Iron Deficiency Anemia
A new pathway for primary care

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SPEAKER: DISCLOSURES

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Disclosures

- Previously paid work with Novartis

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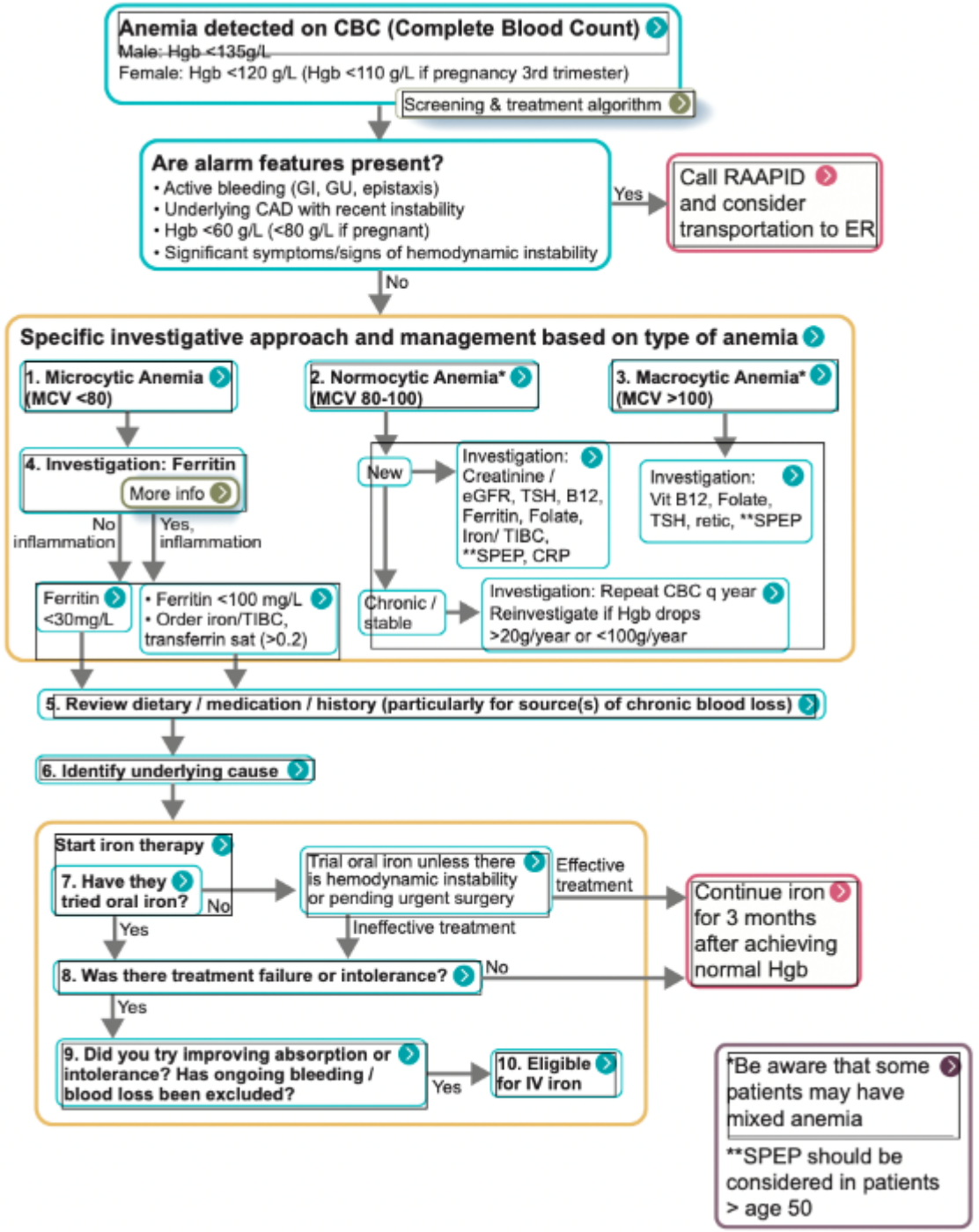
How to find the pathway:
Go to www.specialistlink.ca
and click on Clinical Pathways > Hematology > Iron Deficiency Anemia



IDA PATHWAY: DETAILS

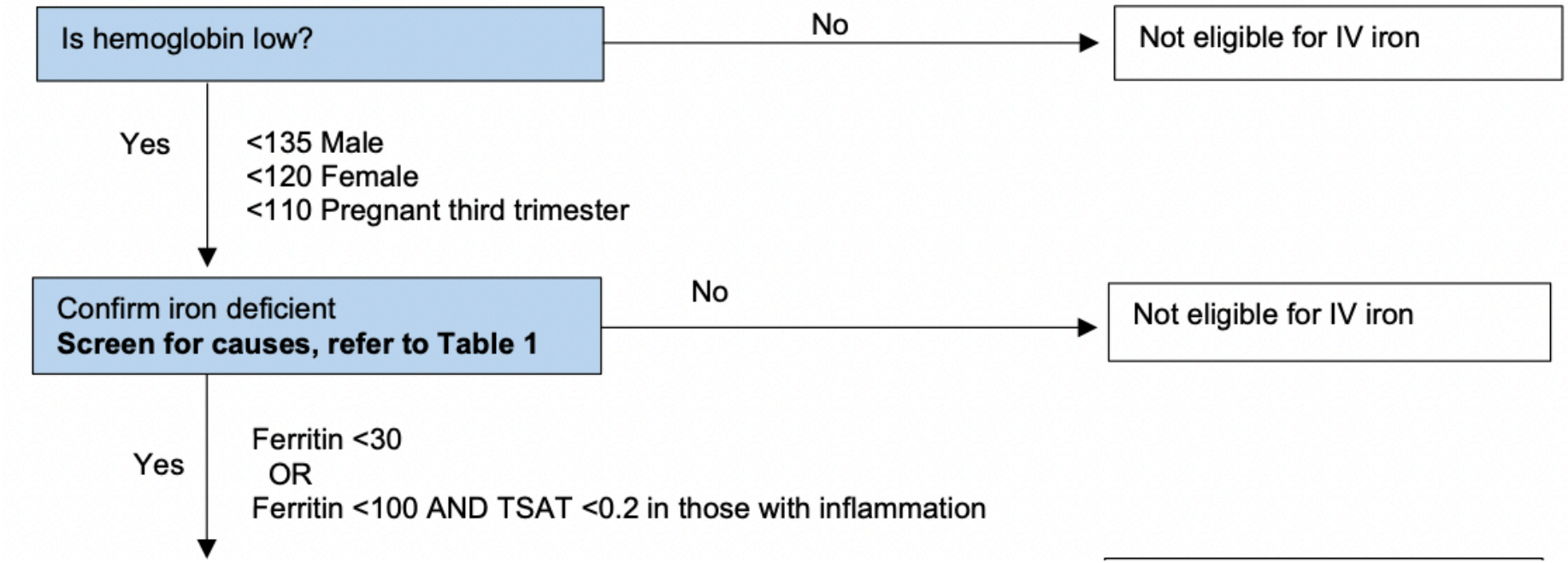


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Table 1: Causes of iron deficiency

Decreased Iron Availability		Increased Iron Need	
Intake/Absorption	**Sequestration**	**Physiologic State**	**Blood Loss**
- Dietary restriction (e.g. vegan) - Antacid/Proton pump inhibitors (PPI) meds - Malabsorption/celiac - Gut resection - Gastroesophageal reflux disease/Gastritis (including Atrophic gastritis, particularly in the elderly)	- Inflammatory diseases - Congestive heart failure - CKD - Obesity - Iron refractory IDA (congenital, rare)	- Pregnancy - Childhood - Extreme exercise - Eating disorder	- Gastrointestinal IDA Pathway for CRC Diagnosis - Algorithm (specialistlink.ca) Note: If the above link is broken: Clinical Pathways & specialty access (specialistlink.ca) - Genitourinary - Vaginal AbnormalUterineBleeding_Pathway_Sept2020 (specialistlink.ca) Note: If the above link is broken: Clinical Pathways & specialty access (specialistlink.ca) - Epistaxis - Iatrogenic - Blood donation

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Table 2: Work up for iron deficiency – referral checklist

Problem of ID, IDA	Considerations
1. Ensure common causes are identified on history and managed before referral	a. Is there adequate oral intake of heme iron sources (is the patient vegetarian)? b. Is there a history of blood donation? c. Have there been previous/recent surgeries?
2. Other GI causes to be excluded‡	a. Celiac disease b. Inflammatory bowel disease (IBD) c. Helicobacter pylori (H. pylori) infection d. Previous bowel surgery
3. Unexplained	GI for endoscopy†*
4. Overt GI blood loss†	GI for endoscopy*
5. Gynecological bleeding#	Gynecologist to exclude uterine pathology*
6. Urinary bleeding	Urologist to exclude kidney, ureter, and bladder pathology including stones*
7. Bleeding in other organ system	Appropriate specialty as appropriate*

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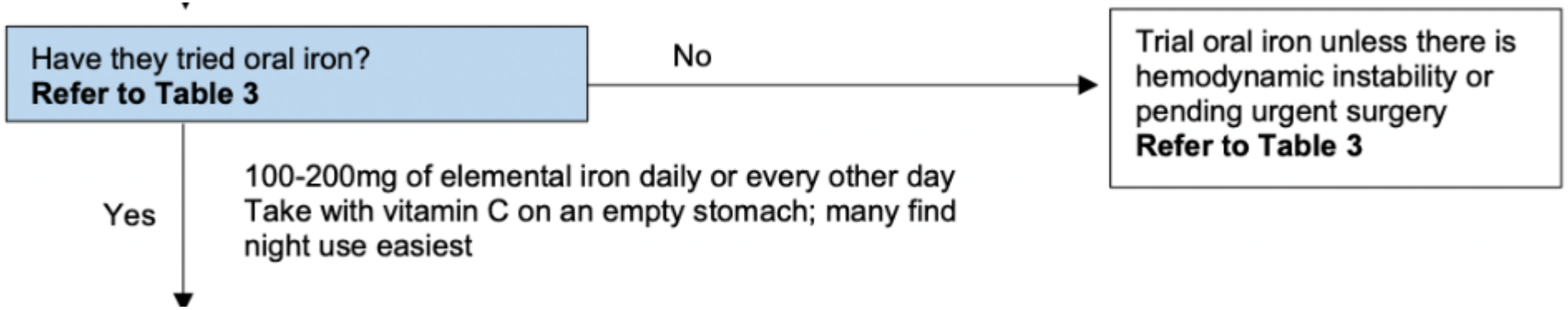

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Table 3: Oral iron preparation available in Alberta for patients (≥5 years age)

Iron type	Formulation (elemental iron)	Comments
Ferrous gluconate	a. Tablet 300 mg (35 mg)	• Ferrous salt tablets least expensive • Similar rates of adverse effects between ferrous salts when equivalent doses of elemental iron provided • Avoid enteric coated or sustained-release products; tablet bypasses area of absorption, results in reduced iron intake • Liquids stain teeth • Randomized control trial (RCT) suggested that ferrous sulfate may be slightly more effective than polysaccharide iron complex (PIC) in young children o RCT in healthy young women: ferrous sulfate tablet, taken every second day increases iron absorption
Ferrous fumarate	a. Tablet 300 mg (100 mg) b. Suspension 300 gm/5mL (20 mg/mL)	
Ferrous sulfate	a. Tablet 300 mg (60 mg) b. Suspension 30 mg/mL (6 mg/mL) c. Drops 75 mg/mL (15 mg/mL)	
Heme iron polypeptide (e.g. Proferrin®)	a. Tablet 11 mg (11 mg as heme iron)	• Not suitable for vegetarians as made from animal products o Not dosed as elemental iron
Polysaccharide iron complex (PIC) (e.g. Feramax®)	a. Capsule 150 mg (150 mg) b. Powder (15 mg per ¼ teaspoon)	• Powder may be more palatable for pediatric patients o Little to no evidence that PIC is more effective than other iron salts, but may be better tolerated resulting in better compliance, although usually more expensive

Can prescribe every other day, which improves symptoms, and paradoxically improves absorption

This also effectively cuts the cost by 50%

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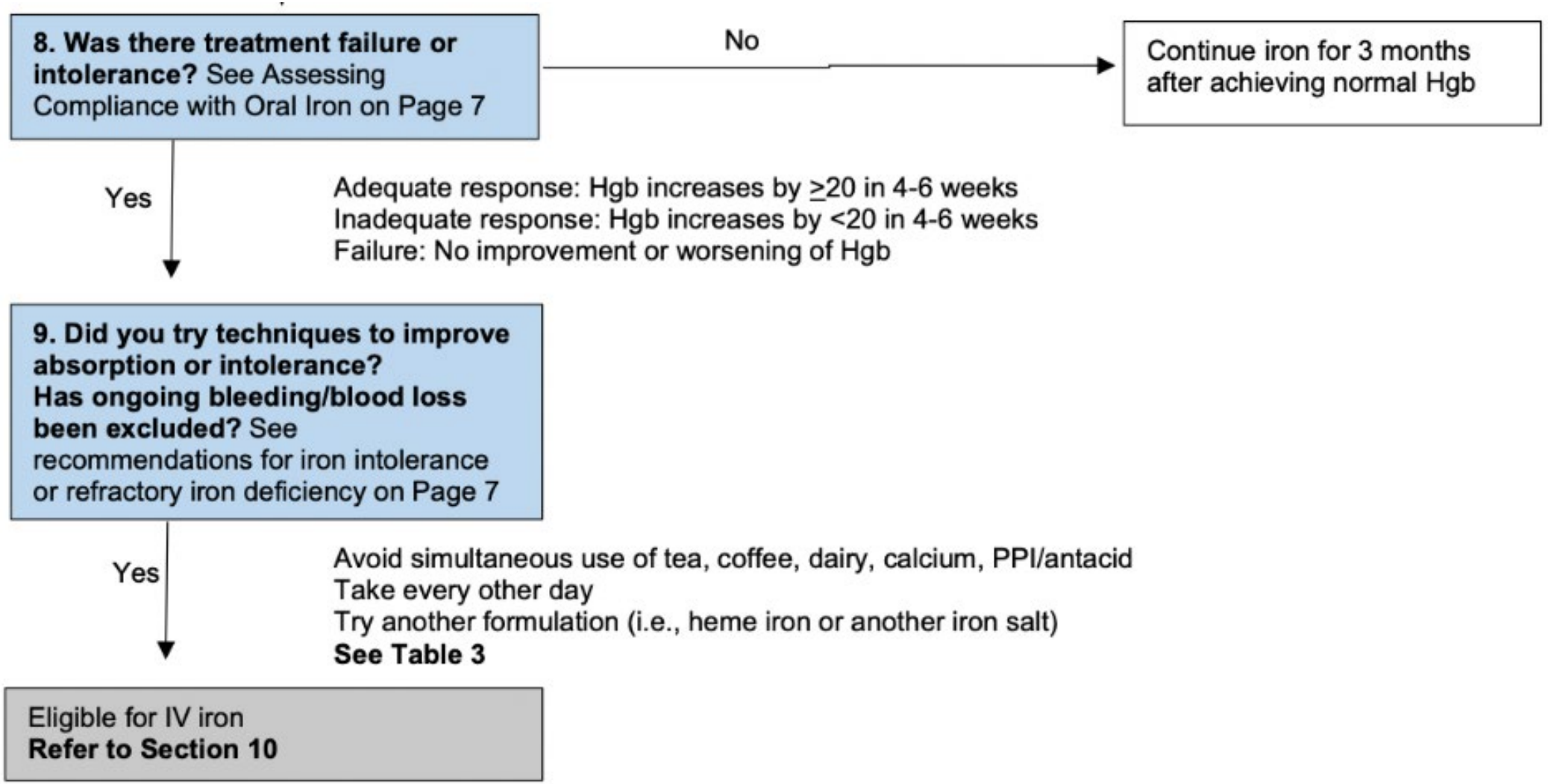

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Table 4: IV iron preparations (for adults >18 years) available in Alberta

Iron type	Usual dose • Calculate 'iron deficit' (total dose needed) using hemoglobin deficit equation • Divide 'iron deficit' into appropriate individual doses • Administer doses 1-2 times weekly until total dose complete (interval varies by product, check product monograph	Cost estimate for 1000 mg (**NOTE:** drug cost only – not including administration cost)	Comments
Iron Sucrose (Venofer®)	E.g. Total iron deficit 1000 mg, (consider: 200 mg IV x 5 doses)	$393.80	• **CAUTION:** dosages >300 mg are associated with increased risk adverse reaction due to iron overload
Erric Gluonate Complex (Ferrlecit®)	E.g., total iron deficit 1000 mg, (consider 125 mg IV x 8 doses)	$453.60	
Iron isomaltoside (Monoferric®)	E.g., total iron deficit 1000 mg, (consider given as a single dose, max per dose: 20 mg/kg)	$530.00	• Covered in selected insurance • Private infusion sites • Can take prescription to Alberta Health Services facility

Equivalent of 3-4 doses of Venofer over 15-30min

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