N1 — Potassium Bath Selection **FRONT**

Pick the potassium bath from today's pre-dialysis potassium, and know when a number needs a call.

When: pre-dialysis labs are back.

Do this

1. Compare today's potassium (K) with the last 2–3 values and the current bath.
2. Check the sample: hemolyzed, drawn late, or an unexpected jump? If in doubt, redraw before changing anything.
3. Use the **7-to-8 rule**: pre-dialysis K + bath K = 7 to 8, using **2K or 3K**. Keep a bath that is working.

Pre-dialysis K (mEq/L)	Usual bath	Nursing action
Below 3.5	3K	Call
3.5–5.0	3K	None
5.1–5.5	3K (2K if recurrent)	Note the trend
5.6–5.9	2K	Note the trend
6.0–6.4, no symptoms, no ECG change	2K	Repeat pre-dialysis K at the next treatment — **call the nephrologist instead if the patient missed a treatment, takes digoxin, or has atrial fibrillation**
6.5 or higher, or symptoms, or ECG change	Per nephrologist	**Call now** — see N12: Chair-Side Emergencies

4. Atrial fibrillation, heart disease, or digoxin: favor the higher bath of the pair (sum of 8; 3K over 2K) unless ordered otherwise [3].
5. If the bath changes for one value, document the reason, the recheck date, and the plan to return to the usual bath.

Call the nephrologist when

- K is 6.5 or higher — before starting treatment.
- K is 6.0–6.4 and the patient missed a treatment, takes digoxin, or has atrial fibrillation (per unit protocol).
- Any K with weakness, palpitations, fainting, a slow pulse, or ECG change.
- K is below 3.5.
- An order calls for a bath below 2K or above 3K.
- It is the first treatment after a hospital stay.
- At rounds: a repeat pre-dialysis K is again 6.0 or higher (review diet, bowels, medicines, binder, treatment time).

Don't

- Don't use 0K or 1K, or 4K, without a specific order and a monitoring plan [1].
- Don't lower the bath for a single 5.5 in a patient who is usually controlled.
- Don't leave a temporary bath change in place until next month's labs.
- Don't give potassium based on a value drawn right after dialysis [4].

N1 — Potassium Bath Selection

BACK

Why

1. Patients who arrested in the dialysis unit were nearly twice as likely to have been on a 0K or 1K bath that day (17.1% vs 8.8%) [1].
2. In 55,183 patients across 20 countries, 3K and 2K carried the same risk of death (HR 0.96) [2]; in older patients, 3K had 13% fewer new atrial fibrillation diagnoses than 2K [3].
3. Changing the bath by 1 mEq/L moves the next pre-dialysis K by less than 0.1 mEq/L [2]. Diet, bowels, medicines, and binders move it more.
4. After dialysis, potassium climbs back: about 35% of the drop returns within 1 hour and about 70% by 6 hours [4].
5. Cardiac-arrest deaths and arrhythmia admissions cluster after the long weekend gap [5].

Go deeper

- Mastery page: Dialysate potassium: bath selection and the rule of 7 vs 8
- All dialysis nursing reference cards

References

1. Karnik JA, et al. Cardiac arrest and sudden death in dialysis units. *Kidney Int.* 2001;60:350-357. https://pubmed.ncbi.nlm.nih.gov/11422771/
2. Karaboyas A, et al. Dialysate potassium, serum potassium, mortality, and arrhythmia events in hemodialysis (DOPPS). *Am J Kidney Dis.* 2017;69:266-277. https://pubmed.ncbi.nlm.nih.gov/27866964/
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4. Ahmed J, Weisberg LS. Hyperkalemia in dialysis patients. *Semin Dial.* 2001;14:348-356. https://pubmed.ncbi.nlm.nih.gov/11679104/
5. Foley RN, et al. Long interdialytic interval and mortality among patients receiving hemodialysis. *N Engl J Med.* 2011;365:1099-1107. https://pubmed.ncbi.nlm.nih.gov/21992122/

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