

Base Line Investigations for Children with HIV

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Base line investigations for suspected HIV in an infant / child or at first visit of a child known to have HIV

If history and examination lead to a differential diagnosis, which includes HIV' pay special attention to:

History

Birth mode of delivery, duration of rupture of membranes
birth weight, infant feeding, maternal health and antenatal HIV screening result

Past Med History previous infections (including oral candida), swollen lymph nodes, chronic diarrhoea, failure to thrive, recurrent URTI's, childhood exanthems (e.g. chickenpox, rubella), severe infections, hospitalisations, transfusions and IM injections, developmental history, sexual history (if appropriate)

Social History name and relationship of adult accompanying child, and who has parental responsibility; deaths of parents or siblings; significant previous caregivers; travel history; TB exposure; immunisations; housing and social circumstances

Drug history Previous antiretroviral exposure: in-utero / peripartum / as treatment in another country. Other current drugs
Children newly arrived from abroad may be on combination antiretroviral tablets not available in this country e.g. "Tri-immune" or "Stalanev" (both contain stavudine+lamivudine+nevirapine), check with a specialist HIV pharmacist.

Examination mouth, glands, parotids, chest, liver, spleen, skin, neurology, growth (ht, wt, OFC), pubertal stage.

First Line HIV Diagnostic Tests

Infant < 18 months of Age	Child > 18 months of Age
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Breastfed in last 3 months?		HIV antibody NB If there is ongoing risk of exposure (eg sexual contact), repeat test 3 months after last exposure
Yes	No	
HIV antibody test and PCR; repeat tests 3 months after breastfeeding stopped	HIV antibody test. If negative, no need for further tests	

Second Line Confirmatory HIV Tests and Assessment of Severity of HIV Disease (If HIV known or clinically very likely then do both First and Second Line tests together)

Test Type	<u>Infant < 18mths & Child > 18mths</u>
HIV parameters	HIV RNA PCR (viral load) Base line HIV resistance (+ maternal resistance if an infant) CD4 count HLA B5701
Haematology	FBC + film Sickle screen (if appropriate racial group) ferritin Consider malaria film if recently arrived from endemic area
Biochemistry	U+E, Creat Total Protein (Globulin) Ca, PO ₄ Albumin LFT's Lipids Glucose Amylase TSH Vitamin D
Serology	Hepatitis A IgG, HBsAg, anti-HBsAg, HCV IgG , Syphilis Serology IgG for EBV, CMV, HSV, VZV, Toxoplasmosis In children over 1 year: Measles, Mumps, Rubella IgG Immunisation responses: H. influenzae b, Tetanus (under 18 months, serology may reflect maternal antibodies, and should be repeated)
Viral PCRs	Plasma CMV PCR should be undertaken in infants & children with advanced disease (preferred to urine screening)

	HCV PCR - should be undertaken in infants at risk of exposure and those with advanced disease (this can be positive even if the child is HCV antibody negative)
Cultures	According to symptoms / travel history: Stools / Urine / Throat swabs / Blood cultures / malaria films / gastric washings also for TB - Mantoux test (also consider INFGRA if available)/sexual health screen if sexually active
Clinical Investigations	Formal ophthalmological examination for infants BP, Urinalysis, Height / Weight / Head circumference / Pubertal Stage / BCG scar
Radiology	Base line CXR Bone age if small for age Infants / children with neurological signs: MRI of brain
Development Assessment	Formal baseline development assessment where available

PCP Prophylaxis

Infant < 18mths	Child > 18mths
start Co-trimoxazole what ever the CD4 count	start Co-trimoxazole if CD4 count <15% or < 250 x 10 ⁶ /L

Assess the child's clinical stage according to WHO and /or CDC criteria (see PENTA 2009 guideline below).

Calculate the child's risk of progression to AIDS or death using the PENTA calculator (<http://www.hppmcs.org/>).

Use PENTA 2009 guidelines to decide when to start antiretroviral treatment (www.pentatrials.org)

Discuss with network link centre (<http://www.chivauk.org/networks>)