

Hydrocortisone sodium succinate Intravenous for Adults



Who can administer

May be administered by registered competent doctor or nurse/midwife

Important information

- **Review dose and duration DAILY** and look to switch from **IV to PO** (usually prednisolone will suffice) as soon as possible
- **Glucocorticoid switch ratio is 100mg hydrocortisone ~ 25mg prednisolone** (note, however, when changing from intravenous to oral steroids, dose tapering usually occurs - typically switched to prednisolone 40mg or 60mg daily, depending on indication)

Available preparations

Solu-Cortef 100mg Vial

Reconstitution

Water for injection

- Dilute each 100mg vial with exactly 2ml Water for Injection

Infusion fluids

Sodium Chloride 0.9% or Glucose 5% (see under 'further information' re choice)

Methods of intravenous administration

Slow intravenous injection (Preferred method of administration for initial emergency use)

- Administer required dose over 1 to 10 minutes
- High doses of 500mg to 1000mg should be given over 10 minutes ^(ref 1)

Intermittent intravenous infusion

- Add required dose to 100 to 1000ml (not less than 100ml) infusion fluid and administer over 20 to 30 minutes ^(ref 2)
- If fluid restricted, can add 100mg to 50ml infusion fluid (unlicensed) ^(ref 2)
- If using the fluid restricted volume of 50ml infusion fluid, the residual fluid in the infusion line must be flushed through at the same rate to avoid significant underdosing

Dose in adults

Normal dosage range

- 100mg to 500mg, by intravenous injection, repeated at intervals of two, four, or six hours as indicated by the patient's response and clinical condition

Severe sepsis and septic shock ^(ref 3)

- In patients who poorly respond to fluid resuscitation and vasopressors: can give 200mg per day (local practice suggests up to 300mg per day may also be used) ^(ref 5)

Stress dosing (surgery) in patients known to be adrenally-suppressed or on chronic systemic steroids (ref 4)

Severity	Dose	Duration
Minor stress	Either usual oral dose on the morning of surgery OR 25 to 50mg STAT IV at induction. Resume usual oral dose after surgery	NA
Moderate stress (e.g. joint replacement, cholecystectomy)	Usual oral dose on the morning of surgery PLUS 25 to 50mg IV at induction. Follow with 25 to 50mg IV every 8 hours after surgery. Resume usual oral dose once IV hydrocortisone is stopped	24 hours
Major stress (e.g. pancreatoduodenectomy, oesophagectomy, cardiac surgery)	Usual oral dose on the morning of surgery PLUS 25 to 50mg IV at induction. Follow with 25 to 50mg every 8 hours after surgery. Resume usual oral dose once IV hydrocortisone is stopped	48 to 72 hours

Further information

- Sodium chloride 0.9% may be the preferred infusion solution, to try and avoid hyperglycaemia
- However, Sodium chloride 0.9% is more likely to cause hypernatraemia
- After prolonged treatment, withdrawal should be gradual

Storage

Store below 25°C

References

SPC Oct 2021

1: Uptodate accessed December 2021

2: Injectable medicines guide Medusa - accessed December 2021

3: [International Guidelines for Management of Severe Sepsis and Septic Shock](#) - downloaded December 2021

4: Martindale- accessed via www.medicinescomplete.com accessed December 2021

5: Email correspondence from Prof Patrick Neligan, Consultant Intensivist (via Chief pharmacist in Critical care) 22nd Feb, 2022

Therapeutic classification

Corticosteroid