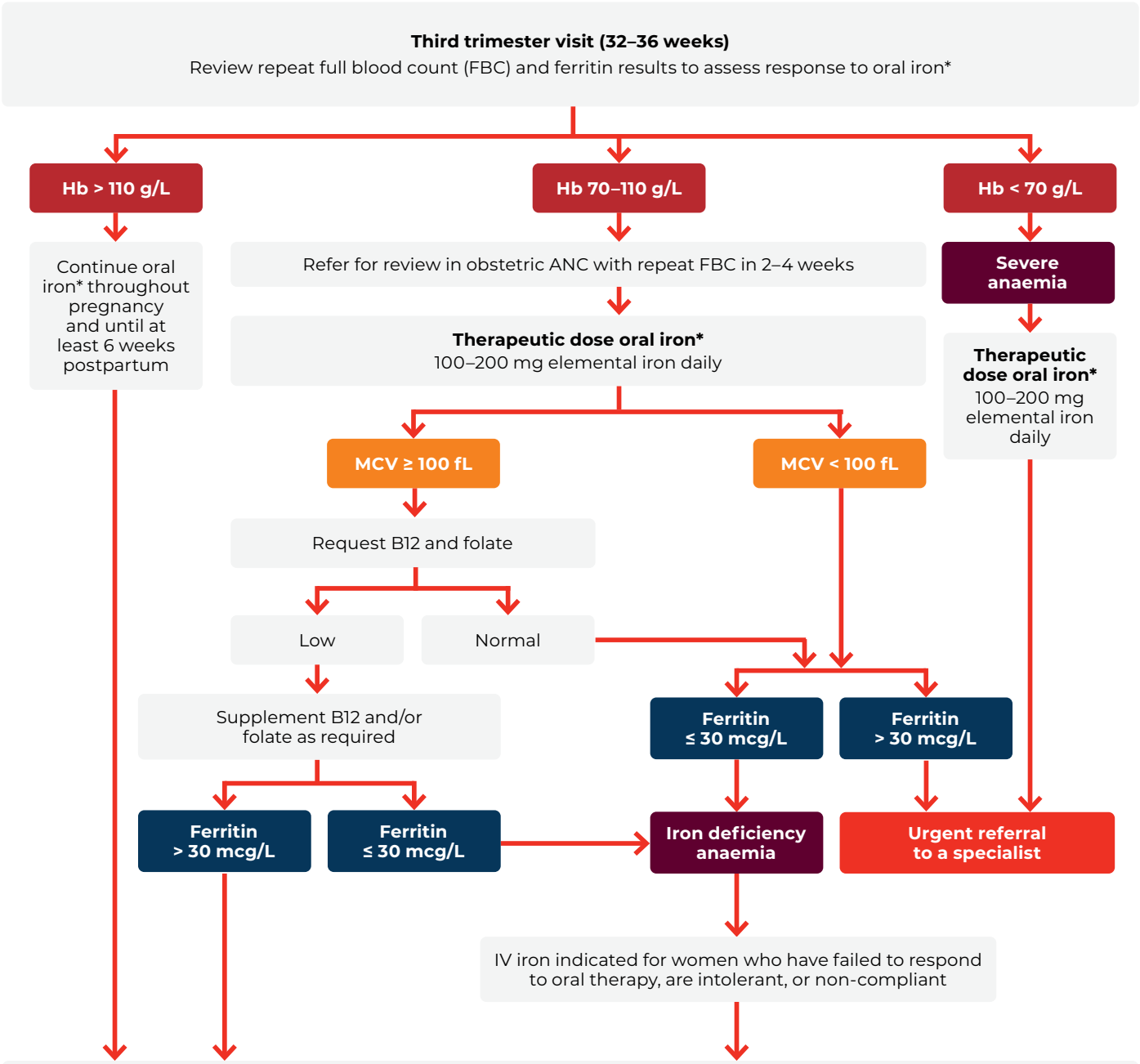

Provide form for 6 weeks postpartum blood tests (FBC and iron studies; B12 and folate if levels were low).
Document the request in the hospital discharge summary.
Tests recommended to be performed prior to the 6 week GP visit. GP to receive the result.

Refer to *Haemoglobin Assessment and Optimisation in Maternity: Intrapartum*

***If iron therapy is required:**

- Continue iron rich diet and pregnancy multivitamins.
- Provide the woman with the following handouts: Lifeblood's *Oral Iron Choices for Maternity* and Bloodsafe's *A Guide to Taking Iron Tablets*.
- Document iron preparation and dose in the patient's record.
- Assess adherence (dose and timing) and ask about side effects at every visit. Refer to Bloodsafe's *A Guide to Taking Iron Tablets* to address side effects.

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Haemoglobin Assessment and Optimisation in Maternity

Intrapartum

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Admission in labour

Review haemoglobin (Hb) result from the last available antenatal full blood count (FBC) for all women on admission.

Note: Women with anaemia at the time of delivery may require additional precautions.

Hb > 110 g/L

Routine intrapartum management

Hb ≤ 110 g/L

Repeat FBC and request a group and screen

Hb > 110 g/L

Routine intrapartum management

Hb ≤ 110 g/L

IV access in labour

Active management of third stage labour (Syntometrine® recommended unless contraindicated)

Accurately record blood loss at delivery

Manage any primary postpartum haemorrhage as per hospital guidelines

Refer to *Haemoglobin Assessment and Optimisation in Maternity: Postpartum*

***If iron therapy is required:**

- Continue iron rich diet and pregnancy multivitamins.
- Provide the woman with the following handouts: Lifeblood's *Oral Iron Choices for Maternity* and Bloodsafe's *A Guide to Taking Iron Tablets*.
- Document iron preparation and dose in the patient's record.
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Postpartum

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Did the woman have a primary postpartum haemorrhage (PPH)?
Traditionally defined as blood loss within 24 hrs of birth of ≥ 500 mL after vaginal birth or ≥ 1000 mL after caesarean section.

No PPH

Has a postpartum FBC been performed for other indications?

- No
- Yes

PPH

Repeat FBC 12–24 hours following delivery unless medically indicated to be repeated sooner.

Note: Do not order iron studies or ferritin as they cannot be interpreted in the immediate postpartum period.

- **Hb > 110 g/L**
- **Hb ≤ 110 g/L**
- **Hb > 110 g/L**

Did the woman have iron deficiency or anaemia during the pregnancy?
or
Did she recieve iron therapy (oral or IV) during the pregnancy?

- No
- Yes

Did the woman have a FBC checked in labour and has there been a ≥ 15 g/L fall in Hb compared to the booking result?

- No
- Yes

Continue routine postnatal care

If on oral iron,* continue until at least 6 weeks postpartum

Anaemia

Refer to *Guidance on Red Cell Transfusion for Postnatal Patients Not Actively Bleeding*

If the woman has not received an IV iron infusion in the postpartum period, commence **therapeutic dose oral iron*** 100–200 mg elemental iron daily for at least 3 months postpartum

Oral iron*
Minimum 60 mg elemental iron daily

Provide form on discharge for 6 week postpartum blood tests (FBC and iron studies; B12 and folate if levels were low) to be performed prior to 6 week GP visit. Document the request in the hospital discharge summary. GP to receive and action results.

***If iron therapy is required:**

- Continue iron rich diet and pregnancy multivitamins.
- Provide the woman with the following handouts: Lifeblood's *Oral Iron Choices for Maternity* and Bloodsafe's *A Guide to Taking Iron Tablets.*
- Document iron preparation and dose in the patient's record.
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