

Guide a Systematic Approach to Manage Acute Hyperkalemia

Does patiromer (*Veltassa*) or sodium zirconium cyclosilicate (*Lokelma*) have a role in treating acute hyperkalemia?

Often, yes...alongside other measures.

Both meds work similarly to sodium polystyrene sulfonate (*Kayexalate*)...by binding potassium in the GI tract.

Limited data suggest that potassium lowering is roughly comparable within 24 hours of a single dose of any of these binders.

And cost is similar...about \$30/dose for patiromer 8.4 g, sodium zirconium cyclosilicate 10 g, or sodium polystyrene sulfonate 15 g.

But sodium polystyrene sulfonate is poorly tolerated due to bad taste and constipation...plus it carries concerns about bowel necrosis.

If a binder is needed, generally lean toward sodium zirconium cyclosilicate. It starts working in about 1 hour...versus 2 hours for sodium polystyrene sulfonate...or 4 hours for patiromer.

But ensure that binders aren't used alone for acute life-threatening hyperkalemia...guide a systematic approach.

Stabilize the heart. Start with IV calcium in patients with potassium 6.5 mEq/L or higher...or ECG changes at any elevated level.

Shift potassium into cells. Think of regular insulin 10 units plus 25 grams of 50% dextrose...given IV...as the gold standard.

But hypoglycemia is common. Consider strategies to reduce risk.

For example, add dextrose 10% at 50 ml/hr for 5 hours after the insulin and dextrose dose for patients at increased risk...such as if baseline blood glucose is less than 125 mg/dL.

And monitor closely...such as glucose checks hourly for 6 hours.

Consider nebulized albuterol 10 to 20 mg...about 4 times more than the standard neb dose. Be aware, albuterol may not be effective for some patients...such as those on a nonselective beta-blocker.

Hold off on sodium bicarbonate unless the patient has metabolic acidosis...since overall data are mixed.

Remove potassium. Consider adding a binder...AFTER acute meds.

And try loop diuretics...but expect patients with severe kidney dysfunction to need hemodialysis.

Review meds. Look for culprits that may raise potassium on the med list...such as an ACEI, ARB or spironolactone, NSAIDs, or trimethoprim. And don't forget to ask about dietary supplements.

Bookmark our resource, *Management of Hyperkalemia*, for more on acute and chronic treatment.

Key References:

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