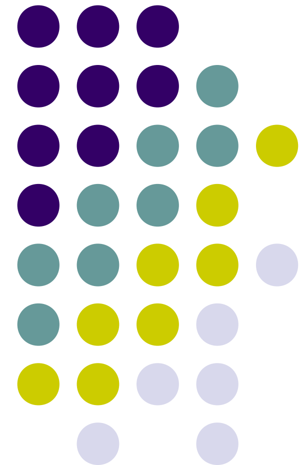
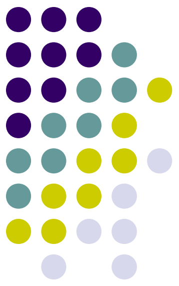
Syphilis etc…

Jackie Sherrard
GUM, Churchill

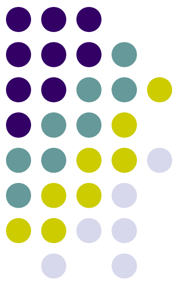


Mr X



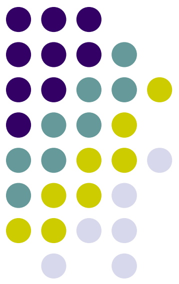
- 32 year old white male
- Oct 2004 develops fevers, hair loss, rash
- HIV test negative
- Multiple other Ix negative
- Jan 2005 develops deafness and eye pain
- March 2005 optic neuritis diagnosed in Eye clinic

Mr Y

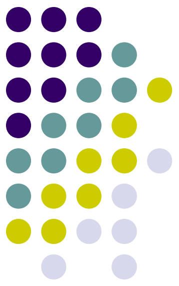


- 60 year married man
- 3/12 earlier diagnosed Paul Bunnell –ve IM
- Develops “non specific”rash
- Spreads to hands
- Dermatologist diagnoses “viral infection”

Mr Z



- 53 year married man
- Blood donor every 6/12 >50 donations
- Unwell at time of previous donation so didn't donate
- Seen in Urology with penile ulcer – biopsy
- 3/12 later skin rash
- Tinnitus
- Alopecia – lost all dark hair

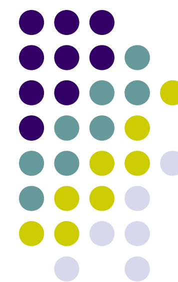


LOOK WHAT'S BACK!

Syphilis is making a comeback,

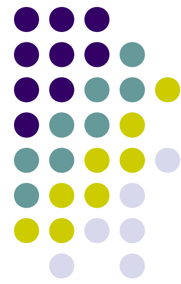
especially among men who have sex in saunas, cruising areas or backrooms. It's mostly spread by sucking and fucking. Not everyone gets the symptoms but often there's a sore, followed by a rash. These go but you're still infected. Left untreated, syphilis is serious – if treated early enough, it's curable. Sexual health clinics offer syphilis blood tests.

Number of new diagnoses of selected STIs, GUM clinics, UK: 2006



	2006	% change 2005-2006	% change 1995-2006
Chlamydia	113,585	5%	222%
1st Genital warts	83,745	3%	32%
Gonorrhoea	19,007	-1%	111%
1ry Genital herpes	21,698	9%	15%
Syphilis-infectious	2,766	-1%	1497%

Numbers of diagnoses of syphilis (primary, secondary and early latent) by sex, GUM clinics, England and Wales, and Scotland*: 1931 - 2006



Number of diagnoses (England & Wales)

12,000
10,000
8,000
6,000
4,000
2,000
0

Number of diagnoses (Scotland)

6,000
5,000
4,000
3,000
2,000
1,000
0

England & Wales - male
England & Wales - female
Scotland - male
Scotland - female

* Equivalent Scottish data are not available prior to 1945. N. Ireland data from 1931 to 2000 are incomplete and have been excluded.

Routine GUM clinic returns

Cases of infectious syphilis (1º & 2º) seen in GUM clinics by sex and male sexual orientation

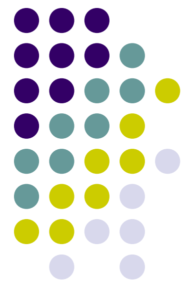
2000 to 2006

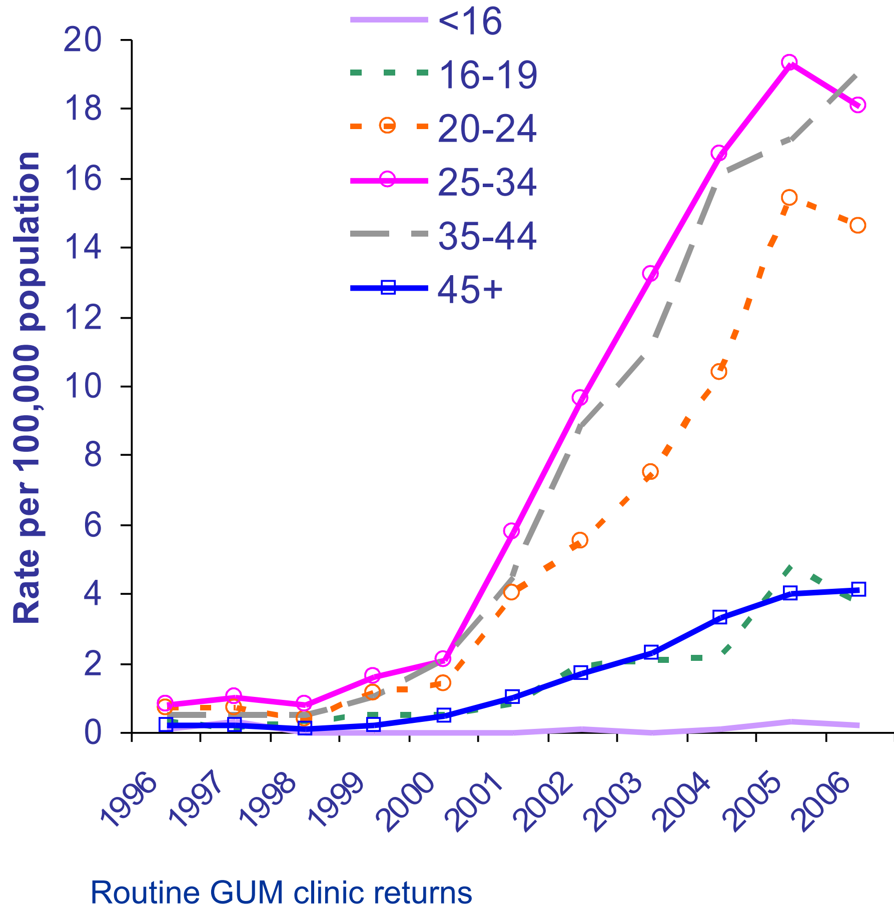
Males (heterosexually acquired)
Males (homosexually acquired)
Females

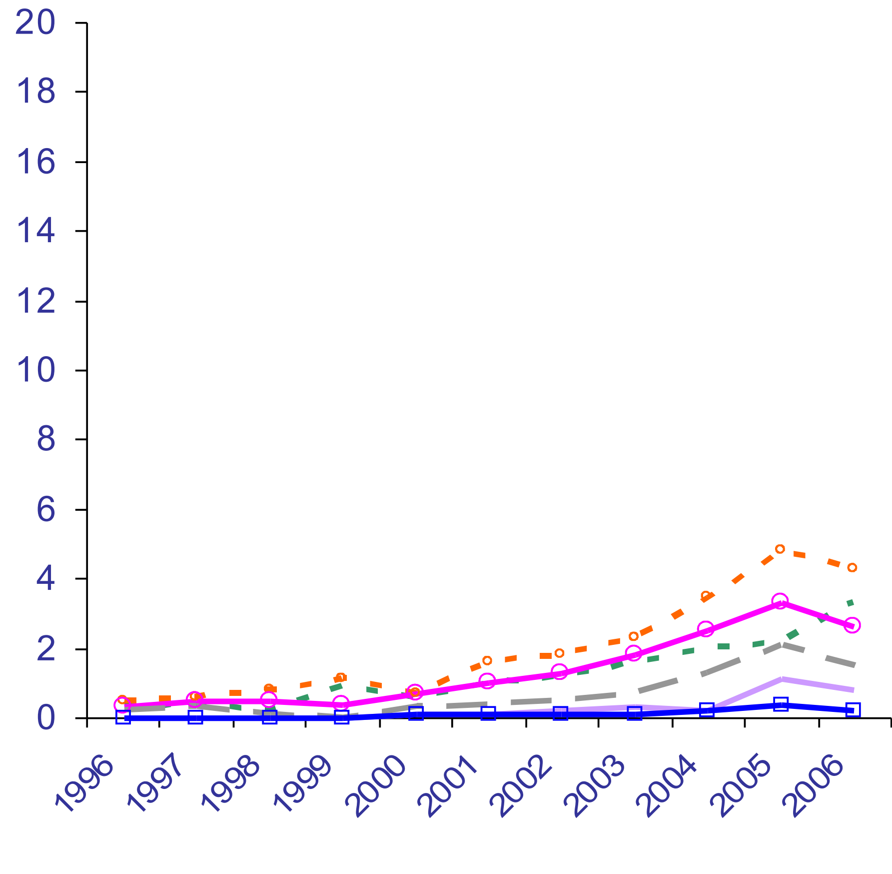
1500
1250
1000
750
500
250
0

2000
2001
2002
2003
2004
2005
2006

syphilis (primary & secondary) by sex and age group, GUM clinics, United Kingdom: 1997 - 2006

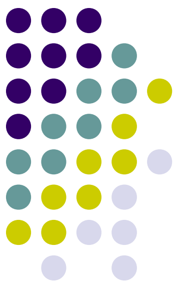




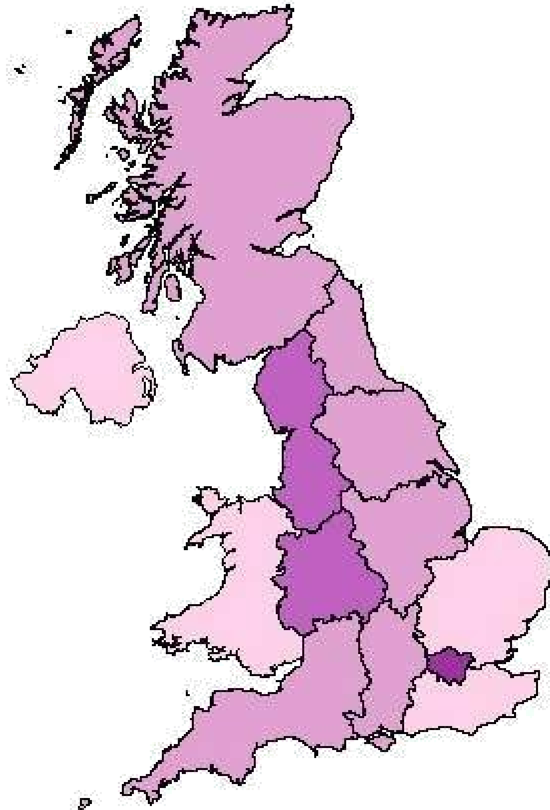


Routine GUM clinic returns

Rates of diagnoses of infectious syphilis by sex and region, GUM clinics, United Kingdom: 2006



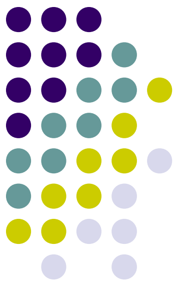
Males



Females

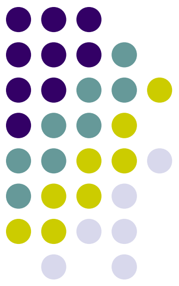
Routine GUM clinic returns

Clinical stages

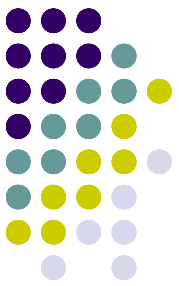


- Early (infectious)
  - Primary
  - Secondary
  - Early latent
- Late
  - Late latent
  - Gummatous
  - CVS / CNS

Serology

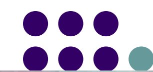


- Elisa – screening
- non-treponemal tests (venereal disease research laboratory - VDRL, rapid plasma reagin - RPR)
- treponemal tests - fluorescent treponemal antibody - FTA and *T.pallidum* haemaglutination assay - TPHA
  - VDRL
  - TPHA
  - IgG
  - IgM

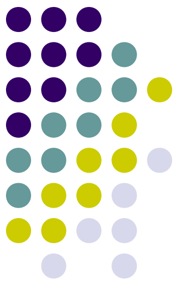


Primary

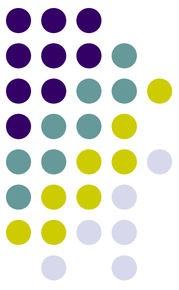
- 9–90 days
- Macule – papule - painless ulcer
- Indurated with clear exudate
- Heal spontaneously in 2 - 6 weeks
- Up to 50% may be atypical in some way e.g. multiple, painful, purulent, or extragenital.
- The most common sites are the coronal sulcus / glans penis / cervix / vulva / anus (+ rectum in homosexual men).



Primary syphilis



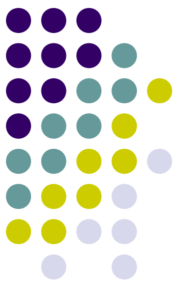
- diagnosis of early disease the exudate from lesions should be examined by dark field microscopy for spirochaetes
- Serological tests do not become positive for at least 10 – 14 days after the appearance of the primary lesion.
- If strong suspicion repeat with FTA in 2 weeks.
- Repeat serology after 3 months in any case of undiagnosed genital ulceration



Secondary syphilis 2–6 months

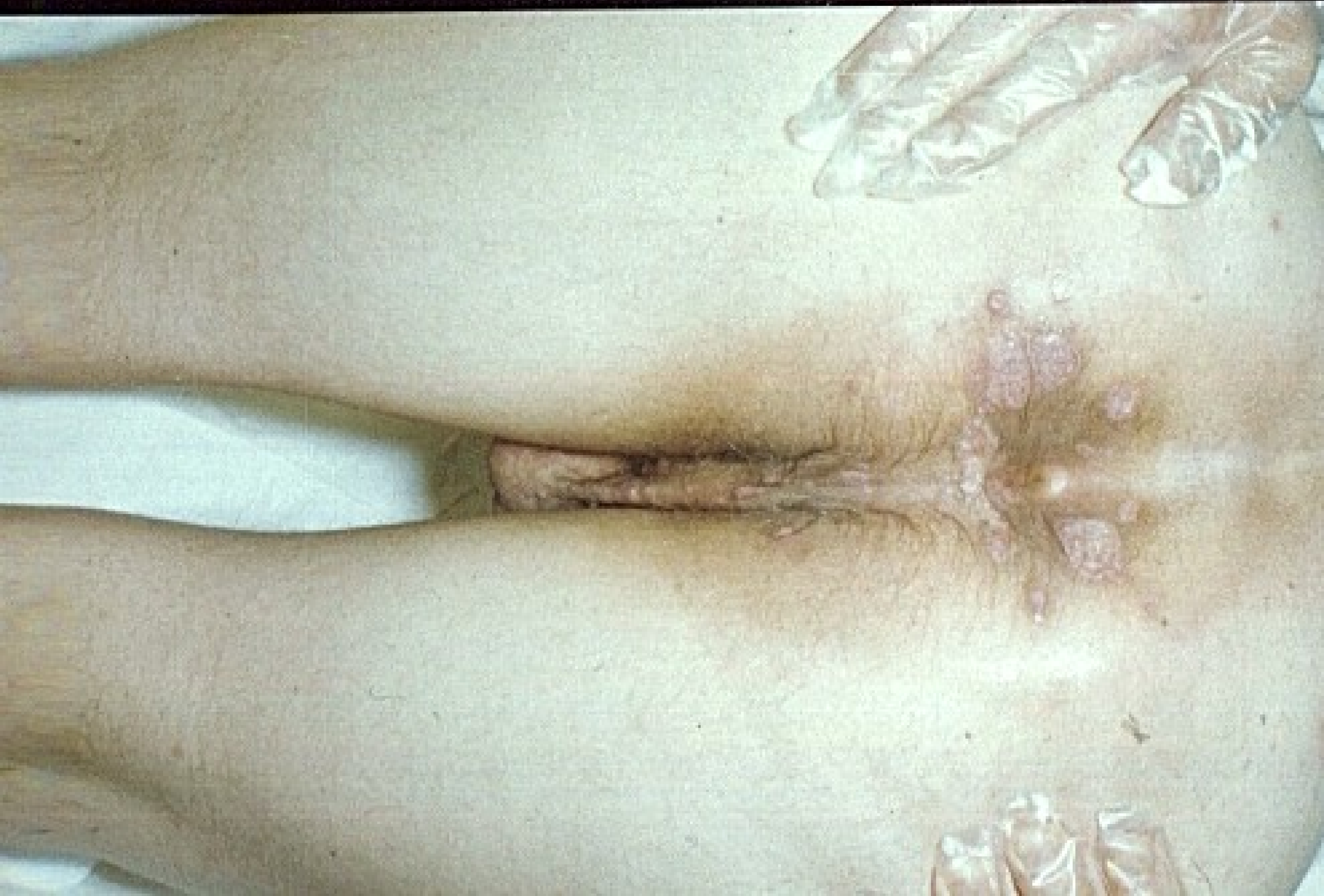
clinical features result from a systemic vasculitis.

- A generalised polymorphic rash characteristically involves the palms and soles.
- Condylomata lata-warty type lesions of the genitals
- Mucosal ulceration
- alopecia
- generalised lymphadenopathy
- rarely visceral involvement which can include granulomatous hepatitis, nephrotic syndrome, optic neuritis and meningovascular syphilis.
- Left untreated, the secondary syphilis will resolve spontaneously within one to two months of onset

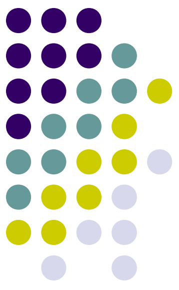


Secondary syphilis

- Serological tests are always strongly positive
- (can also perform dark ground of condylomata lata of non-oral lesions).
- Rarely the ‘prozone’ phenomenon may render a very high VDRL apparently negative.

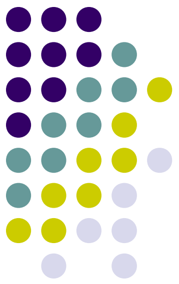


Latent & late Syphilis



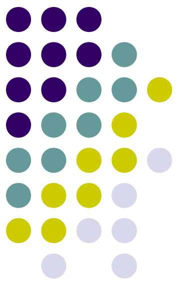
- Diagnosis of late syphilis is based on a combination of positive T.pallidum serology
  - FTA and TPHA
- with or without positive non-treponemal tests (venereal disease research laboratory - VDRL, rapid plasma reagin - RPR) tests
- And clinical assessment focusing on
  - previous syphilis treatment,
  - possible symptoms of early and late manifestations of syphilis
  - clinical examination to exclude both early syphilis, clinical manifestations of late or congenital infection.

Vertical transmission



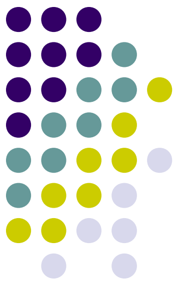
- Most often occurs in first 2 years after infection but may occur at any time within 10 years of initial infection.

Perinatal transmission



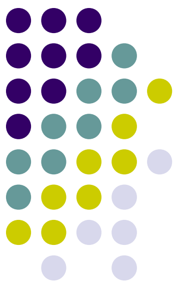
- Occurs in 2nd and 3rd trimesters
- 10% 18 – 22 weeks
- 50% >23 weeks
- Untreated 1° and 2° syphilis in pregnancy affects almost 100% fetuses with 50% premature delivery or fetal death
- Early latent syphilis 40% prem delivery or fetal death
- May remain infectious to fetuses for many years

Management of positive syphilis serology in pregnancy



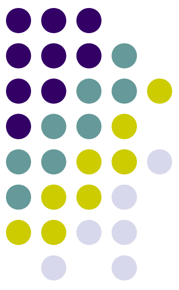
- All women should be screened for syphilis at the initial antenatal visit
- All pregnant women with positive treponemal serology should be evaluated for clinical evidence of syphilis.
- All women with +ve FTA require treatment unless clear documentation of previous adequate treatment

Treatment - complications



- Pregnant women who have a Jarisch Herxheimer reaction after initiation of treatment for early syphilis have may have precipitous onset of labour.
  - affected 65% women with 1 or 2 syphilis with 67% having signs of fetal distress and uterine contractions. Onset symptoms 2- 8 hours – resolved at 24 hours
  - none with early latent
- US recommendations recommend hospitalisation of women with primary of secondary syphilis being treated >20 weeks for fetal monitoring

Previous syphilis

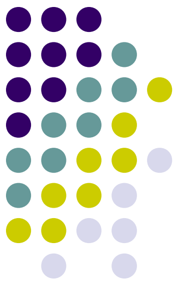


Women who have documented treatment for syphilis in the past do not need retreatment during current or subsequent pregnancies if

- there is no clinical evidence of syphilis and
- the VDRL or RPR titre is negative or serofast in low titre compared to previous results

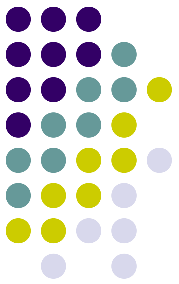
However it is important to exclude reinfection by checking the partner and babies should be followed up by a paediatrician to exclude congenital syphilis

Monitoring treatment



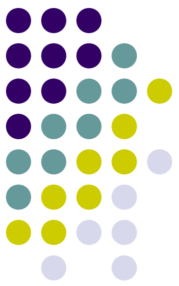
- Successful treatment of early syphilis should show four fold drop in titres at 3 months
- Partner notification is mandatory

Treatment



- All patients diagnosed by serology should have repeat serology and full history before further investigation and treatment.

Laboratory confirmed cases of LGV, UK January 2004- March 2006



London | Brighton | Rest of England | Scotland | Wales

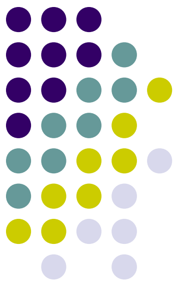
Number of cases

40
30
20
10
0

2004
2005
2006

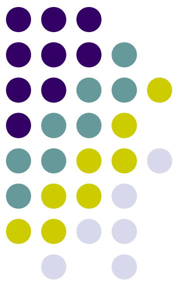
Enhanced LGV surveillance

Background

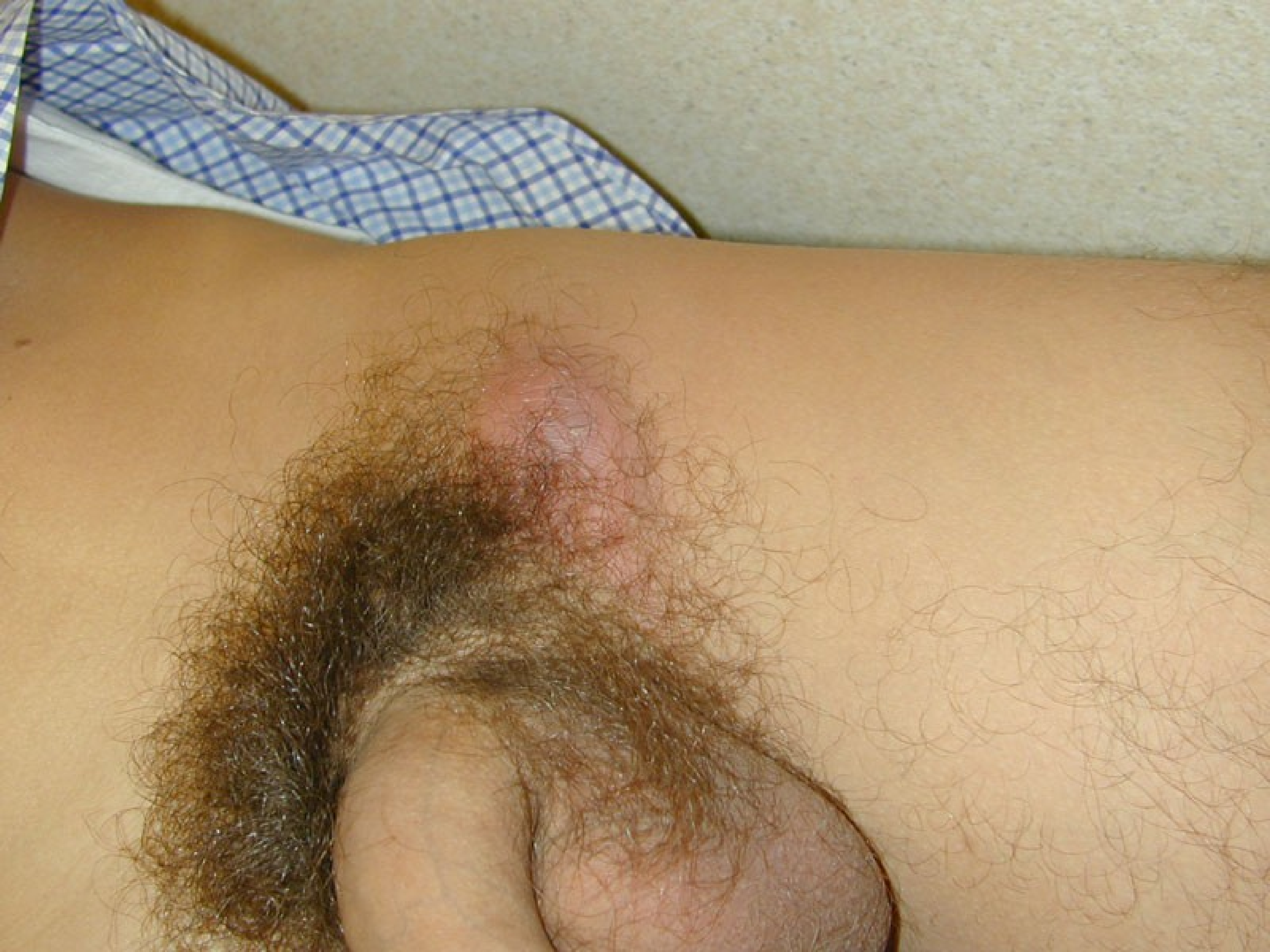


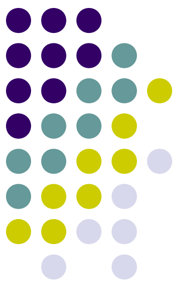
- Outbreak of LGV in MSM since Dec 03
  - Netherlands
  - Belgium
  - France
  - Sweden
  - Germany
- Reported many sexual contacts including in UK
- *Chlamydia trachomatis* serovariants L1–L3 are responsible.
- LGV is sexually transmitted

Symptoms



- Most white and HIV positive
- Anorectal symptoms
- Primary lesion (3–30 days)
  - Painless genital or rectal ulcer, spontaneously heals in a few days.
- Secondary stage (10 – 30 days but rarely up to 6 months)
  - Suppurative inguinal lymphadenopathy (buboes)
  - Constitutional disturbance with fever.
  - Proctocolitis (rectal infection)
- Most had other STI
  - GC, Syphilis, Hep B etc





Co-infection of HIV with syphilis, gonorrhoea and LGV among MSM, UK: 2005

Syphilis LGV Gonorrhoea

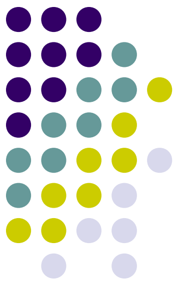
60%
50%
40%
30%
20%
10%
0%

Percent HIV co-infected

15-24 25-34 35-44 >44

Gonococcal resistance to antimicrobials surveillance and enhanced surveillance for LGV and Syphilis

Hepatitis C



- Uncommon sexual transmission
- Increasing incidence in MSM
- New infections
  - evidence of 20% year on year increase in the incidence of diagnosed newly acquired HCV infection in HIV-positive MSM in London and Brighton, from January 2002 to June 2006
- Repeated infections