

Infectious Diseases

Cellulitis & Abscess*	
Etiology	Beta-hemolytic strep, S. Aureus
Differential	Erysipelas, necrotizing fasciitis (pain out of proportion to exam, crepitus, toxic appearing), tenosynovitis (tenderness over flexor sheath, reduced motion), compartment syndrome (early → late: paresthesia, pain out of proportion/with stretch, pallor, pulseless)
Workup	<ul style="list-style-type: none"> • Diagnosis clinical based on tenderness to palpation, warmth, erythema, induration, fluctuance, fever • Obtain ultrasound if c/f abscess • Circle lesion w/indelible ink; TigerText to care team and/or place in chart (Cerner Camera Capture) • No need for labs (e.g., CBC) or MRSA swab if hemodynamically stable
Treatment	<ul style="list-style-type: none"> • Typically 5-7 days • Non-purulent: Cephalexin/cefazolin, clindamycin, ceftriaxone • Purulent: clindamycin, TMP-SMX, doxycycline • Consider MRSA coverage (TMP-SMX, vanc, linezolid) if: no response to initial therapy, systemic illness, recurrent infection, prior history of MRSA, high prevalence of MRSA in community

Osteomyelitis*	
Etiology	<ul style="list-style-type: none"> • Hematogenous seeding > direct inoculation vs. contiguous spread • S. aureus, GAS, S. pneumo, H. flu type b, Salmonella (sickle cell), E. coli (neonates), Group B Strep (<3 mo), Kingella, Bartonella (vertebral)
Presentation	Fever, localized pain, swelling, warmth, reduced ROM/weight bearing
Differential	Cellulitis, septic joint, fracture, sickle cell crisis, rheumatic disease, bleed/joint effusion, malignancy
Workup	CBC, CRP, ESR, BCx, plain film (only + after 10-14 days), MRI (sens 80-100%, spec 70-100%), technetium 99 bone scan
Treatment	<ul style="list-style-type: none"> • IV antibiotics +/- surgical debridement, full antibiotic course 4-6 weeks, ortho consult • 1st line: Cefazolin or clindamycin, vancomycin if unstable/toxic-appearing • Transition to PO antibiotics when no fever >24 hours, improved pain/ROM, CRP decreasing, BCx negative x48 hours

Septic Arthritis*	
Etiology	MSSA, Strep pneumo, GAS, > MRSA, Kingella, gonorrhea, Lyme
Presentation	Fever, localized pain, reduced ROM/weight bearing
Differential	Crystal-induced arthritis, inflammatory arthritis (SLE, reactive, sarcoid), OA, malignancy, hemarthrosis
Workup	<ul style="list-style-type: none"> • CBC, BCx, CRP, ESR, synovial fluid analysis, X-ray, US, consider Lyme Ab, ASLO, DNase-B ab • Kocher Criteria: (1) ESR >40, (2) WBC >12, (3) Fever >38.5, (4) Non-weight bearing • Risk of septic arthritis with 0/4 (0.2%), 1/4 (3%), 2/4 (40%), 4/4 (99.8%)
Treatment	<ul style="list-style-type: none"> • 1st line: Cefazolin x3 weeks, 2nd line: Clindamycin x3 weeks • Use ceftriaxone if concern for Lyme, gonorrhea, or GNR • Add vancomycin if clinically ill-appearing