Psoriatic Arthritis: How to Effectively Help Persons with It

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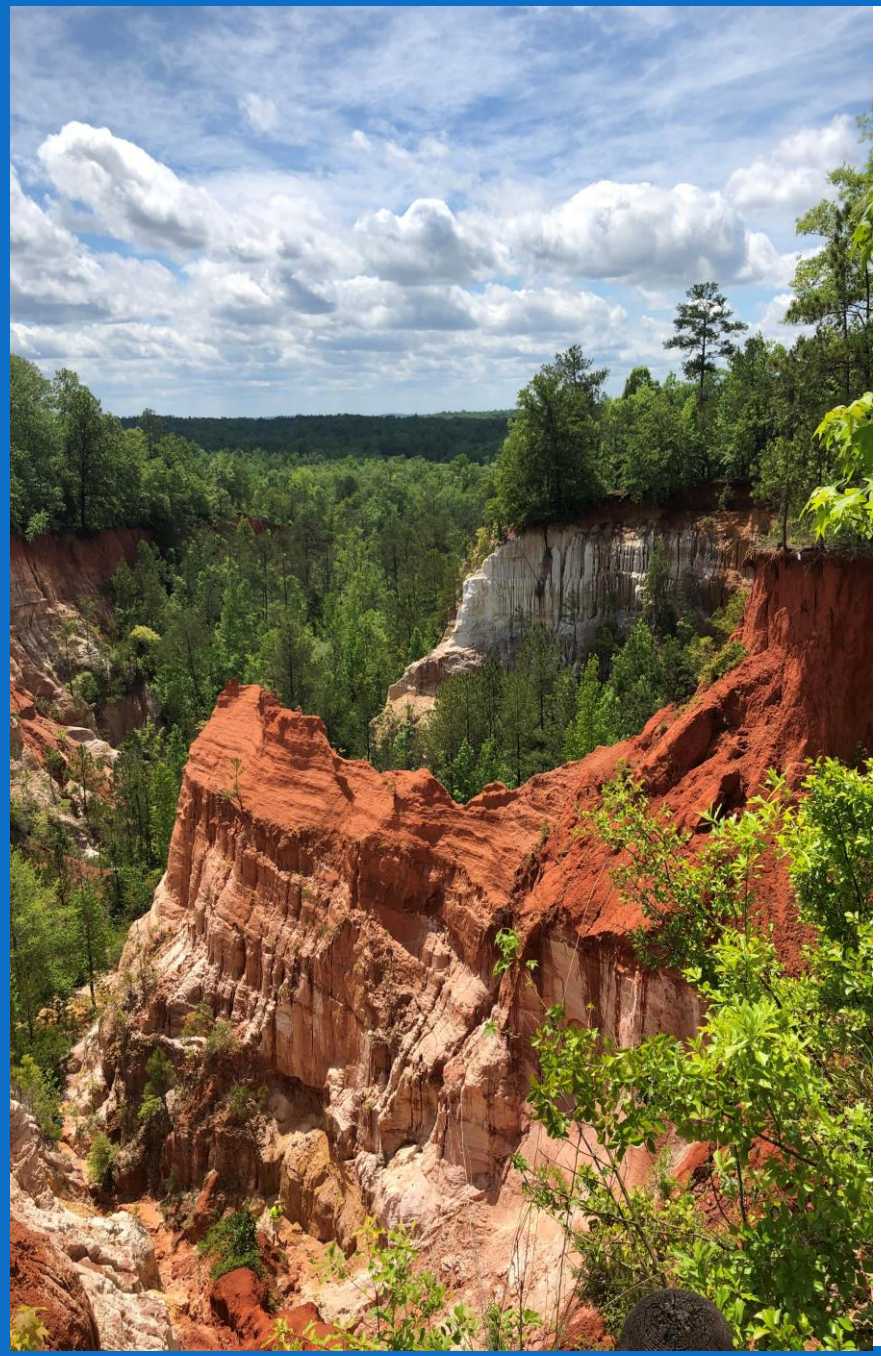

Disclosures

Non-Declaration Statement: I have no relevant relationships with ineligible companies to disclose within the past 24 months. (Note: Ineligible companies are defined as those whose primary business is producing, marketing, selling, re-selling, or distributing healthcare products used by or on patients.)

Objectives

After completing this session, attendees will be able to:

- **utilize the latest diagnostic approaches when evaluating persons with psoriatic arthritis.**
- **identify the currently approved medications for psoriatic arthritis.**
- **describe the risks, benefits and expectations of biologics in treating psoriatic arthritis.**

References

- Giannelli A. A Review for Physician Assistants and Nurse Practitioners on the Considerations for Diagnosing and Treating Psoriatic Arthritis. Rheumatol Ther. 2019; 6(1): 5-21.
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- Ogdie A, et al. Treatment guidelines in psoriatic arthritis. Rheumatology. 2020;59:i37-i46.
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34 year old female with "some of my fingers and toes are hurting and are swollen."

- Location: RUE 2nd PIP, 5th PIP, LLE 3 and 4th digits
- Quality: Dull pain, Aching
- Quantity: 4 joints listed above
- Timing: symptoms began 3 months ago, feels worse in morning, but some joint discomfort through the day
- Context: usual state of health prior to symptoms, patient unaware of causative reason for symptoms
- Aggravating symptoms: after sitting and watching TV
- Alleviating symptoms: walking, using hands
- Associated symptoms: fatigue, rash developed one year ago, morning stiffness X 2+ hours, not engaging in usual exercise routine

34 year old female with "some of my fingers and toes are hurting and are swollen."

- PMH: unremarkable
- Medications: none
- Allergies: none
- Social history: married, bank teller, no EtOH or tobacco
- Family history:
  - Father with psoriasis
  - Paternal grandfather: crystal proven gout
  - Paternal uncle: RA
  - Maternal grandmother: OA
- ROS: fatigue, difficult sleep with symptoms, scalp rash

Physical Examination

- Examination is unremarkable except for the things that you observe below

Physical Examination

WHAT DIAGNOSIS AM I TO CONSIDER FOR THIS PERSON WITH JOINT PAIN?

Interactive question

What conditions are included in your differential diagnosis?

- Osteoarthritis
- Rheumatoid Arthritis
- Gout
- Ankylosing Spondylitis
- Psoriatic Arthritis
- Other type of arthritis
- Non-rheumatic condition

Mono-, oligo-, polyarticular
Acute vs. chronic
Location
Systemic features
Inflammatory
vs. non-inflammatory

Interactive question

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- Other type of arthritis
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PsA: Epidemiology

- **Psoriasis** affects approximately 3% Caucasian population, rare in African Americans
- **25-31%** of pts with psoriasis **may have PsA**
- **Male = Female**
- **Peak Onset 30 – 50 yrs**
- Skin psoriasis precedes arthritis 85% (5-10 % develop arthritis prior to or simultaneously)

Cush, J., Kavanagh, A., & Stein, M. (2005). Rheumatoid Diseases. In Danette Somers, (Ed.), Rheumatology Diagnosis & Therapeutics, 2nd edition (pp 323-333). Philadelphia, PA: Lippincott, Williams & Wilkins.

Classification of Psoriatic-Arthritis: CASPAR Criteria

To meet the CASPAR criteria for PsA, a patient must have inflammatory articular disease (joint, spine, or entheseal) and score ≥3 points based on these categories.	
	POINTS
1. Evidence of psoriasis Current psoriasis Personal history of psoriasis Family history of psoriasis	2 or 1 or 1
2. Psoriatic nail dystrophy Pitting, onycholysis, hyperkeratosis	1
3. Negative test result for rheumatoid factor	1
4. Dactylitis Current swelling of an entire digit History of dactylitis	1 or 1
5. Radiologic evidence of juxta-articular new bone formation Ill-defined ossification near joint margins on plain x-rays of hand/foot	1

CASPAR, **C**l**AS**sification criteria for **P**soriatic **AR**thritis

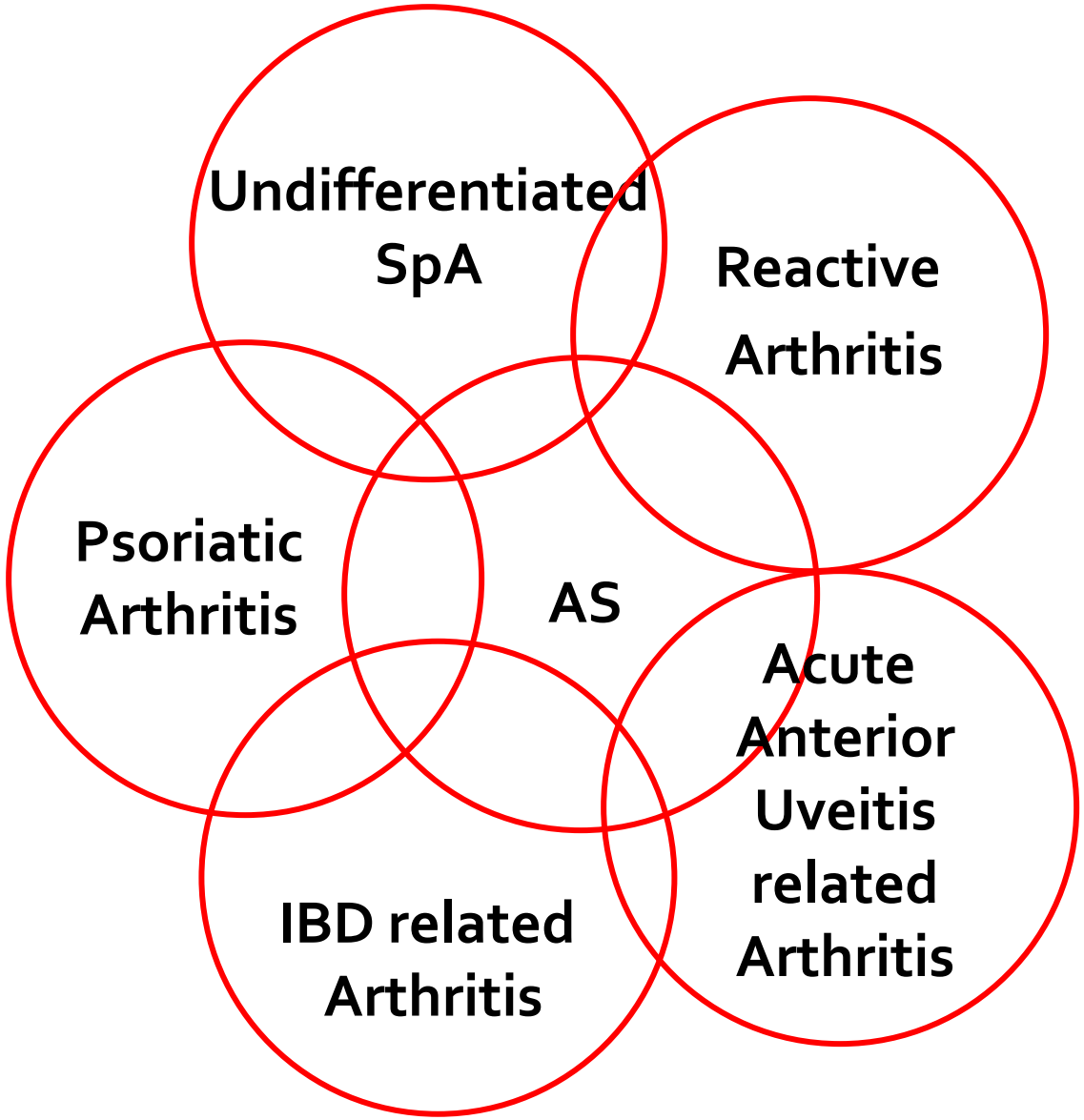
Taylor W et al. Arthritis Rheum 2006;54:2665-2673

Diagnosing Psoriatic Arthritis

Classification Criteria for Psoriatic Arthritis (CASPAR)

- Evidence of Psoriasis (Current, Personal History, Family History)
- Psoriatic nail dystrophy
- Negative test for rheumatoid arthritis
- Dactylitis
- Radiographic evidence of juxtaarticular new bone formation

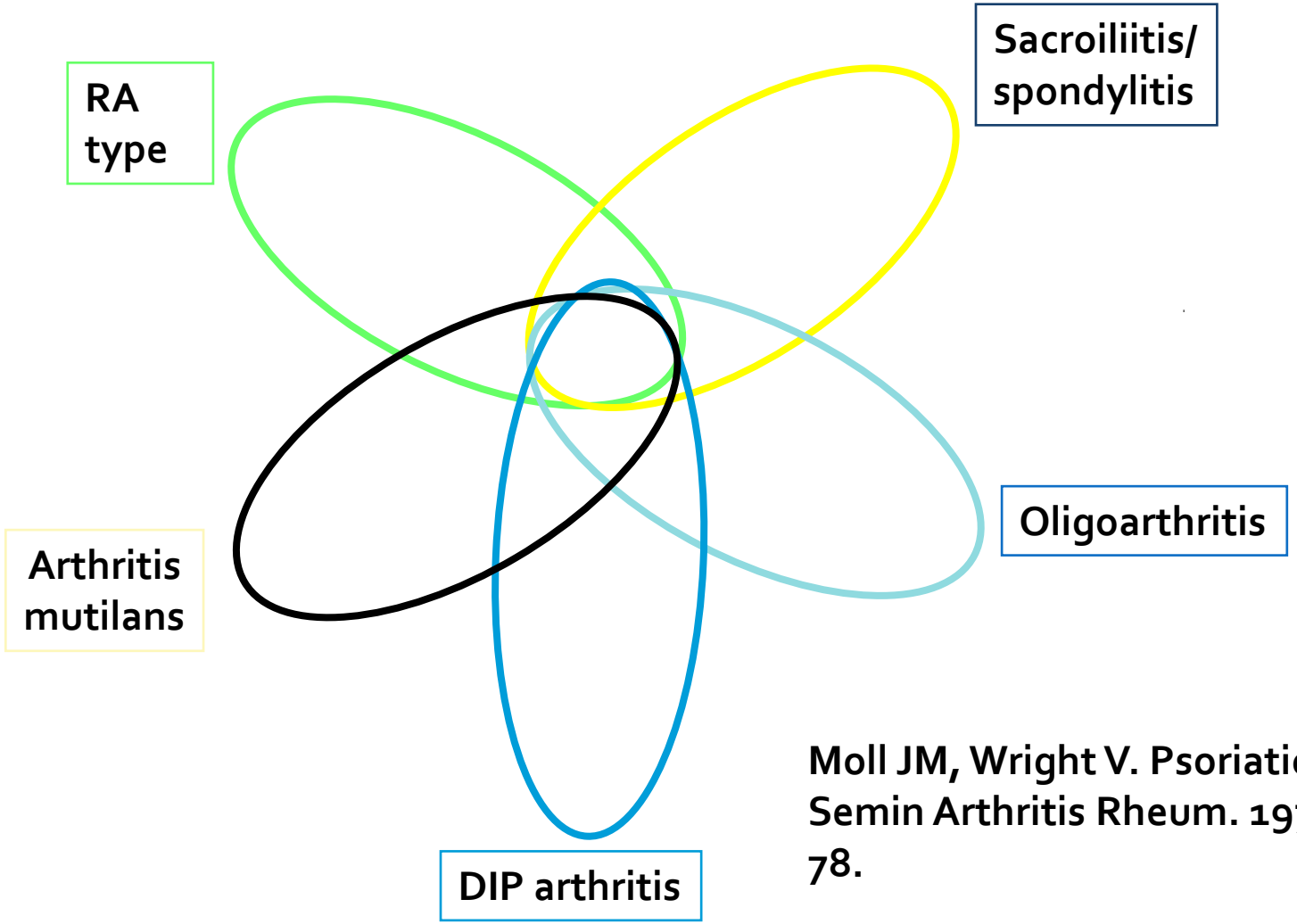
The Spondyloarthritis (SpA) Group



SpA are a group of rheumatic disorders that share several common factors:

1. **Synovitis *and* enthesitis**
2. **Similar association with HLA-B27**
3. **Usually RF -ve**

Moll & Wright Classification of Psoriatic Arthritis



Moll JM, Wright V. Psoriatic arthritis. Semin Arthritis Rheum. 1973;3:55-78.

Distinguishing inflammatory back pain diagnoses

	RA	AS	Enteropathic	PsA	ReA
Male:Female ratio	1:3	3:1	1:1	1:1	10:1
HLA association	DR4	B27	B27 (axial)	B27 (axial)	B27
Joint pattern	Symmetrical, peripheral	Axial	Axial, peripheral	Axial, asymmetrical, peripheral	Axial, asymmetrical, peripheral
Sacroiliac	None	Symmetrical	Symmetrical	Asymmetrical	Asymmetrical
Syndesmophyte	None	Smooth, marginal	Smooth, marginal	Coarse, nonmarginal	Coarse, nonmarginal
Eye	Scleritis	Iritis	+/-	None	Iritis, conjunctivitis
Skin	Vasculitis	None	None	Psoriasis	Keratoderma
RF	>80%	None	None	None	None

Adapted from Inman RD. The Spondyloarthropathies. In: Goldman L, Schafer AI, eds. *Goldman-Cecil Medicine.* 26th ed. Philadelphia, Penn. Elsevier; 2020: 1718-1725.

Psoriatic Arthritis (PsA)

A chronic inflammatory arthritis - usually occurs with established cutaneous psoriasis, with or without nail changes.

- **Axial** or **peripheral** joint involvement
- May present as **oligoarthritis**, **asymmetric**
- **Insidious** onset
- "**Sausage digits**" – dactylitis
- **Enthesopathy** – tendon insertion sites

Cush, J., Kavanagh, A., & Stein, M. (2005). Rheumatoid Diseases. In Danette Somers, (Ed.), Rheumatology Diagnosis & Therapeutics, 2nd edition (pp 323-333). Philadelphia, PA: Lippincott, Williams & Wilkins.

Definitions

- **Dactylitis-diffuse swelling of an entire finger or toe.**
- **Enthesitis-inflammation at the site of the insertion of tendons, ligaments, and joint capsule. (Lower > Upper extremity)**
  - **Plantar fascia**
  - **Achilles tendon**
  - **Spine**
  - **Pelvis**
  - **Ribs**

CATCH ALL OF THE CLUES!!!

ARTHRITIS MUTILANS

Clinical Features PsA

- **DIP involvement**
- **Asymmetric distribution**
- **Nail lesions (pitting or oncholysis)**
- **Hidden PsO plaques (scalp, gluteal fold, umbilicus)**
- **Dactylitis** (40-50%)
- **Enthesitis** (30-50%)
- **Eye involvement** (iritis, conjunctivitis, scleritis)
- **Spine involvement** (sacroiliitis which may be asymmetric)

Psoriatic Arthritis (PsA)

Nail Pitting

Psoriatic Arthritis (PsA)

Psoriatic Arthritis (PsA)

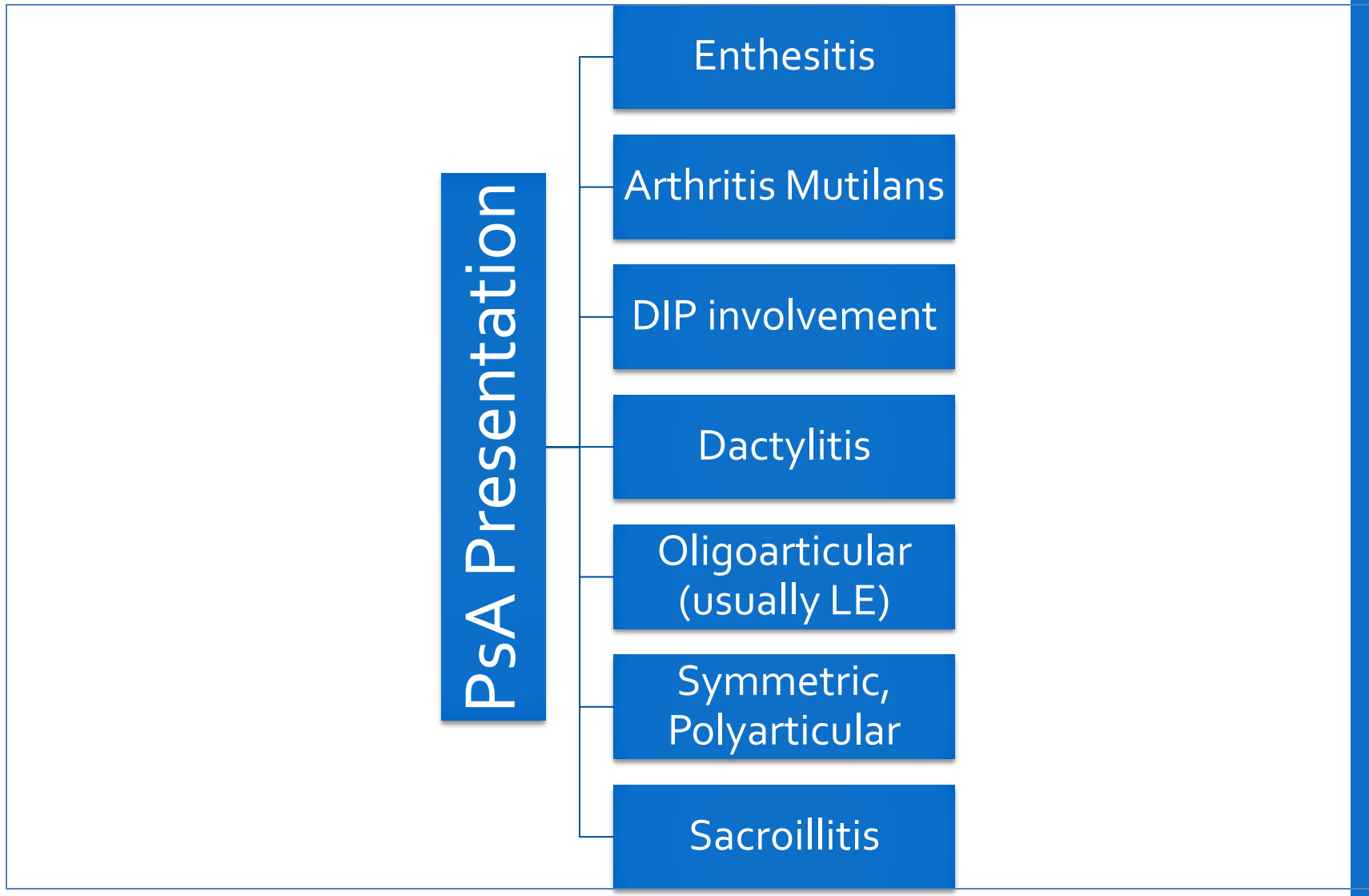
PsA: Characteristics

Persons with PsO more likely to develop PsA if…

-increased PsO severity (??)

-presence of nail lesions

-scalp and intergluteal lesions


PsA Presentation
Enthesitis
Arthritis Mutilans
DIP involvement
Dactylitis
Oligoarticular (usually LE)
Symmetric, Polyarticular
Sacroillitis

PsA: Diagnostic Pearls

- "**All over**" pain can sometimes be due to enthesopathy (Tenderness @ trochanteric bursae, epicondyles, plantar fascia)
- **Physical Exam**: Nail pitting, scalp plaques with scale and erythema, "sausage digit" (dactylitis)
- **History**: chronic foot pain (plantar fasciitis)
- **Fam History**: Psoriasis
- **X-ray**: Heel spur, PIP soft tissue swelling

WHAT TREATMENTS MIGHT I CONSIDER FOR THIS PERSON?

RHEUMATOLOGY

Rheumatology 2020;59:i37–i46
doi:10.1093/rheumatology/kez383

Treatment guidelines in psoriatic arthritis

Alexis Ogdie [1], Laura C. Coates [2] and Dafna D. Gladman[3]

Non-pharmacologic treatment of PsA

- **Exercise**
  - **Low-impact (tai chi, yoga, swimming) vs. high-impact (running)**
- **Physical Therapy**
- **Occupational Therapy**
- **Weight loss**
- **Massage therapy**
- **Acupuncture**
- ***Smoking Cessation***

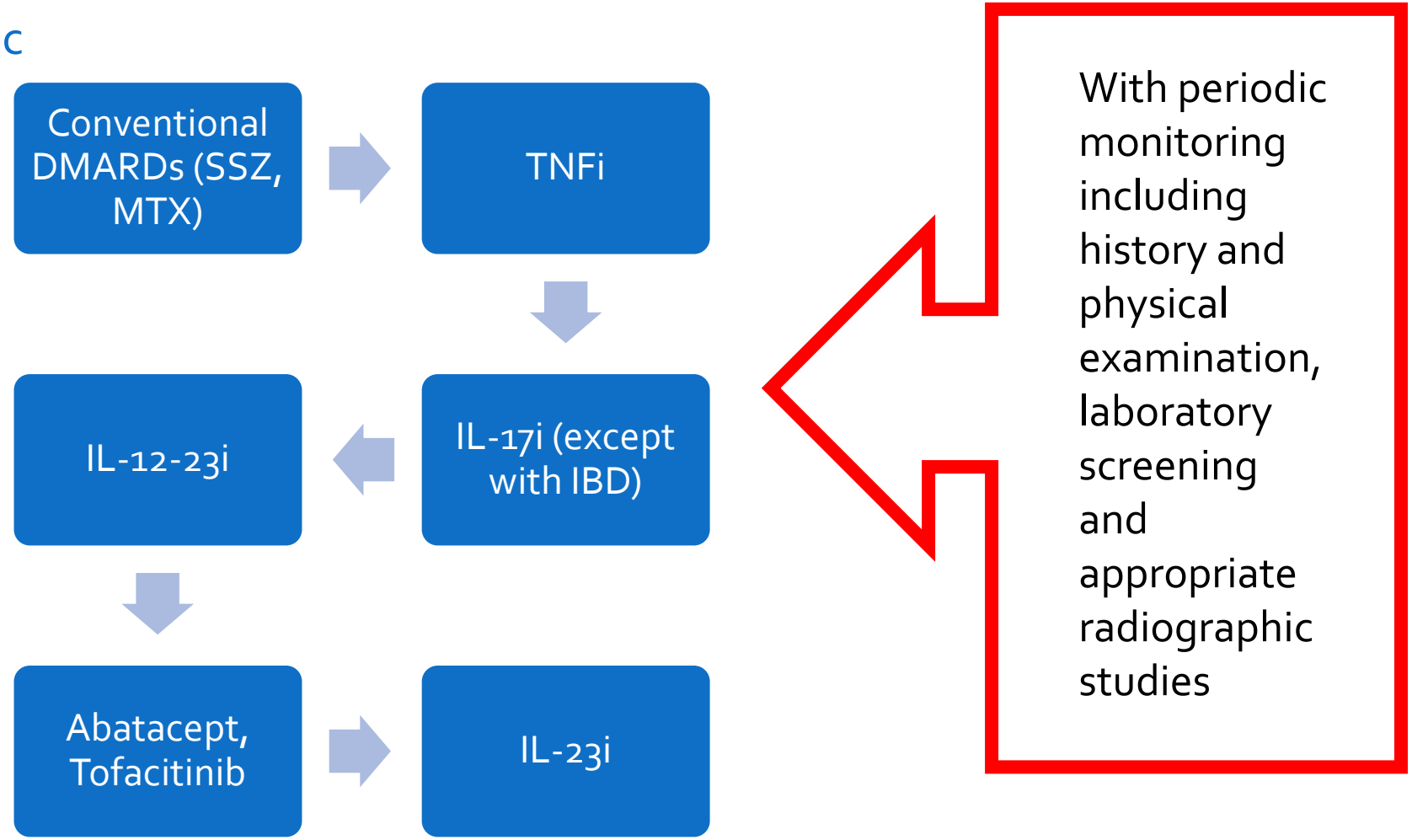
Systemic Treatments for PsA

Oral DMARDs	Biologic DMARDs TNF Blockers	Biologic DMARDs Novel MOA
Immunosuppressant Leflunomide (Arava) MTX (methotrexate) SSZ (sulfasalazine)	**TNF blockers** Adalimumab (Humira) Certolizumab (Cimzia) Etanercept (Enbrel) Golimumab (Simponi) Infliximab (Remicade)	**IL-17A blocker** Secukinumab (Cosentyx) Ixekizumab (Taltz)
		CTLA4-Ig Abatacept (Orencia)
PhosphoDiestErase 4 (PDE4) inhibitor Apremilast (Otezla)	**Janus Kinase inhibitor** Tofacitinib (Xeljanz)	**IL 12 & 23 blocker** Ustekinumab (Stelara)
		IL 23 blocker Guselkumab (Tremfya)

WHAT ABOUT THOSE NEW TREATMENTS THAT I SEE ON TV?

Our patient

- Non-pharmacologic
- Pharmacologic
  - NSAIDs
  - Apremilast



My Pre- Biologic Questions

- Current/recurrent infxns
- Cancer (CA)
- Congestive Heart Failure (CHF)
- Chronic Obstructive Pulmonary Disease (COPD)/asthma
- Tuberculosis (TB)
  - PPD hx
  - Exposure
- Multiple Sclerosis (MS)
- Hepatitis B/C
- Hyperlipidemia

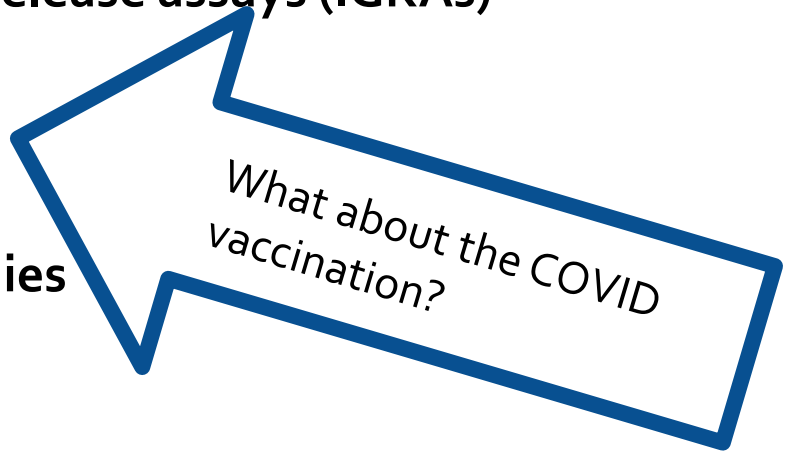
Biologics: Potential Risks

- **Injection site/infusion reaction**
- **Infection risk (bacterial, TB/other granulomatous, opportunistic)**
- **Malignancy risk ?**
- **Demyelinating Disease, MS or Family Hx**
- **Heart failure**
- **Drug induced syndromes (ANA, dsDNA)**
- **Cytopenias**

Pre-Biologic Screening

Pre-drug screening

- **CXR**
- **PPD/Interferon-gamma release assays (IGRAs)**
- **Pneumonia vaccine**
- **Influenza vaccine**
- **Hepatitis B and C serologies**



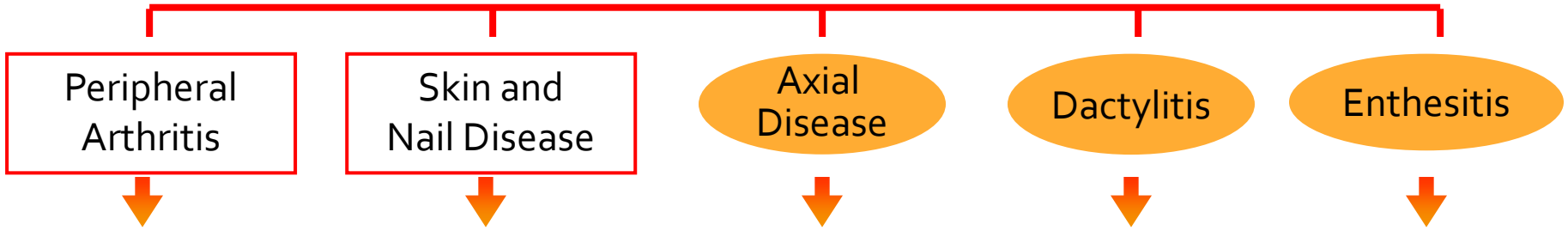
COVID-19 vaccination in Rheumatic and Musculoskeletal Disease Patients

General considerations

- Engage in shared decision making regarding vaccination
- Recognize heterogeneity of COVID-19 and higher risk for hospitalized COVID-19 and worse outcomes compared to the general population
- Should be prioritized for vaccination before the nonprioritized general population of similar age and sex
- No additional contraindications to vaccinations
- Vaccination response blunted in its magnitude and duration for those on immunomodulatory therapies compared to general population
- Theoretic risk of disease flare or worsening, but outweighed by risk

https://www.rheumatology.org/Portals/0/Files/COVID-19-Vaccine-Clinical-Guidance-Rheumatic-Diseases-Summary.pdf

GRAPPA PsA Treatment Guidelines



Initiate Therapy
NSAIDs, IA steroids, DMARDs (MTX, SSZ, LEF), Biologics (anti-TNF, IL 12/23i, IL17i) or PDE4

Initiate Therapy
Topicals PUVA/UVB DMARDs (MTX) Biologics (anti-TNF, anti-IL12/23m IL 17i, or PDE4

Initiate Therapy
NSAID PT Biologics (anti-TNF, IL17i, IL12/23i))

Initiate Therapy
NSAID Injection DMARD Biologics (anti-TNF, IL12/23i, IL17i) or PDE4i

Initiate Therapy
NSAID Injection Biologics (anti-TNF, IL17i, IL12/23i) or PDE4

Reassess Response to Therapy and Toxicity

Take Home Points

- Psoriatic arthritis is a chronic inflammatory arthritis that has the potential to cause damaging joint changes.
- Clinical features of psoriatic arthritis include synovitis, dactylitis, enthesitis and cutaneous manifestations.
- Psoriatic arthritis can present in various patterns.
- There are several classes of medications that can appropriately treat persons with psoriatic arthritis. The decision of which treatment to utilize is based on a person's manifestations and other comorbidities.