

# 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 <sup>(ref 1)</sup>

### Intermittent intravenous infusion

- Add required dose to 100 to 1000ml (not less than 100ml) infusion fluid and administer over 20 to 30 minutes <sup>(ref 2)</sup>
- If fluid restricted, can add 100mg to 50ml infusion fluid (unlicensed) <sup>(ref 2)</sup>
- 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 <sup>(ref 3)</sup>

- 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) <sup>(ref 5)</sup>

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

Severity	Dose	Duration
<b>Minor stress</b>	<b>Either usual oral dose</b> on the morning of surgery <b>OR</b> 25 to 50mg STAT IV at induction. Resume usual oral dose after surgery	NA
<b>Moderate stress (e.g. joint replacement, cholecystectomy)</b>	<b>Usual oral dose</b> on the morning of surgery <b>PLUS</b> 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
<b>Major stress (e.g. pancreatoduodenectomy, oesophagectomy, cardiac surgery)</b>	<b>Usual oral dose</b> on the morning of surgery <b>PLUS</b> 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](http://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