N10 — Anemia Protocol: ESA and Iron Hold/Report Rules

FRONT

Check before every dose, hold at the thresholds, report the patterns.

When: every ESA or IV iron dose and monthly anemia review. Your unit protocol sets the dosing schedule and governs where its numbers differ.

Do this

1. **Before every ESA dose:** check the latest hemoglobin (Hb) against your protocol's band, and whether a 2-week recheck is due after a dose change [2,7].
2. **Check pre-treatment BP** before giving an ESA; uncontrolled hypertension is a contraindication [2].
3. **Before every iron dose, check for infection:** fever, chills on connection, a positive blood culture, a red or draining exit site, current antibiotics [7].
4. **Give IV iron on your unit protocol's schedule,** early in the treatment. Iron sucrose: slow IV over 2–5 minutes or an infusion of at least 15 minutes [6].
5. **Observe at least 30 minutes after IV iron** with anaphylaxis medicines at the chair. Ferumoxytol is infused over at least 15 minutes — never pushed [6,8].
6. **Ask every treatment:** black stools, prolonged needle-site bleeding, chest pain, dyspnea, new neurologic symptoms, a clotted access, a recent admission.

Call the nephrologist when

- Hb rises more than 1 g/dL in 2 weeks (dose reduction due), or reaches your protocol's hold threshold (11 g/dL on label-based protocols; KDIGO 2026 targets below 11.5 g/dL) [2,7].
- Hb drops 1 g/dL or more unexpectedly, falls below 9 g/dL, or causes symptoms.
- The patient was hospitalized for stroke, heart attack, blood clot, or access thrombosis — ESA held pending review [7].
- BP is persistently uncontrolled, or there is a new seizure [2].
- **Hold iron:** active infection; ferritin above 700 ng/mL or TSAT 40% or higher; TSAT below 20% with ferritin above 700 unless a physician's high-ferritin trial order is active [7].
- A 1-gram iron course is ordered for a catheter patient or anyone with an infection in the past month — ask whether it should be split [4].
- ESA doubled or raised twice without response; any iron reaction; MRI planned after recent ferumoxytol [8].

Don't

- Don't give an ESA and a HIF-PH inhibitor together [7].
- Don't raise an ESA dose more often than every 4 weeks [2,7].
- Don't use 1-gram courses as maintenance iron [4].
- Don't transfuse a transplant candidate electively without the nephrologist [7].
- Don't premedicate or test-dose modern non-dextran IV iron routinely unless your protocol says to [7].

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BACK

Why

1. **Normal is not the goal.** In hemodialysis patients with heart disease, targeting a hematocrit of 42% instead of 30% increased death or heart attack (32.7% vs 26.7%) [1].
2. **Fast rises are the dangerous ones.** The epoetin label requires a dose cut of 25% or more when Hb rises more than 1 g/dL in 2 weeks, and warns of death, stroke, and access clotting [2].
3. **Steady iron helps.** Proactive IV iron lowered death, heart attack, stroke, or heart-failure hospitalization (29.3% vs 32.3%) and used 19% less ESA [3].
4. **Too much at once costs infections.** Large repletion courses were linked to 25 more infection hospitalizations per 1,000 patient-years than steady maintenance — 73 more in catheter patients [4].
5. **Iron reactions are rare but real.** Life-threatening reactions to iron sucrose occur at about 0.6 per million doses [5]; the label asks for at least 30 minutes of observation [6].

Go deeper

- Mastery page: Anemia: Targets, ESAs, and Hyporesponsiveness
- Mastery page: Anemia: Iron, HIF-PH Inhibitors, and Transfusion
- All dialysis nursing reference cards

References

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