INTRAVENOUS (IV) & INTRAOSSEOUS (IO) INFUSION

INDICATIONS for a NORMAL SALINE 1000 cc BAG:

1. Bleeding or potential bleeding associated with trauma
2. Bleeding or potential bleeding from non-traumatic causes, i.e. ectopic pregnancy, GI bleed
3. Hypotension/dehydration from other causes, i.e. septicemia, hypothermia, anaphylaxis, spinal cord injury, protracted vomiting or diarrhea
4. Burn patients with arrhythmia, hypotension, delayed transport times, or need for analgesia
5. Diabetics with BS > 240 mg/dL or with signs of dehydration or when it is unclear if the situation is DKA.
6. Fluid challenges

INDICATIONS for a NORMAL SALINE 500 cc BAG:

1. Anticipated need for multiple medication administration in:
   A. Cardiac patients
   B. Isolated head injuries with brief LOC, confusion or amnesia
   C. TKO lines in which hypovolemia is not present, i.e. first time seizure, hypoglycemia, shortness of breath, drug overdose, tachycardia, hypertension with systolic BP > 200 and CVA's
2. All non-traumatic pediatric patients (< 12 years) requiring IV

ADULT ADMINISTRATION:

1. 16, 18, 20, or 22 gauge catheters should be used for IV therapy in adults.
2. Maximum infusion is 3000 cc of NS per patient unless further directed by medical control.

PEDIATRIC ADMINISTRATION:

1. 20, 22 or 24 gauge catheters should be used for IV therapy in children < 12 years.
2. Maximum infusion is 60 ml/kg (given in 20 ml/kg boluses) of NS per patient unless further directed by medical control.

SPECIAL NOTES:

1. Vascular access may be established in adults or pediatrics prior to medical control contact. Intermediate, Paramedic/RN personnel may use IO if indicated.
2. For penetrating, thoracic, or abdominal trauma and all trauma patients with a systolic BP < 90 or pulse > 120, attempts at IV insertion should not delay transport. Obtain IV access enroute in these patients unless there is prolonged extrication.
3. Distal sites, such as the forearm, are preferred in non-critical patients. The antecubital site can be used in cases where rapid cannulation is required, i.e. cardiac arrest or severe trauma.
4. Large bore IV's are the IV's of choice in a trauma patient. (16 or 14 gauges)
5. The external jugular vein may be used in critical patients where distal sites are unattainable or after IO access has failed or is inappropriate. (Intermediate & Paramedic/RN personnel only)
6. Hickman catheters and AV shunts should never be used for prehospital venous access, except in the setting of cardiac arrest or physician order. Avoid placing IVs in the same extremity as shunts if possible.
7. Document site, type fluid, rate, needle gauge, and total volume infused.
8. If IV solutions have been "setup" (tubing inserted into bag) prior to use, the date and time of the setup must be documented on a piece of tape and placed on the IV bag. This setup must be used within 24 hours of the time it was prepared.

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