

# Tigecycline (Tygacil®)

IV Only

Use requires formal ID Consult

**Activity:** Coverage against MRSA, VRE, most gram-negatives, and anaerobes

**NOT** active against *Pseudomonas aeruginosa* or *Proteus* spp.

## Criteria for Use:

- Alternative therapy in patients with mixed aerobic-anaerobic infections and severe allergy to beta-lactam agents, if VRE or MRSA are involved
- Alternative therapy for patients with systemic infections due to ESBL-producing organisms (*Klebsiella* spp., *E. coli*) with severe allergies to first-line therapy (imipenem/cilastatin or meropenem)
- Alternative therapy for selected isolates of *Acinetobacter*, *Stenotrophomonas*, and VRE
- Treatment of documented VRE infections in patients unable to take linezolid

## Unacceptable Uses:

- Treatment of *P. aeruginosa* or *Proteus* spp. infections
- Urinary tract infections: low urinary concentrations
- Bacteremia: Peak serum concentrations do not exceed 1 mcg/mL, which limits its use for treatment of bacteremia

## Dosing in Adults:

- Standard dose: 100 mg IV load x1, then 50 mg IV Q12H (use higher doses for infections due to *Acinetobacter* and other MDR organisms)  
Infuse each dose over 30 to 60 minutes
- No renal dose adjustment  
Supplemental dosing is not necessary following hemodialysis
- Hepatic dose adjustment:  
Severe hepatic disease (Child Pugh C): 100mg IV load x1, then 25 mg IV Q12H

## Important Side Effects:

- Nausea and vomiting (most common in first 1-2 days of therapy)
- To minimize GI side effects avoid fasting state administration
- Prolonging the infusion time (>1 hour) may make GI side effects worse
- Shortening infusion time (<30 minutes) may increase the incidence of infusion related reactions (inflammation, pain, phlebitis, other)

## Management of tigecycline-induced nausea and vomiting:

- Ondansetron (Zofran®): Single dose of 8-12 mg IV or 8-24 mg PO

ESBL= Extended spectrum beta-lactamase; GI= Gastrointestinal; H= hour(s); ID= infectious diseases; IV= Intravenous; MDR= multi-drug resistant; MRSA= Methicillin-resistant *Staphylococcus aureus*; PO= by mouth; Q= every; spp= species; VRE= Vancomycin-resistant enterococci