### **Adult Antibiotic Dosing Recommendations**

#### Amoxicillin (Amoxil):\*

1 gram PO every 8 hours for pneumonia. May use 500 mg to 1 gram PO every 8 hours for most indications.

#### Amoxicillin/clavulanate (Augmentin)\*:

 $875~\mathrm{mg}$  PO BID for most indications; may increase to every 8 hours for intra-abdominal infections

#### Azithromycin:

500 mg x 1 on day 1 followed by 250 mg PO daily x 4 days May also consider 500 mg po daily x 3 days

#### Cefdinir\*:

300 mg PO BID

#### Cephalexin\*:

500 mg PO every 6 hours

#### Ciprofloxacin\*:

500 mg to 750 mg PO BID

#### Doxycycline:

100 mg PO BID

#### Levofloxacin\*:

500 mg to 750 mg PO daily

#### Metronidazole:

500 mg PO every 8 hours

## Nitrofurantoin monohydrate/macrocrystals\*\*:

100 mg PO BID

- \* Renal dose adjustments may be required
- \*\*Avoid use in geriatric patients and CrCl < 30 mL/min

#### **Antimicrobial Stewardship Principles**

**REDUCING GENERAL ANTIBIOTIC USE:** Some illnesses may not need antibiotics at all (self-limiting illness, non-bacterial illnesses)

**SHORTENING THE COURSE:** Most illnesses that are managed outpatient only need 3 to 5 days of antibiotics

**AVOIDING RESISTANCE:** Agents that have more than 10% resistance rates to the target microbe according to the local antibiogram should not be used when alternatives agents are available

**NARROWING ANTIBIOTIC SPECTRUM:** Many infection can be managed with antibiotics that are less broad than fluoroquinolones

Ensuring patients receive the right antibiotic, at the right dose, at the right time, and for the right duration reduces mortality, risk of Clostridium difficile-associated diarrhea, hospital stays, overall antimicrobial resistance within the facility, and costs.

#### **Shorter Duration of Antibiotic Therapy**

| INFECTION                       | DAYS OF THERAPY     |
|---------------------------------|---------------------|
| Community Acquired Pneumonia    | 5 Days              |
| Ventilator Associated Pneumonia | ≤ 8 Days            |
| Uncomplicated Cystitis          | 3 to 5 Days         |
| Pyelonephritis                  | 5 to 7 Days         |
| Intra-abdominal Infection       | 4 Days              |
| Cellulitis                      | 5 Days              |
| Acute Bacterial Sinusitis       | 5 Days              |
| Neutropenic Fever               | Afebrile x 72 Hours |

#### **Verigene Resistance Markers**

| ORGANISMS                                    | RESISTANCE GENE              | INTERPRETATION           |  |  |  |  |  |  |  |
|--|------------------------------|--------------------------|--|--|--|--|--|--|--|
| Staphylococcus aureus*                       | None                         | None                     |  |  |  |  |  |  |  |
|  | MecA                         | Methicillin Resistance   |  |  |  |  |  |  |  |
| S. epidermidis                               | None                         | None                     |  |  |  |  |  |  |  |
|  | MecA                         | Methicillin Resistance   |  |  |  |  |  |  |  |
| Enterococcus faecalis OR                     | None                         | None                     |  |  |  |  |  |  |  |
| E. faecium                                   | Van A or Van B               | Vancomycin Resistance    |  |  |  |  |  |  |  |
| Escherichia coli,                            | None                         | None                     |  |  |  |  |  |  |  |
| Klebsiella pneumoniae,<br>Klebsiella oxytoca | CTX-M                        | ESBL Producing Organism* |  |  |  |  |  |  |  |
| Niebsiella oxytoca                           | KPC, NDM, OXA or VIM         | CRE/MDR Organism*        |  |  |  |  |  |  |  |
| Proteus sp. OR                               | None                         | None                     |  |  |  |  |  |  |  |
| Enterobacter sp.                             | CTX-M                        | ESBL Producing Organism* |  |  |  |  |  |  |  |
| Pseudomonas aeruginosa                       | None                         | None                     |  |  |  |  |  |  |  |
|  | IMP, KPC, NDM,<br>OXA or VIM | CRPA/MDR Organism*       |  |  |  |  |  |  |  |
| Acinetobacter sp.                            | None                         | None                     |  |  |  |  |  |  |  |
|  | IMP or OXA                   | CRAB/MDR Organism*       |  |  |  |  |  |  |  |
| Enterobacter sp.                             | None                         | None                     |  |  |  |  |  |  |  |
|  | CTX-M                        | ESBL producing organism* |  |  |  |  |  |  |  |
|  | KPC, NDM, IMP<br>or VIM      | CRE/MDR Organism*        |  |  |  |  |  |  |  |

\*ID Consult Strongly Recommended



# Adult Outpatient/ED Antibiotic Recommendations for SJMC

Approved by the Antimicrobial Stewardship Committee & Infection Control Committee

| INFECTION  | 1ST LINE  | ALTERNATIVE /<br>ALLERGY   |  |  |  |  |  |  |  |
|--|---|--|--|--|--|--|--|--|--|
| Asymptomatic<br>Bacteriuria  | Do not treat with an                                    | tibiotics*   |  |  |  |  |  |  |  |
| Uncomplicated Cystitis (Symptomatic)   | Nitrofurantoin**  | Cephalexin   |  |  |  |  |  |  |  |
| Uncomplicated<br>Pyelonephritis***   | Cefdinir  | Ciprofloxacin  |  |  |  |  |  |  |  |
| Diverticulitis/colitis   | Ciprofloxacin <b>PLUS</b><br>Metronidazole              | Cefdinir <b>PLUS</b><br>Metronidazole  |  |  |  |  |  |  |  |
| Community acquired<br>pneumonia (CAP) – No<br>comorbidities or risk<br>factors for MRSA or<br>Pseudomonas                                | Amoxicillin   | Azithromycin <b>OR</b><br>Doxycycline  |  |  |  |  |  |  |  |
| CAP with comorbidities<br>(chronic heart, lung, liver,<br>or renal disease, diabetes<br>mellitus, alcoholism,<br>malignancy or asplenia) | Amoxicillin-<br>Clavulanate <b>PLUS</b><br>Azithromycin | Cefdinir <b>OR</b> Cefuroxime <b>PLUS</b> Azithromycin <b>OR</b> Doxycycline |  |  |  |  |  |  |  |
| Skin & Soft Tissue/<br>Cellulitis  | Cephalexin <b>OR</b><br>TMP/SMP (if Staph<br>suspected) | Doxycycline <b>OR</b><br>Clindamycin   |  |  |  |  |  |  |  |
| Sinusitis  | Amoxicillin-<br>Clavulanate                             | Doxycycline  |  |  |  |  |  |  |  |

- \* Unless the patient is pregnant or undergoing genitourinary system intervention
- \*\*Avoid use in geriatric patients and CrCl < 30 mL/min
- \*\*\*Ensure patient received a parenteral antibiotic prior to discharge (i.e. ceftriaxone 1 gram IV/IM x 1)

| INDICATION                               | NOTES   | EXCEPTIONS  |
|--|---|---|
| Nephrolithiasis                          | Not usually infectious  | Unless UTI also<br>present                          |
| Gastroenteritis                          | Usually viral and/or self-limiting  | Unless traveler's diarrhea                          |
| Bronchitis                               | Only 6% of cases are bacterial  | Unless pertussis suspected                          |
| COPD exacerbation<br>per GOLD guidelines | Antibiotics<br>only indicated<br>when increased<br>purulence of<br>sputum AND either<br>increased sputum<br>volume or dyspnea | Admission to ICU,<br>recommended<br>duration 5 days |
| Diarrhea                                 | Usually self-<br>limiting   | Unless C diff or traveler's diarrhea                |

# St. Joseph's Medical Center - Stockton - Emergency Department Antibiogram 01/01/2024 - 12/31/2024

|                              |              | Penicillins Cephalosporins |           |                   |               |           |          |            | Carbapenems |             |           | Aminoglycosides |           |          | Fluoro     | oquin-<br>nes |               | Other        |             |              |           |          |               |            |              |            |                  |
|------------------------------|--------------|----------------------------|-----------|-------------------|---------------|-----------|----------|------------|-------------|-------------|-----------|-----------------|-----------|----------|------------|---------------|---------------|--------------|-------------|--------------|-----------|----------|---------------|------------|--------------|------------|------------------|
| Percent (%) susceptible      | # Tested (n) | Ampicillin €               | Oxacillin | Piperacillin/Tazo | Amp/Sulbactam | Cefazolin | Cefepime | Cefotaxime | Ceftazidime | Ceftriaxone | Ertapenem | Imipenem        | Meropenem | ∿mikacin | Gentamicin | Tobramycin    | Ciprofloxacin | Levofloxacin | Clindamycin | Erythromycin | -inezolid | Rifampin | Trimeth/Sulfa | Daptomycin | Tetracycline | /ancomycin | Nitrofrurantoin* |
| Gram negative rods:          |              |                            |           |                   |               |           |          |            |             |             |           |                 |           |          |            |               |               |              |             |              |           |          |               | _          |              |            |                  |
| Enterobacter cloacae complex | 48           | 0                          |           | 73                | 0             | 0         | 88       |            | 73          | 63          | 83        |                 |           | 100      | 100        | 100           | 95            | 95           |             |              |           |          | 85            |            |              |            | 55               |
| Escherichia coli             | 1533         | 47                         |           | 98                | 56            | 73        | 85       |            | 84          | 84          | 100       | 100             |           | 100      | 89         | 88            | 65            | 77           |             |              |           |          | 72            |            |              |            | 99               |
| Klebsiella pneumoniae        | 274          | 0                          |           | 94                | 79            | 82        | 87       |            | 86          | 86          | 100       |                 |           | 100      | 93         | 92            | 84            | 88           |             |              |           |          | 85            |            |              |            | 56               |
| Morganella morganii          | 34           | 0                          |           | 100               | 28            | 0         | 100      |            | 84          | 82          | 97        |                 |           | 100      | 85         | 97            | 56            | 56           |             |              |           |          | 65            |            |              |            | 0                |
| Proteus mirabilis            | 172          | 71                         |           | 100               | 76            | 12        | 92       |            | 90          | 90          | 100       |                 |           | 99       | 85         | 82            | 70            | 72           |             |              |           |          | 74            |            |              |            | 0                |
| Pseudomonas aeruginosa       | 114          |                            |           | 86                |               |           | 91       |            | 87          |             |           |                 | 91        | 99       | 0          | 0             | 86            | 85           |             |              |           |          |               |            |              |            |                  |
| Gram positive cocci:         |              |                            |           |                   |               |           |          |            |             |             |           |                 |           |          |            |               |               |              |             |              |           |          |               |            |              |            |                  |
| Enterococcus faecalis        | 259          | 99                         |           |                   |               |           |          |            |             |             |           |                 |           |          |            |               |               | *80          |             |              | 99        |          |               | 100        |              | 92         | 100              |
| Staphylococcus aureus        | 112          |                            | 40        |                   |               |           |          |            |             |             |           |                 |           |          | 89         |               |               | 55           | 78          | 36           | 100       | 100      | 95            | 100        | 65           | 100        | 100              |
| Staphylococcus epidermidis   | 47           |                            | 48        |                   |               |           |          |            |             |             |           |                 |           |          | 93         |               |               | 73           |             |              | 100       | 98       |               |            | 67           | 100        | 100              |

<sup>\*</sup> Urinary Tract isolates only

Non urine

>= 5% more resistant 2024 than 2023

>= 5% more sensitive 2024 than 2023