

ESRD NETWORK 13

Serving Arkansas, Louisiana & Oklahoma Renal Communities



RECOMMENDATION: MANAGEMENT OF HYPERKALEMIA

RECOMMENDATION: Develop and implement protocol specific to use of low K⁺ baths (< 2.0 mEq/L) for management of hyperkalemia, which includes:

- *Prudent serum K⁺ monitoring to be considered at least weekly for 1.0 mEq/L bath.*
- Change in bath as serum K⁺ levels normalize.
- Prudent use of low K⁺ baths on patients receiving cardio-tonics (e.g., digoxin, digitalis, and Lanoxin).
- Dietary consult completed and documented in the patient's chart.
- *In the rare instances where K⁺ free dialysate is routinely utilized, care should include:*
 - Serum K⁺ monitoring per treatment
 - Cardiac monitoring during treatment

CRITERIA: Hemodialysis patients (adult & pediatric) as applicable.

RATIONALE: Serious adverse events can occur related to the use of low potassium (K⁺) dialysate without timely monitoring.

PROFESSIONAL KNOWLEDGE:

* "K⁺ free dialysate may produce rapid K⁺ fluctuations along with a higher incidence of cardiac arrhythmias."

* "K⁺ free dialysate should be avoided because its ability to enhance K⁺ removal is modest in comparison with dialysate containing 1 mEq/L K⁺."

* "Patients with known cardiac disease and perhaps other patients such as those with concurrent hypomagnesemia or hypocalcemia AND those receiving Digitalis, are very likely at greater risk for hypokalemia-induced arrhythmia. The use of dialysate with a higher K⁺ concentrate (>2.0 mEq/L) is advisable, if possible in such patients."

REFERENCES:

1. Daugirdas JT, Blake P, Ing T: Handbook of Dialysis, Third Edition. Lippincott Williams & Wilkins, 2001.
2. Owen, Pereira, Sayegh: Dialysis and Transplantation, WB Saunders, 2000.
3. Nissenson, Fine: Dialysis Therapy, 1993.

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