Empiric Antibiotic Therapy for Adults in the Emergency Room

Urinary Tract Infections:

- Asymptomatic Bacteriuria – No treatment required
- Outpatients:
  - Uncomplicated cystitis
    - 1<sup>st</sup> line: Nitrofurantoin macrocrystals (MacroBID) 100 mg PO BID x 5 days
    - 2<sup>nd</sup> line: TMP-SMX DS 1 tab PO BID x 3 days
    - 3<sup>rd</sup> line: Cephalexin 500 mg PO QID x 7 days
  - Uncomplicated cystitis in pregnancy
    - Amoxicillin-Clavulanic acid 875/125 mg po bid x 7 days or Nitrofurantoin macrocrystals (MacroBID) 100 mg PO BID x 7 days
  - Pyelonephritis or Complicated UTI in well patient
    - 1<sup>st</sup> line: Amoxicillin-Clavulanic acid 875/125 mg po bid x 7 days
    - 2<sup>nd</sup> line: TMP-SMX DS 1 tab PO BID x 7 days
- Patients requiring admission:
  - Pyelonephritis or complicated UTI
    - 1<sup>st</sup> line: Ceftriaxone 1 g IV q24h
    - Penicillin Anaphylaxis: Septra DS 1 tab PO BID or Ciprofloxacin 500 mg PO BID/400 mg IV q12h
  - Pyelonephritis in pregnancy
    - 1<sup>st</sup> line: Ceftriaxone 1 g IV q24h
    - Penicillin anaphylaxis: Gentamicin 1.5 mg/kg IV q8h

*If culture information available tailor therapy to cultures

Skin and Soft Tissue Infections:

Cellulitis:

- Outpatients:
  - 1<sup>st</sup> line: Cephalexin 500 mg PO QID x 5-7 days (cephalexin has >90% oral bioavailability)
  - Penicillin Anaphylaxis: Moxifloxacin 400 mg PO daily x 5-7 days
- Patients requiring admission:
  - Cefazolin 1g IV q8h
  - Penicillin Anaphylaxis: Vancomycin (dose based on weight and Cr)

**Cellulitis with known or suspected MRSA infection with abscess***:

* I&D usually sufficient treatment for abscess and no antibiotics needed unless significant surrounding cellulitis or recurrent infection

- Outpatients:
  - 1<sup>st</sup> line: Septra DS 1 tab PO BID 7 days
  - Alternative: Doxycycline 100 mg PO BID 7 days
- Patients requiring admission:
  - Vancomycin (dose based on weight and Cr)

**Bites**:

- Prophylaxis for certain bites:
  - Amoxicillin/Clavulanic Acid 875/125 mg PO BID x 3-5 days
- Outpatients or not severe:

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Antibiotic Stewardship Committee
“The right drug for the right bug at the right time”

- Amoxicillin/Clavulanic Acid 875/125mg PO BID x 7 days
  - Severe requiring admission:
    - Ceftriaxone 1g IV q24h + Metronidazole 500mg PO/IV q12h
  - Penicillin anaphylaxis:
    - Moxifloxacin 400 mg PO daily OR doxycycline 100 mg PO BID

Diabetic foot infections:
*Most infections do NOT require anti-pseudomonal coverage unless documented on deep cultures, or severe, chronic ulcer or hemodynamic instability with septic shock
  - Mild Infections: Superficial, localized infections in systemically well patients
    - Outpatients:
      - 1st line: Cephalexin 500 mg PO QID x 7 days
      - Penicillin anaphylaxis: Moxifloxacin 400 mg PO daily x 7 days
    - Patients requiring admission:
      - 1st line – Cefazolin 1g IV q8h
      - Penicillin Anaphylaxis: Moxifloxacin 400 mg PO daily
  - Moderate Infections: full thickness ulcer with deep tissue involvement, systemically well
    - Outpatients:
      - 1st line: Amoxicillin/Clavulanic Acid 875/125mg PO BID x 14 days
      - Penicillin anaphylaxis: Moxifloxacin 400 mg PO daily x 14 days
    - Patients requiring admission:
      - 1st line: Ceftriaxone 1g IV q24h + Metronidazole 500 mg PO BID
      - Penicillin anaphylaxis: Moxifloxacin 400mg PO daily
  - Severe Infections: Systemic or bone involvement - Consult ID
    - Patients requiring admission:
      - 1st line: Ceftriaxone 1g IV q24h + Metronidazole 500 mg PO/IV q12h OR Piperacillin/Tazobactam 3.375g IV q6h;
      - Penicillin anaphylaxis – Moxifloxacin 400mg PO/IV daily + Metronidazole 500mg PO/IV q12h

*If MRSA colonization or known prior MRSA infection consider adding Vancomycin for inpatients or TMP-SMX for outpatients

Community Acquired Pneumonia:
- Outpatients:
  - 1st line: Amoxicillin/Clavulanic Acid 875/125mg PO BID x 7 days +/- Azithromycin 500 mg PO x 1, 250 mg PO x 4 days
  - Penicillin Anaphylaxis: Moxifloxacin 400 mg PO daily x 5 days
- Patients requiring admission:
  - 1st line: Ceftriaxone 1g IV + Azithromycin 500mg IV/PO x 1, 250mg IV/PO x 4 days
  - Penicillin Anaphylaxis: Moxifloxacin 400 mg IV/PO q24h
  - If critically ill and MRSA colonization known/suspected consider addition of Vancomycin

* If patient has received fluoroquinolone in last 3 months should use a different class of antibiotics since resistant strep pneumonia more likely
* If any suspicion of TB, avoid moxifloxacin as can partially treat and sterilize cultures

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ENT - Dental Abscess/Sialoadenitis/Head and neck abscess:

- **Outpatients:**
  - 1st line: Amoxicillin/Clavulanic Acid 875/125mg PO BID
  - Penicillin Anaphylaxis: Moxifloxacin 400 mg PO daily
- **Patients requiring admission:**
  - 1st line: Ceftriaxone 1g IV q24h +/- Metronidazole 500 mg PO/IV q12h
  - Penicillin anaphylaxis: Moxifloxacin 400 mg PO daily

*Clindamycin is not recommended for routine treatment due to high resistance rates to Group A Streptococci and high risk of C. difficile.

**Intra-abdominal Infections:**

- **Outpatients:**
  - Amoxicillin/Clavulanic Acid 875/125mg PO BID
- **Patients requiring admission:**
  - Mild-moderate infections: Cefazolin 1g IV q8h +/− Metronidazole 500 mg PO/IV q12h
  - Severe infections: Ceftriaxone 1g IV q24h +/− Metronidazole 500 mg PO/IV q12h OR Piperacillin-tazobactam 3.375g IV q6h
  - Penicillin anaphylaxis: Gentamicin (dose based on weight and Cr) + Metronidazole 500mg PO/IV q12h

*Duration depends on achieving adequate source control.

For more information please see the TEGH Antimicrobial Handbook found on icare or contact Infectious Diseases on call.
On icare follow quick link to Virtual Library then TEGH Antimicrobial Handbook

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