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** (ref 1)
    - 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

Intermittent intravenous infusion

- Add required dose to 100 to 1000ml (not less than 100ml) infusion fluid and administer over 20 to 30 minutes (ref 3)
- If fluid restricted, can add 100mg to 50ml infusion fluid (unlicensed) (ref 3)
    - 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 under-dosing

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 2]

- Give 200mg to 300mg per day in divided doses

Stress dosing (surgery) in patients known to be adrenally-suppressed or on chronic systemic steroids [ref 2]

Severity	Dose
Minor stress (e.g herniorrhaphy)	Patients should receive an extra dose of hydrocortisone 25mg daily on the day of surgery only. Can revert to usual replacement dose on the following day if clinical course is uncomplicated
Moderate stress (e.g. joint replacement, cholecystectomy)	Patients should receive 50mg to 75mg daily in divided doses on the day of surgery and the first post-operative day Can revert to usual replacement dose on the second post-operative day if clinical course is uncomplicated
Major stress (e.g. pancreatoduodenectomy, oesophagectomy, cardiac surgery)	Patients should receive 100mg prior to the procedure, followed by a total daily dose of 150mg to 200mg in divided doses for two to three days peri-operatively If the peri-operative course is uncomplicated, a rapid taper (e.g. a daily dose reduction of 50%) can begin to the usual maintenance dose on post-operative day three or four

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^{0}C

References

SPC Oct 2024

1: Prednisolone tablets SPC accessed online Feb 3rd 2025

2: Uptodate accessed March 2025 (two sections- Corticosteroid therapy for refractory septic shock

in adults, Treatment of adrenal insufficiency in adult)

3: Injectable medicines guide Medusa - accessed Jan 21st 2025

Therapeutic classification

Corticosteroid