## Details

<table>
<thead>
<tr>
<th>Generic Name</th>
<th>Entecavir</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade Name</td>
<td>Baraclude*</td>
</tr>
<tr>
<td>Class</td>
<td>Guanosine nucleoside analogue with selective antiviral activity against HBV polymerase</td>
</tr>
<tr>
<td>Molecular Weight</td>
<td>295.3</td>
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</tbody>
</table>

### Summary of Key Pharmacokinetic Parameters

*Entecavir is phosphorylated to the active triphosphate form, which has an intracellular half-life of 15 hours.*

- **Linearity/non-linearity**: Dose-proportionate increases in Cmax and AUC following multiple doses ranging from 0.1-1 mg.

- **Steady state**: Achieved between 6-10 days after once daily dosing with ~2 times accumulation.

- **Plasma half life**: When peak levels reached, terminal elimination half life is approx. 128-149 hours.

- **Cmax**: 4.2 ng/ml (0.5 mg dose) at steady state  
  8.2 ng/ml (1 mg dose) at steady state

- **Cmin**: 0.3 ng/ml (0.5 mg dose) at steady state  
  0.5 ng/ml (1 mg dose) at steady state

- **AUC**: 27.9 ng.h/ml (1 mg single dose)

### Bioavailability

- **Absolute bioavailability not determined; estimated to be at least 70%**.

### Absorption

- **Administration with a high fat or light meal results in slight delay in absorption; a 44-46% decrease in Cmax, and an 18-20% decrease in AUC**. The US Prescribing Information recommends that all patients should take entecavir on an empty stomach (at least 2 hours after a meal and 2 hours before the next meal), but the European SPC only makes this recommendation for lamivudine-refractory patients.

### Protein Binding

- **Approximately 13% in vitro**

### Volume of Distribution

- **Estimated to be in excess of total body water**

### CSF:Plasma ratio

- **Data unavailable**

### Semen:Plasma ratio

- **Data unavailable**

### Renal Clearance

- **75% of dose as unchanged drug, at steady state. Thought to undergo both glomerular filtration and net tubular secretion.**

### Renal Impairment

- **Clearance of entecavir decreases with decreasing creatinine clearance. The manufacturer recommends dose adjustment with creatinine clearance <50 ml/min, including those on haemodialysis or continuous ambulatory peritoneal dialysis. A 4 hour period of haemodialysis removed ~13% of the dose, and 0.3% was removed by CAPD. On haemodialysis days, administer entecavir after haemodialysis. Virological response should be closely monitored.**

### Hepatic Impairment

- **Pharmacokinetics in moderate or severe hepatic impairment are similar to those in normal hepatic function. The European SPC states that dosage adjustments are not necessary. The US Prescribing Information states that the recommended dose in adults with decompensated liver disease is 1 mg once daily.**
## Metabolism and Distribution

**Metabolised by**
- Not a substrate for CYP450.
- No acetylation or oxidation; minor phase II glucuronidation and sulphate conjugation.

**Inducer of**
- Not an inducer of CYP450

**Inhibitor of**
- Not an inhibitor of CYP450

**Transported by**
- Data unavailable

## References

All information is from:
- Baraclude® Summary of Product Characteristics, Bristol-Myers Squibb Pharmaceuticals Ltd.
- Baraclude® US Prescribing Information, Bristol-Myers Squibb.