



February 2012

**History of multi-drug resistant gram negative infection/colonization within past 90 days  
OR  
Prior broad spectrum IV antibiotics within a hospital or long term care facility for  
>72h within previous 14 days**

**Note:** Start all antibiotics together.  
If not able to administer multiple antibiotics simultaneously, always administer **gm negative agent** first, unless evidence strongly suggests gm positive infection.

**NO**

**YES**

**Beta Lactam Allergy**

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**NO**

Start antibiotics  
**within 1 hour**  
of recognizing suspected  
severe sepsis

**YES**

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**YES**

**Pip/Tazo**

+  
Vancomycin  
+  
Tobramycin

**SUBSTITUTE**

Ceftriaxone  
for Pip/Tazo in  
suspected  
meningitis

**Aztreonam**

+  
Vancomycin  
+  
Tobramycin  
+ or -  
Metronidazole

add metronidazole  
only if intra-abdominal  
infection suspected

**Meropenem**

+  
Vancomycin  
+  
Amikacin

consider previous  
susceptibilities and/or  
ID consultation

**Aztreonam**

+  
Vancomycin  
+  
Amikacin  
+  
Tigecycline

consider previous  
susceptibilities and/or  
ID consultation

**If intra-abdominal catastrophe** (i.e. perforation) is suspected, add anidulafungin.

If community acquired or health-care associated **pneumonia** is suspected, add moxifloxacin.

### Things to Remember

- Check antibiotic compatibilities to see if antibiotics can be administered concurrently
- If antibiotics cannot be administered together due to incompatibility, use second IV line to administer other agents to avoid delay
- If only one IV line available, administer gram negative agent first (piperacillin/tazobactam, aztreonam, or meropenem) unless evidence strongly suggests a gram positive infection



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