

## N9 — Monthly Labs

FRONT

*What each routine lab means, and which results to report.*

**When:** monthly lab review, and whenever a result comes back out of pattern.

### Do this

1. Draw iron studies **before** that session's iron dose and note the date of the last IV iron [2].
2. Compare each result with the last 2–3 values — a trend matters more than one number [5].
3. Question a surprising value before acting: a hemolyzed potassium, or a TSAT drawn within 2–4 weeks of a 1-gram iron course [2].
4. Report using the table; bring the rest to monthly rounds.

| Lab                                    | What it tells you                 | Report when                                                                                                                                             |
|----------------------------------------|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| Potassium                              | Rhythm risk                       | Per <a href="#">N1: Potassium Bath Selection</a>                                                                                                        |
| Hemoglobin (monthly)                   | Oxygen carrying; guides ESA dose  | Rise of more than 1 g/dL in 2 weeks; at or above your protocol's hold threshold; below 9 g/dL; unexpected drop of 1 g/dL or more [1,2]                  |
| Ferritin and TSAT (every 1–3 months)   | Iron stores; iron available now   | Ferritin above 700 ng/mL or TSAT 40% or higher (iron held); ferritin below 45 or MCV below 80 (blood loss?); TSAT below 20% with ferritin above 500 [2] |
| Albumin (monthly)                      | Nutrition <b>and</b> inflammation | Below 3.5 g/dL, or falling with weight loss or poor intake [3]                                                                                          |
| spKt/V (monthly)                       | Delivered dialysis dose           | Below 1.4 on a three-times-weekly schedule, or an unexplained drop of more than 0.2 — check the access [4,6]                                            |
| Calcium, phosphorus (every 1–3 months) | Bone and mineral balance          | Outside your protocol's range, or a steady trend one way [5]                                                                                            |
| PTH (every 3–6 months)                 | Parathyroid activity              | A rising trend [5]                                                                                                                                      |
| ALT (monthly)                          | Liver; hepatitis surveillance     | Any new elevation — see <a href="#">N11: Infection Control: Hepatitis B and C, Vaccination, Isolation</a> [7]                                           |
| Bicarbonate (total CO <sub>2</sub> )   | Acid–base                         | Per <a href="#">N2: Dialysate Prescription Check</a>                                                                                                    |

### Call the nephrologist when

- Potassium is 6.5 or higher, or any high potassium with symptoms or ECG change — now.
- Hemoglobin is below 9 g/dL with chest pain, shortness of breath, or fainting, or has risen more than 1 g/dL in 2 weeks [1].
- A hepatitis B or C test turns newly positive — same day ([N11: Infection Control: Hepatitis B and C, Vaccination, Isolation](#)).
- Everything else in the table: at rounds, or sooner per your unit protocol.

### Don't

- Don't change the bath, ESA, iron, binder, or vitamin D dose without an order or protocol.
- Don't read a TSAT drawn soon after IV iron as the patient's baseline [2].

### Why

1. The epoetin label requires a dose cut of 25% or more when hemoglobin rises more than 1 g/dL in any 2-week period [1].
2. KDIGO 2026: test ferritin and TSAT every 1–3 months on hemodialysis, and withhold routine iron at ferritin above 700 or TSAT 40% or higher [2].
3. A serum albumin below 3.5 g/dL was associated with higher long-term mortality (HR 1.84) [3].
4. KDOQI targets an spKt/V of 1.4 per treatment for three-times-weekly dialysis [4]; a Kt/V drop of more than 0.2 is a KDOQI indicator of access dysfunction [6].
5. KDIGO 2017: calcium and phosphorus every 1–3 months, PTH every 3–6 months, with trends weighted over single values [5].

### Go deeper

- Mastery page: [CKD-MBD Monitoring in Maintenance Hemodialysis](#)
- Mastery page: [Adequacy, Nutrition, Depression, and Cognition — and What Quality Metrics Miss](#)
- Mastery page: [Anemia: Targets, ESAs, and Hyporesponsiveness](#)
- Complete white paper: [Screening and health maintenance in maintenance hemodialysis](#)
- [All dialysis nursing reference cards](#)

### References

1. Amgen Inc. EPOGEN (epoetin alfa) injection, prescribing information. Revised April 2024. [https://www.accessdata.fda.gov/drugsatfda\\_docs/label/2024/103234s5378lbl.pdf](https://www.accessdata.fda.gov/drugsatfda_docs/label/2024/103234s5378lbl.pdf)
2. KDIGO Anemia Work Group. KDIGO 2026 clinical practice guideline for the management of anemia in CKD. *Kidney Int.* 2026;109(1S):S1-S99. <https://pubmed.ncbi.nlm.nih.gov/41485812/>
3. Öneç K, et al. Baseline serum albumin for long-term risk stratification in maintenance hemodialysis patients. *J Clin Med.* 2026;15:333. <https://pubmed.ncbi.nlm.nih.gov/41517580/>
4. Rocco MV, et al. KDOQI clinical practice guideline for hemodialysis adequacy: 2015 update. *Am J Kidney Dis.* 2015;66:884-930. <https://pubmed.ncbi.nlm.nih.gov/26498416/>
5. KDIGO CKD-MBD Update Work Group. KDIGO 2017 CKD-MBD guideline update. *Kidney Int Suppl.* 2017;7:1-59. <https://pubmed.ncbi.nlm.nih.gov/30675420/>
6. Lok CE, et al. KDOQI clinical practice guideline for vascular access: 2019 update. *Am J Kidney Dis.* 2020;75(4 Suppl 2):S1-S164. <https://pubmed.ncbi.nlm.nih.gov/32778223/>
7. KDIGO Hepatitis C Work Group. KDIGO 2022 guideline for hepatitis C in CKD. *Kidney Int.* 2022;102(6S):S129-S205. <https://pubmed.ncbi.nlm.nih.gov/36410841/>

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