

To Resuscitate Or Not to Resuscitate?

Fluid resuscitation in the adult trauma patient

You pull up on scene of a rollover to transport a trauma victim or you are standing in the ED waiting for the ambulance to bring in the trauma victim. One of the first things you might be thinking is, “I need two large bore IVs with warmed fluids running wide open!” However, current evidence-based practice is trending to very judicious use of IV fluids. Where it was once thought that more fluid equals better results, research is showing that too much fluid is actually harmful.

Some basic thoughts

- “Pop-the-clot” syndrome—giving large amounts of fluids before hemorrhage control may actually increase the bleeding
- Need to replace what was lost, if possible
 - Blood with blood (hemorrhage)
 - Crystalloid (i.e. LR or NS) with crystalloid (dehydration)
- Problems with over-hydration
 - Dilution of clotting factors—may lead to an increased bleeding risk
 - ARDS
 - Increased peripheral edema
 - Abdominal compartment syndrome
 - Renal failure
 - Longer hospital stays
- Hemorrhage management is KEY!
 - FIRST stop the bleeding, and then assess for shock
 - Hypotension, tachycardia, loss of a radial pulse, decreased mentation
 - THEN begin a resuscitation algorithm based on assessment findings

Pre-hospital fluid management

- If the patient is NOT in shock—good radial pulses, a systolic blood pressure of 90 mmHg or better, normal mental status:
 - Initiate a saline lock or fluids running at TKO only
 - Rapid transport to a trauma center or ER
 - Continuously monitor for signs and symptoms (s/s) of shock
- If the patient IS in shock:
 - 500-1000 ml crystalloid bolus
 - REASSESS after every 500 ml
 - May repeat if s/s of shock are still present
 - Goal is to increase perfusion with a systolic blood pressure of 90 mmHg or better (100-110 mmHg with head injuries)
 - Rapid transport to a trauma center or ER

(more)

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Emergency Department fluid management

- REPLACE WHAT WAS LOST!
- Early administration of blood products in a 1:1:1 ratio of PRBCs, FFP, and platelets

REMEMBER—Hemorrhage control is KEY and only use IV fluids if s/s of shock are present!

https://health.utah.gov/ems/trauma/fluid_resuscitation.pdf

Adult trauma fluid management

