

# Pivmecillinam (Mecillinam)

## Information for Prescribers

This information is provided to facilitate the prescribing of pivmecillinam in acute and primary care settings within NHS Lanarkshire when recommended by an Infection Specialist (or as indicated by positive culture and sensitivity report) for suspected or proven multidrug resistant (MDR) urinary tract infections (UTI) in adults.

<p><b>What is pivmecillinam?</b></p>	<p>Pivmecillinam is a penicillin-like beta-lactam antibiotic that is highly active against most Enterobacteriaceae, including E.coli and Klebsiella. It is however inactive against Pseudomonas.</p>
<p><b>How does it work?</b></p>	<p>Pivmecillinam is an orally active pro-drug that is hydrolysed to the active drug, mecillinam. Like the penicillins and cephalosporins, pivmecillinam interferes with the biosynthesis of the bacterial cell wall although the target for inhibition is different.</p>
<p><b>Therapeutic indications</b></p>	<ul style="list-style-type: none"> <li>◆ Lower urinary Tract Infection (UTI) (± catheter) caused by Gram negative organisms with proven susceptibility to pivmecillinam and resistant to all other suitable antibiotics, and where no alternative agent is available. <b>Only treat if symptomatic. Do not treat asymptomatic bacteriuria. Send urine culture.</b></li> <li>◆ Other conditions as advised by Infection Specialist</li> </ul>
<p><b>Dosing advice</b></p>	<p><b>Adults:</b></p> <p><b>Lower UTIs in non-pregnant adult females:</b> 400mg every eight hours for THREE days</p> <p><b>Lower UTI in adult men:</b> 400mg every eight hours for SEVEN days</p> <p><b>Catheter-associated UTI (CAUTI) in non-pregnant adult females and adult men:</b> If catheterised, catheter must be changed or removed. 400mg every eight hours for SEVEN days.</p> <p><i>Note: tablets should be swallowed whole with plenty of water whilst in an upright position, and preferably taken with or after a meal.</i></p> <hr/> <p><b>Paediatric patients:</b></p> <p><b>Only licensed in children with a body weight of 40kg and above.</b> For dosing consult the BNFC (<a href="#">Pivmecillinam dosing in the paediatric population</a>)</p> <p><i>Note: tablets should be swallowed whole with plenty of water whilst in an upright position, and preferably taken with or after a meal.</i></p>
<p><b>Contraindications/ cautions</b></p>	<p><b>For a full list see BNF/SPC.</b></p> <p>Pivmecillinam is contraindicated in penicillin or cephalosporin hypersensitivity, carnitine deficiency, gastrointestinal obstruction, acute porphyria, infants under 3 months, and in patients with oesophageal strictures.</p>

<b>Adverse effects</b>	<p><b>For a full list see BNF/SPC.</b></p> <p>The most frequently reported adverse effects are gastrointestinal disorders such as nausea, vomiting and diarrhoea. Other reported adverse effects include dizziness, headache, urticarial rash, mouth ulcers and oesophagitis. There is also a risk of reduced serum and total body carnitine especially with long term or repeated use.</p>
<b>Interactions</b>	<p><b>For full list see BNF/SPC.</b></p> <p>Valproic acid/Sodium valproate interaction with pivmecillinam increases the risk of carnitine depletion, resulting in hyperammonaemic encephalopathy.</p> <p>Methotrexate clearance is reduced when given in combination with pivmecillinam and may result in methotrexate toxicity.</p>
<b>References</b>	<ol style="list-style-type: none"> <li>1. Royal Pharmaceutical Society, British Medical Association. British National Formulary No 81 (March - September 2021) Accessed via <a href="http://www.medicinescomplete.com">www.medicinescomplete.com</a></li> <li>2. Leo Laboratories Ltd. Summary of Product Characteristics for Selexid® tablets. Last updated 08/07/19. Accessed via <a href="http://www.medicines.org.uk">www.medicines.org.uk</a></li> </ol>
<b>Further information</b>	<p>Further guidance can be obtained from your local infection specialist/ antimicrobial pharmacist.</p>