Vasopressin for In-hospital Pediatric Cardiac Arrest

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➔There is infrequent use of vasopressin with pediatric cardiac arrest

➔When vasopressin is used it is usually given in combination with epinephrine

➔Lower return of spontaneous circulation (ROSC) is associated with vasopressin use

Top Ten Things To Know Vasopressin for In-hospital Pediatric Cardiac Arrest

1. Epinephrine is the only vasopressor recommended for pediatric cardiac arrest.
2. Vasoactive medications are recommended for treatment of pediatric cardiac arrest to increase aortic diastolic pressure and improve coronary perfusion pressure and thereby increase the likelihood of return of spontaneous circulation (ROSC).
3. Vasopressin is a potent vasoconstrictor and it is recommended as an alternative vasopressor choice or in combination with epinephrine for adult cardiac arrest.
4. The objective of this study was to describe vasopressin use and its ability to improve ROSC following pediatric cardiac arrest.
5. This study included 1293 consecutive pediatric patients with pulseless cardiac arrest with only 5% (64) of the children receiving vasopressin.
6. Children receiving vasopressin had prolonged in-hospital cardiac arrests (37 versus 24 minutes), and were associated with epinephrine treatment 98% of the time.
7. Vasopressin was more commonly used when children arrested in pediatric hospitals (57%) and in intensive care units (76.6%); this study speculates that the drug was used with sicker children.
8. ROSC was less likely for children who received vasopressin (34% vs 55%).
9. There was no significant difference in 24 hour or discharge survival for children who received vasopressin
10. About 90% of survivors of both groups had favorable neurologic outcomes on hospital discharge.

What does this mean to your facility?

Although this retrospective review cannot determine the value or danger of vasopressin therapy, it does support epinephrine as the vasoactive of choice listed in the American Heart Association 2005 Pediatric Advanced Life Support Guidelines for a pulseless arrest.