

N12 — Chair-Side Emergencies

FRONT

Eight things that go wrong in the chair: recognize each one and make the first move.

When: something goes wrong during treatment.

Do this

Every emergency: call for help and call the nephrologist now. Activate emergency response (911 or code) per your unit protocol for no pulse, uncontrolled bleeding, air embolism, anaphylaxis, or seizure.

Emergency	Recognize	First moves
High potassium	K 6.5 or higher, or high K with weakness, palpitations, slow pulse, or ECG change	Monitor and 12-lead ECG. IV calcium, insulin with dextrose, and albuterol ready per order. Dialyze promptly on the ordered bath; continuous rhythm monitoring if below 2K [6].
Chest pain	New chest pain on treatment	Stop UF; check BP, pulse, rhythm; follow your chest-pain protocol. Think: low BP, hemolysis, air, dialyzer reaction, high K.
Hemolysis	Chest tightness, back or belly pain, dyspnea, BP rise; “port-wine” or cherry-red venous blood; several patients on one shift	Stop the pump and clamp; don’t return the circuit blood . Stat K and hemolysis labs; monitor [7]. Check conductivity, temperature, pH, concentrate, kinked lines. Quarantine machine, tubing, and concentrate lot; check the rest of the shift; call water treatment and biomed [2].
Access hemorrhage	Bleeding from a needle site, aneurysm, graft, or catheter	Stop the pump. Firm direct pressure on the bleeding point. Still bleeding from an aneurysm or graft: compress the inflow , at or just above the arterial anastomosis [8].
Air embolism	Air in the line with sudden dyspnea, chest pain, hypotension, or neurologic change	Clamp the line or catheter; stop the pump; code; 100% oxygen. Venous air: left side down, head down [4].
Dialyzer reaction	Within the first 20 minutes: itching, flushing, hypotension, wheeze, face or throat swelling	Stop the pump and clamp. Moderate or severe: don’t return the blood; anaphylaxis protocol. Record ACE inhibitor use, dialyzer, and drugs given [5].
Disequilibrium	Headache, nausea, restlessness, confusion, or seizure — usually an early treatment in a very uremic patient [9]	Slow or stop per the nephrologist; check conductivity and glucose.
Cramps	Painful cramps, often with falling BP	Hypotension response (N5: Intradialytic Hypotension: Chair-Side Response). Check conductivity and the ordered sodium and magnesium (N2: Dialysate Prescription Check).

Call the nephrologist when

- Any item on this card — every time, even if it resolved.
- At rounds: recurrent cramps or hypotension needing repeated saline.

Don’t

- Don’t press on the vein **downstream** of a bleeding point [8].
- Don’t sit up a patient with suspected air embolism. Arterial air with stroke signs: keep flat and supine [4].
- Don’t reuse the machine, concentrate, or lot after hemolysis until the cause is found.
- Don’t wait for a binder in a potassium emergency, and don’t give potassium because the post-dialysis value looks low [6].
- Don’t start a very uremic patient’s first treatment without a gentle order: reduced clearance and a **lower** bicarbonate bath [9].

Why

1. In implanted-monitor recordings, dangerous rhythms in dialysis patients were overwhelmingly slow: 1,461 bradycardias and 14 asystole episodes versus 1 sustained ventricular tachycardia [1].
2. In a CDC-investigated outbreak traced to narrowed blood tubing, 36% of affected patients needed intensive care and two died [2].
3. Of 88 fatal access hemorrhages, 78% happened at home or in a nursing home [3] — teach patients to press and call 911.
4. The lethal adult air dose is estimated at 200–300 mL, and a 14-gauge opening can pass 100 mL per second [4].
5. Of 236 patients dialyzed on AN69 membranes, 9 had anaphylactoid reactions — all 9 recently started on an ACE inhibitor [5].

Go deeper

- Mastery page: [Hyperkalemia on HD: interdialytic control, binders, emergencies](#)
- Mastery page: [Dialysate calcium, bicarbonate, magnesium, and glucose](#)
- Mastery page: [Examining and Cannulating the AVF and AVG](#)
- Mastery page: [Catheter Care, Lock Solutions, and Bloodstream Infection](#)
- [All dialysis nursing reference cards](#)

References

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