26th Annual General Pediatric Review & Self-Assessment

Nicklaus Children's Hospital

INFECTIOUS DISEASES - I

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Disclosure of Relevant Relationship

Dr. Cotilla has not had (in the past 24 months) any relevant conflicts of interest or relevant financial relationship with the manufacturers of products or services that will be discussed in this CME activity or in his presentation.

Dr. Cotilla will support this presentation and clinical recommendations with the "best available evidence" from medical literature.

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PEDIATRIC BOARD REVIEW 2023

INFECTIOUS DISEASES

Nicklaus Children's Hospital
Manuel Cotilla, M.D., FAAP

PART ONE

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Disclosure

- I have no relevant financial relationship to disclose or COI's to resolve.

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BACTERIA

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Clostridium botulinum

- Preformed toxin from spores ingested from contaminated food
- Honey, canned foods
- Blocks presynaptic acetylcholine release
- Acute Symmetric descending flaccid paralysis
- Infants:Weak cry, constipation, hypotonia, poor feeding, poor gag reflex in infants 1d to 12 m/o
- Dx: Bioassay to detect toxin in serum,stool/food
- Tx: No Abx; Human derived botulism antitoxin given immediately

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Diphtheria

- Corynbacterium diphtheriae (Gram + Rod)
- Toxin inhibits protein synthesis: leads to tissue necrosis
- **Pharyngeal, tonsillar, laryngeal (pseudomembrane) with severe LN (bull neck); bloody nasal discharge, low fevers; Myocarditis**
- Dx: Cx from nose or throat (pseudomembrane)
- Tx: IV equine antitoxin (DAT) before Cx; Then PCN or Erythromycin x 14 days; (For eradication, prevent transmission and stop toxin production)
- Sensitivity test to horse serum before use

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Listeriosis

- Listeria monocytogenes (Gram + Rod)
- Assoc. w soft cheeses; deli foods, ready-to-eat meats, hot dogs; **unpasteurized dairy products**
- Increase risk factor: Pts w Lymphoma, leukemia
- Neonates: In utero- Can cause spontaneous abortion
  - Granulomatosis infantiseptica:Rash w Papules
  - Early-onset: assoc w prematurity, PNA, sepsis
  - Late-onset: assoc w meningitis
- Dx: Both PCR and Cx from CSF; Blood Cx
- Tx: Ampicillin +/- Gentamicin

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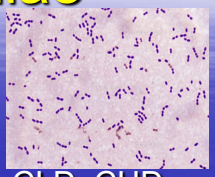
Streptococcus Pneumoniae



- Gram + diplococci (alpha-hemolytic)
- Risk factor assoc with w invasive disease:
  - Age < 2 years, American Indian, Alaska Native, CLD, CHD, DM, asplenia, SCD, HIV; IC, Cochlear implant, CSF leaks
- Clinical: **AOM**, **bacteremia**, **sinusitis** to **Periorbital cellulitis**, meningitis, **pneumonia**
- Dx: Gram stain & **BCx +3 to 10%;** CSFCx/PCR
- Tx: AOM, Sinusitis and Pneumonia
  - Amoxicillin, Amox/clav, **PCN** (ampicillin), ceftriaxone
- Meningitis
  - Vancomycin + 3rd generation cephalosporin

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Grp A Streptococcus

- Streptococcus pyogenes
- Clinical: Pharyngotonsillitis, **peritonsillar** & retropharyngeal abscess; **scarlet fever**, **pyoderma**, **impetigo**, **cellulitis**, **erysipelas**, toxic shock Syn., **necrotizing fasciitis**, myositis, purpura fulminas, **adenitis**, pneumonia with empyema, endocarditis.
- **Non-suppurative complications:**
  - Rheumatic fever: [Major] Carditis, Arthritis (migratory), Nodules (subcutaneous), Chorea, Erythema marginatum;
  - [Minor] Arthralgia, fever,↑ESR,↑CRP, prolonged PR interval; (assoc. w pharyngotonsillitis); Order ECHO and EKG
  - Dx: 2 Major or 1 Major and 2 Minor
  - Glomerulonephritis: assoc w pyoderma, impetigo and pharyngotonsillitis

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Grp A Streptococcus

- Dx: Cx of blood, CSF, peritoneal, joint, pleural, pericardium
  - Rapid test to grp A carbohydrate; Sen 80-85%; Spec 100%
  - Throat Cx if negative Rapid Test
  - **Antistreptolysin O (ASO): To support Dx of ARF**
  - Anti-DNAse B
- Tx:
  - Throat Infection
    - **PCN** (Benzathine IM or oral Pen V); Amoxil x 10 days
    - Azithromycin (macrolide), cephalexin, clindamycin: Allergies to PCN
    - ARF PPX: PCN G IM q 4 weeks; Pen V PO BID; Sulfadiazine PO qd
  - Invasive disease
    - High dose PCN or CTX in combination with clindamycin
    - Surgical drainage/debridement
    - IVIG as adjunctive Tx for STSS or NF

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Grp B Streptococcus

- Streptococcus agalactiae
- Early-onset: 0 to 6 days of life
- Late-onset: 7 days to 3 months
- **Early:** lethargy, resp distress, apnea, poor feeding hypo/hyperthermia, sepsis, shock, pneumonia.
- **Late:** Occult bacteremia, meningitis, Osteomyelitis (humeral), cellulitis, adenitis, septic arthritis, NF
- Dx: BCx, CSF Cx/PCR; Gram stain: G(+) cocci in pairs
- Tx: Ampicillin + Gentamicin or 3rd Gen. Cephalosporin
- Prevention: Screen mom @ 35 to 37 wks GA for need of IAP

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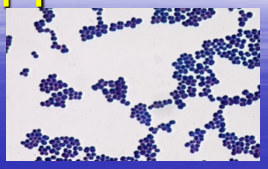
Staphylococcus spp



- S. aureus (G+cocci Grape-like clusters)
  - Localized infection:
    - Cellulitis, furuncle, **bullous impetigo**, lymphadenitis, **suppurative parotitis**, abscesses, paronychia, mastitis.
  - Invasive infection:
    - Bacteremia, septicemia, endocarditis, pericarditis, pneumonia (H/O FLU), **pneumatocele**, pleural empyema, pyomyositis, **osteomyelitis**, septic arthritis; Foreign boby
  - Toxin-mediated syndromes:
    - Toxic shock syndrome (Fever,erythroderma, hypotention)
    - Staph scalded skin syndrome (Only upper epidermis)
    - Food poisoning: S&S w/i hrs and resolves in 1 to 2 days

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Staphylococcus spp

- Treatment
  - MSSA
    - **First generation cephalosporin (cefazolin/cephalexin)**
    - Beta-lactamase resistant (nafcillin/oxacillin)
  - MRSA
    - **clindamycin**, TMP-SMX, doxycycline
    - Vancomycin, linezolid; Ceftaroline (5th gen) , Daptomycin
    - Topical mupirocin
    - SYNERGY: rifampin and gentamicin

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Staphylococcus spp

- Coagulase Negative Staph (CoNS):S. epiderm.
- Major cause of nosocomial infxn's; most common in late-onset bacteremia/sepsis in preterm infants
- Infxn of indwelling devices/prosthetics
- Most common organism in vascular catheter and VP shunt infxn, heart valve infxn's
- Tx: Removal of FB; **vancomycin**; ceftaroline, linezolid, daptomycin;+/- rifampin or gentamicin

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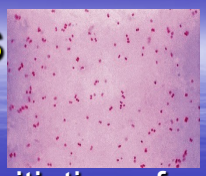
Neisseria Meningitidis



- Gram negative diplococcus:
- Transmission occurs for up to 24 hrs after initiation of Tx; 2 to 30% are colonized nasally: No Tx
- Risk factors: Complement def. (C5-C9), asplenia, college freshman (dorms), military (barracks), travel
- **Meningococcemia, septic shock**; meningitis, pneumonia, bacteremia, septic arthritis, myocarditis, pericarditis; Case-fatality rate: 15%
- Dx: Cx blood, CSF, plural/synovial fluid; CSF PCR
- Tx: 3rd gen cephalosporin; PCN G or Ampicillin
- Prophylax: rifampin, ceftriaxone, ciprofloxacin
- Prevention: vaccine (serogrp A, C, Y, & W-135) (No serogroup B): which cause 30% of cases

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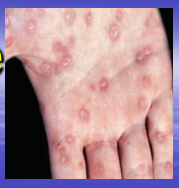
Neisseria Gonorrhoreae



- Gram (-) diplococci
- Newborn:conjunctivitis, bacteremia, arthritis,meningitis
- **Prepuberal child: strongly consider abuse**
- Adolescent: asymptomatic (more common in females), urethritis, cervicitis, salpingitis, pharyngitis, PID, perihepatitis: (Fitz-Hugh-Curtis), **Disseminated: (arthritis-dermatitis syndrome):** Pustular lesions
- Dx: Urine NAAT; Gram stain/Cx of exudates or lesions; Endocervical or urethra NAATand/or Cx

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Neisseria Gonorrhoreae

- Tx: Newborn
  - Ophthalmia neonatorum: Presents @2 to 7days Tx: Ceftriaxone 50mg/kg x 1and hospitalization for FSWU
  - Dissemination: ceftriaxone or cefepime x 7 days
  - Cefepime should be used in case of hyperbili
  - Meningitis: same Abx's x 10 to14 days
- Older children/Adolescent
  - Tx: **Ceftriaxone IM x 1;** Doxycycline if chlamydia has not been excluded

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Bordetella pertussis

- Infants < 6 mo; **Pneumonia**; minimal to no fever
- Adults w waning immunity are a reservoir: give Tdap
- Vaccine induced immunity not detected >12yr:Booster
- Stages:Catarrhal (URI),paroxysmal(whoop),convalesc.
- **Labs: leukocytosis** w **lymphocytosis**.
- Dx: NP NAAT/PCR; NP DFA stain, Cx
- Tx: Azithromycin x 5 days or clarithromycin x 7days or Erythromycin x 14 days; assoc w IHPS in <1 m/o. Same Abx's for **exposures/prophylaxis**
- Can return to day-care/school after 5 days of abx's

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Haemophilus influenzae B

- Cellulitis, **meningitis (subdural effusion),** pneumonia, epiglotitis, septic arthritis, bacteremia
- Dx: NAAT/PCR; BCx, Synovial Cx; CSF Cx
- Tx: Ceftriaxone or Cefepime; Ampicillin if sensitive
  Dexamethasone w meningitis prior to Abx's
- Establish airway w suspected epiglotitis
- Prophylaxis: Rifampin x 4 days
  - All household contacts with at least 1 unimmunized or partially immunized child < 4 yrs; Child <12mo and not completed Hib series; Day-care exposure if >2 cases occurred w/i 60 days; IC (immunocompromised)

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Pasteurella multocida

- Gram (-) rod/coccobacilli
- Transmission by **cat or dog bite or Scratch**
- **Rapid spreading cellulitis**; tender, LN, osteomyelitis, septic arthritis, tenosynovitis
- Dx: Cx of blood, joint, CSF, pleural FLD and LN
- Tx: **Ampicillin-sulbactam IV**, Pip/Tazo; **amoxicillin-clavulanate PO**
- Clindamycin and cephalo. Do not Tx pasteurella
- If allergy to PCN: Clindamycin withTMP-SMX, azithromycin, doxycycline, fluoroquinolone.

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Pseudomonas aeruginosa

- Clinical: CF, CGD, burns, IC (ecthyma gangrenosum), **hot tube folliculitis and tennis shoe cellulitis and Osteomylitis**
- Tx: Anti-Pseudomonal +/- Aminoglycoside:
  - Ceftazadime
  - Cefepime
  - Meropenem
  - Ticarcillin/Piperacillin
  - Ciprofloxacin/Levofloxacin IV/PO

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Escherichia coli

- E. coli 0157:H7 (EHEC)
- Is a Shiga toxin-producing E. coli (STEC)
- Bloody diarrhea; severe abd pain; Low to no fever
- Assoc. w HUS: Triad of microangiopathic hemolytic anemia, thrombocytopenia and ARF
- Assoc. w undercooked ground beef, raw leafy vegtab
- Dx: PCR; Cx MacConkey agar with sorbitol as screen
  - Tx: Abx's contraindicated
- **Enterotoxigenic (ETEC):** Traveler's Diarrhea-watery
  - Tx: TMX-SMX, azithromycin, ciprofloxacin, rifaximin x 3 days

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Salmonella

- Non-typhoidal serogroup B
- **Asymptomatic carriage >3 mo; bacteremia, meningits, osteomyelitis, gastroenteritis (diarrhea +/- blood, abd cramps, tenderness, fever)**
- Reservoirs: poultry, dairy products, reptiles
- Invasive Dz in infants <3 mo, IC, **SCD**: **Thus Tx**
- Dx: PCR; Blood, stool, tissue Cx
- Tx: 3rd gen cephalosporin or Azithromycin PO; Ampicillin, TMP-SMX and Fluoroq. if sensitive

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Shigella

- S. sonnei: most common in US
- Daycare 1-4 y/o; contaminated pools/lakes
- Fever, abd cramps, tenesmus, mucoid stools, with or w/o blood; affects large intestine
- Sepsis, HUS, toxic megacolon and perforation; toxic encephalopathy, Seizures;
- Reactive arthritis weeks or months after infxn
- Dx: Rectal swab & stool Cx and PCR
- Tx: Azithro or ciproflox x 3d; ceftriaxone x 2 to 5 days. If sensitive: ampicillin=80 % or TMP-SMX=50% resist;

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Campylobacter

- C. jejuni
- Reservoir: chickens, turkeys; unpasteurized milk
- Abd pain, bloody diarrhea, malaise and fever
- Complication: Guillian-Barre, reactive arthritis or Traid: (arthritis, urethritis, conjunctivitis), erythema nodosum. Mimic: appendicitis, intussusception and IBD
- Dx: Gram stain motile comma-shaped gram (-) rods; Stool and blood Cx in microaerophilic conditions at 42 C; PCR
- Tx: azithrom, erythromycin, ciproflox x 3 to 5 days

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Yersinia

- Y. enterolitica
- Reservoir: Swine; handling raw pork intestine
- Fever, ABD pain, diarrhea w blood, mucus, leukocytes
- Pseudoappendicitis synd: from mesenteric adenitis
- Bacteremia in <1 yr; Pts w excessive iron storage: (desferrioxamine use, SCD, Beta-thalassemia, IC)
- Complication: E. nodosum, reactive arthritis(HLA-B27)
- Dx: Stool Cx/PCR, body fluid Cx; serology
- Tx: ceftriaxone, TMP-SMX, AG, doxycycline, ciproflox, and doxycycline

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Rocky Mountain Spotted Fever

- Rickettsia rickettsii (Gram neg rod)
- Small vessel vasculitis: Fever, HA, malaise & myalgia
- **Petechial rash occurs w/i the 1st 2-4 days of illness that starts on the wrists & ankles and spreads to the trunk; palms & soles are involved**
- **Thrombocytopenia, hyponatremia,↑LFT**; WBC# wnl
- Transmitted by dog tick in south Atlantic states: (i.e. North Carolina); April to Sept. (Summer Trip)
- Dx: **Clinical suspicion**; Serology
- Tx: Based on clinical grounds and suspicion;w/i 5 days Doxycycline regardless of age;Fatality rate:20-80%

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Parasites

- Giardia duodenalis "formerly lamblia"
- **Days to weeks of acute watery diarrhea, foul smelling stools with flatulence and abd bloating/cramping pain; steatorrhea**
- Common cause in day-cares; family contact; from hand-to-mouth or contaminated water; Campers: prevent by use of KI pellets in water or boiling
- CF; hypogammaglobulinemia i.e. IgA deficiency
- Dx: stool for cysts or trophozoites x 3.
  DFA/EIA of stool or duodenal aspirates; PCR
- Tx: Metronidazole, nitazoxanide, tinidazole and paromomycin

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SCABIES

- Sarcoptes scabiei
- Clinical: **<2 y/o w papules, nodules, vesicular burrows in head & neck, face, hands, palms & soles.** Intense itching.
  - Older child and adult at interdigital folds, wrists elbows, axillary folds, wasteline, thighs, buttocks
- Tx:Permetrin 5% cream; Repeat in 1 wk
- Tx: PO Ivermectin: Repeat in 1 to 2 wks

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Toxoplasmosis

- T. gondii
- **Congenital**: 70-90% asymptomatic at birth; large proportion will **develop learning disabilities**, visual problems, or **DD**, **Mental Retardation** over months to years.
- **Retinal inflitrates, scarring**: 85% of young adults
- **Chorioretinitis**, **hydrocephalus**, **Diffuse cerebral Ca;** Maculopapular rash, generalized LN**, HSM, jaundice**, Sz, microcephaly; Thrombocytopenia
- Ingestion of raw or undercooked meat or ingestion of sporulated oocytes from soil (In cat litter)
- Congenital infection by primary maternal infection during 1st trimester
- Dx: Serology (IgM, IgG, IgA, IgE); CSF PCR; CT head; Ophthalmology and auditory evaluation
- Tx: pyrimethamine + sulfadiazine + folinic acid x 12 m/o

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Toxocara

- Visceral larva migrans
- T. canis or T. cati roundworm (puppies/kittens)
- Children w **H/O pica**, ingestion of soil
- Fever, rash, hepatomegaly; Labs: **leukocytosis w eosinophilia**, hypergammaglobulinemia
- Pneumonia: **cough, wheezing**, hematemesis
- CXR: Interstial pneumonitis
- Ocular Dz and Neurotoxocariasis
- Dx: serology; Increase titers for isohemagglutinin
- Tx: Albendazole; Mebendazole

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Pinworm

- Enterobius vermicularis
- **Presents as Anal pruritis; Anal/labial excoriation**
- Dx: visualization of adult worms in the perianal area
  2-3 hrs after the child goes to sleep.
  Tape test: for eggs early in the AM before washing
- Tx: **Albendazole/**Mebendazole or Pyrantel pamoate given as a single dose then repeated in 2 weeks.
- Tx all family members

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Malaria

- Plasmodium spp.
- **High fever with rigors, sweats, HA in a cyclic pattern**
- Suspect in any **traveler** returning from endemic area with fevers
- Dx: **Thick and thin smears x 3;** Rapid Ag Test
- Tx: based on infecting spp, severity of disease, and likelihood of resistance (Geographic area)
- Prophylaxis: begin 1-2 days prior to travel to endemic area to weeks after return
- Chloroquine, mefloquine, doxycycline, atovoquone/proguanil, artemether/lumefantrine; Primaquine.

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Amebiasis

- Entamoeba histolytica
- Noninvasive intestinal colonizer, intestinal amebiasis (colitis), ameboma of the colon, and liver abscess
- 1-3 weeks of increasing watery diarrhea progressing to bloody dysentery; lower ABD pain and tenesmus; Wgt loss
- More prevalent in developing countries or from travel; Transmitted via fecal-oral route
- Dx: PCR; stool smear for trophozoites or cysts; Serology
- Tx: Asymptomatic cyst colonization/excreter (Luminal): Paromomycin or Iodoquinol

  Tx: Symptomatic infxn (Colitis): metronidazole or tinidazole followed by one of the above luminal amebicides

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Other infectious Diseases

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Kawasaki

- Fevers for at least 5 days and clinical features of:
  - Bilateral Conjunctivitis (w/o exudates)
  - Red mouth/pharynx; strawberry tongue & red, cracked lips
  - Rash
  - Induration/reddness/pain of Hands/feet
  - Cervical LN
  - Other S&S: Irritability; peeling of hand/feet: 10-14 days gallbladder hydrops; coranary aneurysms: 10d to 4 wks
  - Elevated ALT,↑CRP and⇑ESR; PLT >450 after 1 week
- Tx: IVIG 2 grams/kg + ASA 80-100mg/kg/day q6hrs
  - EHCO: baseline, 2 weeks and at 6 to 8 wks
  - Risk of Reye syndrome: prevent w Influenza vaccine

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MIS-C

- Multisystem inflammatory Syndrome in Children
- After a +COVID Serology, Ag +/- PCR
- Presents 2 to 6 weeks after Covid infection
- >2 sys. Involm't: Cardio, Renal, Resp, Heme, GI, Derm & Nuero
- S&S: Fever, rash, sore throat, conjunctivitis, Mucous mem, HA, lethargy, confusion, irritability, tachypnea⇑WOB,⇑O2 Req, myalgia, swollen hands and feet, LN, Myocar. dysfunc., AKI, hepatitis, etc.
- Labs: Lymphopenia, Anemia,⇑PLT; Inc CRP, ESR, PCT, D-D, Fibro, Ferritin, IL-6, Troponin, BNP, LFT's and LDH;Hypoalbum
- ECHO:⇓LV Func, CA (dilatation, aneurysm), MR, Pericar. Effus
- Tx: IVIG and Methypred IV and PO taper over 2 to 3 wks; ASA
- Refractory: High dose steroids or TNF, IL-1, IL-6 inhibitors.

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Syphilis

- Treponema pallidum
- Congenital infection
  - **[Early] HSM, snuffles, LN, mucocutaneous lesions (salmon colored), osteochondritis (limb paralysis): Long Bone x-rays; Nasal septum perforation**
  - [Late] Hutchinson triad: keratitis, deafness, hutchinson teeth; clutton joints, mulberry molars, rhagades
- Acquired infection
  - Primary stage: chancre (painless); 3 wks after exposure.
  - Secondary stage: rash (palms and soles); condyloma lata
  - Tertiary stage: gumma, cardio involvement
  - Neurosyphilis or neonates: CSF VDRL
- Dx: non-treponemal (VDRL, RPR)
  treponemal (FTA-ABS, TP-PA)
- Tx: Pen G

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Lyme Disease


Erythema migrans (bull's eye) rash.

- Borrelia burgdoferi
- Tick vector: Ixodes scapularis
- Reported mainly in the northeast US: (>90%)
- Early localized Dz: Erythema migrans (EM) (single target lesion) see in 1st 4 weeks: no Ab's to detect—Just Tx
- Early disseminated: EM (multiple lesions), facial CN palsies, carditis w heart block
- Late Dz: recurrent arthritis (pauciarticular), meningitis, encephalitis
- Dx: Early: mainly clinical; Disseminated & Late: Do Serologies.
- Tx: **Observe only if removal of tick**
  Early: Doxycycline >8yr; amoxicillin <8yr x 14 to 21 days
  Disseminated and Late: Same Abx's as above or CTX.
  Arthritis: Treatment is for 28 days

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Tuberculosis

- Mycobacterium tuberculosis
- **Review definition of positive TST definition according to risk factors (Next slide)**
- BCG vaccine: interpretation of TST in vaccine recipients is the same as non-receipts (generally disregard > 5 yrs post-vaccine)
- **10- 40 % false neg. TST; repeat TST 6 to 12 wks**
- Latent TB infection: +TST (IGRA) + asymptomatic and a negative CXR
- TB Dz: +TST (IGRA), +CXR; fever, chills, cough, night sweats; extrapulmonary manifestation

  i.e. meningitis (6th CN palsy, basilar enhancement)

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Tuberculosis

- Dx of TB Dz: Sputum or early AM gastric aspirate for AFB smear + Cx + PCR x 3
- Tx: LTBI:
  - INH/Rifapentine q weekly x 12 weeks (>2yrs)
  - INH/Rifampin x 3 months
  - Rifampin qd x 4 months
  - Isoniazid qd x 9 months

TB Dz: (RIPE) rifampin, INH, pyrazinamide, ethambutol x 2 mo then INH + rifampin x 4 more mo

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Tuberculosis

- **Induration 5 mm or greater**
- Children in close contact with known or suspected contagious people with tuberculosis disease
- Children suspected to have tuberculosis disease:
- • Findings on chest radiograph consistent with active or previous tuberculosis disease
- • Clinical evidence of tuberculosis disease
- Children receiving immunosuppressive therapy or with immunosuppressive conditions, including
- human immunodeficiency (HIV) infection

- **Induration 10 mm or greater**
- Children at increased risk of disseminated tuberculosis disease:
- • Children younger than 4 years of age
- • Children with other medical conditions, including Hodgkin disease, lymphoma, diabetes mellitus,
- chronic renal failure, or malnutrition
- Children with likelihood of increased exposure to tuberculosis disease:
- • Children born in high-prevalence regions of the world
- • Children who travel to high-prevalence regions of the world
- • Children frequently exposed to adults who are HIV infected, homeless, users of illicit drugs,
- residents of nursing homes, incarcerated or institutionalized

- **Induration 15 mm or greater**
- Children age 4 years or older without any risk factors
- **These definitions apply regardless of previous bacille Calmette-Guérin**

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Nontuberculosis

- Atypical mycobacteria (NTB)
- Most common S&S: cervical lymphadenitis (purpuric/bluish lesion) **"shiny/violaceous"**
- Dx: **TST usually less than 10mm.**
  clinical + biopsy + Cx/PCR
- Tx: **complete surgical excision**;
  Clarithromycin or Azithromycin with rifampin, rifabutin or ethambutol

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Cat-Scratch Disease

- Bartonella henselae
- Skin papule at presumed site of inoculation of cat
- Local lymphadenopathy: axillary, cervical, inguinal
- **Granuloma of liver and spleen**
- Parinaud oculoglandular syndrome: inoculation of conjunctiva w ipsilateral preauricular or submandibular LN
- Dx: serology; PCR; Warthin-Starry silver stain
- Tx: Self-limited but effective Abx's are: Azithromycin, TMP-SMX, rifampin, gentamicin, ciproflox., doxy

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Chlamydia trachomatis

- Obligate intracellular bacteria
- Most common reportable STI in the US
- **Afebrile pneumonia (Interstitial infiltrates); cough, tachypnea, rales, conjunctivitis: 7 to 14 days after delivery; (Up to 4 m/o)**
- Dx: Cx, PCR (NAAT); DFA or giemsa stain of conjunctival or NP scraping. (Inclusion bodies)

Peripheral eosinophilia. Ig's are increased

Tx: neonates: erythromycin x 14 days or azithro x 5 days

STI- doxycycline bid x 7d or azithromycin 1g x 1

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Mycoplasma

- Mycoplasma pnuemoniae (Atypical pneumonia)
- Interstitial pneumonia, pharyngitis, otitis, sinusitis, maculopapular rash, transverse myelitis, encephalitis, cerebellar ataxia, Erythema multiforme, Steven Johnson Syndrome
- Dx: Serology (EIA): IgM-Specific, Peak at 3 to 6 weeks and persist for 2 to 3 month; PCR
- Tx: **Macrolide**; If Allergy and >8 y/o: Doxycycline;
  < 8 yrs Tx with a fluoroquinolone.
  Macrolide-resistant strains (5 to 15% in the US)

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Thank You
AND
Part Two with
Dr. Kowalsky

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