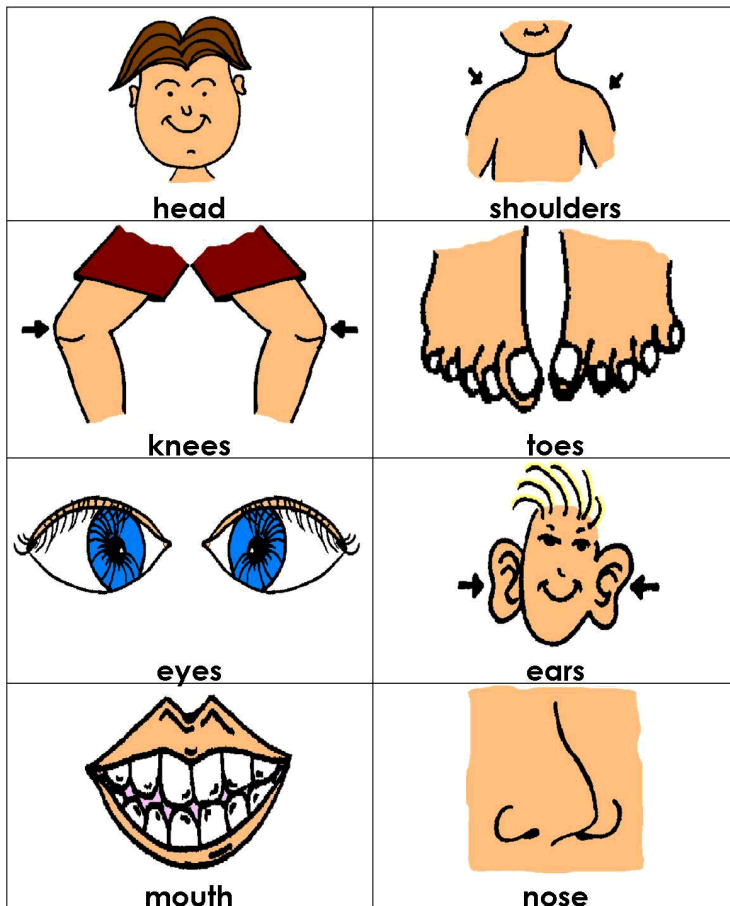



Extragenital manifestations of STIs

Head, Shoulders, Knees and Toes





Dr. Sarah Schoeman
Consultant GUM

The Leeds Teaching Hospitals 
NHS Trust

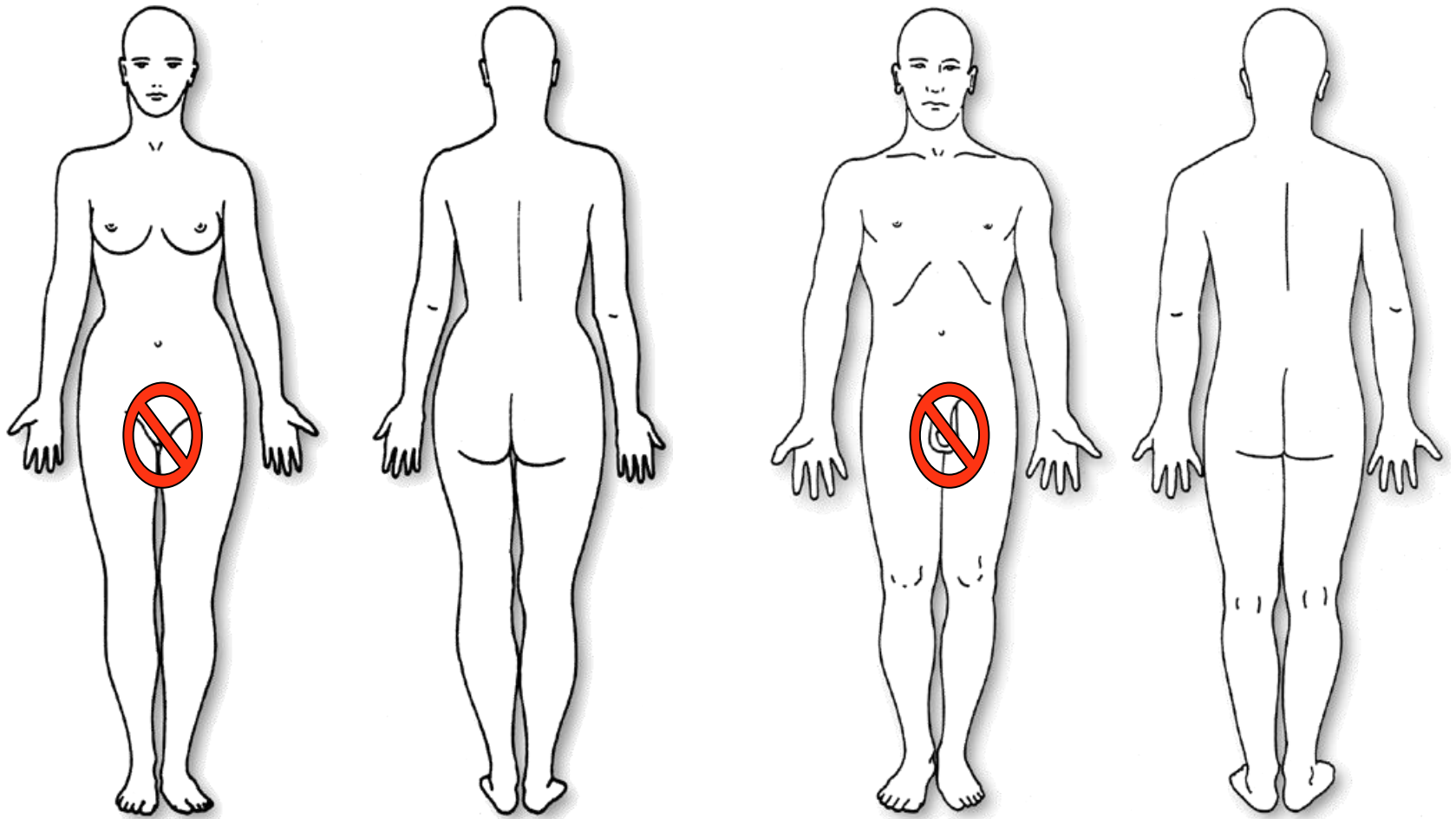


This session

 Aware of & able to recognize some common extra-genital manifestations of STIs (NB we've only got 30 minutes!)

 STI diagnosis & management
Complications of vertical transmission

2 minutes to label your 'diagram' with as many extra-genital manifestations of STIs as you can think of!



STIs and inequalities

The impact of STIs remains greatest in:



young
heterosexuals aged
15 to 24 years



black minority
ethnic populations



gay, bisexual and
other men who have
sex with men (MSM)



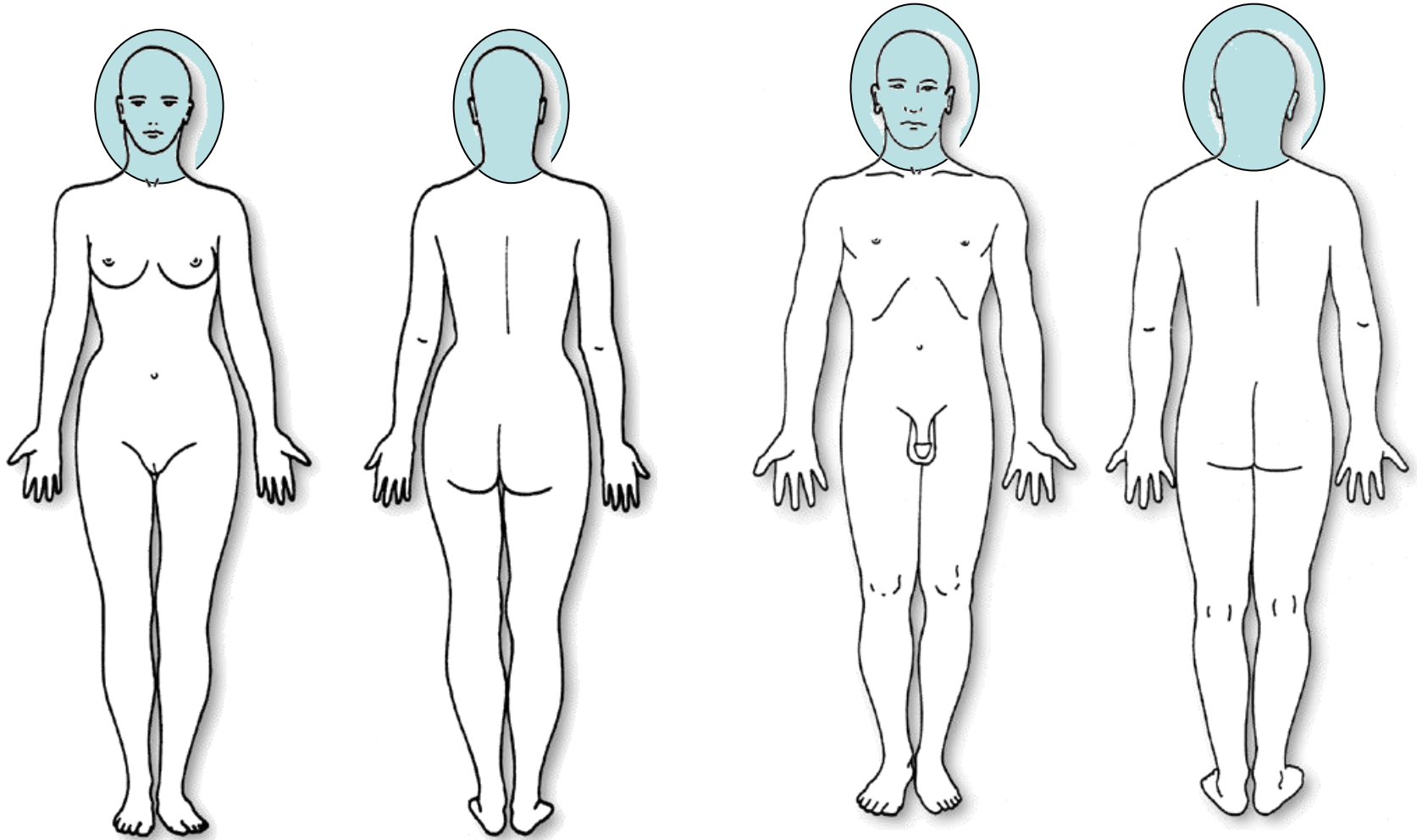
people in the most
deprived deciles



Young people

experience the highest diagnosis rates of the most common STIs

Head



Adam, 35yrs

- General malaise & recent 'hearing problems'
- Abnormal LFTs
- O/E Alopecia, maculo-papular rash, painless healing ulcers on forearm & sensorineural hearing loss





Which STI
does Adam
have?

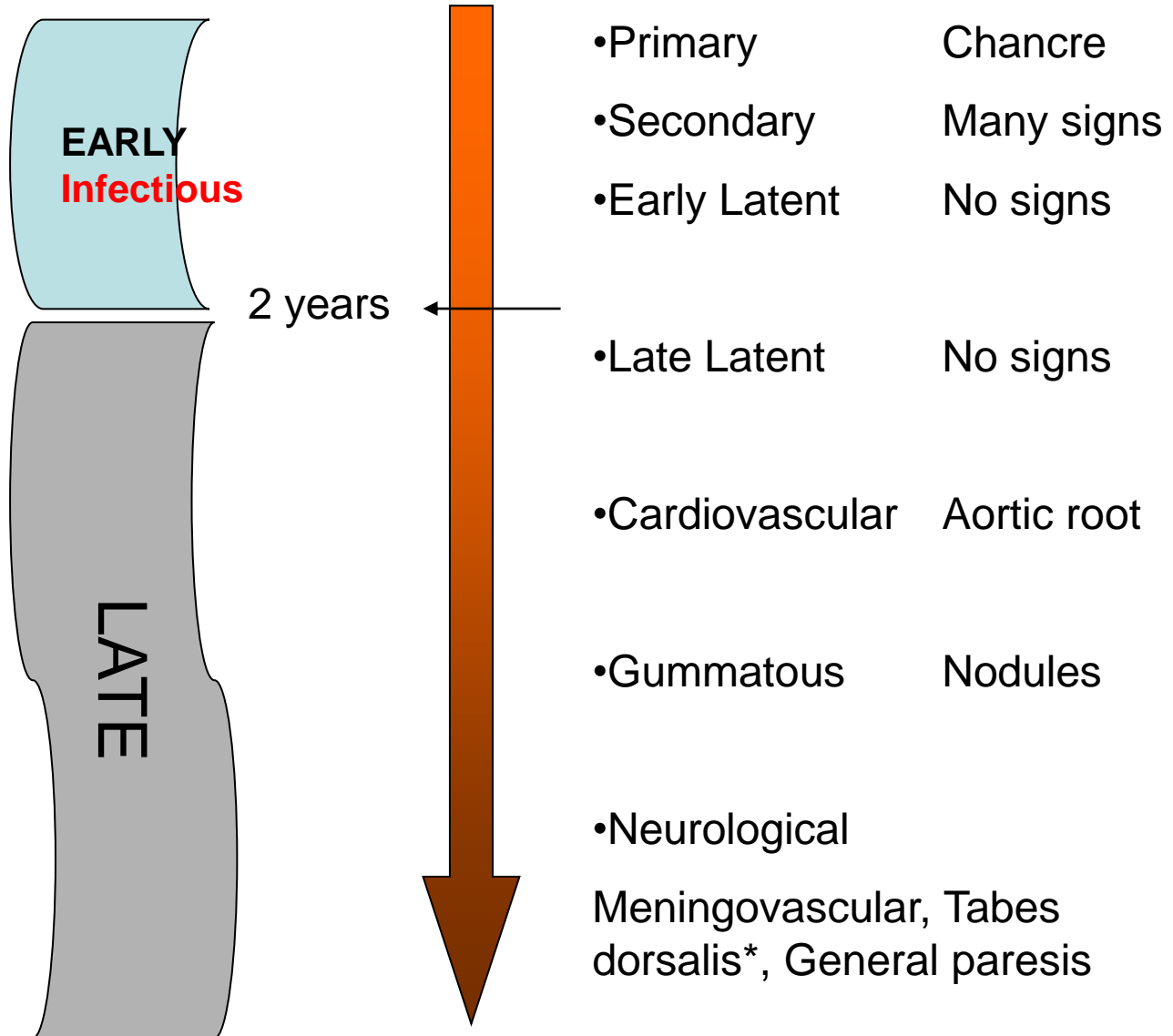


Syphilis

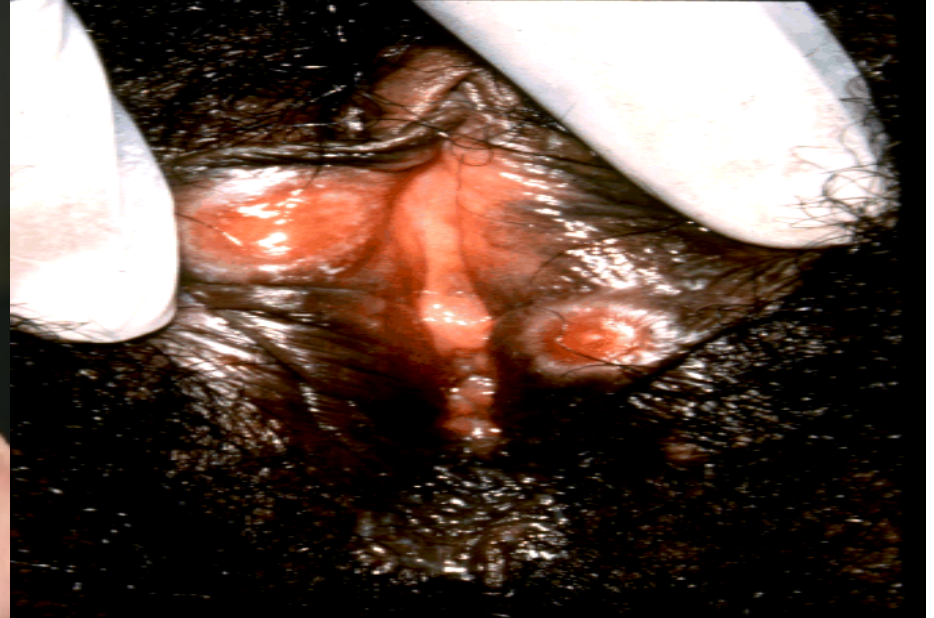


- Name originates from a poem about an infected shepherd, Syphilis, written in 1530
- Delicate spiralled spirochete, obligate human parasite
- Sexually transmitted via tiny abrasions in skin (usually mucosal)
- Can also be transmitted – transplacental, blood-borne
- **Highest number of cases recorded in 2023** in England since 1948 & larger proportional increase in diagnoses among heterosexuals than MSM

Stages of Syphilis



Primary syphilis



FISTING

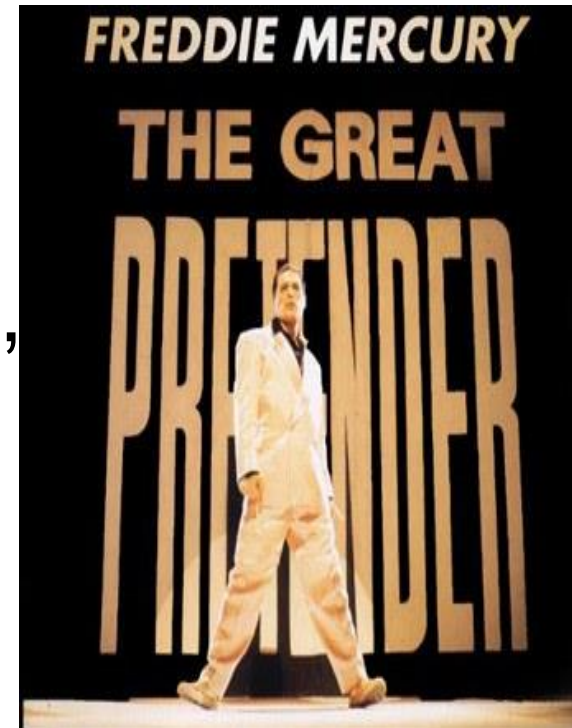
Fisting?

More and more gay men
living with HIV
are catching
Hepatitis C



Secondary syphilis

- Constitutional - malaise, fever, headache, anorexia, myalgia
- Skin lesions – typically extensive macular-papular rash, condylomata lata
- Lymphadenopathy
- Alopecia – patchy / diffuse
- Hepatitis, nephrotic syndrome, glomerulonephritis
- Iritis, uveitis, optic neuropathy
- Meningitis, deafness etc!!!!

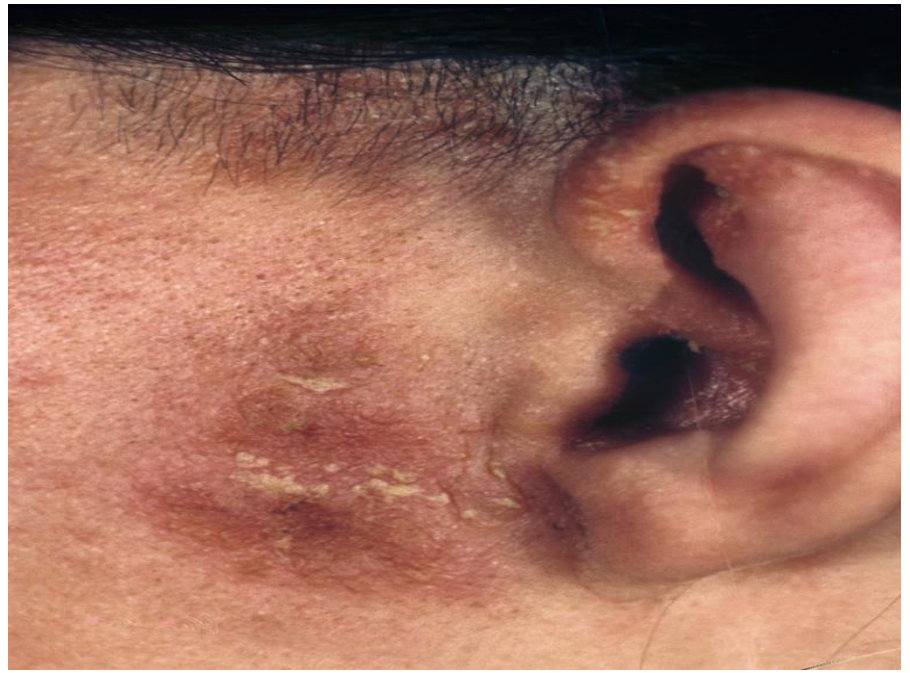


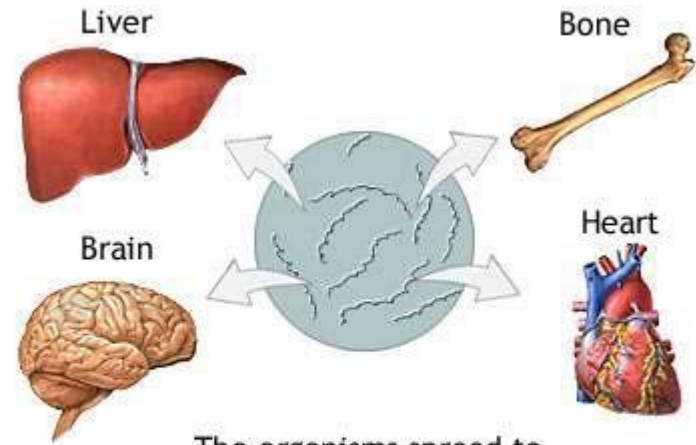


Tertiary Syphilis

- Cardiovascular – aortic aneurysm, AR, conduction defects
- Neurosyphilis
 - Meningovascular
 - GPI
 - Tabes dorsalis
- Gummatous – nodules or nodulo-ulcers







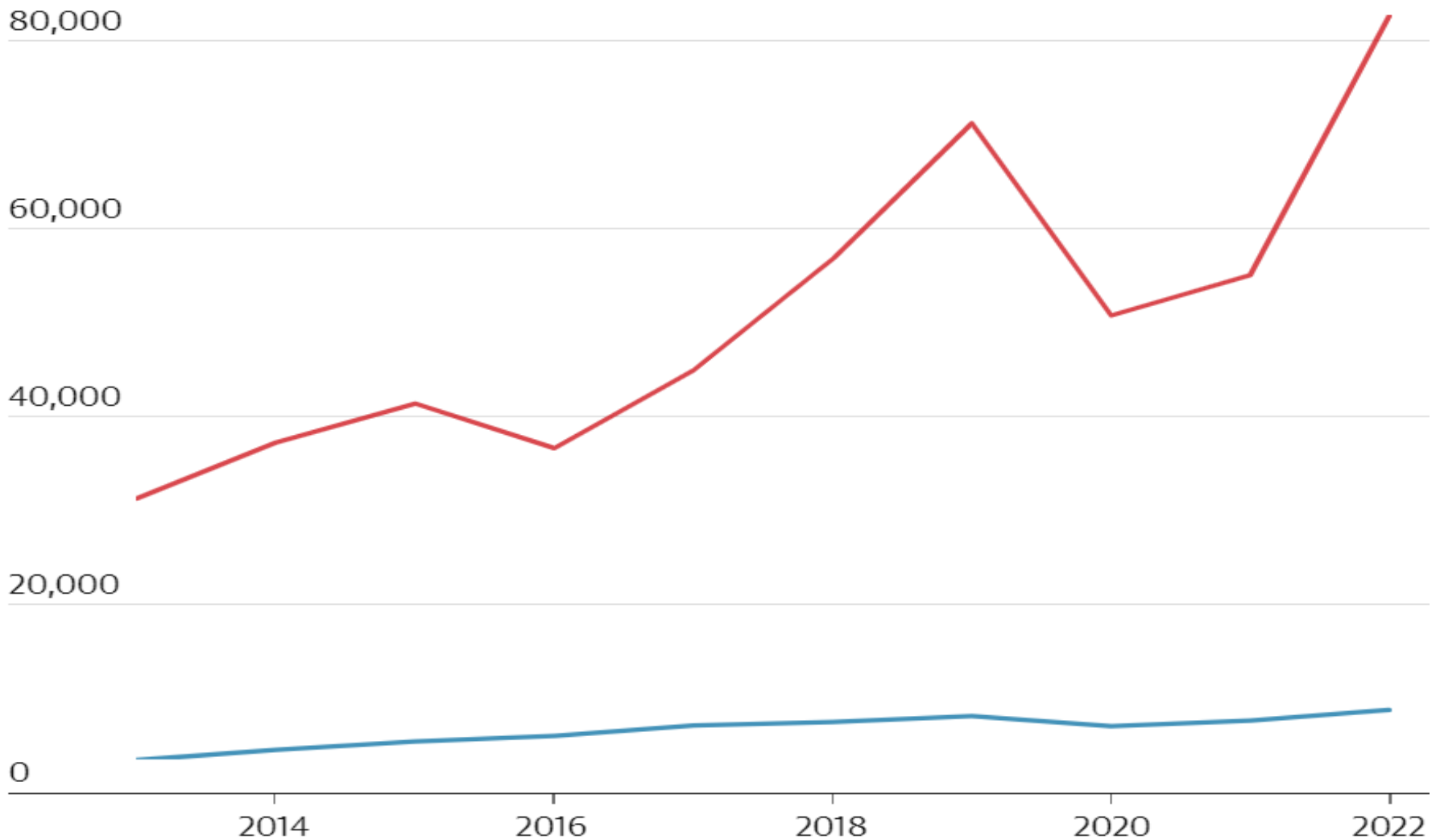
The organisms spread to various organs causing lesions or gummas



Gonorrhoea and syphilis diagnoses have risen by a record amount

Number of selected sexually transmitted infections new diagnosis per year in England

■ Gonorrhoea ■ Syphilis





Public Health
England

Protecting and improving the nation's health

Addressing the increase in syphilis in England: PHE Action Plan

June 2019

Maintain medical professionals' awareness and knowledge of syphilis

1. Challenges in syphilis diagnosis occur because cases may present with non-specific symptoms, or to non-STI specialist services, which may delay diagnosis. Health professionals engaging with MSM, pregnant women and young children should be alert to recognising the signs and symptoms of all stages of syphilis.
2. Professional bodies should ensure clinicians and medical professionals are aware of the various presentations of syphilis, and where to find additional information on diagnosis, treatment and partner notification. The Royal College of Paediatrician's Infant Branch's new guidance on infection testing in neonates and infants is in preparation. A list of resources from professional organisations is provided in the Appendix.

Improve and share epidemiological intelligence

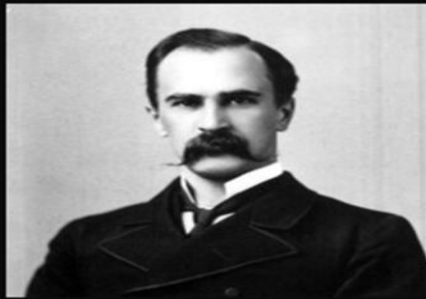
Maintain medical professionals' awareness and knowledge of syphilis

1. Challenges in syphilis diagnosis occur because cases may present with non-specific symptoms, or to non-STI specialist services, which may delay diagnosis. Health professionals engaging with MSM, pregnant women and young children should be alert to recognising the signs and symptoms of all stages of syphilis.
2. Professional bodies should ensure clinicians and medical professionals are aware of the various presentations of syphilis, and where to find additional information on diagnosis, treatment and partner notification. The Royal College of Paediatrician's Infant Branch's new guidance on infection testing in neonates and infants is in preparation. A list of resources from professional organisations is provided in the Appendix.

Improve and share epidemiological intelligence

Recent secondary syphilis cases missed by other specialties

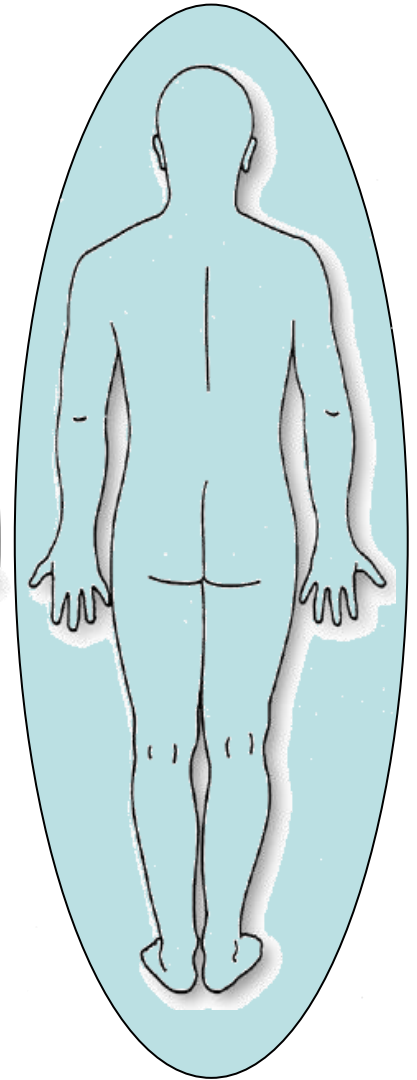
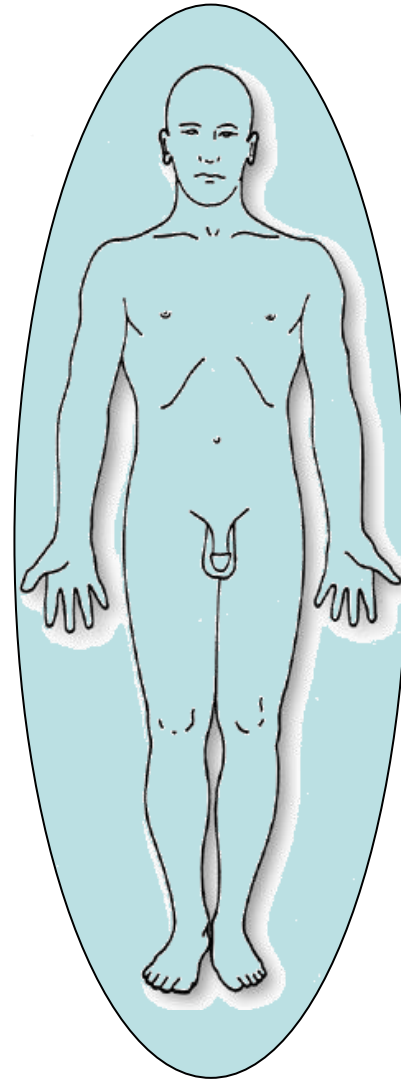
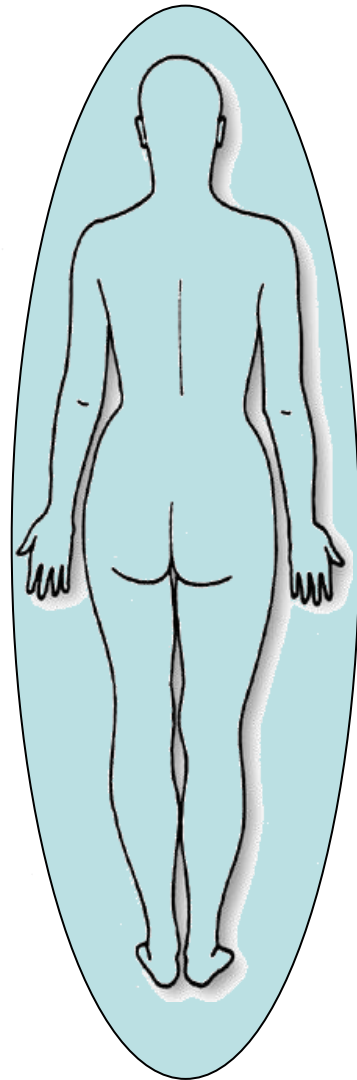
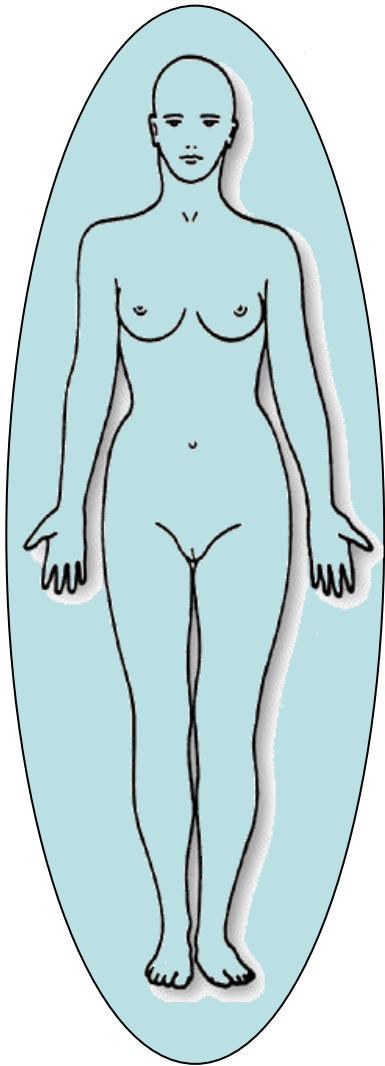
- Ophthalmology
- Dermatology
- Neurology
- Haematology



He who knows syphilis knows
medicine

~ William Osler

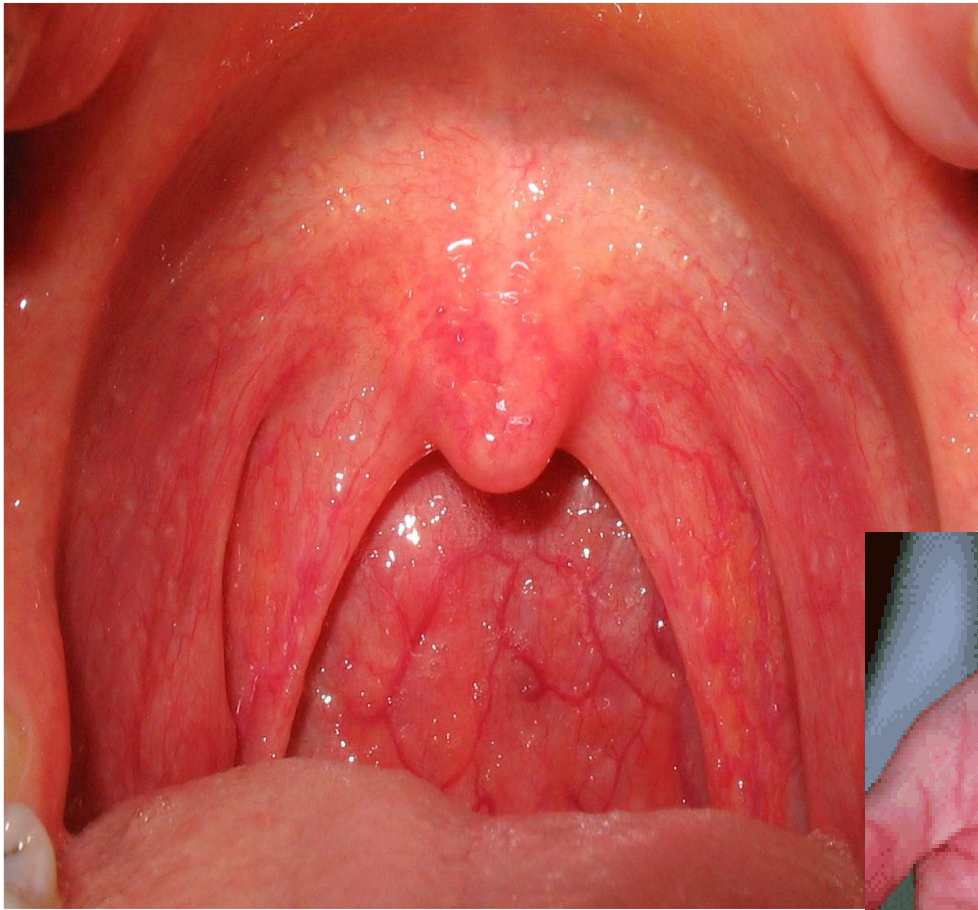
Skin



Ben, 24yrs

- Fever
- Sore throat
- Lymphadenopathy
- Maculopapular rash

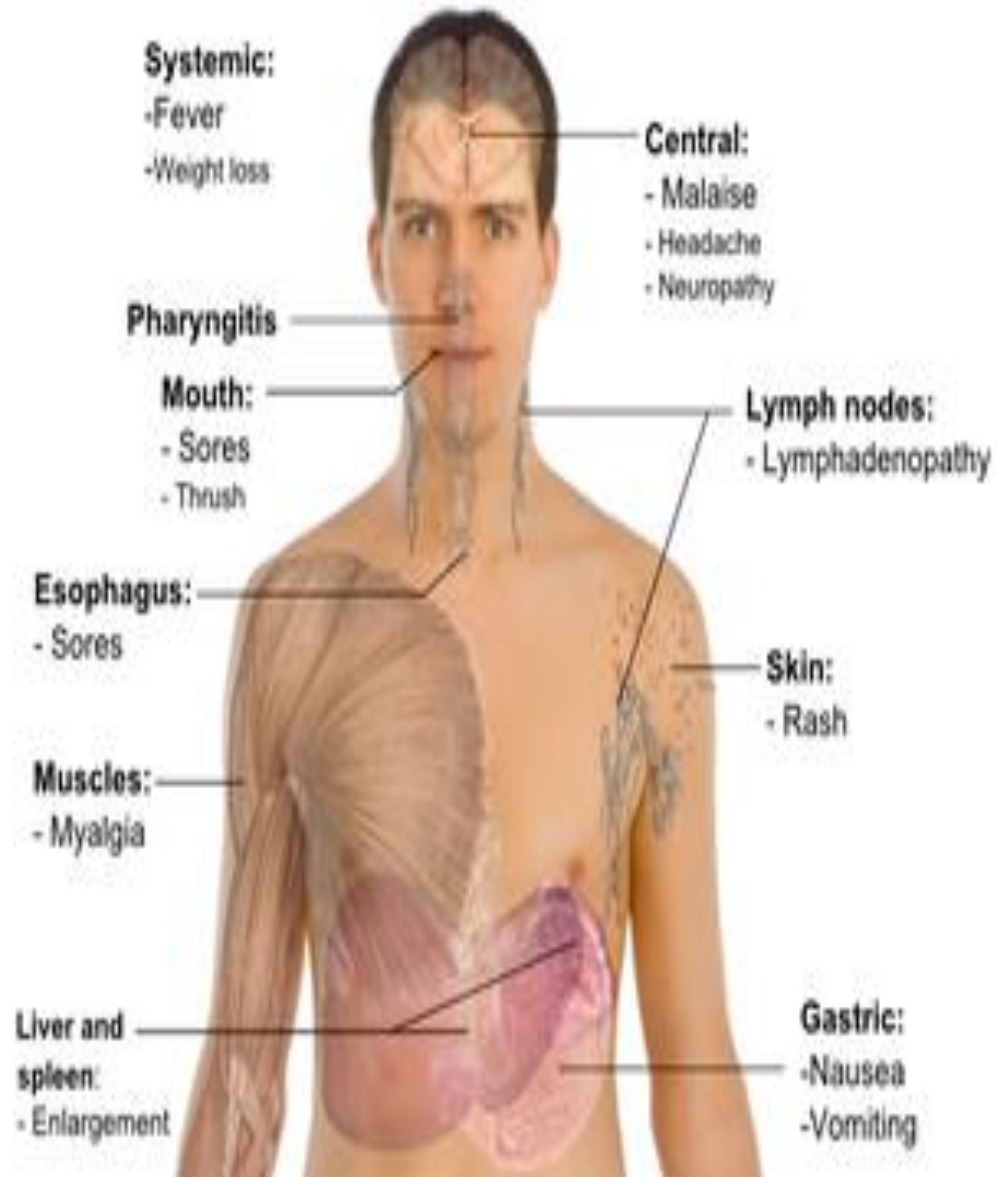




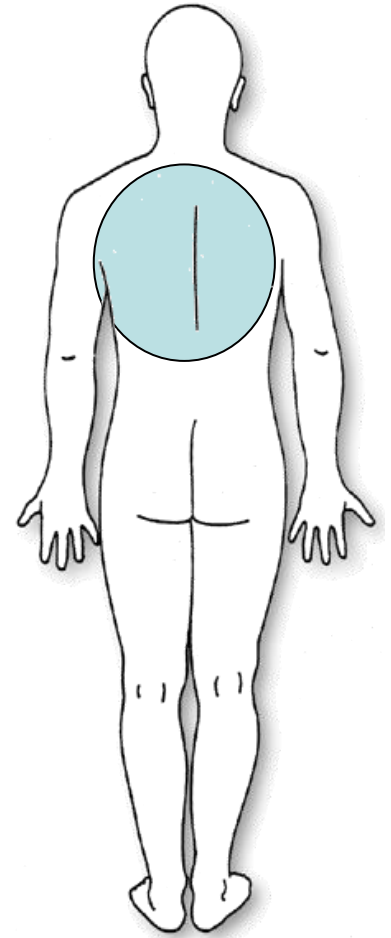
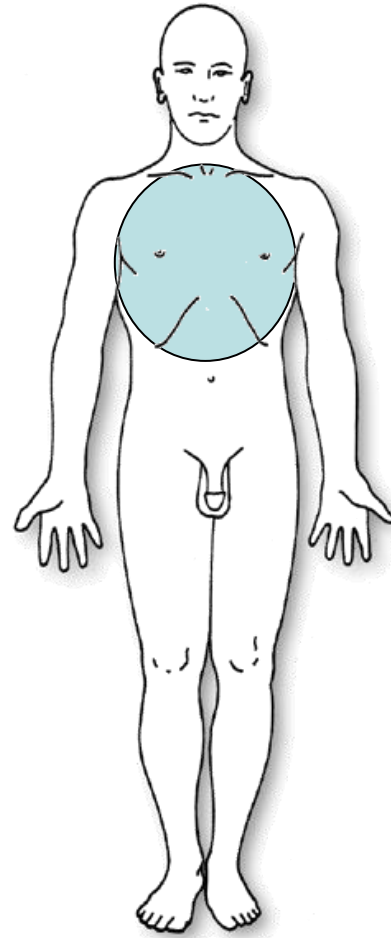
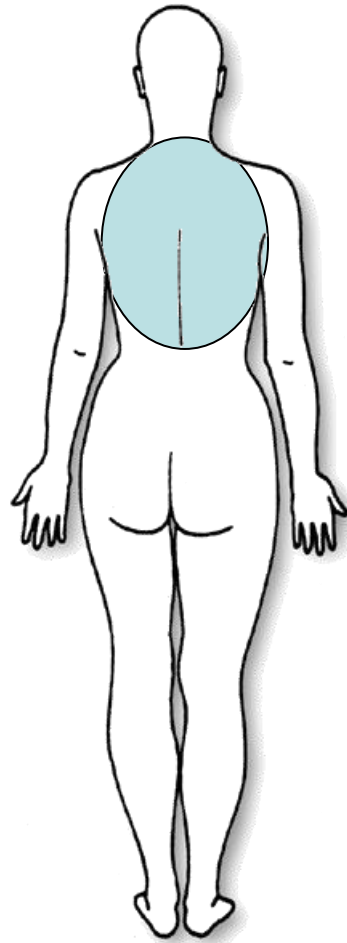
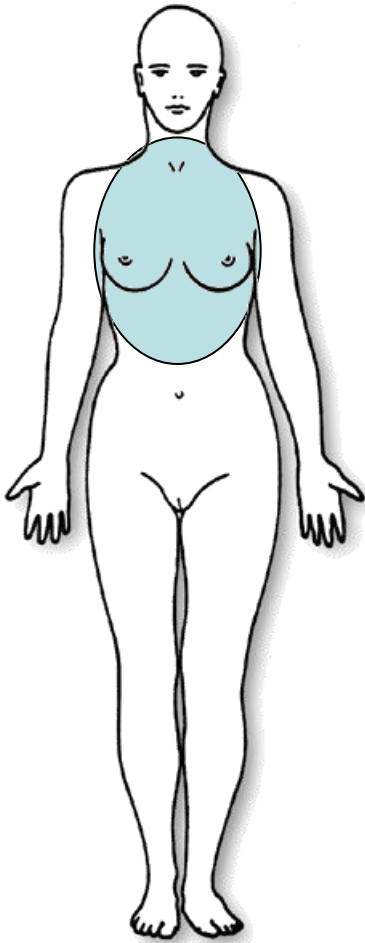
Which STI
does Ben
have?

Main symptoms of Acute HIV infection

- Prevalence
–30–93%
- Symptoms usually 2-6 w post infection & last 5-10 d
- Diagnosis – HIV Ab/Ag



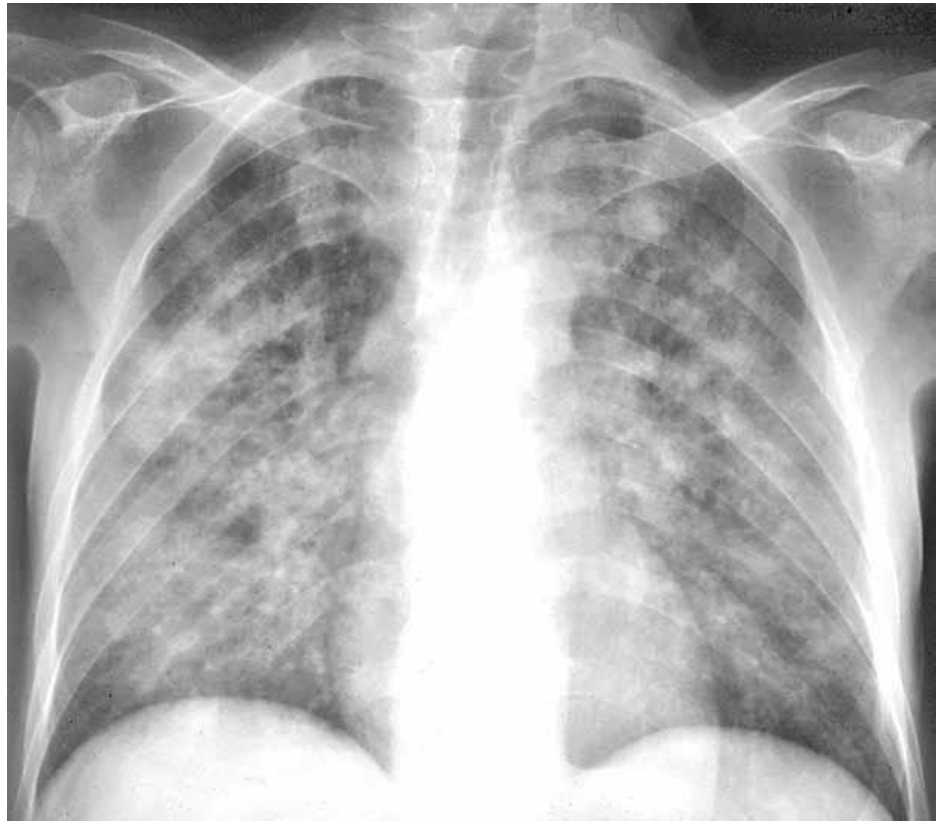
Thorax



Chris, 72yrs

- Fever
- Weight loss
- Sore mouth
- SOBOE & dry cough – weeks (COVID test +ve)
- ‘Bruising’
- Which STI does Chris have?







Main symptoms of AIDS

Neurological

- Encephalitis
- Meningitis

Eyes

- Retinitis

Lungs

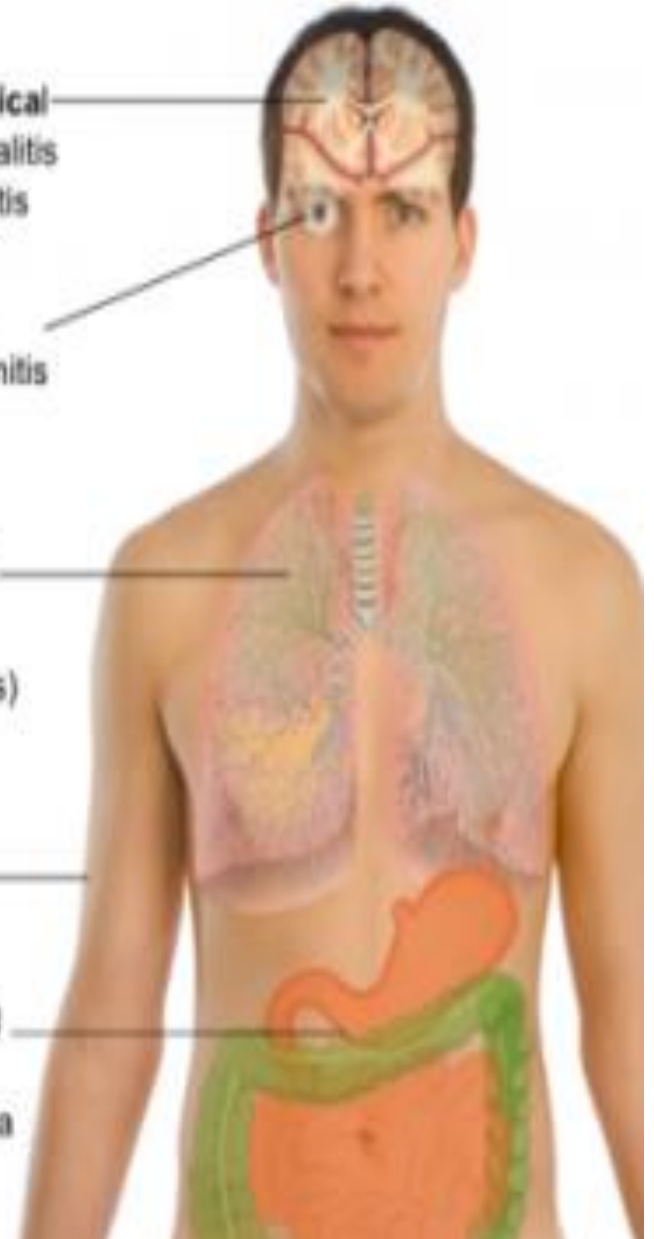
- Pneumocystis pneumonia
- Tuberculosis (multiple organs)
- Tumors

Skin

- Tumors

Gastrointestinal

- Esophagitis
- Chronic diarrhea
- Tumors



Clinical Medicine Journal



Pneumocystis pneumonia, a COVID-19 mimic, reminds us of the importance of HIV testing in COVID-19

Sophie Kelly, Laura Waters, Muge Cevik, Simon Collins, Joe Lewis, Meng-San Wu, Tom J Blanchard and Anna M Geretti

DOWNLOAD PDF

DOI: <https://doi.org/10.7861/clinmed.2020-0565>

Clin Med November 2020

PDF

Help

ARTICLE

FIGURES & DATA

INFO & METRICS

[< Previous article](#)

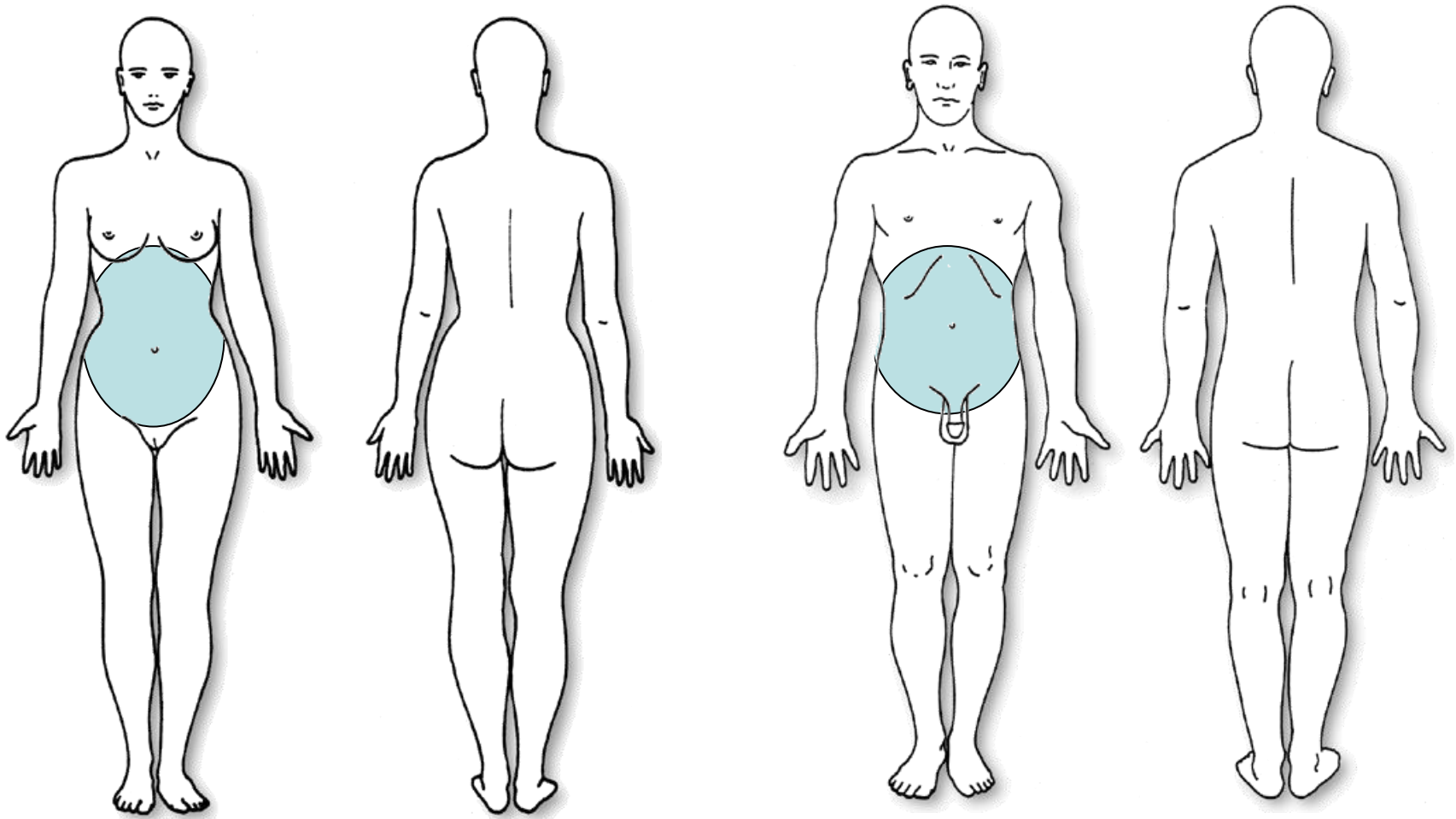
[Next article >](#)

ABSTRACT

While clinical environments are highly focused on COVID-19, reports of missed or delayed treatment for conditions that imitate COVID-19, such as pneumonia caused by the fungus *Pneumocystis jirovecii*, are emerging. Given the



Abdomen & GI tract



Dee, 27yrs

- Fever
- Acute, severe RUQ pain radiating to back and shoulder tip worse on inspiration





Which STI
does Dee
have?

Perihepatitis (Fitz-Hugh-Curtis syndrome)

- Inflammation of hepatic capsule - 'violin string' adhesions between the anterior liver surface & abdominal wall / diaphragm
- Most due to peritoneal / lymphatic spread of pelvic CT or GC
- 10-20% of women with PID
- RUQ +/- pelvic pain
- GC haematogenous spread possible
- Treat as for PID



Peri-appendicitis

- Direct spread of infection from R fallopian tube to appendiceal serosa
- Tubo-appendiceal mass develops
- 2-10% acute appendicitis in women
 - 25-50% linked to tubal inflammation



Ewan, 33yrs

- Fever
- Diarrhoea & vomiting
- Icteric sclera, 'tanned'
- Abnormal LFTs
- Which STI does Ewan have?



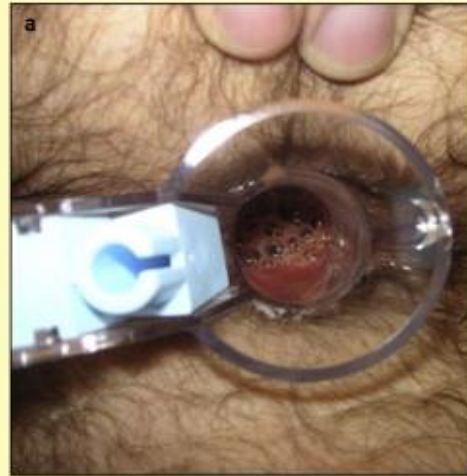




Frank, 64yrs

- Persisting change in bowel habit
- Rectal pain, bleeding, urgency & loose stools
- Weight loss
- Recently diagnosed with UC and started on mesalazine
- Which STI does Frank have?





Lymphogranuloma venereum (LGV)

- LGV is caused by one of three invasive serovars (L1, L2 or L3) of *Chlamydia trachomatis*.
- L2 is the main serovar causing the current outbreaks in Europe and North America.
- Since 2003 there have been increasing LGV outbreaks across Europe mainly amongst HIV-positive MSM.
- Most UK cases are among MSM involved in dense sexual networks/party scene not linked to LGV-endemic countries

LGV proctitis clinical features

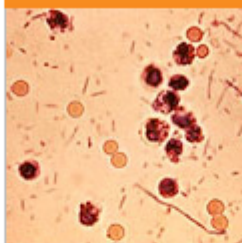
- Haemorrhagic proctitis is the primary manifestation of infection seen in MSM; a similar picture might present in the case of rectal exposure in women.
- Symptoms include rectal pain, anorectal bleeding, mucoid and/or haemopurulent rectal discharge, tenesmus, constipation and other symptoms of lower gastro-intestinal inflammation.
- Systemic symptoms such as fever and malaise.

Complications of LGV

- Tertiary stage / genito-anorectal syndrome
 - Chronic inflammation and destruction of tissue may lead to proctitis, proctocolitis mimicking Crohn's disease, fistulae, strictures and chronic granulomatous disfiguring fibrosis and scarring of the vulva with esthiomene (Greek word meaning “eating away”).
 - These conditions occur most frequently in women, reflecting the involvement of retroperitoneal lymphatics.
- Long-term
 - Destruction of LNs may result in genital lymphoedema (elephantiasis) with persistent suppuration and pyoderma.
 - An association with rectal cancer has been reported. The two conditions can be confused and histopatho-logical confirmation may be necessary.



Shigella



Shigellosis, also called bacillary dysentery, is caused by four species; *Shigella dysenteriae*, *Shigella flexneri*, *Shigella boydii* and *Shigella sonnei*.

Bacillary dysentery is primarily a human disease often acquired by drinking water contaminated with human faeces or by eating food washed with contaminated water.

Infection can result following ingestion of as few as 10 organisms. The incubation period is between 12 and 96 hours. Illness is characterised by diarrhoea, sometimes with blood and mucus and is common amongst young children although infection can occur in all ages after travel to areas where hygiene is poor. Invasive disease is rare but extra intestinal complications such as Haemolytic Uraemic Syndrome can occur. Cases maintain a low level of infectivity for as long as the organism is excreted in the stool. *Shigella* species may survive for up to 20 days in favourable environmental conditions and this may lead to transmission through contact with contaminated fomites. Sexual transmission is likely to be fuelled by the low infectious dose, immunodeficiency due to HIV infection and serosorting, that is sex between partners with the same HIV status. Travel may also play a role in introducing *Shigella* species to at risk populations.


Recent increase in diagnoses seen in men who have sex with men

Sexual transmission of shigellosis infection was first documented in the United States during the 1970s, most infections being seen in men who have sex with men. In 2006, an outbreak of *Shigella sonnei* among men who have sex with men (MSM) occurred in London and coincided with a similar outbreak in Berlin. In July 2011, Greater Manchester Health Protection Unit identified an increase in UK acquired cases of *Shigella flexneri* predominantly among men who have sex with men (MSM), aged between 30-50 years, some of whom were HIV positive. In London, an increase in *Shigella flexneri* was noted during 2010/11 some of which were seen in MSM. The profile of the patients presenting with *Shigella flexneri* is very similar to that associated with Lymphogranuloma Venereum infection. Further details of the outbreak investigation are available in the [Health Protection Report](#).

Key Messages (sexual transmission of shigellosis)

A good standard of hygiene is key to the prevention of shigellosis. In particular, people at risk should be encouraged to:

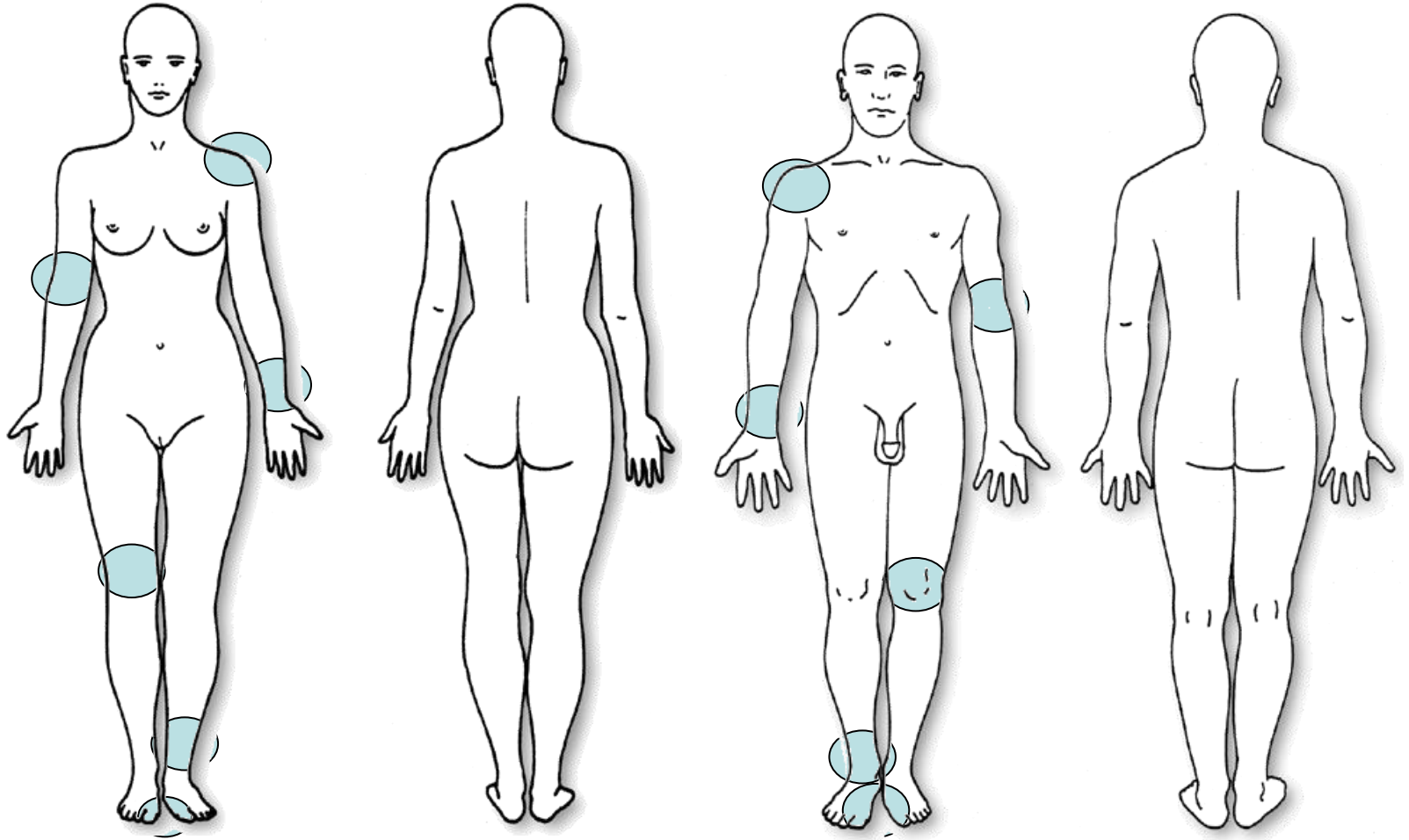
Related Information

- » [Gastrointestinal Infections Reference Unit](#)
- » [Gastrointestinal disease](#)
- »  [Guidance on Infection Control in Schools and other Child Care Settings \(PDF, 163 KB\)](#)
- » [Preventing person-to-person spread following gastrointestinal infections...](#)

External Links

- » [Laboratory Reports, Northern Ireland](#)

Joints including toes!



Geoff, 43yrs

- Painful red eyes
- Painful swollen knee
- Scaly rash
- Which STI does Geoff have?





Sexually Acquired Reactive Arthritis (SARA)

- Seronegative arthritis triggered by an STI
- ? immune response to uro-genital microorganisms
- Triad - urethritis/cervicitis, arthritis & conjunctivitis +/- other cutaneous or mucous membrane lesions
- Cardiac, renal or neurological - rare
- 0.8-4% cases urethritis/cervicitis – M x 10 > F
- Chlamydia causes 35-69%, gonorrhoea 16% & U. urelyticum a few cases ? others
- HLAB27 gene +ve ^ susceptibility by up to 50 x
- Most will resolve in 4-6m, ~50% recurrent, 17% chronic arthritis.

Holly, 40yrs

- Mild fever
- Necrotic pustular rash
- Painful, swollen wrist & toe
- Which STI does Holly have?





Disseminated Gonococcal infection (DGI)

- Rare - <1% but increasing
- 4 fold higher in women – especially pregnancy with pharyngeal infection
- Preceding mucosal infection usually asymptomatic
- Rash is pathognomonic
- Blood cultures & joint aspirates often –ve
- Genital examination & testing required
- Rx Ceftriaxone 1g IM/IV every 24 hours 7d

Antimicrobial resistant gonorrhoea

The effectiveness of first-line treatment for gonorrhoea continues to be threatened by antimicrobial resistance



first-line
antimicrobial
for gonorrhoea
treatment

Ceftriaxone

Resistance remains rare in the UK but three cases of extensively drug resistant gonorrhoea, which were resistant to ceftriaxone and most other drugs used for treating gonorrhoea, were detected in the UK in 2018

Azithromycin

no longer recommended as first-line therapy

Between 2016 and 2017: prevalence of azithromycin resistant-gonorrhoea

increased from 4.7% to 9.2%*

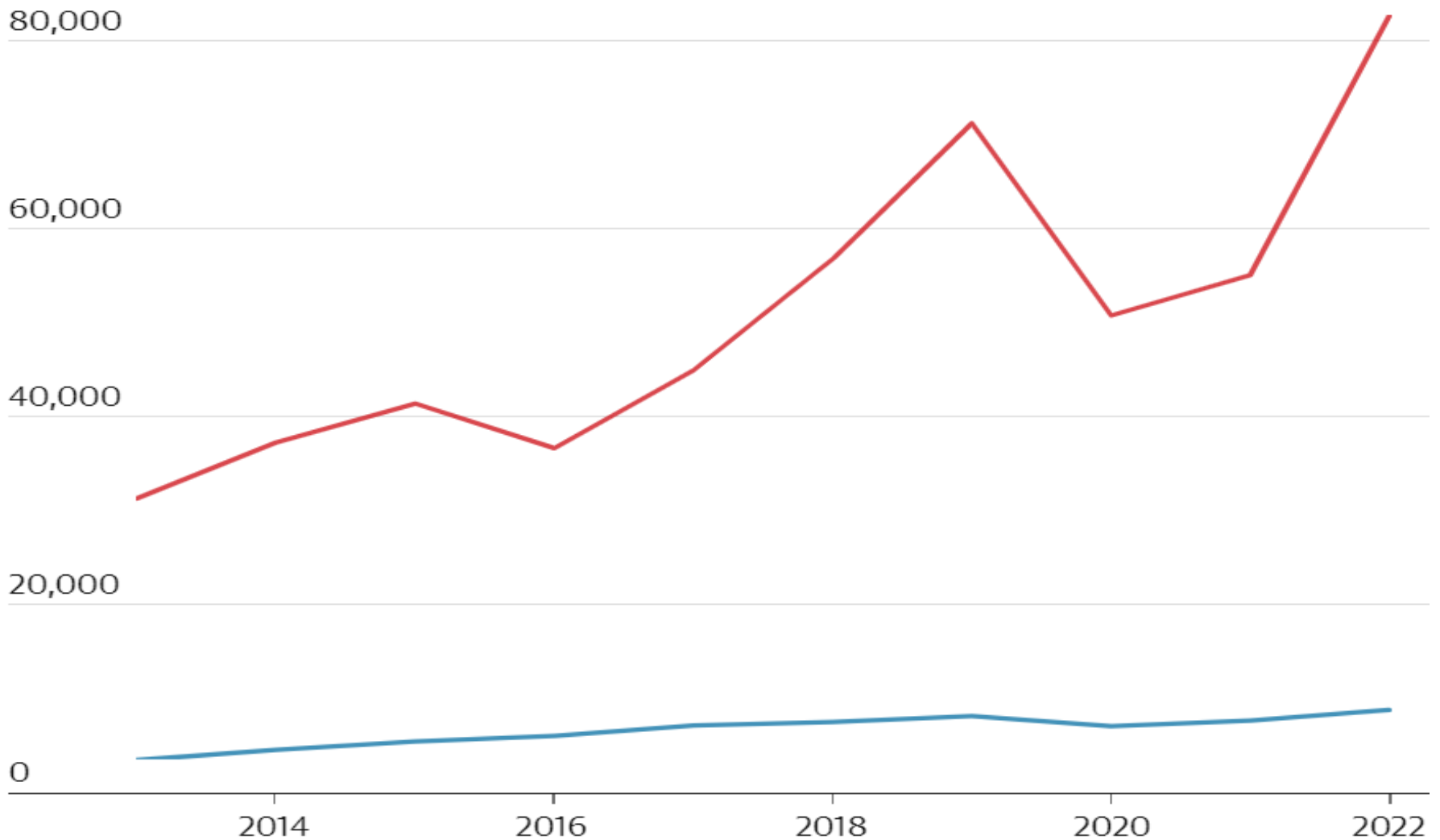
*Source: Gonococcal Resistance to Antimicrobials Surveillance Programme (GRASP)



Gonorrhoea and syphilis diagnoses have risen by a record amount

Number of selected sexually transmitted infections new diagnosis per year in England

■ Gonorrhoea ■ Syphilis





Learn more
about a career in
Genitourinary
Medicine (GUM)

↳ lovegum.bashh.org



- <http://www.bashh.org/guidelines>



- Thanks to LTHT patients & colleagues
- Thank you!
- Any questions?

