SydPath
ST VINCENT'S PATHOLOGY

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HIV/AIDS INFORMATION SHEET

TEST	INDICATION	INTERPRETATION
SCREENING ASSAY HIV ANTIBODY / ANTIGEN COMBO TEST	Screening for HIV - 1/2 infection	Non Reactive: excludes HIV infection >= 3 months duration Reactive: possible HIV infection, requires confirmatory assays
CONFIRMATORY ASSAYS REPEAT COMBO TEST HIV ANTIBODY TEST P24 ANTIGEN TEST HIV WESTERN BLOT	Diagnosis of HIV 1/2	Negative: antibodies to HIV-1/2 and p24 not detected Positive: antibodies to HIV-1/2 detected Indeterminate: indicates presence of non-specific antibodies, very recent HIV infection or late stage HIV infection. To completely exclude HIV infection, a HIV proviral DNA PCR test should be ordered Primary HIV-1 infection (seroconversion): detectable p24 antigen with indeterminate western blot antibody results (found in >97%)
HIV PROVIRAL DNA PCR	Supplemental diagnostic test for HIV-1	Useful in resolving indeterminate results, and in diagnosing primary HIV-1 infection In diagnosing neonatal HIV infection, the proviral DNA test should be performed on maternal blood to exclude false negatives
MONITORING ASSAYS HIV VIRAL LOAD	Monitoring HIV-1 disease progression and treatment response	Should be measured with CD4 count (every 3-4 months if stable, more often if treatment initiation or alteration required) NOT to be used for diagnosis of HIV infection Results from different kit types and laboratories may not be well correlated, especially in patients with low viral loads

CD4+ T-LYMPHOCYTE COUNT	Monitoring HIV-1 disease progression and treatment response	Should be measured with HIV viral load (every 3-4 months in asymptomatic persons. more often in symptomatic persons or those with evidence of falling CD4 cell counts) CD4 counts > 500x10^6/L = no or minimal immune damage. Antiretroviral therapy generally not indicated CD4 counts 350-500x10^6/L = moderate immune damage. Antiretroviral therapy recommended CD4 counts <350x10^6/L = severe immune damage. Antiretroviral therapy indicated. Pneumocystis prophylaxis may be indicated if CD4 count < 200x10^6/L
OTHER ASSAYS HIV GENOTYPING	For new diagnosis Treatment failure (plasma HIV viral load >1000 copies/ml, preferably while on antiretroviral therapy)	Predicts the sensitivity of circulating HIV-1 to protease inhibitor and reverse transcriptase inhibitor classes of antiretroviral drugs
HIV CO-RECEPTOR TROPISM	Evaluates the ability for HIV-1 to enter cells via co-receptors CCR5 and/or CXCR4	Predicts whether the patient is infected with HIV-1 that enters cells using the CCR5 or CXCR4 co-receptor, or both Tested prior to commencing CCR5 inhibitor antiretroviral therapy in plasma sample with an HIV viral load >1000 copies/ml
HLA-B57	Prior to commencing antiretroviral drug abacavir	HLA-B*5701 prevalence is up to 8%, mainly in Caucasians Strongly associated with hypersensitivity to abacavir Abacavir not prescribed if positive for HLA-B*5701