Sexually transmitted diseases - STD

- VIRAL - usually no or inadequate treatment - and no or incomplete cure
- BACTERIAL - usually complete cure with treatment but sometimes hard to discover
- PARASITIC - usually a "minor" health issue
- PREVENTION!!

Unsafe sex in Norway

• Facts about Norwegians
  – 70% have had at least one one night stand
  – 73% have had sex with somebody they do not know well
  – 21% have had at least one episode of STD
  – 20,000 cases of chlamydia in 2005
  – 150 new cases of HIV in 2006
Viral STDs

- HIV/AIDS
- Hepatitis B, C
- Herpes Simplex Virus 1, 2
- Human Papilloma Virus; Condylomata acuminata
Herpes Simplex Genitalis

Open sores, Painful!

Primary = first time, usually lasts 2-4 weeks

Secondary = recurrent, usually lasts 1 week
Herpes 2

- Contagious on direct contact
- Large individual variation in frequency of recurrence (1 every other year to 12 per year)
- Acyclovir can prevent recurrences in some patients
Herpes 3

• NB avoid oral sex when you have an eruption of herpetic mouth sore (HSV-1)
Condylomata acuminata ("warts")
Condylomata acuminata
(“warts”)
Virus infection causing genital warts
One of the most common sexually transmitted disease
Two thirds of those that have sex with a partner with warts will develop warts.

May disappear without treatment
May cause cancer
May persist
Bacterial STDs

- Chlamydia
- Gonorrhea
- Syphilis
- Granuloma inguinale
- Ulcus molle
- Lymphogranuloma venerum
Chlamydia

- It is extremely common!
- Often asymptomatic, especially in women
- In men, light discharge of puss from penis, pain when urinating
- Complications include salpingitis in women, epididymitis in men, with the possibility of sterility
- If caught before complications, it is easy to treat
Chlamydia
20,000 cases in Norway in 2005
70% are females
most between 15 and 24 years
highest in Troms and Finnmark
Gonorrhea

• Pain and discharge of puss in both men and women
• Frequently gives complications
• Less common than chlamydia, more symptomatic
• Usually simple to treat (but maybe not forever)
Epididymitis secondary to gonorrhea
Syphilis

Open sore, usually not so painful
Syphilis 2

- Contagious on direct contact
- Three clinical “stages” if untreated, with serious complications, even death
- Can be treated with AB, with full recovery in early stages
- An open sore on the genitals is never innocent
- Although rare in Western Europe, in Africa prevalence varies between 2-17% (!)
Scabies

- Mite, transferred by close (!) skin contact
- Itching, especially after baths and at night
- Scabies tunnels
- Tx:
  - Permetrin (Nix) cream (not pregnant or < 2ys)
  - Benzylbenzoate
  - Treat whole family, cook bedsheets etc
Hepatitis

• Hepatitis A
• Hepatitis B
• Hepatitis C
• Hepatitis E

• Hepar = liver
  – itis = infection
Hepatitis A

• Hygiene (fecal - oral)
• Seafood
• Water
• Mild disease in those younger than 4 years
• Severe in those older than 50 (CF 4%)
• VACCINE
Hepatitis B

- Acute (Jaundice + flu)
- Chronic (liver failure) -> contagious
- Acquired at young age increases the risk of chronic disease
- VACCINE
- 250 times as contagious as HIV
- Semen, blood, salvia (spit), acupuncture
- 300-500 million carriers
Hepatitis B

Acute Illness

- Resolution 90%
- Long term carrier 9%
- Fulminant 1%

- Asymptomatic carrier
- Chronic persistent
- Chronic Active

- Diseases in other organs
- Cirrosis skrumplever
- Cancer
HIV
The origin of HIV

- HIV-1 originated in Central West Africa, probably Cameroon or Congo
- HIV-1 resembles SIV from chimpanzees
- HIV-2 is nearly identical to SIV-sm found in Sooty Mangabey monkeys in West-Africa
- In West-Africa, Mangabeys are used as pets
- HIV-1 have spread throughout the world, whereas HIV-2 are largely confined to West-Africa
Mode of transmission

• Blood inoculation
  – Transfusion
  – Intravenous drug abuse
  – Surgical procedures

• Sexually
  – HIV in sperm/vaginal fluids
  – Tiny cuts/wounds
  – Anal > Vaginal
  – NB simultaneous STD!

• Mother to child
  – Placenta
  – breastfeeding
Diagnosis

• Blood sample
  – Screening test (ELISA)
  – If positive, confirmatory test (Western Blot)
• Seroconversion is 2 weeks to 6 months after infection
• HIV DNA PCR test (test for Antigen not antibody)
Treatment

• Lowering viral load increases survival
• Treatment usually starts at “asymptomatic phase”, after defined set-points for CD4 count and viral load
• If clinical AIDS, aggressive treatment of opportunistic infections and cancers
Chemotherapy

- Monotherapy creates viral drug-resistance in 100% of the cases
- Multi-drug treatment, usually three drugs of different categories
- Strong side-effects
- Stringent daytime schedule
- Expensive
- No evidence of cure as of now, treatment expected to be lifelong
- Drug-resistance arises over time
- We have only seven years of experience with current treatment
- Still possible to infect others while being treated