TRI-COUNTY MEDICAL ASSOCIATES

# BEST PRACTICE NEWSLETTER

VOLUME I, ISSUE I

APRIL, 2017

## A NOTE FROM OUR MEDICAL DIRECTOR

During this age of information overload, the amount of recommendations coming out in various medical specialties can be mind-boggling and frankly overwhelming. As your new Medical Director, I see part of my role as helping weed through the noise and help highlight some "best practice" guidelines in various topics that are relevant and/or changing. Sometimes these are just a helpful reminder of what we are all striving for in our practices. These updates will be done several times yearly based on the most recent literature and feedback on the topics of interest.

Milford Regional Medical Center is starting a program of Antibiotic Stewardship; partnering with New England Quality Innovation Network. This program is to help combat antibiotic resistance. Though the program is hospital based, there is opportunity to expand to our outpatient office sites and Urgent Care centers.

That being said, I would like to begin my April newsletter with an update on antibiotic "best practice" guidelines. I hope you all find this information helpful, and welcome thoughts and ideas for future letters.

Sincerely,

*Elizabeth Siraco, MD*

Medical Director

## ANTIBIOTIC BEST PRACTICE GUIDELINES

The excessive use of antibiotics in the ambulatory setting has contributed to the emergence and spread of antibiotic-resistant bacteria. Proper selection of who and when to treat a patient is important. Issues to balance include patient discomfort/patient expectations.

***Bronchitis*** - Cough is the most common symptom for which adult patients visit their PCP and acute bronchitis is the most common diagnosis.

Typical Presentation

- Cough > 5 days < 3 weeks
- Normal vital signs - afebrile
- May have wheezing
- May have purulent sputum

The vast majority of these cases are viral. Diagnosis of Influenza, PNA, and Pertussis will need consideration for specific testing and treatment in an appropriate clinical setting.

Antibiotics may have a modest beneficial effect in elderly people with *multimorbidity*.

**Best Treatment - Symptoms Management** - Decongestants and antihistamines, NSAIDS, Beta agonists (if wheezing is present).

*Continued on page 2*

*Approximately 75% of all ambulatory antibiotic prescriptions are for the treatment of five specific acute respiratory infections: Bronchitis, Pharyngitis, Sinusitis, Otitis Media, and URI*

*"Antibiotic Best Practice Guidelines"*
*Continued from page 1*

## Pharyngitis - Is it Group A Streptococcus?

GAS is responsible for only 5-15% of adult cases of pharyngitis, that means that **85% are viral**.

The reason to identify/treat GAS is to prevent sequelae of Acute Rheumatic Fever, peritonsillar abscess, and AOM.

**Remember Centor Criteria** - FEVER, EXUDATES, TENDER CERIVAL LAD and ABSENCE OF COUGH should be tested.

Treatment for GAS + strep - ***AMOXICILLIN - 500 MG Q12 HOURS FOR 10 DAYS; 1000 MG Q24 HOURS FOR 10 DAYS***

***PCN 500 MG Q12 HOURS FOR 10 DAYS***

**PCN ALLERGIC:**

- ***CEFADROXIL - 1 GM Q24 HOURS (MAY BE DIVIDED) - MUSE BE RENALLY DOSED***
- ***CLINDAMYCIN - 300 MG Q8 HOURS FOR 10 DAYS***
- ***AZITHROMYCIN - 500 MG PO ON DAY 1 THEN 250 MG Q24 HOURS FOR 4 DAYS***

The dosing for pediatric Group A strep is **weight and age** based;

- ***AMOXICILLIN - 50 MG/KG PO Q24 HOURS x 10 DAYS (max dose 1000 MG/DAY)***
- ***Extended release form (12 and older) - 775 MG ER PO Q24 HOURS FOR 10 DAYS (give within 1 hour of meal - do not crush, cut or chew)***

**PCN ALLERGIC PEDS DOSING:**

- ***CEFADROXIL - 30 MG/KG/DAY PO DIVIDED Q12 HOURS x 10 DAYS (MAX 1 GRAM/ DAY - MUST BE RENAL DOSED)***
- ***AZITHROMYCIN - 2 YEARS AND OLDER - 12 MG/KG Q24 HOURS x 5 DAYS (MAX 500 MG/DOSE) - alt - 20 MG/KG Q24 HOURS x 3 DAYS***
- ***CLINDAMYCIN - 7 MG/KG Q8 HOURS FOR 10 DAYS***

Do not treat with TETRACYCLINE/DOXYCYLINE; SULFONAMIDES; FLOUROQUINOLINES

## Sinusitis - 90%-98%: rhino sinusitis is viral

ABRS - diagnosis based on criteria

**Persistent symptoms or signs compatible with rhino sinusitis last for >10 days without evidence of clinical improvement OR** onset of severe symptoms; high fever (>012f) AND purulent nasal discharge or facial pain last for at least 3-4 consecutive days at the beginning of illness **OR** onset with worsening symptoms or signs characterized by new onset of fever, headache or increase in nasal discharge following a typical viral URI that lasted 5-6 days and were *initially* improving **(double sickening).**

*Continued on page 3*

*"Antibiotic Best Practice Guidelines"*
*Continued from page 2*

**Treatment - AMOXIXILLIN/CLAVULANATE IS THE RECOMMENDED FIRST LINE OF TREATMENT**

**Age < 65, mild-mod infection 875 mg/125 mg q12 hours x 7 days**

**Use high dose (2 gm orally bid) if high risk of PCN resistance**

***Macrolides such as Azithromycin are NOT recommended due to high levels of S.pneumoniae resistance. (40%)***

**PCN ALLERGIC PATIENTS:**

- ***DOXYCYCLINE - 100 MG PO BID FOR 7 DAYS***
- ***LEVOQUIN - 500 MG PO Q24 HOURS FOR 10 DAYS - give 1 hour before or 2 hours after meals***

## Otitis Media - Treatment for adults broken into two categories:

- Mild to Moderate - First line - ***AMOXICILLIN 500 MG BID FOR 5-7 DAYS OR 250 MG TID FOR 5-7 DAYS***
- Severe - defined as fever or hearing loss, severe pain erythema - ***AMOXICILLIN 875 MG BID OR 500 MG TID FOR 10 DAYS (CONSIDER AUGMENTIN 875 BID IF HAS FEVER, SIG OTALGIA? Hflu)***

**PCN ALLERGIC PATIENTS:**

No Significant Anaphylaxis

- ***CEFDINIR - 300 MG BID (MAX 600 MG/DAY)***
- ***CEFPODOXIME - 200 MG BID***
- ***CEFUROXIME - 500 MG BID***
- ***CEFTRIAXONE - 2 GM IM OR IV X1***

Severe PCN Allergy

- ***AZITHROMYCIN - 500 MG PO DAY ONE THEN 250 MG PO DAY 2-5***
- ***CLARITHROMYCIN - 500 MG PO BID x 10 DAYS***

## Otitis Media in Children

AOM is treated somewhat differently based on the age of the child. The newest meta-analysis confirms that **children under two years of age should be treated immediately with antibiotics when diagnosed with AOM**. Children over two years old who are diagnosed with non-severe OM can wait for 1-3 days to see if the pain/infection will resolve on its own.

**DOSING FOR PEDIATRIC AOM:**

- ***AMOXICILLIN - 90 MG/KG/DAY DIVIDED IN TWO DOSES (MAX 3 GM/DAY)***
- ***AUGMENTIN - 90 MG/KG/DAY (amox part) DIVID-***

*Continued on page 4*

*"Antibiotic Best Practice Guidelines"*
*Continued from page 3*

**PCN ALLERGIC *(No Anaphylaxis)*:**

- ***CEFDINIR - 14/MG/KG/DAY QD OR BID (MAX 600 MG/DAY)***
- ***CEFPODOXIME - 10 MG/KG/DAY DIVIDED BID (MAX 400 MG/DAY)***
- ***CEFUROXIME - 30 MG/KG/DAY DIVIDED BID (MAX 1 GM/DAY)***

**PCN ALLERGIC *(Severe)*:**

- ***AZITHROMYCIN - 10 MG/KG/DAY ON DAY ONE THEN 5 MG/KG/DAY ON DAYS 2-5***
- ***CLARITHROMYCIN - 15 MG/KG/DAY DIVIDED BID (MAX 1 GM/DAY)***
- ***CLINDAMYCIN - 20 MG/KG/DAY DIVIDED TID FOR MILD AOM***
- ***CLINDAMYCIN - 35 MG/KG/DAY DIVIDED TID FOR SEVERE AOM***
- ***ERYTHROSUFISOXIZOLE - 50 MG/KG/DAY (EMYCIN COMP) DIVIDED TID (MAX 2 GM EMYCIN)***

## MISCELLANEOUS ANTIBIOTIC GUIDELINES

*Due to the increased risk of tendon rupture with the use of quinolones, they are not recommended as the first line for UTI treatment.* ***Bactrim, Keflex or Macrobid is preferred unless sensitivities warrant another choice.***

RESTRICTION OF USE FOR UNCOMPLICATED INFECTIONS — In 2016, the US Food and Drug Administration (FDA) stated that the serious adverse effects associated with fluoroquinolones generally outweigh the benefits for patients with acute sinusitis, acute bronchitis, and uncomplicated urinary tract infections who have other treatment options [140]. For patients with these infections, fluoroquinolones should be reserved for those who have no alternative treatment options. In most cases of acute sinusitis and acute bronchitis, viral rather than bacterial infections are common, and antimicrobials may not be needed. This announcement was based on an FDA safety review showing that systemic fluoroquinolone use is associated with side effects, which although uncommon can be disabling and potentially permanent, including those involving the tendons, muscles, joints, nerves, and central nervous system.