**Supplemental**

Table S1: Definitions of Optimal Antibiotic Treatment†

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| **Infection** | **Definition of Optimal Treatment** | **Guideline Used** | **Secondary Analysis of Short Course Therapy** |
| **URTI** | Bronchitis | Empiric antibiotics are not recommended; symptom relief is suggested instead..Zero days of antibiotic therapy are recommended.  | * Institutional
 | Zero days |
| Sinusitis | ONLY consider treatment with antibiotics if patient meets criteria for acute BACTERIAL sinusitis which includes:* Persistent signs or symptoms lasting ≥ 10 days without evidence of clinical improvement
* Severe symptoms or signs of high fever and purulent nasal discharge or facial pain lasting for ≥ 3-4 consecutive days at beginning of illness
* "Double sickening" with worsening symptoms or signs characterized by new onset of fever, headache, or increase in nasal discharge following typical viral upper respiratory infection that lasted 5-6 days and were initially improving

Treatment Recommendations for Acute Bacterial Sinusitis:* Watchful waiting: encourage for uncomplicated sinusitis with reliable follow-up
* Amoxicillin/clavulanate 875 mg/125 mg twice daily by mouth

Alternative Treatment for Patients with β-Lactam Allergy:-Doxycycline 100 mg twice daily by mouthFailure of Above Regimen or Suspected Resistance:-Amoxicillin/clavulanate 2000 mg/125 mg XR twice daily by mouth-Duration of 7-14 days | - Recommended duration per NCCN- Recommended drug and dose per institutional guideline  | 5 days |
| Pharyngitis | * Viruses are the most common cause of pharyngitis in all age groups. Antimicrobial therapy is indicated ONLY if Group A streptococci (GAS/streptococcus pyogenes) is confirmed in the pharynx by rapid antigen detection testing or culture in patients with SYMPTOMATIC pharyngitis.

Treatment for Group A Streptococci:-Penicillin V (PO)500 mg by mouth twice daily for 10 days; drug of choice-Amoxicillin 500 mg by mouth twice daily for 10 days-Benzathine penicillin G* < 27 kg: 600,000 units intramuscularly x 1 dose
* > 27 kg: 1,200,000 units intramuscularly x 1 dose

Alternative Treatment for Group A Streptococci for Patients with β-Lactam Allergy:-Cephalexin 500 mg by mouth twice daily x 10 days; avoid in individuals with immediate type hypersensitivity to penicillin.-Azithromycin – 500 mg by mouth daily on day 1 and 250 mg by mouth daily on day 2-5 (use only for severe β-lactam allergy) | - Recommended drug, dose, duration per institutional guideline  | Oral beta-lactam therapy – 10 daysOral macrolide therapy – 5 days Intramuscular therapy – 1 dose  |
| **LRTI** | **CAP** | * Amoxicillin/clavulanate (2,000/125 mg by mouth twice daily or 875/125 mg by mouth three times daily) and azithromycin 500 mg daily
* Amoxicillin/clavulanate (2,000/125 mg by mouth twice daily or 875/125 mg by mouth three times daily) and doxycycline 100 mg by mouth twice daily
* Levofloxacin 750 mg by mouth daily
* Moxifloxacin 400 mg by mouth daily
* Duration of 5-14 days
 | - Recommended duration per NCCN- Recommended drug and dose per institutional guideline  | 5 days |
| **COPD Exacerbation** | -Doxycycline 100 mg by mouth twice daily for 5 daysAlternative: azithromycin 500 mg by mouth for 1 dose, then azithromycin 250 mg by mouth for 4 days.  | - Recommended drug, dose, duration per institutional guideline | 5 days  |
| **ABSSSI** | Non-purulent Cellulitis | * Cephalexin 500 mg to 1000 mg by mouth every 6 hours; drug of choice. Use 1000 mg dose in obese patients.
* Dicloxacillin 500 mg by mouth every 6 hours
* Clindamycin 300-450 mg by mouth three times daily; Reserve ONLY for patients unable to tolerate other therapies and monitor carefully for clinical response/failure.
* Duration of 5-14 days
 | - Recommended duration per NCCN- Recommended drug and dose per institutional guideline | 5 days  |
| Purulent Cellulitis | Purulent Cellulitis is defined as cellulitis associated with an exudate or purulent drainage. Coverage for methicillin resistant *Staphylococcus aureus* infection is recommended.-Trimethoprim/sulfamethoxazole DS 160/800 mg by mouth twice daily for 5 days-Doxycycline 100 mg by mouth twice daily-Clindamycin 300-450 mg by mouth three times daily. Reserve ONLY for patients unable to tolerate other therapies due to a high proportion of resistant *S. aureus* and monitor carefully for clinical response/failure.-Duration of 5-14 days  | - Recommended duration per NCCN- Recommended drug and dose per institutional guideline | 5 days |
| Bites | Amoxicillin-clavulanate 875mg/125mg oral twice daily, orDoxycycline 100mg oral twice daily orMoxifloxacin 400 mg oral dailyMinimum of 7 days suggested; for pre-emptive therapy, 3-5 days of antibiotic therapy are recommended | - Recommended drug, dose, duration per institutional guideline | Bite – pre-emptive 3-5 days after cat or dog biteBite – 7 days after cat or dog bite |
| **UTI** | Cystitis | * Nitrofurantoin 100 mg by mouth for 5 days
 | - Recommended drug, dose, duration per institutional guideline | 5 days |
| Pyelonephritis | * Ciprofloxacin 500 mg twice daily for 7 days
* Levofloxacin 750 mg once daily for 7 days

Consider alternatives if the patient has been exposed to a fluoroquinolone in the last three to six months * Trimethoprim/sulfamethoxazole DS 160/800 mg twice daily for 7 days
 | - Recommended drug, dose, duration per institutional guideline | 7 days |

**Abbreviations:** NCCN, National Comprehensive Cancer Network; DS, double strength.

**†:**When considering dose for patients with renal impairment, institutional renal dosing guidelines were utilized to evaluate appropriateness.