

Vabomere

(meropenem, vaborbactam)



NEW PRODUCT SLIDESHOW

MPR

Introduction

- **Brand name:** Vabomere
- **Generic name:** Meropenem, vaborbactam
- **Pharmacological class:** Carbapenem + beta-lactamase inhibitor
- **Strength and Formulation:** 2g/vial (containing meropenem 1g + vaborbactam 1g); pwd for IV infusion after reconstitution and dilution; sodium content 10.9mEq/vial; preservative-free
- **Manufacturer:** The Medicines Company
- **How supplied:** Single-dose vials—6
- **Legal Classification:** Rx

Vabomere



Indications

- Susceptible **complicated urinary tract infections** (cUTI) including pyelonephritis

Dosage & Administration

- Give by IV infusion over 3hrs
- **≥18yrs** (eGFR $\geq 50\text{mL}/\text{min}/1.73\text{m}^2$): 4g every 8hrs
- Renal impairment
 - eGFR 30–49mL/min/1.73m²: 2g every 8hrs
 - eGFR 15–29mL/min/1.73m²: 2g every 12hrs
 - eGFR <15mL/min/1.73m²: 1g every 12hrs
- Give after hemodialysis session
- All: treat for up to 14 days

Considerations for Special Populations

- **Pediatric:** <18yrs: not established
- **Pregnancy:** Insufficient human data to establish drug-associated risk
- **Nursing mothers:** Consider mother's need and potential adverse effects on child
- **Elderly:** Monitor renal function
- **Renal impairment:** See Dosage & Administration

Warnings/Precautions

- Previous **hypersensitivity** to penicillins, cephalosporins, other beta-lactams, or other allergens
- **Discontinue immediately** if allergic reaction occurs
- CNS disorders (eg, brain lesions, history of seizures)

Warnings/Precautions

- Bacterial meningitis
- Renal impairment (thrombocytopenia possible)
- Reevaluate dose if focal tremors, myoclonus, or seizures occur
- Discontinue if *C. difficile*-associated diarrhea suspected or confirmed

Interactions

- Concomitant **valproic acid** or **divalproex sodium**: not recommended; if use necessary, consider supplemental anticonvulsant
- Potentiated by **probenecid**: not recommended

Adverse Reactions

- Headache
- Phlebitis/infusion site reactions
- Diarrhea
- Serious hypersensitivity reactions
- *C. difficile*-associated diarrhea
- Possible neuromotor impairment
- Superinfection

Mechanism of Action

- **Meropenem** penetrates the cell wall of most gram-positive and gram-negative bacteria to bind penicillin-binding protein (PBP) targets
- **Vaborbactam** is a non-suicidal beta-lactamase inhibitor that protects meropenem from degradation by certain serine beta-lactamases such as *Klebsiella pneumoniae* carbapenemase
 - It does not have any antibacterial activity

Clinical Studies

- Vabomere was compared to piperacillin/tazobactam IV every 8hrs in a randomized, double-blind, double dummy, multicenter trial (n=545) in adults with cUTI, including pyelonephritis

Clinical Studies

- Clinical and microbiological response at the end of IV treatment (EOIVT) required both a clinical outcome of cure or improvement and a microbiologic outcome of eradication
- This was also assessed at the Test of Cure (TOC) visit ~7 days after treatment completion
 - Mean duration of IV treatment was 8 days in both treatment groups; mean total treatment duration (IV and oral) was 10 days

Clinical Studies

- Vabomere showed efficacy with regard to clinical and microbiological response at the EOIVT visit and TOC visits in the microbiologically modified intent-to-treat population (m-MITT)
 - EOIVT: **98.4%** Vabomere vs. **94.3%** pip/tazo
 - TOC: **76.5%** Vabomere vs. **73.2%** pip/tazo

Clinical Studies

- In the m-MITT population, the rate of clinical and microbiological response in Vabomere-treated patients with concurrent bacteremia at baseline was 10/12 (**83.3%**)
- For more clinical trial data, see full labeling

New Product Monograph

- For more information view the product monograph available at:

<http://www.empr.com/vabomere/drug/34753/>