

Fluids - Intravenous Postoperative - SDU - Summary Clinical Guideline

Reference no.: CG-STEP/2023/001

Prescribe maintenance fluids;

- At a rate of 1.0 - 1.5ml kg⁻¹ hr⁻¹ alternating 1l bags of Hartmann's solution with 4% Glucose/0.18% NaCl with 20 or 40 mmol KCl L⁻¹ up to max 100mls/hr,
- In hypokalaemic patients (K⁺ ≤ 3.5 mmol L⁻¹), use 4% Glucose/0.18% NaCl with 20 or 40 mmol KCl L⁻¹
- It is rarely necessary to prescribe more than 100ml hr⁻¹ of maintenance fluid (NICE CG 174) even in obese subjects (BMI ≥35)
- Use 0.9% NaCl with 20 or 40 mmol KCl L⁻¹ when plasma sodium ≤ 130 mmol L⁻¹ AND plasma potassium ≤ 3.5 mmol L⁻¹

Manage oliguria (< 0.5ml kg⁻¹ hr⁻¹) with;

- 250ml bolus of Hartmann's solution given over 10-15 minutes, repeated PRN
- Do not use furosemide to treat oliguria in postoperative surgical patients even if there is a positive fluid balance
- Do not manage oliguria by simply increasing the hourly rate of infusion. Omitting fluid boluses is a strategy that is unacceptable on SDU as it may result in organ damage

Replace fluid losses with;

- Hartmann's solution for most fluid losses
- 0.9% NaCl with 20 or 40 mmol L⁻¹ KCl for losses from nasogastric drainage or vomiting

Transfuse packed red cells when;

- Hb concentration < 70 g L⁻¹ or when there is ongoing bleeding with Hb ≤ 100 g L⁻¹
- To maintain Hb between 70 – 90 g L⁻¹ in patients who are critically ill or undergoing surgery
- In patients with ischaemic heart disease it **may** be safer to maintain Hb between 90 – 100 g L⁻¹

Vasoconstrictor solutions may be required;

- In patients receiving epidural analgesia once hypovolaemia is excluded
- In septic patients awaiting transfer to ICU