

APPENDIX: H

TITLE: FLUID RESUSCITATION PROCEDURES

REVISED: June 23, 2010

I. INDICATIONS:

Any medical or trauma patient who may require IV medications or fluid replacement.

II. COMMON INTRAVENOUS FLUIDS:

- **Normal Saline (250 cc bag)/Saline Lock:** Use in patients requiring venous access for a medication route, but not suspected of needing volume replacement. Generally use microdrip administration set and smaller gauge catheters (#18-22)
- **Normal Saline (1000 cc bag):** Use in patients suspected of volume depletion, requiring volume replacement, or potentially needing rapid infusion of fluids. Generally use macrodrip or blood administration set and larger catheters (#14-18)
- **Normal Saline (with Volutrol, Buretrol, Metriset):** Use in pediatrics and any patient with whom medication and/or fluid given must be precisely measured
- **Other Fluids:** Other crystalloid fluids may be initiated or monitored during transport as situation requires
- **Colloid Solutions:** Colloid solutions may be monitored for transport on physician order

III. SITE / METHODS OF ACCESS:**PERIPHERAL LINES:**

Peripheral lines are the lines of choice except as noted below. The external jugular vein is considered a peripheral vein.

INTRAOSSEROUS LINES:

Intraosseous access should be established in pediatric patients requiring a medication route or fluid replacement when other access to the circulatory system is not possible. Boluses may be given with 60-120 cc syringes.

PRE-EXISTING VASCULAR ACCESS:

Paramedics may use pre-existing vascular access, including PIC lines, Hickman catheters, dialysis shunts, and other devices at their discretion. Use of these lines should be based on the paramedic's comfort level with the line in question, suspected patency of the access line, patient severity, and good clinical judgment.

IV. FLUID RESUSCITATION:

In situations requiring rapid fluid resuscitation, multiple IV lines should be established utilizing any combination of:

- Normal saline solution, short, large-bore catheters (1 ¼", 14-16)
- Y-blood tubing IV administration sets (10 gtts/ml)
- IV pressure infusion bags

While ILS providers are often limited in amount of volume and fluid administered by the SWO's, ILS providers may exceed those guidelines when functioning under the general direction of the paramedic in charge of the patient. Likewise, paramedics are limited only by sound clinical judgment rather than an arbitrary volume when determining volume of fluid to administer. Generally, fluid resuscitation in these patients will be initiated in route to the hospital to avoid delays in transport (except as noted in SWO's). The following are general guidelines for fluid resuscitation volume.

Adults: 250-500 cc bolus, repeated as needed while observing for signs and symptoms fluid overload

Peds: 10- 20 cc/kg bolus, repeated as needed up to 3 times