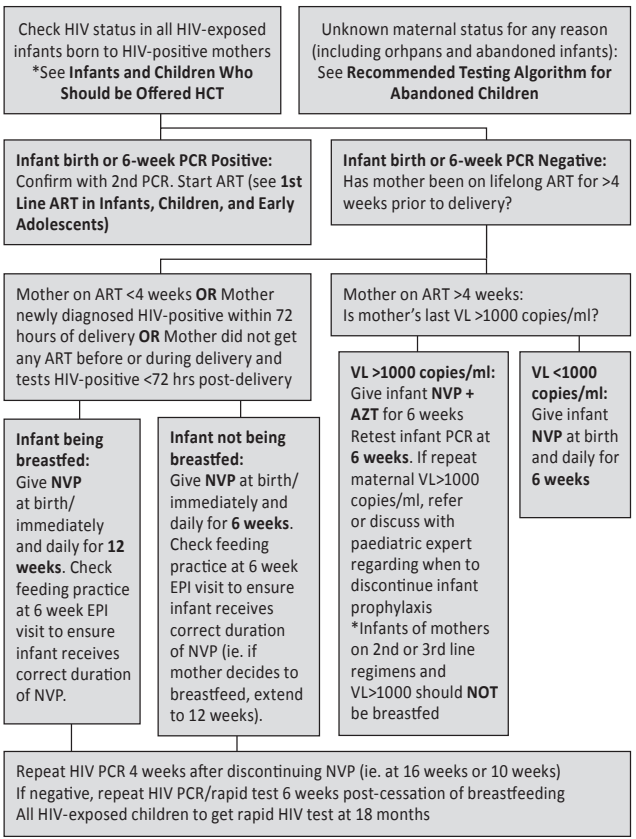
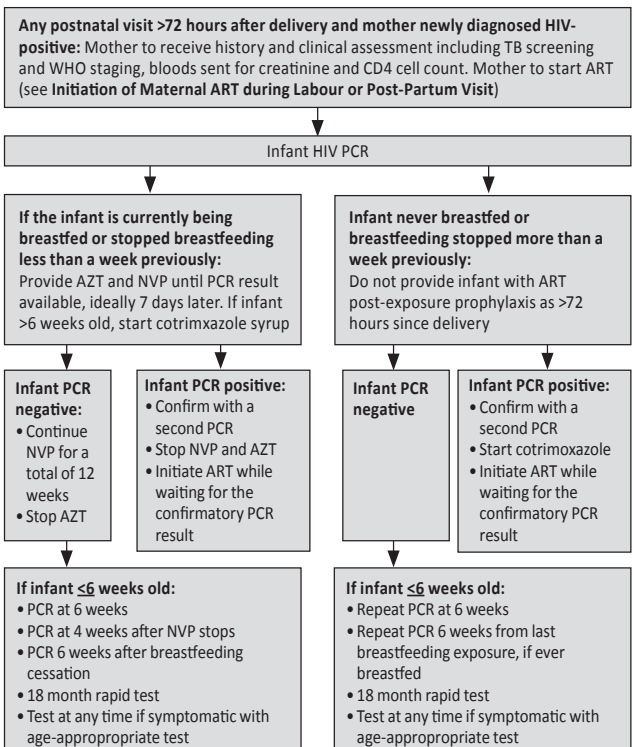
ANTIRETROVIRAL THERAPY
Infants, Children and Early Adolescents

Initiation of ART Prophylaxis in HIV-Exposed Infants <72 Hours



Initiation of Infant ART Prophylaxis >72 Hrs After Delivery



Source: National consolidated guidelines for the prevention of mother-to-child transmission of HIV (PMTCT) and the management of HIV in children, adolescents and adults, December 2014.

ART Prophylaxis for HIV-exposed Infants: Summary Table

Mother	Infant regimen	Comment
Mother on lifelong ART	NVP at birth and then daily for 6 wks	Mother has been on ART for >4 weeks prior to delivery
Mother did not get any ART before or during delivery and tests HIVpositive >72hours postdelivery **OR** Mother newly diagnosed HIV-positive within 72 hours of delivery **OR** Mother started ART less than 4 weeks prior to delivery	NVP as soon as possible and daily for 12 weeks (if infant is breastfed)	12 weeks extended NVP is only necessary if the infant is being breastfed. Check feeding practice at the 6 week EPI visit to ensure infant receives correct duration of prophylaxis If mother received no ART before delivery, infant should receive birth PCR An additional HIV PCR test is required 4 weeks after NVP is discontinued This extended period of infant prophylaxis is required to allow time for maternal viral suppression. It takes up to 12 weeks for the viral load to become undetectable on ART
Breastfeeding mother diagnosed with HIV Start mother on a FDC immediately	NVP and AZT immediately If infant tests HIV PCR negative: stop AZT and continue NVP until 4 weeks post-cessation of breastfeeding, unless mother has been on ART for at least 12 weeks. If mother has received 12 weeks of ART then infant NVP can be stopped	Do HIV PCR and return for results in 7 days If infant <6 weeks, repeat HIV PCR at 6 weeks Additional HIV PCR 4 weeks after stopping NVP Infant HIV testing 6 weeks postcessation of breastfeeding (either HIV PCR or ELISA, depending on age)

Continued

ART Prophylaxis for HIV-exposed Infants: Summary Table

Continued

Mother	Infant regimen	Comment
Unknown maternal status for any reason, including orphans and abandoned infants	Give NVP immediately* Test infant with rapid HIV test* If positive continue NVP for 6 wks If negative discontinue NVP	If rapid test is positive do a birth PCR and if negative, follow up with a 6-week HIV PCR
Mother with latest viral load >1000 copies/ml	Dual ARV for 6 weeks (NVP and AZT). Perform an HIV PCR at or shortly after birth	PCR at birth, if negative follow up with a 6 week HIV PCR Manage the mother as per Table 7 If repeat maternal viral load >1000 copies/ml then refer to/discuss telephonically with paediatric expert before the infant is 6 weeks old and prophylaxis is due to be discontinued Infants of mothers on 2nd or 3rd line regimens and VL>1000 should not be breastfed
Non-breastfeeding mother diagnosed with HIV	If more than 72 hours since delivery, no infant NVP Perform an HIV PCR, if positive initiate ART	Do HIV PCR, if <18 months Do rapid test if >18 months, Repeat PCR 6 weeks after last HIV exposure

**If rapid HIV test can be done within 2 hours, then wait for HIV result before commencing NVP*

Note: Remember to repeat the HIV PCR 6 weeks after breastfeeding cessation for all breastfed infants if < 18 months and a repeat HIV rapid test if > 18 months

Source: National consolidated guidelines for the prevention of mother-to-child transmission of HIV (PMTCT) and the management of HIV in children, adolescents and adults, December 2014.

Nevirapine and AZT Infant Dosing Guide

Drug	Birth Weight	Dose	Quantity
Nevirapine Dosing Guide			
Nevirapine (NVP) Birth – 6 weeks	<2.0kg	Birth to 2 weeks: 2mg/kg 2 to 6 weeks: 4mg/kg	0.2ml/kg
	2.0 – 2.5kg	Birth to 6 weeks: 10mg	1ml
	>2.5kg	Birth – 6 weeks: 15mg	1.5ml
	Any weight	6 weeks to 12 weeks: 20mg	2ml
Nevirapine (NVP) > 6 weeks – 6 months	All	20mg/day	2ml
> 6 month – 9 months	All	30mg/day	3ml
> 9 months	All	40mg/day	4ml
AZT Dosing Guide			
Zidovudine (AZT)	2000 to 2499g	10mg twice daily	1ml twice daily
	>2500g	15mg twice daily	1.5ml twice daily

Source: National consolidated guidelines for the prevention of mother-to-child transmission of HIV (PMTCT) and the management of HIV in children, adolescents and adults, December 2014.

ART Initiation: Infants, Children, and Early Adolescents <15 years

CLINICAL CRITERIA

Confirmed HIV Diagnosis **AND**:

- All children less than 5 years of age, irrespective of CD4
- Children and adolescents 5-15 years who are WHO stage 3 or 4 irrespective of CD4 **OR** CD4 < 500 cells/mm^3 irrespective of WHO stage

REQUIRE FAST TRACK:

(Start ART within 7 days of being eligible)

- Children less than 1 year of age
- WHO Clinical Stage 4
- MDR or XDR TB
- CD4 count < 200 cells/µl or < 15%

SOCIAL CRITERIA

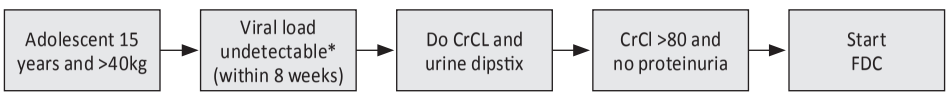
- At least one identifiable caregiver who is able to supervise the child for administering medication (all efforts should be made to ensure that social circumstances of vulnerable children are addressed so that they can receive treatment).
- Disclosure to another adult living in the same house is encouraged.
- Treatment of mother/caregiver/other family member is to be actively promoted by ensuring same-site treatment or referral to nearest treatment centre.

Source: National consolidated guidelines for the prevention of mother-to-child transmission of HIV (PMTCT) and the management of HIV in children, adolescents and adults, December 2014.

1st Line ART in Infants, Children, and Early Adolescents <15 years

All infants and children under 3 years or older children weighing < 10 kg	Abacavir (ABC) + Lamivudine (3TC) + Lopinavir/ritonavir (LPV/r)
Children and Adolescents 3-15 years weighing 10-40kgs	Abacavir (ABC) + Lamivudine (3TC) + Efavirenz (EFV) Children who started on ABC + 3TC + LPV/r before 3 years must remain on same regimen
Currently on stavudine (d4T) based regimen	Check viral load. If undetectable, change Stavudine (d4T) to Abacavir (ABC). If viral load > 1000 copies/ml manage as treatment failure. If viral load 50-1000 copies/ml consult with an expert
Children on ddI	Change all ddI to ABC regardless of VL

Transition from paediatric to adolescent/adult ART regimen



*If VL is 50-1000 copies/mL, consult an expert for advice
If VL >1000 copies/mL, exclude non-adherence then treat as virological failure

Source: National consolidated guidelines for the prevention of mother-to-child transmission of HIV (PMTCT) and the management of HIV in children, adolescents and adults, December 2014.

2nd and 3rd Line ART in Infants, Children, and Early Adolescents <15 years

Failed first line Protease Inhibitor (PI)-based regimen	Recommended 2nd line regimen
Failed ABC + 3TC + LPV/r	Consult with expert for advice
Failed d4T + 3TC + LPV/r	
Failed unboosted PI-based regimen	
Failed first line NNRTI based regimen *Discuss with expert before changing	Recommended 2nd line regimen
Failed ABC /TDF + 3TC /FTC + EFV (or NVP)	AZT + 3TC + LPV/r
Failed d4T + 3TC + EFV (or NVP)	AZT + ABC + LPV/r
Failing any 2nd line regimen	Refer for specialist opinion. Regimen will be based on genotype resistance testing, expert opinion and supervised care. 3rd line ART managed centrally.

Source: National consolidated guidelines for the prevention of mother-to-child transmission of HIV (PMTCT) and the management of HIV in children, adolescents and adults, December 2014.

Baseline and Routine Monitoring for Infants, Children, and Early Adolescents

At Initial Diagnosis of HIV	Purpose
Verify HIV status	Ensure that national testing algorithm has been followed
Document weight, height, head circumference (<2yrs) and development	To monitor growth and development and identify eligibility for ART
Screen for TB symptoms using Screening Tool	To identify TB/HIV co-infection or IPT eligibility
WHO Clinical Staging	To identify ART eligibility in children ≥5 years
CD4 Count	Children < 5 years – baseline but do not wait to start ART. Children ≥5 years – to identify ART eligibility and start cotrimoxazole per guidelines
Hb or FBC	To detect anaemia (Hb) or neutropaenia (FBC)
At Routine Follow-up Visits (Not ART eligible)	**Purpose**
Document weight, height, head circumference (<2yrs) and development	To monitor growth and development and to see if they have become eligible for ART
Check that CD4 has been done in the last 6 months	To identify ART and CPT eligibility
WHO Clinical Staging	To identify ART and CPT eligibility
Screen for TB symptoms and TB contacts	To identify TB/HIV co-infection or IPT eligibility

Source: National consolidated guidelines for the prevention of mother-to-child transmission of HIV (PMTCT) and the management of HIV in children, adolescents and adults, December 2014.

Continued

Baseline and Routine Monitoring for Infants, Children, and Early Adolescents

At initiation of ART (Baseline)	Purpose
Hb or FBC	If < 8g/dl start ART and discuss with specialist
CD4 count (if none in last 6 months)	Baseline assessment
Cholesterol + Triglyceride if on PI-based regimen	Baseline assessment
ALT (if jaundiced or on TB treatment)	To assess for liver dysfunction
On ART	**Purpose**
Height, weight, head circumference (<2 yrs) and development	To monitor growth and development milestones
Clinical assessment	To monitor response to ART and exclude adverse effects
CD4 at 12 months then every 12 months	To monitor response to ART, stop cotrimoxazole prophylaxis per guidelines
VL at month 6, 12 months into ART, then every 12 months	To monitor viral suppression response to ART. To identify treatment failure and problems with adherence
Hb or FBC at month 1, 2, 3 and then annually if on AZT	To identify AZT-related anaemia
Cholesterol + Triglycerides 12 monthly if on PI-based regimen	To monitor for PI-related metabolic side-effects
Clinical drug-related adverse events	To identify drug-related adverse events. If develops jaundice or rash on EFV or NVP do LFTs and refer to specialist
Screen for TB symptoms and TB contacts	To identify TB/HIV co-infection or IPT eligibility

Source: National consolidated guidelines for the prevention of mother-to-child transmission of HIV (PMTCT) and the management of HIV in children, adolescents and adults, December 2014.

Viral Load Monitoring and Treatment Failure for Infants, Children and Early Adolescents

Viral Load (VL)	Response
<50* copies/mL	• Routine 12 monthly VL monitoring as per guidelines • Routine adherence support
50*-1000 copies/mL	• Assess and manage adherence carefully • Repeat VL in 6 months • If VL still 50*-1000 copies, begin intensive adherence support (step-up adherence) and repeat VL in 6 months

>1000 copies/mL	• Adherence assessment and intensive adherence support (step-up adherence package)
	• Repeat VL in **3 months**
	  • If VL<50* copies/mL, return to routine VL monitoring as above
	  • If between 50-1000 copies/mL, continue step-up adherence and repeat VL after 6 months
	  • If >1000 copies/mL despite stepped up adherence support AND child is on an NNRTI-based regimen, discuss with expert regarding new regimen
	  • If >1000 copies/mL and on a PI-based regimen:
	  • Reinforce adherence (very difficult to fail a PI-based regimen)
	  • If child received un-boosted PI (e.g. ritonavir alone) in past or received TB treatment while on LPV/r and VL>1000 copies/mL, discuss with an expert. Resistance testing is indicated but should only be done if child has been reliably taking their ARVs in the past month
	  • Discuss with expert if VL>30,000

**If laboratory does not test down to 50 copies/mL, use 400 copies/mL*

Source: National consolidated guidelines for the prevention of mother-to-child transmission of HIV (PMTCT) and the management of HIV in children, adolescents and adults, December 2014.