



Guideline for the Safe Use of Hypertonic Saline 3% to Treat Symptomatic Hypotonic Hyponatremia

- Patients are required to have a Nephrology Consult to use Hypertonic Saline 3% to treat symptomatic hypotonic hyponatremia
- Order Set is entitled “**Hypertonic Saline 3% (Nephrology) Order Set**”
 - Orders must be placed by Nephrology faculty or on behalf of a Nephrology faculty member
- Hypertonic saline 3% may be administered in the following nursing unit locations:
 - Adult Emergency Department
 - Adult Intensive Care Units
 - Adult Intermediate Care Units
- Site of infusion of hypertonic saline 3%
 - Initiation of therapy should NOT be delayed for central venous access
 - If central line not available, infusion may be initiated through a large-bore (16-18 G) peripheral IV line
 - Large peripheral vein is defined as the median cubital vein, cephalic vein, or basilic vein located in the antecubital fossa
- Required parameters for hypertonic saline 3% order
 - Rate of infusion
 - Duration of order will be limited to 24 hours (24-hour stop)
 - Nephrology must reassess and re-order hypertonic saline 3% every 24 hours
- Consider desmopressin (DDAVP) 2 mcg IV push every 8 to 12 hours
- Required laboratory monitoring
 - Check serum sodium and serum potassium every 2 to 4 hours for the first 12 hours, then every 6 hours thereafter during the infusion
- Neurological checks as per physician’s order
- Note: Sodium correction rate not to exceed 6-8 mEq/24 hours

References:

1. Jones GM, Bode L, et al. Safety of continuous peripheral infusion of 3% sodium chloride solution in neurocritical care patients. *Am J Crit Care* 2017; 26:37-42.
2. Perez CA, Figueroa SA. Complication rates of 3% hypertonic saline infusion through peripheral intravenous access. *J Neurosci Nurs* 2017; 49(3):191-5.
3. Sood L, Sterns RH, et al. Hypertonic saline and desmopressin: a simple strategy for safe correction of severe hyponatremia. *Am J Kidney Dis* 2013; 61(4); 571-8.
4. Handbook on Injectable Drugs, 16th Ed; Trissel LA, American Society Health-System Pharmacists, Bethesda, MD, 2011.