Welcome!

RA Foundations

Wendy Grant, MD

September 11, 2023

INDIAN + COUNTRY ECHO

AMERICAN COLLEGE of RHEUMATOLOGY
Empowering Rheumatology Professionals

UCSF Health

Disclosures

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Disclosures

COMPLETING THIS ACTIVITY

Upon successful completion of this activity 1 contact hour will be awarded

Successful completion of this continuing education activity includes the following:

- Attending the entire CE activity;
- Completing the online evaluation;
- Submitting an online CE request.

Your certificate will be sent via email. If you have any questions about this CE activity, contact Tristan Stitt, tstitt@cardeaservices.org

Cardea

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Session 1 Agenda

- Introductions
- Overview of Course Objectives: Jennifer Mandal, MD
- Digital storytelling presentation: LaToya Negrette
- RA in AI/NA populations
- RA treatment outline
- Classification criteria for RA

Session Format

Mondays, 12-1PM PST:

High-Yield Didactic → **Case-Based Group Discussion** → *1-1:30PM:* **Optional 30min "Office Hours"**

- ~30 minute didactic
- Taught by a rheumatologist

- Brief case presentation
- Interactive discussion with learners, facilitated by expert RA Panel

- Held <u>every other</u> week

Case Presentations:

- Please use the RA ECHO Case Presentation form
- Feel free to submit more than one case!
- **Patient Confidentiality: Please do not include any protected health information (PHI)**
  - Applies to Case Presentation forms, live discussions, office hours, and email communication
  - PHI includes patient name, date of birth, MRN, address, and any photos in which the patient is potentially identifiable

Nuts & Bolts

- Please keep your video on (if your internet bandwidth allows)
- Please mute yourself when not speaking
- Sign in using the chat for attendance
- Fill out evaluation each session for CE credit
- We strongly encourage you to ask questions and offer your comments and insights to the group!
- Safe space for discussion and learning

Didactic Curriculum

1. 9/11- RA Foundations
2. 9/18 - Distinguishing RA from OA
3. 9/25 - Lab and Xray Findings in RA
4. 10/2- Extra-Articular Manifestations of RA

10/9 (Off, Indigenous Peoples' Day)

5. 10/16 - RA Mimics
6. 10/23 - Baseline Studies and Considerations Prior to Treatment and How to Assess RA Disease Activity
7. 10/30 – Glucocorticoids, NSAIDs, and Other Conventional DMARDs
8. 11/6 - Methotrexate
9. 11/13- Biologic DMARDs
10. 11/20 - Wrap-Up

Benefits of Consistent Participation in the RA ECHO:

- A well-rounded understanding of the diagnosis and management of RA
- The knowledge and confidence you need to change your practice and enhance the care of Navajo patients living with RA
- A supportive community of colleagues with a shared interest in rheumatology
- CE Credit (must fill out very short questionnaire at the end of each session)
- **For those who attend at least 9 of 12 sessions**
- A formal Certificate of Participation issued by the American College of Rheumatology (ACR)

Contact information

- Program & Logistical Questions:

raeinitiative@gmail.com

aday@npaihb.org

- RA/Rheumatology Questions:

Gwendolyngrant@centura.org

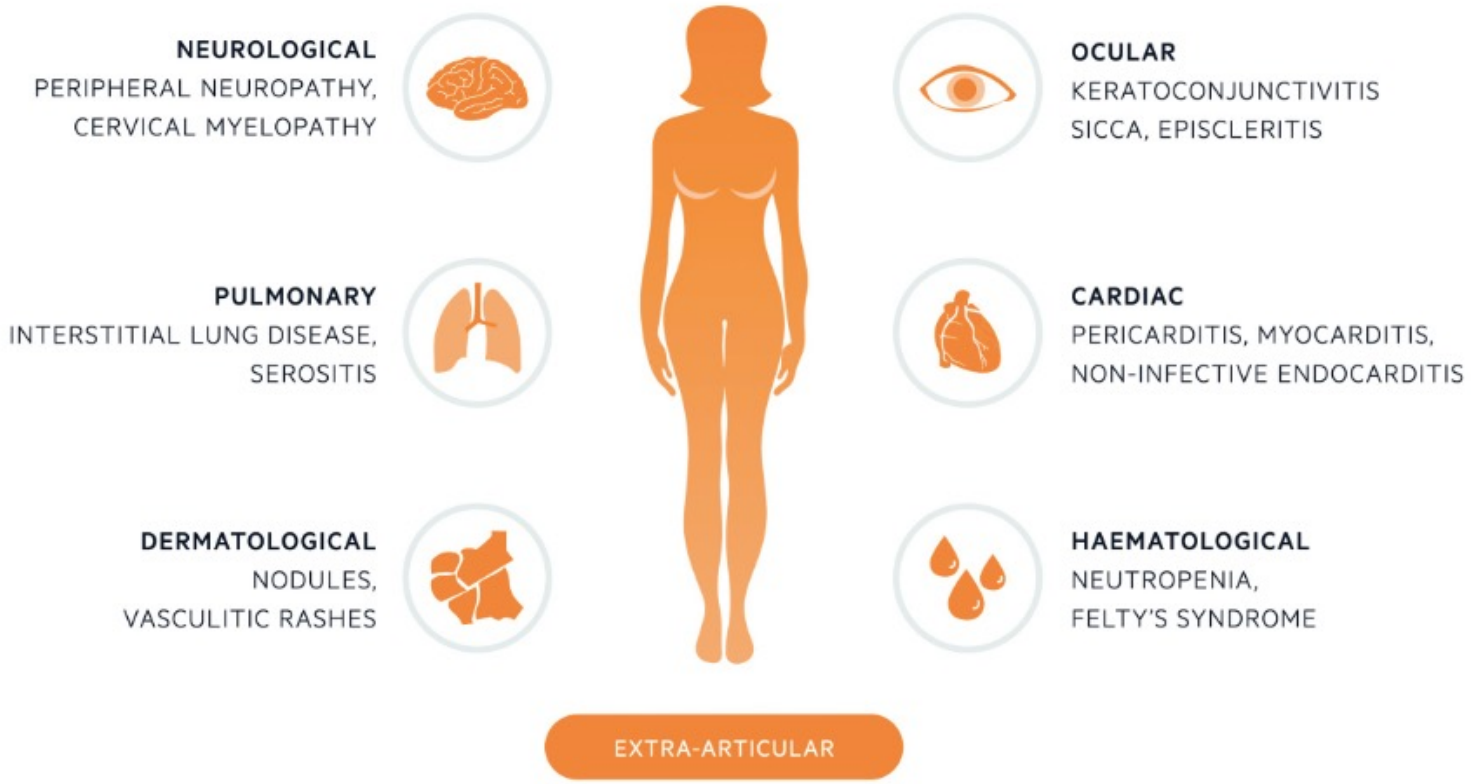
Jennifer.mandal@ucsf.edu

Mary.margaretten@ucsf.edu

RA: the basics

- RA is a systemic autoimmune disease characterized primarily by a symmetric inflammatory polyarthritis
- The US prevalence is 0.5-1%, with some populations having significantly higher rates of disease
- Women:men 3:1
- Age of onset: 30-50 most common
- 1st degree relative confers 3X higher odds
- 2nd degree relative confers 2X higher odds

Extra-Articular Manifestations of RA



RA: pathogenesis

Likely a combination of genetic and environmental factors

Genetics:

HLA-DRB1 genes are most closely associated with RA

Environmental:

smoking (strongest known environmental RF for RA)

chronic mucosal inflammation (periodontitis) and possibly gut dysbiosis are potential RF

others: silica/other inhalants, sugary drinks, obesity, pollution

2 copies of the HLA-DRB1 gene + smoking = RR of 21

RA in Native American Populations

The worldwide prevalence of RA is about 1%

The prevalence of RA in AI/AN populations is incompletely characterized but some epidemiologic surveys that define the prevalence and characteristics of RA in specific populations are available

RA in Native American Populations

Tlingit 2.4% (1991)

1.3% male

3.5% female

Yakima (1973)

N/A male

3.4% female

Boyer et al. Rheumatic Diseases in Alaskan Indians of the Southeast Coast. JRheum1991;18:1477-84

Beasley et al. High prevalence of rheumatoid arthritis in Yakima Indians. Arth Rheum 1973; 16:743-8

RA in Native American Populations

Pima (1989)

3.2% male

7.0% female

Chippewa (1981,1983)

4.8% male

8.2 % female

DelPuente et al. High incidence and prevalence of rheumatoid arthritis in Pima Indians. Am J Epidemiol 1989; 129: 1170-8

Harvey et al. Rheumatoid arthritis in a Chippewa Band. Arthritis Rheum 1981; 24: 717-21

RA Epidemiology Among American Indians/Alaska Natives

Table 1: Prevalence and Incidence Rates of Rheumatoid Arthritis in Caucasians and Native North Americans

Population	Geographic Region	Prevalence	Annual Incidence
Pima Indians (22, 41, 54)	Arizona	2.5-5.3%	422/100,000
Chippewa Indians (4)	Central Minnesota	5.3%	—
Blackfeet Indians (40)	Montana	5% females, 4% males	—
Yakima Indians (43)	Central Washington	3.4% females	—
Tlingit, Tsimshian, & Haida Indians (6)	Southeast Alaska	2.4%	122/100,000 women 46/100,000 men
Algonkian Indians (44)	Central Canada	2.0%	—
Nuu-Chah-Nulth (12)	Vancouver Island	1.4%	—
Haida Indians (46)	Queen Charlotte Islands	1-1.5% females, 0.5-1% males	—
Inupiat Eskimos (6)	Northwest Alaska	1.0%	—
Yupik Eskimos (13)	Southwest Alaska	1.1%	—
Inuit Eskimos (11)	Northwest Territories	0.6%	48/100,000
National Health Examination Survey (37)	USA	1.6% females, 0.7% males, 0.9% total	—
Rochester (38)	Minnesota	1.0%	22/100,000 men 48/100,000 women
England (39)	England	1.1%	—

Peschken CA, Esdaile JM. Seminars in Arthritis and Rheum 1999;28:368–391.

RA in Native American populations

RA in Native American Populations

2010 study comparing NAN patients (Cree, Ojibway, Metis, Sioux, Dakota) to white patients with RA

20 years of follow up

In the NAN group:

- Younger age of onset in NAN
- Higher rate of RF positivity
- Higher rate of ANA positivity
- Higher lifetime number of DMARDs
- More frequent combination therapy
- More frequent prednisone use

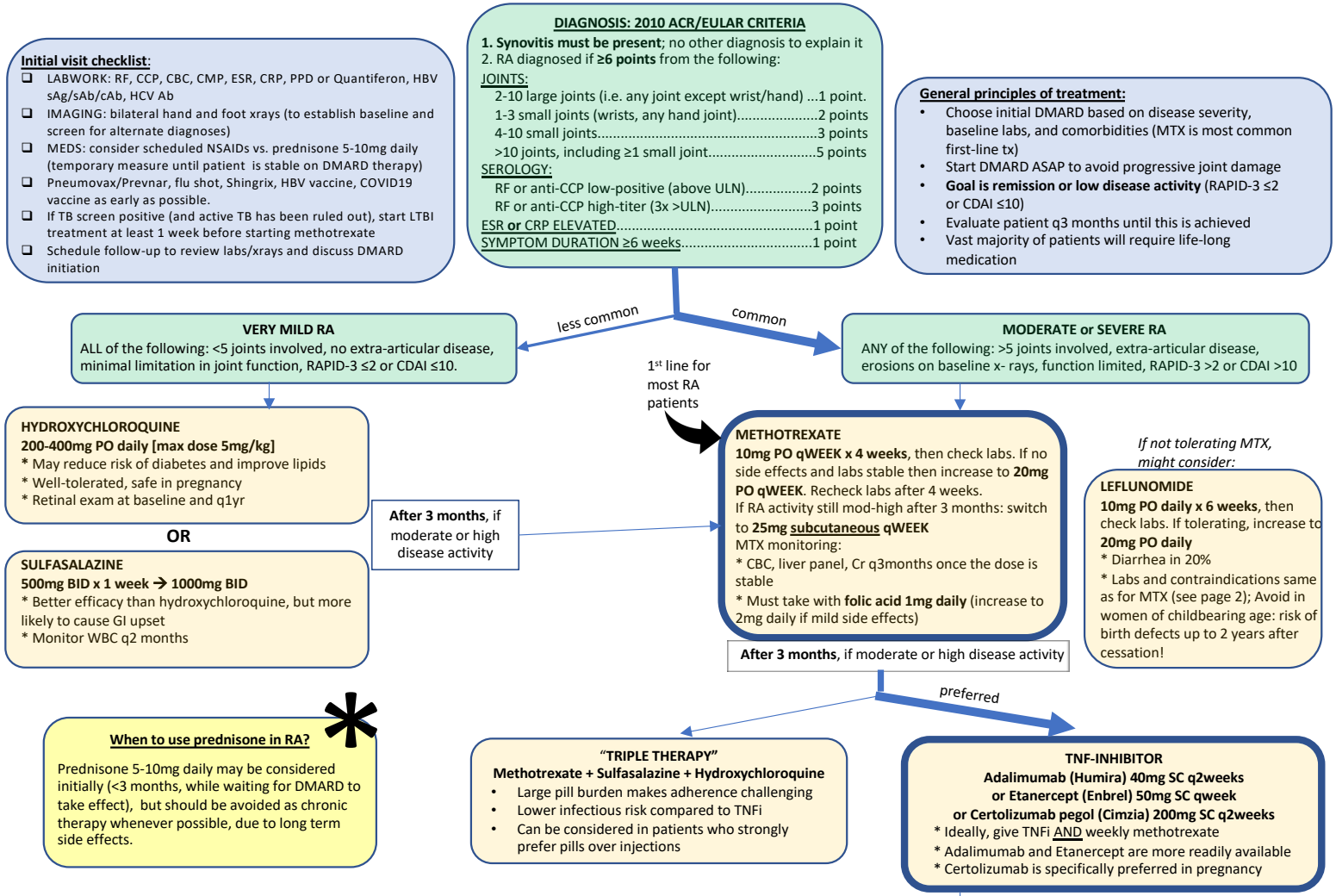
Peschken et al. Rheumatoid arthritis in a North American Native population: longitudinal followup and comparison with a white population. JRheum 2010; 37: 1589-95

Table 3: Summary Of Unusual Clinical and Serological Features in Native North Americans With Rheumatoid Arthritis

Tribal Group	Prevalence	Age at Onset (years)	RF Positive (%)	ANA Positive (%)	Shared Epitope Frequency: RA Patients (%)	Shared Epitope Frequency: Controls (%)	Comments
Tlingit (5, 47)	⇑	51% <35	97	71	Dw16: 91 DR9: 18	Dw16: 85 DR9: 8	44% rheumatoid nodules 24% extraarticular features
Yakima (43, 53)	⇑	Peak prevalence <35	94	53	Dw16: 83	Dw16: 60	50% rheumatoid nodules 100% erosive disease 64% stage IV x-ray changes
Chippewa (4, 48)	⇑	58% <40	92	75	DR4: 100	DR4: 68	42% rheumatoid nodules

Peschken CA, Esdaile JM. Seminars in Arthritis and Rheum 1999;28:368–391.

DIAGNOSIS & MANAGEMENT OF RHEUMATOID ARTHRITIS: NAVAJO NATION



Originally developed by: Sara K. Tedeschi, MD[1]; Paul Dellaripa, MD[1]; Anneliese Flynn, MD[2]; Michael Weinblatt, MD[1]; [1]Brigham and Women's Hospital, Division of Rheumatology, [2]Northern Navajo Medical Center

Updated in 2021 by: Jennifer Mandal, MD[3]; Wendy Grant, MD[4]; Mary Margaretten, MD[3]; John McDougall, MD5; 3UCSF Division of Rheumatology, [4]Centura Health Rheumatology, Durango, CO; [5]Northern Navajo Medical Center-Shiprock

DIAGNOSIS: 2010 ACR/EULAR CRITERIA

1. Synovitis must be present; no other diagnosis to explain it

2. RA diagnosed if **≥6 points** from the following:

JOINTS:

2-10 large joints (i.e. any joint except wrist/hand) ...1 point.

1-3 small joints (wrists, any hand joint).....2 points

4-10 small joints.....3 points

>10 joints, including ≥1 small joint.....5 points

SEROLOGY:

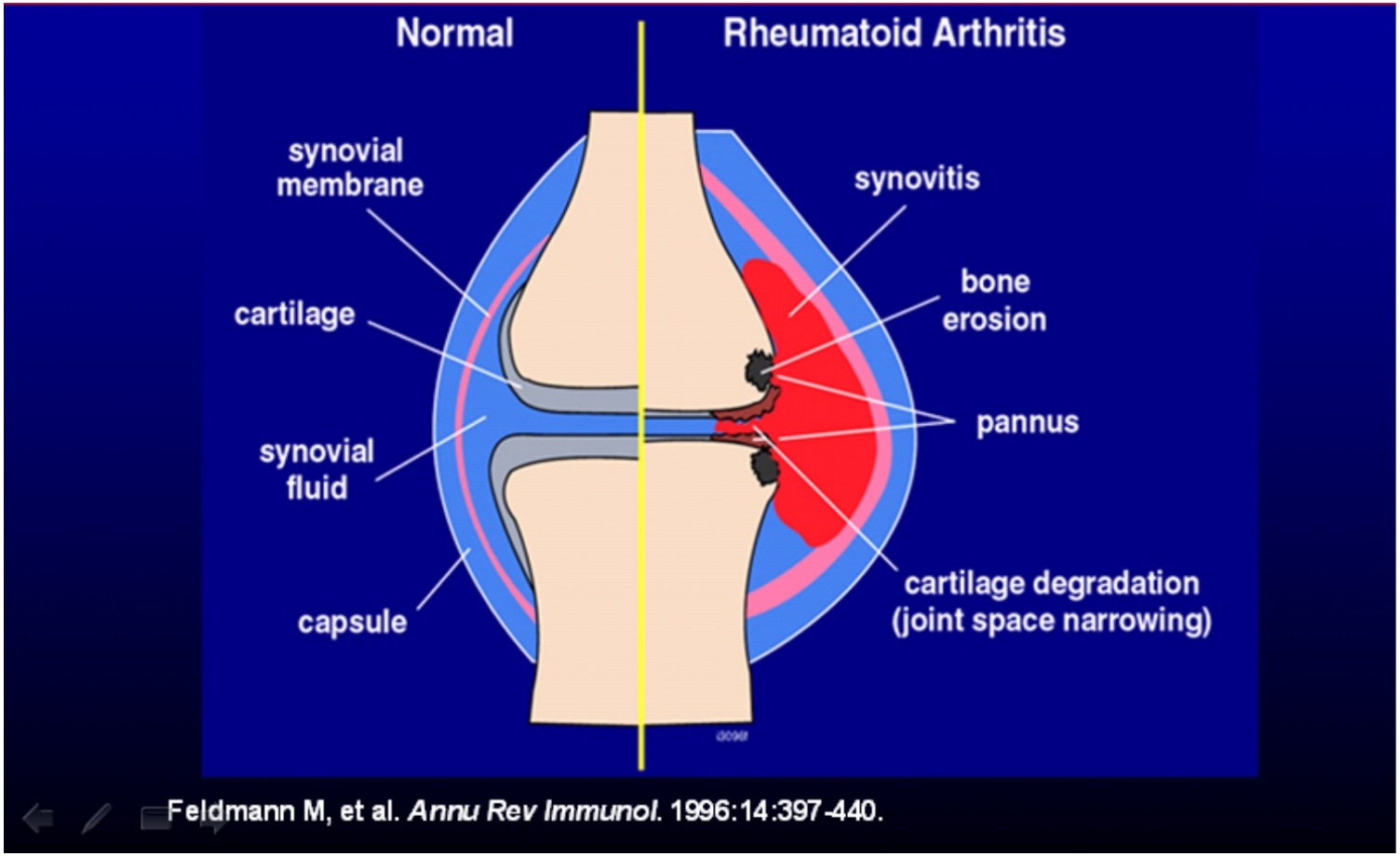
RF or anti-CCP low-positive (above ULN).....2 points

RF or anti-CCP high-titer (3x >ULN).....3 points

ESR **or** CRP ELEVATED.....1 point

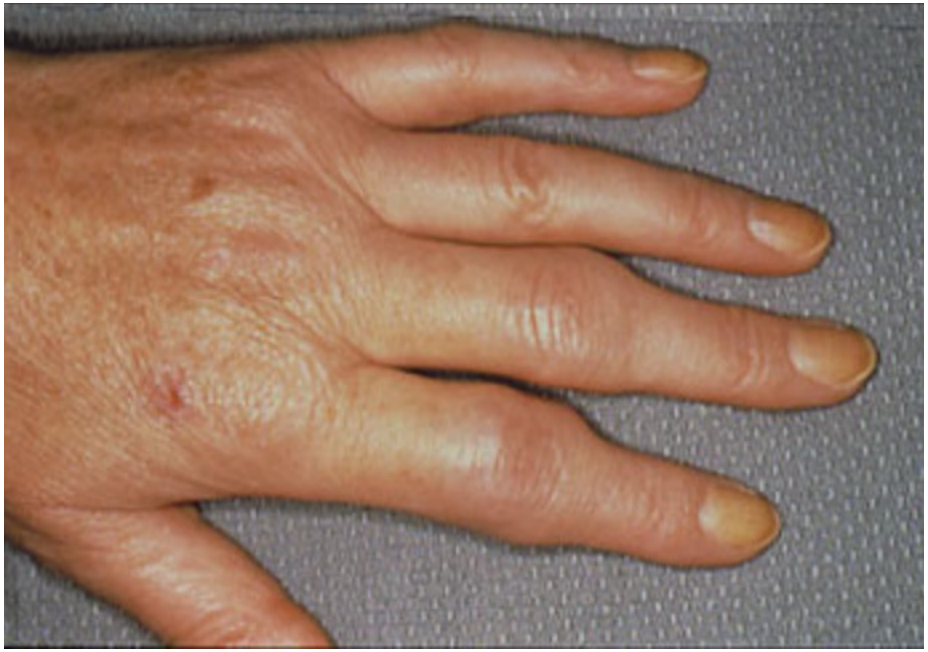
SYMPTOM DURATION ≥6 weeks.....1 point

Synovitis


Normal
Rheumatoid Arthritis
synovial membrane
cartilage
synovial fluid
capsule
synovitis
bone erosion
pannus
cartilage degradation (joint space narrowing)
Feldmann M, et al. *Annu Rev Immunol.* 1996:14:397-440.

Scenario #1

- 34 year old woman
  - 2-3 months joint pain, stiffness in hands, feet, wrists
  - Better with movement, NSAIDs; worse in the morning or after inactivity
  - Exam: swelling and tenderness of both wrists, left index and third finger PIP joints
  - RF negative
  - CCP > 250
  - CRP 15



Scenario #1

- 34 year old woman

  - **2-3 months** joint pain, stiffness in hands, feet, wrists 1

  - Exam: **swelling and tenderness** of both wrists; left index; third PIP joint 3

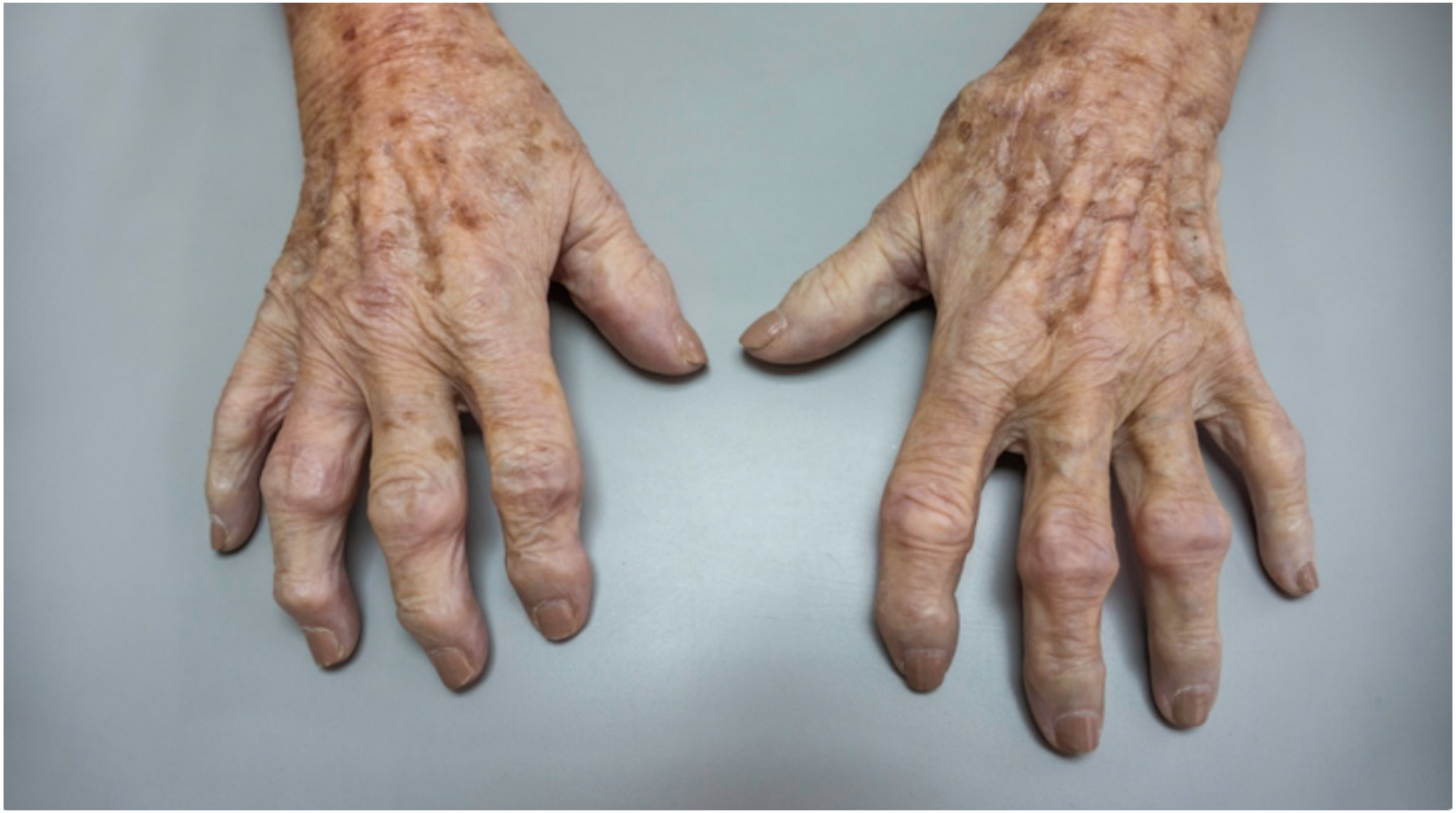
  - RF negative 0

  - CCP > 250 3
  - CRP 15 1

This person has rheumatoid arthritis

Scenario #2

- 68 year old man
- 10 years of joint pain in the hands
- Exam: enlarged PIP and DIP joints; decreased flexion
- RF 34
- CCP negative
- Normal CRP



Scenario #2

- 68 year old man

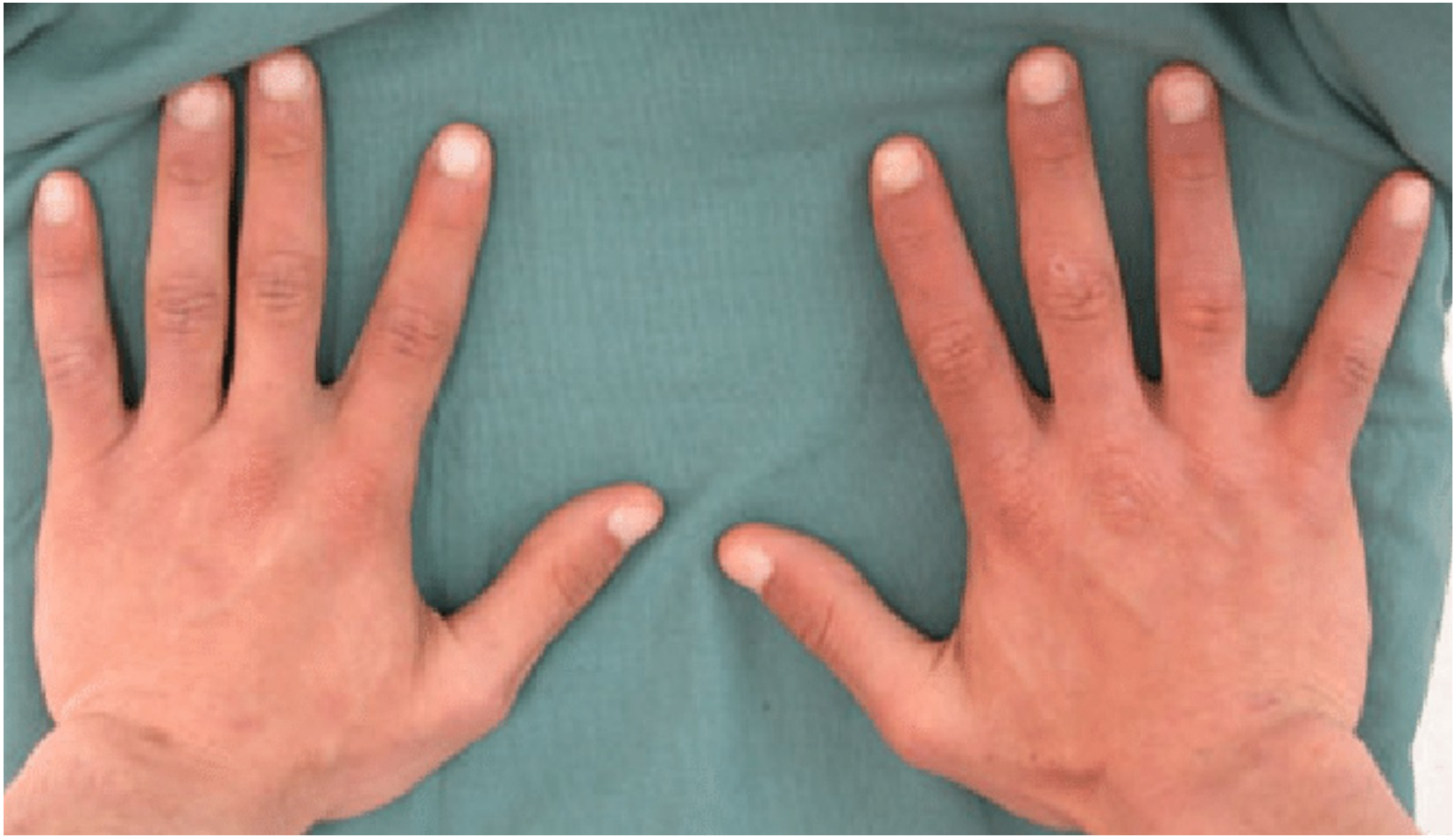
• 10 years of joint pain in the hands	1 point
• Exam: enlarged PIP and DIP joints; decreased flexion	0 points
• no synovitis	
• RF 34	2 points
• CCP negative	0 points
• Normal CRP	0 points

This person has osteoarthritis

Scenario #3

- 50 year old woman

- 3 months of pain in hands
- Exam: tenderness in several PIP and MCP joints; no obvious synovitis
- RF negative
- CCP 50 (normal < 20)
- CRP 12 (normal < 10)



Scenario #3

- 50 year old woman

• 3 months of pain in hands	1
• Exam: tender joints; no obvious synovitis	0
• RF negative	0
• CCP 50 (normal < 20)	2
• CRP 12 (normal < 10)	1

This person does not meet the criteria for RA, but should be followed closely

Please reach out to

raeinitiative@gmail.com

with any feedback or questions.

CE Credit Links:

https://survey.alchemer.com/s3/7508375/Rheumatoid-Arthritis-ECHO-Fall-2023