

# Aciclovir Intravenous Infusion for Adults

## Who can administer

May be administered by registered competent doctor or nurse/midwife

## Important information

- Must ensure **adequate hydration** and give over **recommended time** (to avoid potential renal tubular damage)
- See under 'Dose' for adjustments required in **renal** impairment
- See under 'Dose' for considerations in **obesity**

## Available preparations

Zovirax 250mg vial

Aciclovir 250mg POWDER for solution for injection (Bowmed Ibisqis Ltd)

Aciclovir 250mg per 10mL - occasionally stocked depending on availability

## Reconstitution

<b>Aciclovir (Bowmed. Ibisqis, Hikma)</b>	<b>Water for injection or Sodium chloride 0.9%</b> 10ml per 250mg vial <b>Dilute further prior to administration</b>
<b>Aciclovir</b>	Already in solution <b>Dilute further prior to administration</b>
<b>Zovirax brand</b>	<b>Water for injection or Sodium chloride 0.9%</b> 10ml per 250mg vial <b>Dilute further prior to administration</b>

## Infusion fluids

Sodium Chloride 0.9% preferred

Glucose 5% (unlicensed) <sup>(ref 1)</sup>

## Methods of intravenous administration

**Intermittent intravenous infusion (administer using an electronically controlled infusion device)**

<b>Dilute with infusion fluid to a concentration not greater than 5mg/ml (0.5%w/v)</b>		
<b>Doses of 250 to 500mg</b>	100ml infusion fluid	Administer required dose over 60 minutes Sixty minute infusion time reduces the risk of renal tubular damage
<b>Doses between 501mg and 1000mg</b>	250ml infusion fluid	
<b>Fluid restricted patient (central line)</b> <sup>(ref 1,3)</sup>	May be infused at a concentration of 25mg/ml - ie 250mg per 10ml	

# Dose in adults

## Herpes simplex infections (other than encephalitis) (treatment)

- Give 5mg per kg every eight hours
- Higher dose may be required in severe infection/immunocompromised. Discuss with Microbiology or Infectious Diseases <sup>(ref 2)</sup>

## Herpes simplex encephalitis

- Give 10mg per kg every eight hours (for 14 to 21 days)

## Herpes simplex infections (prophylaxis in immunocompromised) <sup>(ref 3)</sup>

- Give 5mg per kg every eight hours

## Varicella zoster (chickenpox) or Herpes zoster (shingles) infections

- **NOT immunocompromised:** give 5mg per kg every eight hours
- **Immunocompromised, or severe /complicated infections:** give 10mg per kg every eight hours

Considerations in obesity		
<ul style="list-style-type: none"><li>• <b>Contact Microbiology/ID or Antimicrobial Pharmacist for advice</b></li><li>• <b>Limited data</b> available on aciclovir intravenous <b>dosing in obesity</b></li><li>• Aciclovir does not distribute into adipose tissue- so calculations based on <b>Total Body Weight (TBW)</b> may result in excessive dosage</li><li>• Take <b>type and severity of infection and patients renal function into</b> account when choosing dose in obese patients</li><li>• <b>Monitor patient for nephrotoxicity or neurotoxicity when using large doses</b></li><li>• <b>If a patients TBW exceeds 120% of Ideal Body Weight (IBW), an adjustment is generally advised</b> -see calculations below</li></ul>		
<b>Step 1:</b>	<b>Calculate Ideal Body Weight (IBW)</b>	<ul style="list-style-type: none"><li>• <b>Male</b> 50kg + (2.3 x inches over 5 feet) <b>or</b> 50kg + (0.9 x cm over 152 cm)</li><li>• <b>Female</b> 45.5kg + (2.3 x inches over 5 feet) <b>or</b> 45.5kg + (0.9 x cm over 152 cm)</li></ul>
<b>Step 2:</b>	<b>Calculate Adjusted Body Weight (ABW)</b>	<ul style="list-style-type: none"><li>• <math>ABW = (IBW + 0.4 \times [TBW - IBW])</math></li></ul>
<b>Step 3</b>	<b>Calculate dose</b>	<ul style="list-style-type: none"><li>• If patient exceeds IBW by 120%, it may be advisable to use ABW when calculating doses</li><li>• This depends on clinical circumstances- a balance must be achieved between potentially under-dosing patients, or alternatively exposing to risk from excessive doses (renal, neurotoxicity)</li></ul>
<b>Example:</b>	<b>Male patient, 124kg, 178cm</b> <ul style="list-style-type: none"><li>• <math>IBW = 50kg + (0.9 \times (178 - 152)) = 73.4kg</math></li><li>• <b>TBW</b> (124kg) is greater than 120% of IBW (73.4kg) - so need to work out ABW</li><li>• <math>ABW = (73.4 + 0.4 (124 - 73.4)) = 93.6kg</math></li></ul> Dose required 10mg/kg- 940mg	
<b>Explanatory notes</b>	<b>BNF-</b> suggests using IBW- but this may result in underdosage for very obese patients <b>Sanford:</b> suggest using ABW in obesity (where $TBW > 120\% IBW$ )	

Renal impairment	
eGFR	Dose
25 to 50ml/minute/1.73m <sup>2</sup>	give recommended dose every 12 hours
10 to 25ml/minute/1.73m <sup>2</sup>	give recommended dose once every 24 hours
less than 10ml/minute/1.73m <sup>2</sup>	give 50% of recommended dose every 24 hours
Dialysis	consult specialist literature or pharmacy

## Monitoring

- Monitor renal function regularly
- Ensure adequate hydration
- Monitor for neurological side-effects

## Storage

- Store below 25<sup>0</sup>C
- Do not refrigerate as precipitation may occur

## References

Zovirax SPC March 2025

1. Injectable medicines administration guide accessed online via Medusa 17/06/2025
- 2: [GAPP app](#)
3. BNF accessed online via Medicinescomplete 16/06/2025
4. Sanford Guide to antimicrobial therapy accessed online 17/06/2025

## Therapeutic classification

Antiviral agent

**BNF**

[Viral infection](#)