

HIV/AIDs

The human immunodeficiency virus (HIV) is a lentivirus (a subgroup of retrovirus) that causes HIV infection and acquired immunodeficiency syndrome (AIDS)

Transmission

- Sexual (75%)
- IV Drug Abuse
- Infected blood
- Mother to Child

Immunology

- HIV binds to CD4 receptors on helper T Lymphocytes, monocytes, macrophages and neural cells
- Migrate to lymphoid tissue where the virus replicates
- These are released and in turn infect new CD4 positive cells
- depletion of CD4 positive cells impairs immune function

Stages

Acute

- Often asymptomatic

Seroconversion

- Transient illness 2-6 weeks after infection
- fever
- malaise
- myalgia
- pharyngitis
- maculopapular rash
- meningoencephalitis (rare)

Asymptomatic Infection

- 30% will have persistent generalised lymphadenopathy
- Later, constitutional symptoms develop (fever, night sweats, diarrhoea, weight loss + minor opportunistic infections)
- This collection of symptoms is referred to as AIDs-related complex and is regarded to as a prodrome of AIDs

Diagnosis

- Serum or salivary HIV Antibody by ELISA (<https://en.wikipedia.org/wiki/ELISA>)
- Usually confirmed by Western Blot (https://en.wikipedia.org/wiki/Western_blot)
- ### Prevention
- Blood Screening
- Disposable equipment
- Perinatal Antiretrovirals + C-Section + bottle feeding

Complications

- All patients with a new diagnosis of HIV should have a tuberculin test and be tested for Toxoplasma, CMV, HBV, HCV and syphilis.

Pulmonary

- Pneumocystis Jiroveci
- Tuberculosis
- Mycobacterium Avium Intracellulare
- Fungal Disease (Aspergillus, Cryptococcus, histoplasma)
- CMV
- Kaposi's Sarcoma

Gut

- Candidiasis
- Anorexia and weight loss
- Hepatomegaly
- Chronic Diarrhoea
- Perianal disease

Eye

- CMV Retinitis

CNS

- Acute HIV is associated with transient meningoencephalitis, myelopathy, neuropathy

Chronic HIV is associated with several CNS syndromes:

- AIDs related dementia
- HIV related meningitis
- CMV Encephalitis
- Toxoplasma Gondii
- Cryptococcus Neoformans
- CNS Tumours

Monitoring HIV Infection

Routine Tests

- CD4 cell count (3-6 months)
- HIV RNA

- U+E
- LFTs
- FBC
- Fasting Lipid Profile

Other Tests

- Pregnancy Test
- Drug Resistance testing

Treatment

Indications for initiating antiretroviral therapy

- History of an AIDs defining illness or CD4 count < 350 cells/microlitre

ALL PATIENTS IF:

- pregnant
- HIV associated nephropathy
- patients co-infected with HBV

** The START Trial confirmed that all patients should be started on ARVs immediately
**

AIDs