 

**Common Infections Core Curriculum Module Summary**

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*Revised May 2017: S Young MD CCFP*

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**PHARYNGITIS**

**SINUSITIS**

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| Predictors of Sinusitis | |
| 1. Worsening symptoms after 5 days | 1. Fever, maxillary toothache & facial swelling |
| 1. + Nasal congestion / purulent discharge AND facial pain | 1. Negative response to OTC meds |
| 1. Persistent URTI symptoms ∅ improvement after 10-14 d |  |

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| Complications of Acute Rhinosinusitis |
| Cavernous sinus thrombosis, chronic sinusitis, meningitis, (peri)orbital cellulitis / abscess |

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| Referrals |
| Referral to otolaryngologist for: anatomical anomalies, 4+ episodes/yr bacterial sinusitis, chronic sinusitis unresponsive to Tx |
| Red Flags (require urgent referral): Abnormal vision (diplopia, blindness, ↓ visual acuity), change in mental status, extraocular muscle dysfunction, meningitis, periorbital or forehead swelling / edema |

**ACUTE OTITIS MEDIA**

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| Management | |
| <6 Months | Start antibiotics if: Child is <6 months, child looks toxic, follow-up cannot be assured, severe otalgia, temp >39°C |
| >6 Months | Watchful waiting 48-72 hours (+ may offer deferred Rx) if:Mild signs & symptoms+follow-up assured |
| Rx | * High spontaneous recovery (80-90%)**.** Treat earache/fever with acetaminophen/ibuprofen/other analgesics * 1st Line: Amoxicillin, 2nd Line: Amoxicillin / Clavulanate or Cefprozil *(see module for dosing & 3rd line drugs)* * Ciprodex otic drops for chronic TM perforation / t-tube ventilation (presentation = chronic painless discharge) |
| Reassess | ∅ improvement / worsening of symptoms, new symptoms (i.e. rash, drowsiness, difficulty breathing, vomiting) |

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| Modified Centor Score – Estimates likelihood of streptococcal pharyngitis and need for antibiotics in acute pharyngitis |
| 1 point each: fever >30°C, tender anterior cervical lymphadenopathy, tonsillar exudate / swelling, absence of cough |
| Some physicians also use age criteria: 3-14 years add 1 point, 15-44 years add 0 points, >45 years subtract 1 point |
| 🡪 Score 0-1: ∅ swab, ∅ treatment, Score 2-3: swab & Tx if swab (+), Score 4: swab & Tx |

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| Differentiating Strep Throat vs. Mononucleosis | | |
| Strep Throat | + fatigue, (-) monospot, + nodes | |
| Mononucleosis | atypical lymphocytosis, ++ fatigue, ± hepatomegaly, ± liver enzymes, + monospot (\*), ++ nodes, ± splenomegaly | *(\*) Note that (+) monospot in mononucleosis may be delayed 1-2 weeks* |

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| Management *(For dosing & 3rd line drugs refer to Common Infections E-Module)* | |
| Adult 1st line: Penicillin V, 2nd line: Erythromycin | Children 1st line: Penicillin V, Amoxicillin , 2nd line: Erythromycin |

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| Complications of Strep Throat |
| Bacteremia (R), cervical lymphadenitis, meningitis (rare), otitis media, peritonsillar abscess, pneumonia (rare), rheumatic fever, scarlet fever, sinusitis. *\*Note that treatment of strep throat does not prevent post-strep glomerulonephritis* |

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| Diagnostic Criteria and Management of Bacterial Sinusitis | |
| **Major** (5) | **Minor** (6) |
| 1) Facial congestion, 2) Facial pain / pressure; worse when bending forward, 3) Nasal congestion, 4) Purulent nasal discharge, 5) Postnasal drip | 1) Cough, 2) Dental pain, 3) Ear pain / pressure or fullness 4) Fatigue, 5) Halitosis, 6) Headache |
| Strongly suggestive of bacterial sinusitis: ≥ 2 major criteria OR 1 major and > 2 minor criteria  Suggestive of bacterial sinusitis: ≥ 1 major criteria OR ≥ 2 minor criteria | |
| *Notes: • The presence of facial pain / pressure and fever (both major criteria) each require that a 2nd major criterion is present.*  *• Consider bacterial sinusitis when signs / symptoms have been present for ≥ 10 days or worsen within 10 days.* | |
| **Tx:** Amoxicillin, or if penicillin allergic give Clarithromycin or Azithromycin | |

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| Acute vs. Chronic vs. Recurrent Sinusitis | | |
| Acute Sinusitis ≤ 4 weeks | **Chronic Sinusitis** > 12 weeks | **Recurrent Sinusitis** ≥ 4 episodes / yr, ∅ symptoms in-between |

**VAGINITIS**

**URINARY TRACT INFECTION**

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| Differentiating Bronchitis vs. Pneumonia | | |
| Bronchitis | Afebrile, patient does not appear as sick | |
| Pneumonia | ± Consolidation on X-Ray, ± tachypnea, ± tachycardia, ↑ WBC, ± dullness to percussion | *Note: Sputum culture often unhelpful unless considering TB or in special population (i.e. immunocompromised)* |

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| Management | |
| Supportive, fluids, rest, analgesics, antitussives, opioid-based cough suppressants (limit duration), bronchodilators | |
| **Antibiotics** | Not routinely used because 90% viral etiology. Consider antimicrobial therapy if ↑ risk significant complications (i.e. elderly, comorbidities) or pneumonia/pertussis suspected. |
| **Prevention** | Frequent hand washing, smoking cessation, irritant exposure avoidance |

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| Management | |
| Asymptomatic Bacteriuria | Screen only in pregnancy or post-op GU procedures. Do not treat elderly with asymptomatic bacteriuria. If UTI suspected, culture before Rx. |
| Uncomplicated UTI ♀ >12 yrs | 1st Line: Nitrofurantoin or TMP-SMX *(see module for dosing & 2nd/3rd line drugs)* |
| Complicated UTIs | Same drugs but ↑ treatment duration *(see module for details)* |
| Prevention / Non-Pharmacologic | Avoiding spermicide-containing contraception, post-coital micturition, hygiene practices, frequent urination, cranberry juice / tablets |
| Referrals | Refer for: persistent hematuria following resolution of UTI, recurrent UTI not managed with prophylactic antibiotics, anatomic anomalies (i.e. prolapse, stricture) |

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| Differentiating Yeast Vaginitis (YV) vs. Bacterial Vaginosis (BV) | |
| **YV**: Associated itchiness, thick/white cottage cheese-like discharge | **BV**: Associated odour, grey/thin discharge |

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| Investigations & Management | | |
| **Yeast Vaginitis** | Vaginal swab 🡪 Rx Vaginal preparations of clotrimazole or miconazole or oral fluconazole | |
| **BV** | Vaginal swab (\*) or KOH Whiff Test 🡪 Rx Metronidazole PO or intravaginal metronidazole/clindamycin | |
| **Trichomonas** | Vaginal Swab (Diamond’s Medium) 🡪 Rx Metronidazole PO | |
| **Chlamydia** | Cervical swab 🡪 Rx Azithromycin PO | \* *Rx for both Chlamydia and Gonorrhea at same time because often co-infected* |
| **Gonorrhea** | Cervical swab 🡪 Rx Ceftriaxone IM + Azithromycin PO |

**RESOURCES**

Please review the resources listed below on **The Hub** – the online study guide for the third year medicine clerkship course in Family and Community Medicine at the University of Toronto.

**Temp. Measurement in Peds *(in “Fever”)*:** http://thehub.utoronto.ca/family/wp-content/uploads/2013/07/Temperature-measurement-in-paediatrics-1.pdf

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| Differentiating Clinical & Laboratory Features of UTI vs. Pyelonephritis | | |
| **UTI** | **Pyelonephritis** | **Both** |
| Absence of flank pain, afebrile, normal WBC, patient appears less sick | ± CVA Tenderness, ± N/V, ↑ WBC | Dysuria, frequency, ± hematuria, suprapubic pain, urgency |

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| Differentiating Uncomplicated vs. Complicated UTI | |
| **Uncomplicated** | Diaphragm/spermicide use, family history of UTI, frequent sexual intercourse, infrequent voiding, new sexual partner within last year, previous UTIs, young ♀ |
| **Complicated** | Anatomical anomalies, immunocompromized, instrumentation (i.e. catheter, nephrostomy tube, urologic procedure), ♂ |

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| Investigations | |
| Clinic | Urine Dipstick 🡪 WBC, RBC, Nitrites 🡪 If 2+ of dysuria, leukocytes, nitrites 🡪 Treat without culture |
| Laboratory | Urine Culture 🡪 Most common bacteria associated with UTI: “KEEPS” (90% E. coli) |

**BRONCHITIS**