Rheumatology Pearls and Update for Primary Care

BEN WIDENER, MD FACP FACR

SHERIDAN MEMORIAL HOSPITAL RHEUMATOLOGY

Disclosures

- Ben Widener MD, FACP FACR and all others in control of this CME activity reported no relevant financial relationships that would create a conflict of interest for CME purposes.

Outline

- Review key diseases and clinical updates, relevant to the primary care physician.
- Review of medication tips and key points
- Clinical pearls

- Goal is to provide enough overview to:
  - 1) identify common rheumatic diseases
  - 2) perform appropriate evaluation for potential rheumatology cases
  - 3) consider initial therapies in these illnesses.

My Background

- Rheumatologist at Sheridan Memorial Hospital since 2020
- WWAMI Graduate 2011
- After a 6 month hospitalist job in Guam, I Spent 4 years as a primary care Internist in Sheridan prior to pursuing a fellowship in Rheumatology in Omaha, NE at UNMC.

Topics Covered

- Gout
- PMR
- Rheumatoid Arthritis
- SLE and spondyloarthropathy briefly
- Medication and Clinical Pearls

Why Am I giving this talk?

Identification of State-Level Disparities in the Supply, Demand, and Adequacy of Rheumatologists in the United States

Jason Silvestre, Robert J. Ferdon, Robert A. Ravinsky, James C. Oates

First published: 25 May 2026

https://doi.org/10.1002/acr.80092Digital Object Identifier (DOI)

==========

by 2037 predicted that Wyoming will have **only 50% adequacy for rheumatology access**. (lowest in the country)

“The supply is predicted to fall much shorter in non-metropolitan areas, which are projected to have 210 full-time rheumatologists, compared with a demand of 1,190 (18.5% adequacy; $P < .001$)” Healio. Significant workforce shortages predicted in rheumatology by 2037

What do I do with this Lab??

- **Positive ANA?**
  - first, why did you order? Clinical context matters greatly.
  - Could be spurious, but feel free to refer.
  - 15-20% of the population has a positive ANA w/o disease
- **Elevated ESR/CRP?**
  - **1st- Know the units of CRP (mg/dL, mg/L)**
  - CRP goes up with obesity, age, race.
  - Elevation within 4 hours, half-life 18 hours,
  - up to 1 **mg/dL** is normal for rheum. 8-10 mg/dL suggest infection, vasculitis, crystal disease or metastatic cancer.
  - ESR goes up with hypergammaglobulinemia, pregnancy, diabetes, ESRD, aging, obesity, female…
  - **ESR >100 mm/hr → INFECTION, RHEUMATIC, CANCER**
  - ESR 0 Hct >65%, no Ig, afibrinogenemia
- **Positive Rheumatoid Factor?**
  - Sjogren's, Hepatitis C, infections.
- **Elevated anti-CCP Antibody?**
  - congrats, they have or will likely (75-80% over 3 years) develop RA.

When should I suspect a Rheumatic case?

Inflammatory arthralgias/-itis

atypical rashes

strong family history

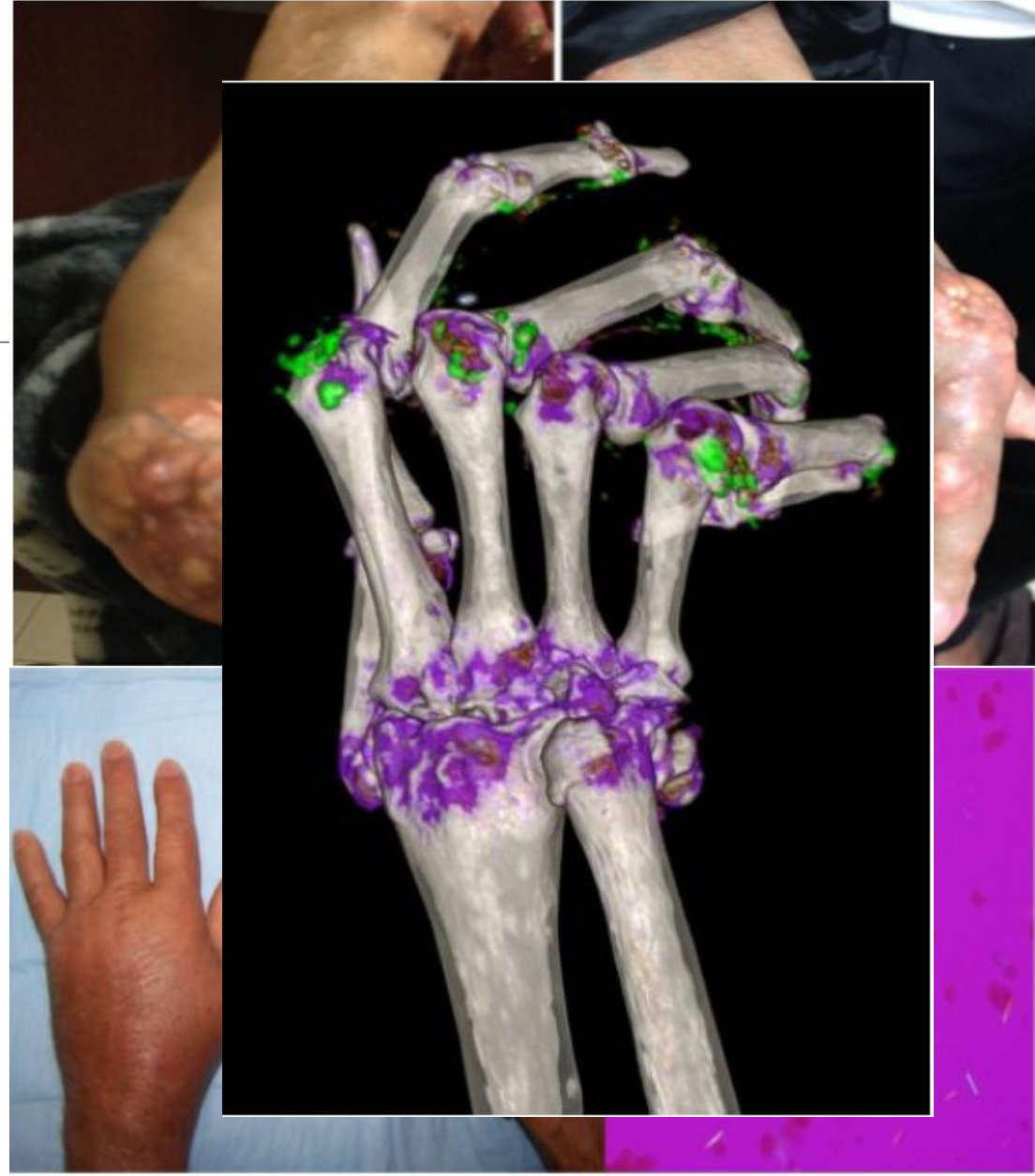
multiorgan inflammatory findings

*abnormal labs

key symptoms or signs of rheumatic disease (sicca, photosensitivity, digital necrosis, pulm/renal syndromes)

Gout

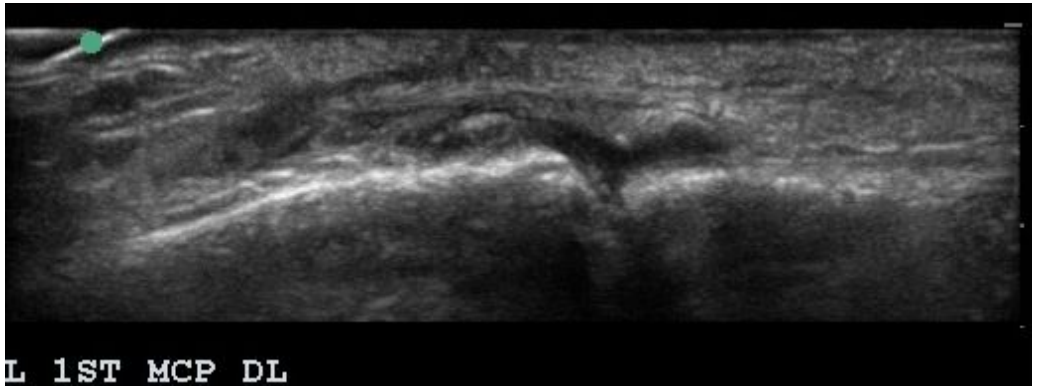
- When do you suspect?
  - sudden onset
  - often monoarticular (1st MTP, lower joints)
  - onset at night
  - Men >25yo, Women post menopausal
  - Extremely painful
- How to diagnosis:
  - aspiration is key
  - Ultrasound
  - DECT if available
  - Clinical
  - Hyperuricemia helpful, but normal is not
- Treatment approach (ACR vs ACP guidelines)



ACR Image Library. Accessed 8/27/2021

Gout Ultrasound findings







Gout Management

- ACP vs ACR guidelines
- Flare management
  - classically indomethacin, colchicine, but any NSAID, glucocorticoids are all options
  - extreme cases, anakinra or canakinumab could be considered.

  - Pearls: Colchicine most effective if started ASAP (<12 hrs) of flare onset, dose prednisone 30-40 mg initially and taper over 2 weeks
    ULT management
    - When to start: based upon different guidelines, essentially recurrent flares, uric acid nephrolithiasis, tophaceous gout
- Choice of agent?
  - Start with **allopurinol** over febuxostat or probenacid or pegloticase.

  - start at 100 mg* increase to 300 mg or higher to achieve target serum uric acid
  - about 40% of patient's will achieve serum UA <6.0mg/dL at 300mg/day
  - Should I use Pegloticase?
    - in very severe, recalcitrant disease
    - High rate of anaphylaxis, requires prophylactic methotrexate to mitigate
    - Very effective at lowering uric acid
    - Ideal patient- significant tophi, very elevated serum uric acid, very compliant (requires labs every 2 weeks)

ACR ULT guidelines 2020

Table 1. Indications for pharmacologic urate-lowering therapy (ULT)*

Recommendation	PICO question	Certainty of evidence
For patients with 1 or more subcutaneous tophi, we strongly recommend initiating ULT over no ULT.	1	High
For patients with radiographic damage (any modality) attributable to gout, we strongly recommend initiating ULT over no ULT.	2	Moderate
For patients with frequent gout flares (≥2/year), we strongly recommend initiating ULT over no ULT.	3	High
For patients who have previously experienced >1 flare but have infrequent flares (<2/year), we conditionally recommend initiating ULT over no ULT.	4	Moderate
For patients experiencing their first flare, we conditionally recommend *against* initiating ULT over no ULT, with the following exceptions.	5	Moderate
For patients experiencing their first flare and CKD stage ≥3, SU >9 mg/dl, or urolithiasis, we conditionally recommend initiating ULT.	5	Very low
For patients with asymptomatic hyperuricemia (SU >6.8 mg/dl with no prior gout flares or subcutaneous tophi), we conditionally recommend *against* initiating any pharmacologic ULT (allopurinol, febuxostat, probenecid) over initiation of pharmacologic ULT.	57	High†

Strongly recommend | Conditionally recommend | Strongly recommend against | Conditionally recommend against

* PICO = population, intervention, comparator, outcomes; CKD = chronic kidney disease; SU = serum urate.
† There is randomized clinical trial data to support the benefit that ULT lowers the proportion of patients who develop incident gout. However, based on the attributable risk, 24 patients would need to be treated for 3 years to prevent a single (incident) gout flare leading to the recommendation against initiating ULT in this patient group.

Gout Management

- Is febuxostat dangerous?? Concern for CVD based upon CARES trial (2018 NEJM)
- Refer to FAST trial…inconsistency with several aspects of the CARES trial.
  - **Reassessing the Cardiovascular Safety of Febuxostat: Implications of the Febuxostat versus Allopurinol Streamlined Trial**

    Hyon K. Choi, Tuhina Neogi, Lisa K. Stamp, Robert Terkeltaub, Nicola Dalbeth

    First published: 05 January 2021 https://doi.org/10.1002/art.41638
- Very nuanced problem, so what to do when starting urate lowering therapy (ULT)??
- Allopurinol is the ULT of choice, unless contraindicated or not tolerated. Then febuxostat is reasonable but weigh CV risk factors.
  - consider **HLA-B5801 testing** in people of Asian or African descent.

Gout: Treat to Target

- Biggest ACR/ACP guideline difference

- ACR recommendations to treat as follows:
- goal SuA - <6.0mg/dL for most gout patients
- goal SuA - <5.0mg/dL for tophaceous gout

Uric acid is **not soluble above 6.8mg/dL,** so regardless of any other clinical factors, uric acid builds up in tissues at levels >6.8 mg/dL.

Polymyalgia Rheumatica (PMR)

- When to suspect:
  - Age at least 50 (mean age 70*)
  - Caucasian patients (uncommon in other ethnicities)
  - hip and shoulder girdle **PAIN**
  - typically symmetrical
  - Morning stiffness- can have arthritis/arthralgias that mimic RA (50%).
  - **Increased Alkaline phosphatase**, other rheumatic tests should be negative
  - ESR and CRP are commonly elevated
    - **7% have normal markers** (often normal ESR and elevated CRP)
- Approximately 30% overlap with Giant Cell Arteritis
- Always screen clinically for GCA
  - headache, visual changes, jaw claudication
  - prompt referral to rheumatology

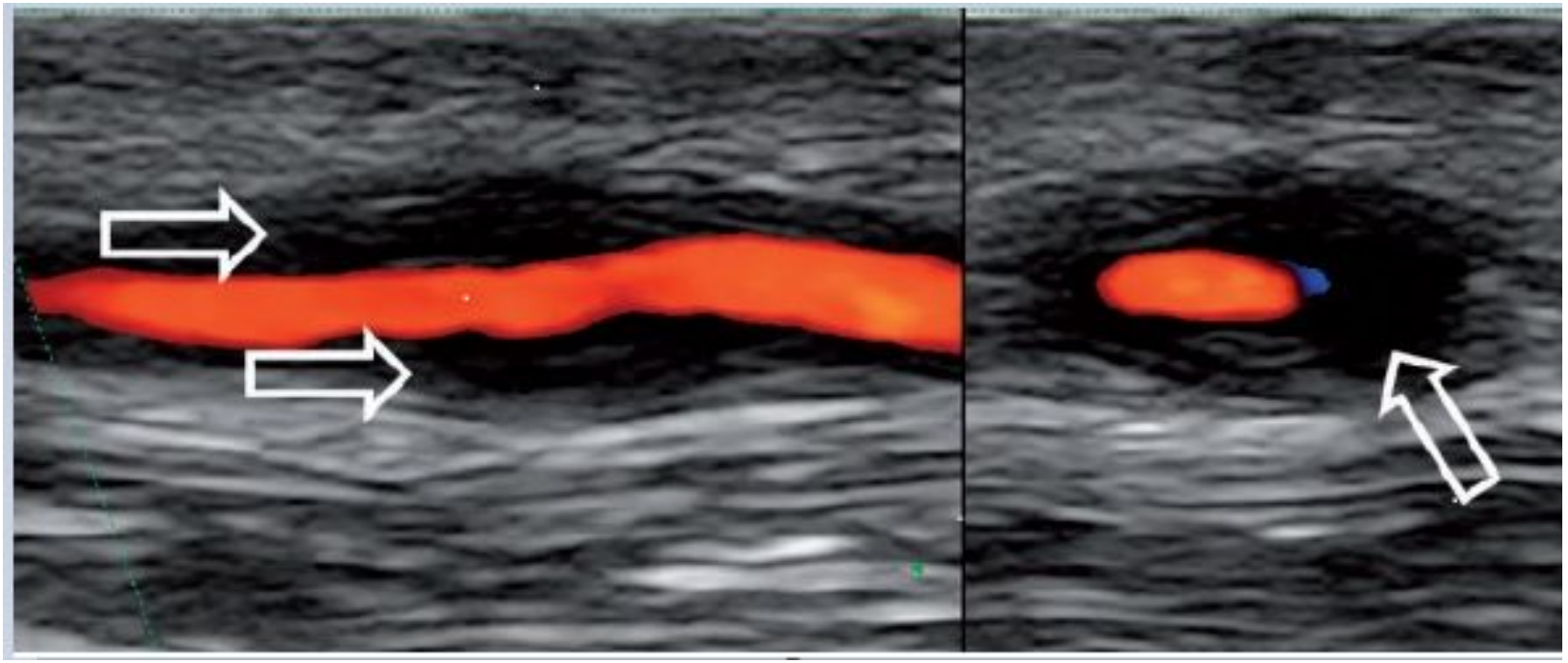
PMR management

- Low Dose glucocorticoids
- **PEARL**: do not initially treat with greater than 20mg/day prednisone or equivalent initially (**recommend 10-15mg for diagnostic and therapeutic purposes)**
- Long term treat with lowest effective dose to alleviate symptoms (normalize CRP/ESR)
- Kevzara (sarilumab) (IL-6 inhibitor) approved for PMR
  - Spiera et Al. NEJM 2023 PMID: 37792612
  - reduces GC exposure and sustains remission.
- MTX 7.5-10 mg/week steroid sparing in some
- average duration of therapy is 18-24 months (can be shorter or longer)
- 75% off tx in 2 years, 30% require indefinite therapy
- Worse prognosis: very high ESR/CRP, female sex, older age at dx.

Giant Cell Arteritis

- if suspected⟶ treat promptly with steroids typically at least 40 mg/day (I tend to use 60 mg/day) aiming for 1 mg/kg is reasonable.
- active visual loss--> Admit, 1000 mg IV solumedrol x 3 days, consult ophthalmology (if available) and rheumatology(also if available.)
- **low dose Aspirin - reduces CV events and blindness**
- Have up to 14 days to biopsy with minimal impact, sooner is better
  - biopsy negative, can consider biopsy contralateral side or CT angio of thorax/ MRA thorax or CT PET if available.
- prompt referral to rheumatology
- will likely consider addition of tocilizumab
- **GIACTA trial** -162mg SC **weekly**, allows ½ cumulative dose of standard treatment steroids
- 40% will need indefinite steroids.

U/S imaging of GCA



https://ar.inspiredpencil.com/pictures-2023/temporal-artery-ultrasound-report

Rheumatoid Arthritis

- About 1% of adult population
- Variable clinical presentation
- Can be quite destructive if untreated
  - **Systemic** involvement
    - ILD 10%
    - Vasculitis
    - Coronary Artery Disease
- Excellent treatment is available
- Benefit from referral to Rheumatology for long term care.

Rheumatoid Arthritis Diagnostics

- Exam and History are key
  - AM stiffness >1hr
  - Clinical presentation: slow chronic arthritis, palindromic, arthritis robustus
  - **more stiffness** vs pain
  - Symptoms >6 weeks
  - Does **not** involve the **DIP**
    - DIP should make you think gout, OA, psoriatic arthritis...
- Dx Labs: anti-CCP, Rheumatoid Factor, still 20% are seronegative.
- Imaging:
  - radiograph: if more recent onset of less value
  - RhUS evaluation may be helpful
  - MRI overly sensitive (not routinely used)



Rheumatoid Arthritis Initial Treatment

- Referral to a Rheumatologist

- If severe and notably limiting function/quality of life, consider prednisone 10-20 mg/day for 7-10 days, but best to avoid. Ideally lowest dose, for shortest period possible.
- Methotrexate start @ 12.5-15 PO/SQ **weekly** with daily folic acid**

- Seronegative, typically Hydroxychloroquine 200 mg PO daily-BID (**5mg/kg**)

- Never an indication to start with biologics unless all cDMARD's are contraindicated.
  - **RACAT Trial. NEJM 2013. O'Dell, James et Al.** Triple therapy (MTX, SSZ, HCQ vs MTX + Etanercept, equal efficacy at 12 months)

- I would caution starting chronic therapy in non-erosive, seronegative RA, defer to rheumatology.
  - broad differential diagnosis and prognosis is not as severe

Common Rheumatoid Arthritis Mimics

- Consider in **anti-CCP negative patients**

- Pseudogout
  - older, heavy wrist predominance, often more unilateral
- Gout
  - episodic, intensely inflammatory, X ray differences
- Sjogren's Syndrome
  - non erosive, female predominant, sicca or SLE like features
- PMR
  - atypical, but high ESR/CRP, myalgia component, exquisite steroid response.
- Viral infections
  - **Parvovirus B19, Hepatitis C**, but many can, usually self limited, less common but can be RF/ANA or even CCP positive
- Paraneoplastic syndromes
  - age appropriate cancer screening.

- Would recommend checking viral hepatitis panel, uric acid, ferritin, magnesium and TSH.

Systemic Lupus Erythematosus

- Very broad clinical presentation
  - skin limited, life threatening, hematologic emergencies etc.
- Key features: Serositis, photosensitive, sicca symptoms, mouth/nasal ulcers, inflammatory arthritis. Labs: Cytopenias, low complement (C3/C4), hemolysis, + ANA (95+% have)
  - (serositis, oral ulcers, arthritis, photosensitive, blood disorders, renal, ANA, immunologic phenomena, Neuro-involvment, Malar rash, discoid rash)
- Predominantly female (9:1) all ethnicities, but increase in African, Hispanic and Asian ethnicities. onset 15-45yo typical
- Treatments
  - **Hydroxychloroquine**
  - Cytoxan - for severe disease only, if used monitor for bladder cancer
  - Cellcept - used in nephritis, not typically helpful for arthritis
  - Voclosprin - new, calcineurin inhibitor, approved for nephritis
  - Benlysta - BLYSS inhibitor, (b cell depletion) arthritis, dermatologic, nephriitis.
  - glucocorticoids - for flares, avoid long term use.
  - Many other DMARD's



Monitoring and Treating SLE

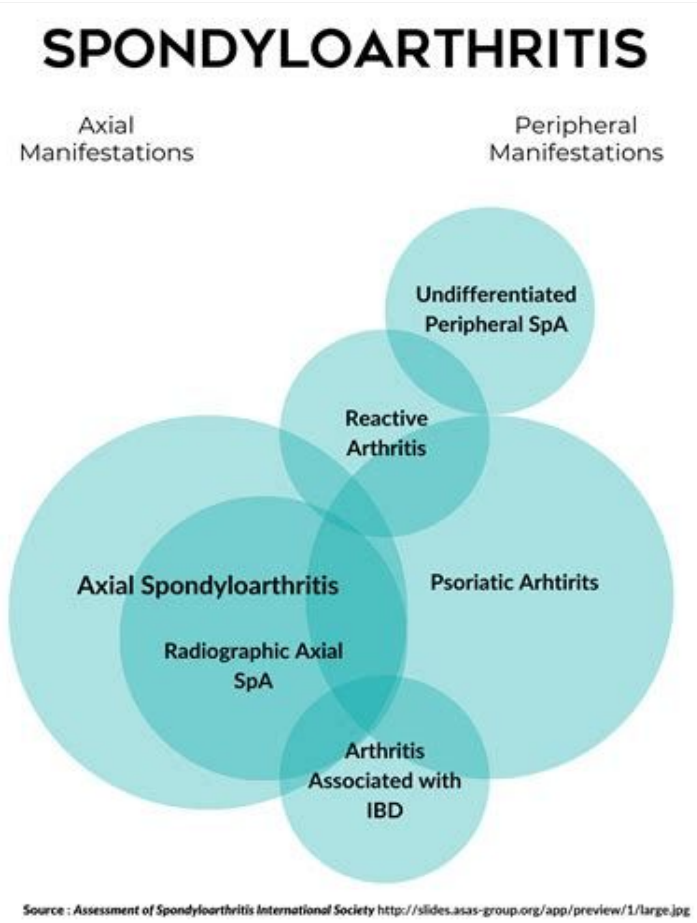
- Very much depends on clinical manifestations
- Typically the 1st 5 years of diagnosis will determine the nature of the patient's disease
- often semi annual CBC, BMP, C3/4, urinalysis
- NO value to CH50 in SLE management.
- The degree of severity and organ involvement dictates the clinical treatment
- Deserve Rheumatology care

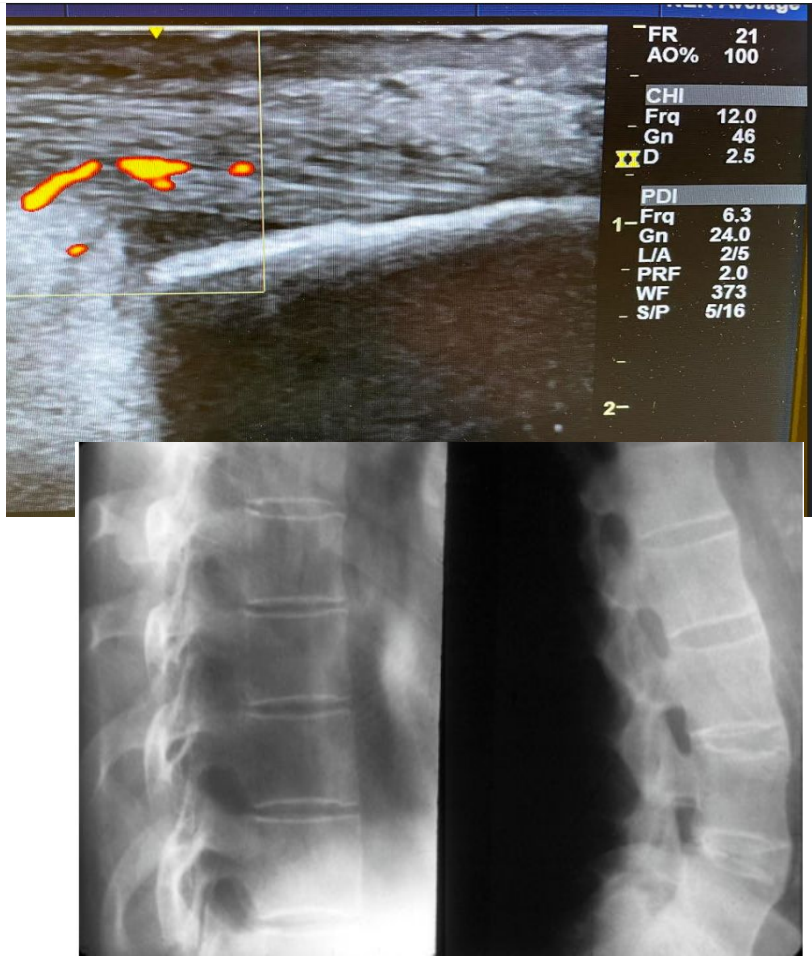
SLE Pearls

- ANA negative means SLE is very unlikely
  - if strong clinical suspicion can check an SSA
- All patients should be on **Hydroxychloroquine** once diagnosed (unless contraindicated)
  - only medication shown to reduce mortality in SLE.
- All need a referral to Rheumatology
- Discoid lupus only infrequently develops systemic lupus (10%)
- SUN AVOIDANCE!!!

Spondyloarthropathy

- Clinically challenging to diagnose, no specific diagnostic labs, radiology limited sensitivity
- Psoriatic arthritis
- Ankylosing spondylitis
- Non radiographic axial spondyloarthropathy
- Inflammatory bowel related arthropathy
- Clinical presentation:
  - Typically onset of symptoms in young adult males (3:1 M to F predominance)
  - Inflammatory back pain
  - Asymmetric oligoarthritis
  - Uveitis
  - Dermatologic involvement



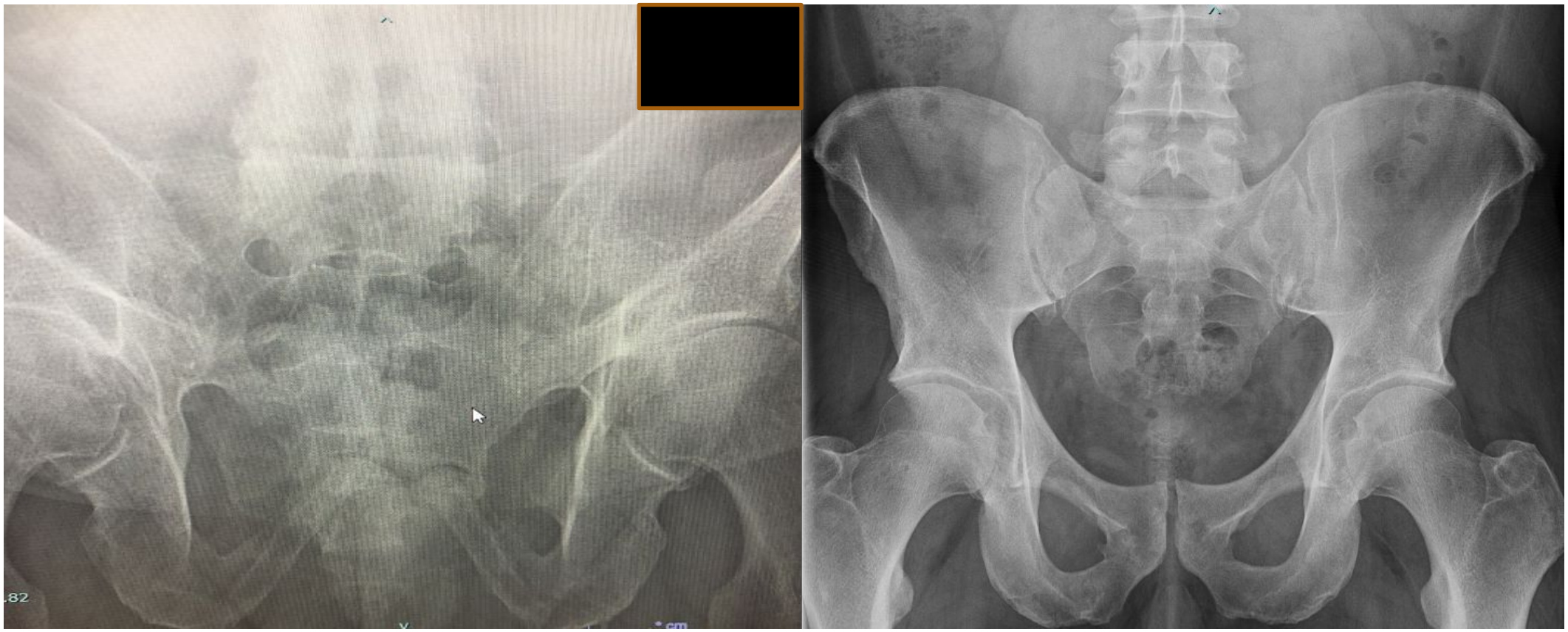


Psoriatic arthritis









Psoriatic arthritis/Spondyloarthritis management options

- NSAID's are typically more effective than glucocorticoids (PsO/PsA, typically avoid systemic steroids, can flare skin disease in about a 1/3 of patients)
  - Often start w: naproxen, meloxicam, celecoxib, indomethacin*, diclofenac*
    - *increased Cardiac and GI risks
  - NSAID's (Celebrex in particular) are disease modifying in AS
- Methotrexate, SSZ commonly used but **DO NOT impact axial** symptoms
- TNF inhibitors
- JAK Inhibitors - tofacitinib, upadacitinib, baricitinib
- IL-17, IL 12/23 inhibition are increasingly used and quite effective
  - **Sekukinumab, ixekizumab**, **bimekizumab**, brodalumab (PsO only)
  - ustekinumab (PsO/A, IBD)
  - guselkumab (PsO/PsA)

Methotrexate Pearls

4 RULES OF USING METHOTREXATE:

1) Weekly **ONLY**.
2) Teratogenic
3) renally cleared (avoid if eGFR <30)
4) can cause severe acute pneumonitis, rare but life threatening. Chronic lung disease is not seen.

- Start 10-15mg PO/SC weekly, max used in rheumatology is 25mg/week
- above 15mg week, can split dose over 24 hours (4 tabs PO AM/PM once week) better absorption.
- All patients should receive folic acid 1-3mg/day.
- SC formulation can be given orally in water or orange juice, reportedly doesn't taste good but is cheaper option
- potentiates efficacy of TNF inhibitors

Hydroxychloroquine Pearls

- consider this the most benign of dMARD side effects
- in SLE: lowers patient's risk of DM, DVT/PE, Hypertension, Hyperlipidemia
- effective in RA (seronegative- 1st choice)
- use in combination
- usually well tolerated, occasional GI upset, **dizziness**, rash.
- potentiates effects of insulin (so hypoglycemia can be an issue)
- rare neuromyopathy (can have cardiac involvement)
- RETINAL toxicity, extremely rare within 5 years of use at 5mg/kg or less, risk at 10 years about 2%. Recommend routine retinal examinations with OCT.

LEFLUNOMIDE

- Extremely long ½ life
- Teratogenic
- **Not** renally cleared
- No significant pulmonary toxicity
- 20mg every other day daily.
- Same monitoring as MTX
- Immunosuppressive and hepatic toxicity

SULFASALAZINE

- Titrating dose up to 1500 mg PO BID over time
- GI toxicity most common
- Sulfa reactions
- reversible azoospermia
- Not considered highly immunosuppressive
- DO NOT COMBINE with LEFLUNOMIDE
  - 30% risk of GI toxicity.

TNF inhibitors

- Relative contraindications: **CHF** with reduced EF, **Demyelinating** disorders (MS etc.) active infection, active/recent malignancy
- Can rarely cause cytopenias
- **Do not typically need extensive lab monitoring**
- Do not continue into 2nd trimester of pregnancy (ie around week 22)
- Infliximab, adalimumab, golimumab are all **augmented by MTX** usage (30% increased exposure)
- Efficacy can wain over time (development of anti drug antibodies (ADA)), using MTX, LEF, or AZA have been shown to reduce formation of ADA's.

“Do Nots” in Rheumatology

- repeat ANA subserologies (ds-DNA is an exception) w/ known CTD
- if positive ANA, RF**, anti-CCP there rarely a need to repeat.
- do not order sub-serologies if ANA is negative *
- HLA-B27 main value in patient with non-diagnostic radiographs and a suggestive History and Exam.
- **Prescribe steroids without an endpoint**

Thank you

Everyone practicing primary care

Everyone planning to practice primary care

Contact information:

benjaminwidener@sheridanhospital.org

307-675-4474 office

cell: 406-581-8027 call or **text**.

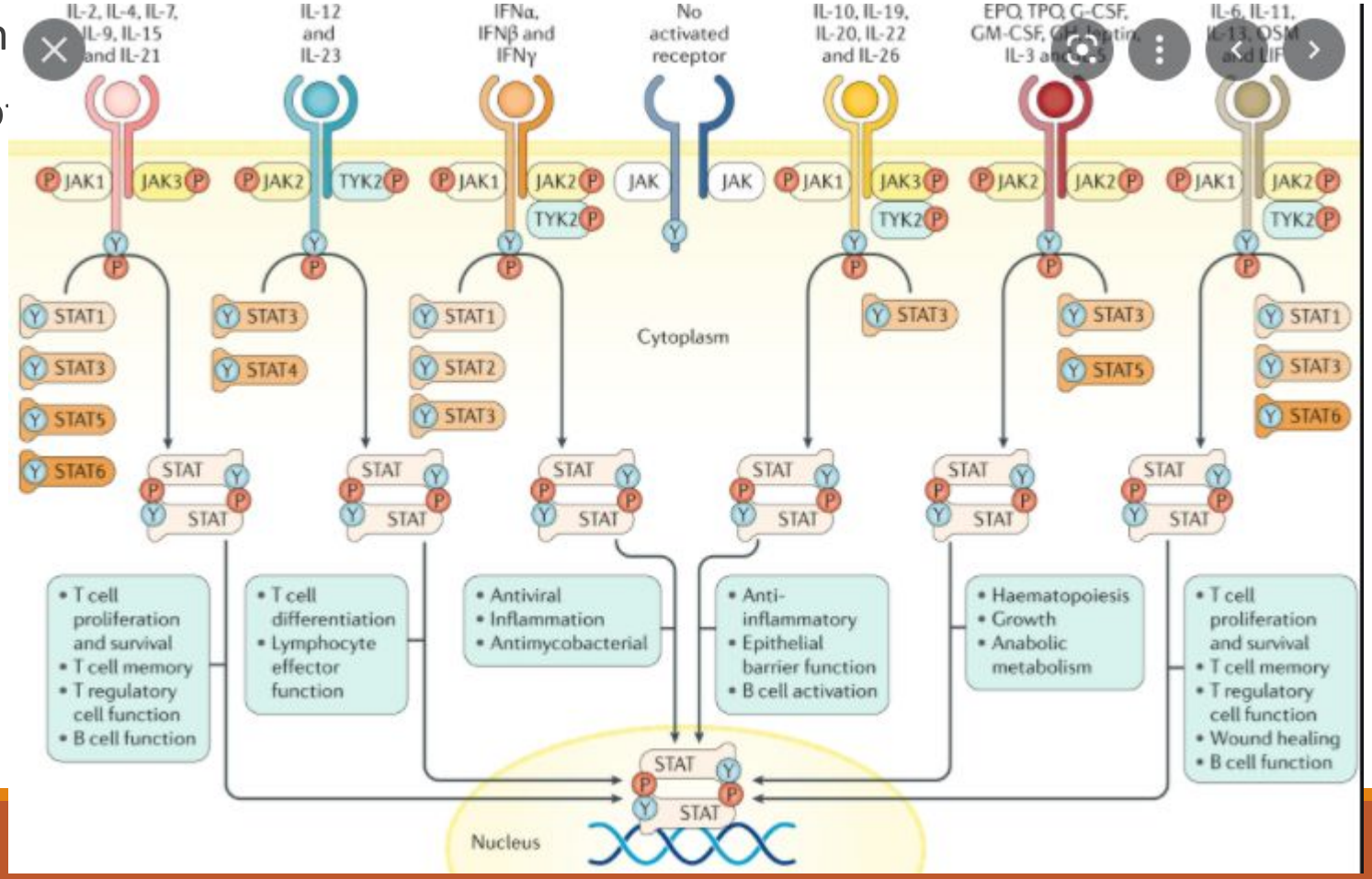
JAK/STAT inhibitors- how they work, pearls

Tofacitinib, upadacitinib, baricitinib

multiple combinations of JAK/STAT en

each drug has preferential blockage o

inhibition of



Azathioprine Pearls

- Immunosuppressive
- Significant cytopenias, increased risk of leukemia, pancreatitis, significant drug interactions
- Recommend checking TPMT level prior to starting
- **AVOID with xanthinine oxidase inhibitors** (Allopurinol/Febuxostat) - reduces metabolism and increased toxicity
- NTE dose of 2mg/kg

IL-6 inhibitors

- Tocilizumab – humanized IgG1 monoclonal Ab binds soluble and membrane bound IL-6 Receptor.
  - Infused or SQ injections
  - Indications: RA, **GCA**, COVID*
  - Risks – infections, increased LFT's, **Neutropenia**, **thrombocytopenia**, malignancy, **GI perforations, hyperlipidemia**.
- Sarilumab – binds IL-6R (soluble and membrane bound)
- Role of IL-6 in immunology
  - Secreted by a variety of cells monocytes, T/B cells, fibroblasts
  - Receptor exists in 2 forms (soluble and membrane bound)
  - Stimulates Th17 cells
  - Role in activating B cells
  - Recruits neutrophils
  - **Production of CRP directly**
  - increased TNF production
  - Increased osteoclast activity