Pibrentasvir PK Fact Sheet

Details

<table>
<thead>
<tr>
<th>Generic Name</th>
<th>Pibrentasvir</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade Name</td>
<td>Maviret®, Mavyret®, (co-formulated with glecaprevir)</td>
</tr>
<tr>
<td>Class</td>
<td>HCV NS5A inhibitor</td>
</tr>
<tr>
<td>Molecular Weight</td>
<td>1113.18</td>
</tr>
<tr>
<td>Structure</td>
<td>![Structure Diagram]</td>
</tr>
</tbody>
</table>

Summary of Key Pharmacokinetic Parameters

Pibrentasvir is available in a fixed-dose combination product with glecaprevir.

**Linearity/non-linearity**

Pibrentasvir AUC increased in a greater than dose-proportional manner at doses up to 120 mg, (over 10-fold exposure increase at 120 mg compared to 30 mg), but exhibited linear pharmacokinetics at doses ≥120 mg. The non-linear exposure increase below 120 mg may be related to saturation of efflux transporters.

**Steady state**

Achieved after 5 days of once daily dosing.

**Plasma half-life**

23-29 h in healthy subjects; 13 h in non-cirrhotic HCV-infected subjects

**Cmax**

110 (49) ng/mL (geometric mean, %CV), in non-cirrhotic HCV-infected subjects

**C24**

9.94 (75), 5.33 (48), 6.68 (60) ng/mL (geometric mean, %CV), in healthy White, Han Chinese and Japanese adults, respectively.

**AUC**

1430 (57) ng∙h/mL (geometric mean, %CV), in non-cirrhotic HCV-infected subjects

**Bioavailability**

Pibrentasvir bioavailability increases 3-fold when given with glecaprevir than when given alone.

**Absorption**

Compared to fasting, a moderate to high-fat meal increased pibrentasvir exposure by 40-53%.

**Protein Binding**

>99.9%

**Volume of Distribution**

Not determined

**CSF:Plasma ratio**

Not determined

**Semen:Plasma ratio**

Not determined

**Renal Clearance**

No renal clearance

**Renal Impairment**

No dosage adjustment is required in patients with mild, moderate or severe renal impairment, including those on dialysis.

**Hepatic Impairment**

No dose adjustment is required in patients with mild hepatic impairment (Child-Pugh A). Pibrentasvir is not recommended in patients with moderate hepatic impairment (Child Pugh-B) and is contraindicated in patients with severe hepatic impairment (Child-Pugh C).
**Metabolism and Distribution**

<table>
<thead>
<tr>
<th>Metabolised by</th>
<th>Not metabolised - pibrentasvir is eliminated by biliary/faecal excretion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inducer of</td>
<td>None expected.</td>
</tr>
<tr>
<td>Inhibitor of</td>
<td>Inhibitor of P-gp, BCRP, OATP1B1, OATP1B3, BSEP.</td>
</tr>
<tr>
<td></td>
<td>Weak inhibitor of CYP3A, CYP1A2, UGT1A1 (significant interactions are not expected with substrates of these enzymes).</td>
</tr>
<tr>
<td></td>
<td>Significant inhibition of CYP2C9, CYP2C19, CYP2D6, UGT1A6, UGT1A9, UGT1A4, UGT2B7, OCT1, OCT2, OAT1, OAT3, MATE1 or MATE2K are not expected.</td>
</tr>
<tr>
<td>Transported by</td>
<td>P-gp, BCRP</td>
</tr>
</tbody>
</table>

**References**

Unless otherwise stated (see below), information is from:

Maviret Summary of Product Characteristics, AbbVie Ltd.

Mavyret Prescribing Information, AbbVie Inc.
