### Empiric Antibiotics of Choice for Common Clinical Entities

#### Skin or Soft Tissue
- Uncomplicated, *Staphylococcus* cellulitis: Group A β-hemolytic streptococci or *Staph aureus* (rule of MRSA unknown)
  - Empiric: Cefazolin
  - PO: Cefazolin
- Complicated cellulitis: 2° to diabetic cutaneous or pressure ulcer; trauma or surgery – polymicrobial
  - Empiric: Ampicillin/Sulbactam +/- Vancomycin or Pip/Tazo +/- Vancomycin

#### Pneumonia
- Community Acquired (CAP)
  - Empiric: Piperacillin/Piperacillin/Tazobactam or Ceftriaxone, May use cephalosporins for MRSA
  - PO: Linezolid
  - PO: Lincosamides
  - Vancomycin
  - Vancomycin + Meropenem
  - Meropenem
  - Meropenem (ID, intensivist only)
  - Vancomycin
  - Vancomycin (ID, intensivist only)

- Skin Abscesses
  - Empiric: Vancomycin
  - PO: Sulfamethoxazole/Trimethoprim, May use cephalosporins for MRSA

#### Bone and Joint
- Osteomyelitis, acute (hematogenous)
  - Empiric: Vancomycin
  - PO: Vancomycin
- Septic Arthritis
  - Empiric: Vancomycin
  - Vancomycin
  - Ceftriaxone or Pip/Tazo
- CNS Bacterial Meningitis – Community Acquired
  - Empiric: Vancomycin
  - PO: Vancomycin
  - PO: Ceftiraxone
  - PO: Vancomycin
  - PO: Vancomycin

#### Upper Respiratory
  - PO: Amoxicillin/Clavulanate or Levofoxacin
  - PO: Penicillin, Amoxicillin, or Azithromycin

#### Lower Respiratory
- Acute – GNRs, GC
  - Empiric: Ciprofloxacin
  - PO: Sulfamethoxazole/TMP or Doxycycline

#### Abdominal
- Cholecystitis, Diverticulitis, Bowel Perforation, etc.
  - Empiric: Ceftriaxone (500mg q6h) or Metronidazole

#### Gastro-Intestinal Tract
- Acute – GNRs, GC
  - Empiric: Ciprofloxacin

#### Urogenital Tract
- UTI in males
  - Empiric: Ciprofloxacin

#### Other
- UTI in females
  - Empiric: Ciprofloxacin

### Empiric Antibiotic Treatment

#### Alternative Antibiotic Choices – Comments

- **Suggested Duration of Antimicrobial Therapy for Common Infections**

<table>
<thead>
<tr>
<th>Infection</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pneumonia CAP</td>
<td>~ 5 days</td>
</tr>
<tr>
<td>VAP or infections due to pseudomonas or other NFGRN</td>
<td>7 days</td>
</tr>
<tr>
<td>Complicated intra-abdominal infection</td>
<td>10-14 days</td>
</tr>
<tr>
<td>Urinary tract infection Uncomplicated cystitis in female</td>
<td>10-14 days</td>
</tr>
<tr>
<td>UTI in males</td>
<td>10-14 days</td>
</tr>
<tr>
<td>Pyelonephritis</td>
<td>10-14 days</td>
</tr>
<tr>
<td>Cellulitis – Skin, soft tissue infection</td>
<td>5-10 days</td>
</tr>
<tr>
<td>Diabetic foot infection</td>
<td>7-21 days depending on severity of infection</td>
</tr>
</tbody>
</table>

### Contributers
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- Dave Kanyer, RPh, Assistant Director, Pharmacy
- Cheryl Moore, CLS, Director of Laboratory Service
**INPATIENT ANTIBIOGRAM 2016**

**Gram Negative Rods**

<table>
<thead>
<tr>
<th>Organism</th>
<th>Ampicillin</th>
<th>Amp/Clavulanate</th>
<th>Amikacin</th>
<th>Cefazolin (non-urine)</th>
<th>Cefazolin (urine)*</th>
<th>Ceftriaxone</th>
<th>Ceftazidime</th>
<th>Cipro/floxacin</th>
<th>Clindamycin</th>
<th>Doxycycline</th>
<th>High Gentamicin</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Enterobacter cloacae complex</strong></td>
<td>66%</td>
<td>66%</td>
<td>66%</td>
<td>66%</td>
<td>66%</td>
<td>66%</td>
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<td>66%</td>
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<td>66%</td>
</tr>
<tr>
<td><strong>Escherichia coli</strong></td>
<td>522</td>
<td>522</td>
<td>522</td>
<td>522</td>
<td>522</td>
<td>522</td>
<td>522</td>
<td>522</td>
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</tr>
<tr>
<td><strong>Klebsiella oxytoca</strong></td>
<td>36</td>
<td>36</td>
<td>36</td>
<td>36</td>
<td>36</td>
<td>36</td>
<td>36</td>
<td>36</td>
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</tr>
<tr>
<td><strong>Pseudomonas aeruginosa</strong></td>
<td>6</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
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<td>100</td>
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</tbody>
</table>

**Gram Positive Organisms**

<table>
<thead>
<tr>
<th>Organism</th>
<th>Ampicillin</th>
<th>Amp/Clavulanate</th>
<th>Amikacin</th>
<th>Cefazolin</th>
<th>Cefuroxime axetil</th>
<th>Gentamicin</th>
<th>Levofloxacin</th>
<th>Linezolid</th>
<th>Meropenem</th>
<th>Piperacillin/Tazobactam</th>
<th>Nitrofurantoin</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Enterococcus faecalis</strong></td>
<td>165</td>
<td>104</td>
<td>101</td>
<td>103</td>
<td>106</td>
<td>66</td>
<td>99%</td>
<td>100%</td>
<td>99%</td>
<td>100%</td>
<td>99%</td>
</tr>
<tr>
<td><strong>Enterococcus non faecalis (faecium)</strong></td>
<td>36</td>
<td>36</td>
<td>36</td>
<td>36</td>
<td>36</td>
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</tbody>
</table>

**COMMENTS:**

1. Data are obtained from MIC and disk diffusion testing methods.
2. Shaded rows = % susceptible
   Non-shaded rows = Number of isolates
3. MRSA(methicillin resistant Staph aureus): In 2016, 137 of 329 (41.3%) inpatient Staph aureus isolates were MRSA. In 2015, 117 of 329 (35.6%) inpatient Staph aureus isolates were MRSA. In 2014, 147 of 280 (52.5%) inpatient Staph aureus isolates were MRSA. Thus, there was a 5.8% increase in inpatient MRSA prevalence year over year.
4. ESBL(extended spectrum beta lactamas): In 2016, 213 of 2617 (8.1%) of E. coli isolates (combined inpatient and outpatient) produced ESBL versus 8.3% in 2015, 6.8% in 2014 and 5% in 2013. 7.6% of outpatient and 10.3% of inpatient E. coli isolates were ESBL producers (versus 8.0% and 9.8% respectively for 2015 and 5.1% and 12%, for 2014).

A valid statistical analysis should include 30 or more isolates, organisms with less than 30 isolates are listed for informational purpose only.