

## PICOT

**Question:** In patients who are experiencing trauma-related hemorrhagic shock, how does early recognition, assessment, and intervention of an emergency nurse affect client outcomes?

**Summary:** Hemorrhagic shock remains the leading cause of death in patients who have suffered traumatic injuries and the emergency nurse plays a vital role in recognizing, assessing, and intervening to improve client outcomes. Due to compensatory mechanisms of the body, even with a blood loss of 15 to 30% only subtle signs may be apparent until blood loss is 30% to 40% in which circulatory collapse occurs (Caldwell, et al., 2020). Early recognition of the clinical manifestations of hemorrhagic shock by the emergency nurse is paramount to preventing death. An emergency nurse improves client outcomes because they are equipped with the tools to recognize hemorrhagic shock despite normal vital signs and before circulatory collapse occurs when signs become very apparent. An emergency nurse identifies hemorrhage in the early stages by using the shock index, that predicts the trauma-related death risk and the need for massive transfusion when signs are still indistinct (Caldwell, et al., 2020). Emergency nurses are well versed in life-saving techniques and fluid resuscitation protocols that are necessary interventions in a case of hemorrhagic shock. The early interventions used by an emergency nurse include applying tourniquets, hemostatic dressings, and starting intravascular access to administer blood products. These prompt actions to stop the bleeding and replace fluid volume are necessary for life. According to an article by Jeremy Cannon, M.D. (2018) he mentions, "Early recognition of hemorrhagic shock and prompt action to stop the bleeding are lifesaving, since the median time from onset to death is 2 hours". This recognition is almost systematic for the nurse due to the triage process, and primary and secondary assessment that emergency nurses utilize. Although triage systems vary by facility, essentially it sorts patients from who has life-threatening emergencies and who could tolerate a wait. A trauma patient with severe injuries would be seen immediately. From there the trauma nurse would use the primary assessment to identify the direct threats to life. Airway, breathing, circulation. The emergency room nurse uses this clinical tool and would recognize that a patient with severe injuries is at the risk for having or developing hemorrhagic shock. This recognition skill allows the emergency nurse to intervene early and improve outcomes.

**Conclusion:** Emergency nurses are skilled at proactively recognizing, assessing, and intervening to achieve better client outcomes in patients with trauma-related hemorrhagic shock. Emergency nurses utilize triage, and the primary and secondary assessment to quickly identify possible hemorrhagic shock to either be treated or ruled out. If a trauma patient is experiencing hemorrhagic shock due to the extent of their injuries the emergency nurse would then use the shock index and begin interventions. The knowledge emergency nurses have in quickly recognizing life-threatening situations would increase the odds of a good outcome in a trauma patient with a hemorrhagic stroke.

## Works Cited:

### Primary Article:

Caldwell, N. W., Suresh, M., Garcia-Choudary, T., & VanFosson, C. A. (2020). Trauma-Related Hemorrhagic Shock: A Clinical Review. *American Journal of Nursing, 120*(9), 36-43. <https://doi.org/10.1097/01.NAJ.0000697640.04470.21>

### Secondary Article:

Cannon, J. W. (2018). Hemorrhagic Shock. *The New England Journal of Medicine, 378*(4), 370-379. <https://doi.org/10.1056/NEJMra1705649>

### Tertiary Article:

Ostapchenko, D. A., Gutnikov, A. I., & Davydova, L. A. (2021). Current Approaches to the Treatment of Traumatic Shock. *General Reanimatology, 17*(4), 65-76. <https://doi.org/10.15360/1813-9779-2021-4-65-76>