**Audit Data Collection Tool**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Patients demographics (circle appropriate answers)** | | | | | | | | | | | | | | |
| **Ward** |  | | | | | | | | | | | | | |
| **Gender** | Male | | | | | | Female | | | | | | | |
| **Date of IV fluid prescribed** | Weekday | | | | | | Weekend | | | | | | | |
| **Documentation on PENS (To prescribe IV fluids)** | Yes | | | | | | No | | | | | | | |
| **If Yes; where it is documented** | Patient notes | | | | | | IV FLUID PLAN STICKER | | | | | | | |
| **IV fluid plan** | | | | | | | | | | | | | | |
| **Documentation of fluid status** | Hypovolaemia | | Euvolaemia | | | | | Hypervolaemia | | | | Not documented | | |
| **Has weight been recorded on PENS in last 7 days** | Yes (weight) | | | | | | | | | | No | | | |
| **Has fluid balance been recorded in the last 24 hours** | Yes | | | | No | | | | | | Partial | | | |
| **UE result available in last 24 hours** | Yes(K and Cl) | | | | No | | | | | |  | | | |
| **Documentation of type of fluid to be prescribed** | Yes | | | | No | | | | | |  | | | |
| **Indication for fluid prescribed** | Maintenance | | | | Replacement | | | | | | Resuscitation | | | |
| **IV fluids prescribed** | | | | | | | | | | | | | | |
| **IV fluid composition** | 4%Dex /  0.18% saline | Hartmann | | | | Normal saline | | | 5% Dextrose | | | | Other IV fluids including meds | |
| **Volume and duration** |  |  | | | |  | | |  | | | |  | |
| **IV potassium prescribed?** | Yes | | | | | | No | | | | | | | |
| **Did patient receive the appropriate type of IV fluid** | | | | | | | | | | | | | | |
| **Maintenance** | Yes | | | No | | | | | | NA | | | |
| **Replacement** | Yes | | | No | | | | | | NA | | | |
| **Resuscitation** | Yes | | | No | | | | | | NA | | | |
| **Comments:** | | | | | | | | | | | | | | |

**ADMINISTRATION OF IV FLUID THERAPY ON WARD**

1. **Algorithm 1: Assessment of Fluid requirement**

Hypovolaemia

Hypervolaemia

Euvolaemia

Signs of fluid retention such as pedal oedema /ascites/pleural effusion

Normal blood pressure, pulse rate and respiratory rate

Systolic blood pressure less than 100 mmHg ; Heart rate more than 90 beats per minute; Capillary refill time more than 2 seconds or peripheries are cold to touch;   
Respiratory rate more than 20 breaths per minute; National Early Warning Score (NEWS) 5 or more; Passive leg raising suggests fluid responsiveness

1. **Algorithm 2: Type and volume of IV fluid required in 24hrs**

Fluid restriction

Maintenance Fluids

Resuscitation Fluids

Restrict fluids to 1L daily  
Restrict sodium intake  
Consider diuretics

Water: 25-35ml/kg/day  
Sodium/K/Cl: 1mmol/kg/day  
Glucose: 50-100g/day

Use isotonic or balanced solutions that contain sodium in the range 130–154 mmol/l, with a bolus of 500 ml over less than 15 minutes

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Wt (kg) | Fluids | Serum K | KCL / 1l fluid | |
| 30 | 1l | **>5.0** | None | |
| 45 | 1.5l | **3.5-5.0** | | 20 |
| 60 | 2l | **3.0-3.4** | | 40 |
| 70 | 2.5l | **<3.0** | | 40 |
| +75 | 3l |  | |  |

* Sodium chloride 0.18% in 4% glucose/ potassium (20 or 40mmol)
* Maximum fluid should be 2.5L daily
* No patient should receive more than 1L of Normal saline / Hartmann’s per day for maintenance IV fluid

1. **Algorithm 3: Add replacement fluids for losses (extra-renal losses)**

* Hartmann’s solution is preferable than normal saline except in:
* Hyperkalaemia, end-stage liver disease, patients with unstable diabetes, plasma lactates is elevated, severe renal failure (risk of hyperkalemia)

If plasma chloride is <98 mmol/L e.g. vomiting or gastric drainage, normal saline is more appropriate

1. **Algorithm 4: Monitoring IV fluid therapy**

* Patients should have an IV fluid management plan, which should include details of fluid and electrolyte prescription over the next 24 hours
* Daily reassessments of clinical fluid status, U&E and fluid balance charts, along with weight measurement twice weekly