Date: September 17, 2015

Title: Standard IV Maintenance Solution

Clinical Question

P (Population/Problem)    Among patients requiring IV maintenance fluids in the ED or Children’s Hospital (NCCH)

I (Intervention)          what is the best maintenance IV solution

C (Comparison)            to prevent

O (Outcome)               hyponatremia?

Target Population

Inclusion: Pediatric patients 3 months of age or older at the NCCH and the UNC Emergency Department requiring maintenance IV fluids.

Exclusion: NCCC patients. Patients receiving chemotherapy. Patients with heart or liver failure, major burns, significant renal disease, inborn errors of metabolism, adrenal insufficiency, DI or diabetes mellitus.

Recommendation:

The Standard IV Solution Task Force recommends D5NS as the standard IV maintenance solution (IV maintenance defined as daily fluid requirement to replace the ongoing losses of water and electrolytes occurring via normal physiologic processes). Baseline and ongoing electrolyte measurement should be considered in patients receiving maintenance IV fluids.

References

JN Friedman; Canadian Paediatric Society, Acute Care Committee. Risk of acute hyponatremia in hospitalized children and youth receiving maintenance intravenous fluids. Paediatr Child Health 2013; 18(2): 102-104


J Wang MD, E Xu MD, Y Xiao MD, PhD; Department of Pediatrics, Second Affiliated Hospital of Medical School of Xian Jiaotong University, Xian, Shaanxi, China, Isotonic Versus Hypotonic Maintenance IV Fluids in Hospitalized Children: A Meta- Analysis. Pediatrics 2014; 133: 105-113

This recommendation is intended as a guideline; management of a specific patient may require a more individualized approach.