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A 39 year old lady with rheumatoid arthritis is admitted to hospital with a hot, swollen and painful right knee.

Which is the most important blood test?

A – CRP

B – FBC

C – LFT

D – blood culture

E – uric acid

2

A man is referred to the rheumatology clinic with back pain. Which of the below features would *most* make you think about a diagnosis of ankylosing spondylitis?

A – aged 49

B – rapid onset over the last 2 weeks

C – made worse by exercise

D – pain at night and first thing in the morning

E – loss of thoracic kyphosis

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**A 45 year-old man has had arthritis affecting his left knee, ankles and hands and wrists for 5 years.
What test is needed?**

- A Rheumatoid factor
- B HLA-B27 status
- C urinalysis
- D thyroid function
- E ferritin



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A 60 year old lady with limited scleroderma has become short of breath over the past 6 months.

Her G.P. finds that her pulse is 100 bpm and regular and heart sounds are normal. Her respiratory rate is 18/min and breath sounds are normal.

The ECG shows sinus tachycardia and right heart strain.

What complication has developed?

A – pleural effusions

B – pericardial effusion

C – pulmonary fibrosis

D – pulmonary nodules

E – pulmonary hypertension

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Which of these statements about patients with SLE is *correct*?

A – > 90% are Ro and La positive

B – > 90% are dsDNA positive

C – > 90% are ANCA positive

D – >90% are anti-Smith positive

E – >90% are ANA positive

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**What symptom is most likely in this lady?
She reports attacks of painful cold white
fingers and stiffening of her hands.**

- A - heartburn
- B - haemoptysis
- C - haematuria
- D - hair loss
- E - heat intolerance



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You see a patient who has recently been diagnosed with lung cancer. He has bilateral proximal weakness of his limbs, and a photosensitive rash over his upper chest and neck.

What is the most likely diagnosis?

A – SLE

B – dermatomyositis

C – polymyalgia rheumatica

D – scleroderma

E – polymyositis

8

Which DMARD is absolutely contraindicated in pregnancy and is highly teratogenic?

A – hydroxychloroquine

B – azathioprine

C – methotrexate

D – sulphasalazine

E – ciclosporin

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A 32 year old lady presents with a 7 day history of pain and swelling to her ankles and a rash to her shins.

What is the most likely outcome?

- A visual impairment due to posterior uveitis
- B disability due to destructive arthritis
- C gradual resolution of rash and joint pain
- D progressive dyspnoea due to lung fibrosis
- E renal failure due to nephrocalcinosis



10

A patient has had swelling and pain in the joints of her hands for 3 months. You are asked to review her hand x-rays. Which of the following would point you towards a diagnosis of rheumatoid arthritis?

- A joint space narrowing
- B osteophytes
- C subchondral sclerosis
- D involvement of the DIP joints
- E periarticular osteopenia

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A 21 year old man presents with a 6-week history rash to his lower legs. It is palpable but non-tender. On systems review, he is well in himself. He has a 6 year history of asthma and uses a salbutamol inhaler. There is no other drug use.

A skin biopsy reveals leucocytoclastic vasculitis and IgA deposits.

Which of the following is the most important prognosticator?

- A Serum IgA levels
- B CRP
- C Urine protein:creatinine ratio
- D ANCA titre
- E CXR



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A 61 year old man presents with 6 weeks of pain to his shoulder and hip girdles that came on suddenly. There is marked morning stiffness but no weakness. Shoulder movements are globally restricted due to pain.

What blood test results would you expect?

A – raised creatine kinase and raised CRP

B – normal creatine kinase and raised CRP

C – normal creatine kinase and normal CRP

D – positive rheumatoid factor and raised CRP

E – positive ANA and raised CRP

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A 41 year old man with haemochromatosis presents with pain and swelling in his right knee. You request an x-ray. The report reads “Loss of joint space and chondrocalcinosis present”.

What may you see if you aspirated the joint?

A – White blood cells

B – Red blood cells

C – Needle shaped birefringent negative crystals

D – Rhomboid shaped birefringent positive crystals

E – No cells and no crystals



14

Which of the following regarding psoriatic arthritis is correct?

- A – the rash always precedes the arthritis
- B – classical nail changes are rare
- C – enthesopathy e.g Achilles tendinitis is common
- D – DIPJs are rarely involved
- E – periarticular osteopenia is common

15

A 30 year old lady developed a polyarthritis 5 years ago. What is the diagnosis?

- A gout
- B rheumatoid arthritis
- C septic arthritis
- D reactive arthritis
- E psoriatic arthritis



16

A 35 year-old lady presents with arthralgia affecting her hands and wrists, with fatigue and hair thinning. Which of the following results could be supportive of a diagnosis of SLE?

- A lymphopenia
- B thrombocytosis
- C elevated ALT
- D raised CRP
- E raised neutrophil count

17



A 48 year old man has a 20 year history of back pain. He has had some improvement with naproxen. Which drug should next be offered?

- A azathioprine
- B methotrexate
- C sulphasalazine
- D hydroxychloroquine
- E etanercept

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What is the most common cause of dactylitis?

- A rheumatoid arthritis
- B SLE
- C psoriatic arthritis
- D reactive arthritis
- E ankylosing spondylitis

Dactylitis



19

A 33 year-old woman with rheumatoid arthritis is commenced on treatment with the anti-TNF drug adalimumab.

Which of the following adverse effects is most common?

- A injection site reaction
- B pneumocystis pneumonia
- C reactivation of latent TB
- D pancytopenia
- E pneumonitis

20

A 53 year-old man presents with an 18 month history of sinusitis and has recently developed hamoptysis and shortness of breath. Investigations confirm a diagnosis of granulomatosis with polyangiitis.

Which of the following features is also most likely to be present?

- A microscopic haematuria
- B nephrotic syndrome
- C malignant hypertension
- D renal artery aneurysms
- E renal artery stenoses



This lady also reports gritty eyes and Raynaud's phenomenon. Her oral mucosa appears dry. What is the most likely diagnosis?

- A polymyositis
- B polymyalgia rheumatica
- C SLE
- D Sjogren's syndrome
- E scleroderma

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A 63 year-old man is diagnosed with acute polyarticular gout. Once the attack settles he starts taking allopurinol 300mg daily and continues diclofenac 50mg tds with lansoprazole. He is reviewed 4 weeks later.

What is the correct statement regarding his allopurinol treatment?

A it should be reduced to 200mg daily

B it should be increased to 400mg daily

C it should be left unchanged

D the drug should be stopped and swapped for colchicine

E it should be titrated according to his serum urate level

23



What pattern of arthritis is most likely in this lady?

A erosive, small joints

B erosive, large joints

C non-erosive, small joints

D non-erosive, large joints

E axial

24 A 37 year-old Somali lady presents with myalgia.
ESR 29 mm/1st h (<30)
Alkaline phosphatase 168 IU/L (80-120)
Serum corrected calcium mmol/L 2.1 (2.2-2.6)
Serum phosphate 0.7 mmol/L (0.8-1.4)

What is the most likely underlying diagnosis?

- A hyperparathyroidism
- B Paget's disease
- C sclerotic metastases
- D osteomalacia
- E hypoparathyroidism

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An 80 year old man treated for 6 months for polymyalgia rheumatica presents with headache and fever. He has developed painful skin changes to his scalp over the past 3 days. He is taking prednisolone 8mg daily, methotrexate 10mg weekly, folic acid 5mg weekly and alendronic acid 70mg weekly.

What is the diagnosis?

- A scalp necrosis due to vasculitis
- B steroid-induced skin atrophy
- C streptococcal infection due to immunosuppression
- D drug reaction due to methotrexate
- E squamous cell carcinoma due to immunosuppression

