**Essential Lab Values for Geriatric Nurses to Know Cold**
*Labs Look Different at 85. Know What “Normal” Really Means.*

**🧪 Introduction: The “Normal” Lie We Tell Ourselves**

Here’s a hard truth: **normal lab values don’t always apply to the elderly.** What’s considered “normal” for a 30-year-old may be wildly misleading for an 85-year-old with chronic kidney disease, mild dehydration, and a medication list longer than your shift notes.

In long-term care, you can’t just glance at a lab report and panic when the numbers are off. You must understand the *context*—what’s normal for *this* resident, *today*, and whether that “abnormal” value actually means danger, dehydration, or just... their Tuesday.

Here’s a breakdown of the **essential lab values** every geriatric nurse needs to know cold—and how to interpret them *without spiraling*.

**🧠 1. Sodium (Na+)**

**Normal range:** 135–145 mEq/L
**Elderly alert range:** 132–146 mEq/L (but look at the trend, not just the number)

**Why it matters:**

* **Hyponatremia** (low sodium) is *common* in older adults and can cause confusion, lethargy, and even seizures.
* Often due to diuretics, heart failure, or SIADH.

**Red flags:**

* Sodium <130? That sleepy, confused resident may be *hyponatremic*, not demented.
* Sodium >145? Think **dehydration**, especially if they've been refusing fluids or had diarrhea.

**🩸 2. Potassium (K⁺)**

**Normal range:** 3.5–5.0 mEq/L
**Geriatric range:** Still applies, but older adults are **more sensitive** to fluctuations.

**Why it matters:**

* Potassium affects the heart. One tiny shift = big cardiac drama.
* **Hypokalemia** can cause weakness, falls, and arrhythmias.
* **Hyperkalemia** can be fatal—watch in residents on ACE inhibitors or potassium-sparing diuretics.

**Red flags:**

* K⁺ <3.0 or >5.5 = *notify immediately.*
* Think meds, renal function, and hydration status.

**💧 3. BUN & Creatinine (Kidney Function)**

**BUN Normal range:** 6–20 mg/dL
**Creatinine Normal range:** 0.6–1.3 mg/dL
**BUT:** Elderly folks may have *low muscle mass*, so even a **creatinine of 1.2** might mean **significant kidney impairment**.

**What to watch:**

* **BUN: Cr ratio >20:1** = likely dehydration
* Trending **upward creatinine** = declining kidney function
* **Avoid nephrotoxic drugs** if elevated (like NSAIDs or contrast dye)

**🍬 4. Glucose (Fasting)**

**Normal range:** 70–99 mg/dL (fasting), <140 mg/dL (random)
**Real talk for LTC:** Many elderly residents tolerate slightly elevated sugars better than hypoglycemia.

**Why it matters:**

* **Hypoglycemia** (<70) is dangerous. It causes confusion, weakness, slurred speech—*and is often missed.*
* **Hyperglycemia** should still be managed, but tightly controlling glucose (like you would in younger adults) often leads to more harm than good.

**Pro tip:**

* Avoid sliding scale insulin unless truly needed. Aim for **safe and steady**, not perfect.

**🌡️ 5. White Blood Cell Count (WBC)**

**Normal range:** 4,000–11,000 /µL
**In the elderly:** Infections may **not** cause an elevated WBC.

**Why it matters:**

* You might see **normal WBC** but still have **sepsis**, especially if other signs (confusion, fever, HR changes) are present.
* A “low-grade” fever might be their only hint.

**Don’t miss:**

* **Left shift** (increased bands) = early infection
* **WBC >12,000 or <4,000** = possible red flag depending on baseline

**🧬 6. Hemoglobin & Hematocrit (H&H)**

**Normal Hgb:**

* Male: 13.5–17.5 g/dL
* Female: 12.0–15.5 g/dL

**BUT:** In older adults, Hgb of **11–12** may be their personal baseline.

**Why it matters:**

* Chronic disease, poor nutrition, or bone marrow suppression are common in LTC.
* Sudden drop = **GI bleed? Hematuria? Oozing wound?** Time to investigate.

**Pro tip:**

* Don’t freak out over *mild anemia* unless it’s acute or symptomatic.

**🧮 7. Albumin**

**Normal range:** 3.5–5.0 g/dL
**In LTC:** Many residents run low due to poor nutrition or chronic inflammation.

**Why it matters:**

* Low albumin = **poor healing**, **higher fall risk**, and **fluid retention**.
* It also affects **medication binding**—so drug levels may be more potent than expected.

**🧾 8. INR (International Normalized Ratio)**

**Normal range (no warfarin):** ~1.0
**Therapeutic range (on warfarin):** 2.0–3.0 (varies based on diagnosis)

**Why it matters:**

* INR too high? You’ve got bleeding risk.
* Too low? Clotting risk.
* Warfarin + antibiotics = INR chaos. Monitor closely.

**🧠 Final Word: Think Trends, Not Snapshots**

Don’t panic over one weird lab. Instead:

* Compare to *their* previous values
* Correlate with **symptoms and vitals**
* Watch the **whole picture**, not just the printout
* Communicate what you see—**you** are the first to notice what’s changing

Because at 85, “normal” isn’t in the textbook. It’s in the **nurse’s sharp eye** and the ability to say, “This isn’t right for *them*.”