Top Ten Things To Know
Effect of Vasopressor-Requiring Circulatory Failure on Outcomes of Critically Ill Patients Who Received Cardiopulmonary Resuscitation

1. Survival after in-hospital cardiac arrest (IHCA) in adults is about 19%.

2. Critically ill patients who require vasopressor support prior to an IHCA had much greater mortality as reported in limited sample size studies.

3. This study sought to examine outcomes of adult intensive care unit (ICU) patients who received vasopressors immediately prior to cardiopulmonary resuscitation.
   - 49,656 adult patients with a first IHCA in the ICU were studied from the GWTG-R database.
     - 21,894 patients (44%) received vasopressors immediately prior to IHCA

4. The primary outcome was survival to hospital discharge (SDC).

5. The secondary outcome was discharge disposition (to home or an extended care or rehabilitation facility).

6. The overall rate of survival to hospital discharge was 15.9%. For patients taking vasopressors before IHCA SDC was significantly less likely (2,036 patients 9.3% vs. 5,885 patients 21.2%); p < 0.0001).

7. Patients on 2 or more vasopressors (614 patients) were less likely to survive than those on a single vasopressor (1,419 patients), (6.4% vs 11.5%, p<0.001). Of the 6 vasopressors studied, the two with the worst survival rates (7.8% and 8%) were vasopressin and epinephrine.

8. Disposition of patients home
   - Only 3.9% of IHCA patients on vasopressors were discharged home,
   - 8.5% of IHCA patients not requiring vasopressors were discharged home.

9. The overall survival of ICU patients was 15.9%. Patients requiring vasopressors were significantly less likely to have SDC and less likely to be discharged home, than those patients not requiring a vasopressor.

10. This study may assist clinicians as they discuss do not attempt resuscitation (DNAR) decision options.

*GWTG-R, formerly NRCPR, is a performance improvement tool that can be used to identify and monitor key process variables and patient outcomes for in-hospital cardiac arrest.*


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