

Southern African HIV Clinicians Society 3rd Biennial Conference

13 - 16 April 2016 Sandton Convention Centre Johannesburg

Our Issues, Our Drugs, Our Patients

> www.sahivsoc.org www.sahivsoc2016.co.za



The positive birth PCR test

Ute Feucht

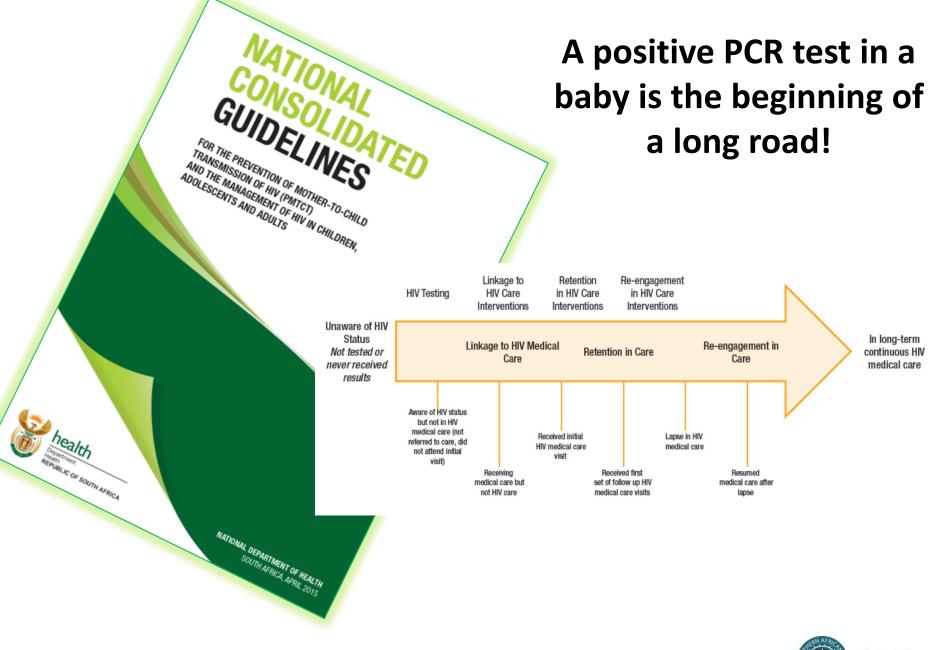
Department of Paediatrics, University of Pretoria
Tshwane District Clinical Specialist Team, Tshwane DOH





15 April 2016







PMTCT guideline change: 1 June 2015



- HIV testing protocol for all HIV-exposed infants:
 - Birth PCR to all exposed infants
 - 10w PCR to all infants who tested negative at birth
 - 18w PCR to all infants on extended 12w NVP
 - PCR 6w post cessation of BF
 - Rapid HIV test at 18m
 - Symptomatic HIV testing



Why did we move to birth PCR testing?

CHANGING EPIDEMIC
RELIABILITY OF TESTS
SYSTEM WEAKNESSES
HIGH RISK INFANTS
EARLY ART

Birth PCR testing: Practical implementation



- Identification of HIV-exposed newborns
 - Safety nets to ensure that no babies are missed (24h/7d/365d)
- Consent
- Doing the test
 - New cadre of staff doing the testing
- Needs
 - Consumables, job aides
 - Facility registration numbers
- Integration into already existing onsite MCWH services
- Recordkeeping
 - NB: Tracing information



Results checking & recording

- Responsibility of result checking
 - Delivery facility: Checking of results & tracing information
 - PHC facility: Infant follow-up
 - DCST: Receive and send out weekly name-based results
- Practical helps to obtain results:
 - Computer look-up
 - Patient phone Nrs on lab request forms
 - SMS printers
 - Hotline
- Recording of result
 - RTHB
 - Patient records
 - Registers
 - DHIS indicators



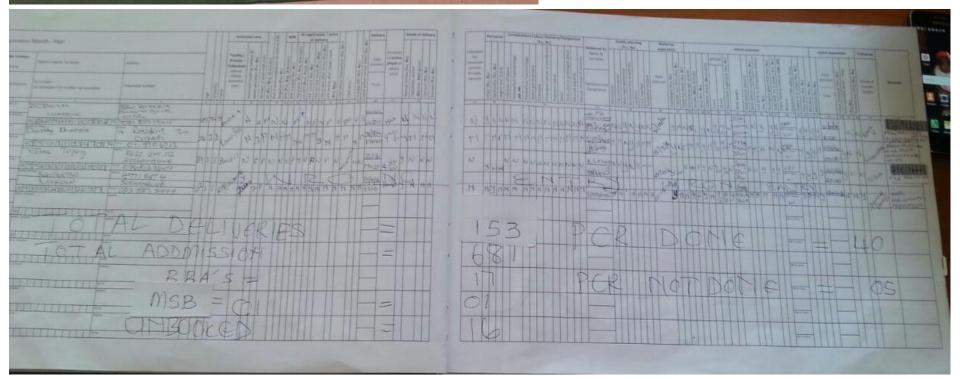




Facility Name: Mou

Register Period (Date):

From: _____ | 03 | 2016 Until: ____





Results hotline



RESULTS HOTLINE

0860 RESULT 737858



This line is dedicated to providing results nationally for HIV Viral Load, HIV DNA PCR and CD4 to Doctors and Medical Practitioners, improving efficiency in implementing ARV Treatment to HIV infected people. This service is currently available to members of Health Professionals Council of the South Africa and the South African Nursing Council. The hotline is available during office hours from 8am to 5pm Monday to Friday.

Register to use the RESULT HOTLINE

Follow this simple Step-by-step registration process

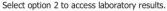
Dial the HOTLINE number 0860 RESULT (737858)

Follow the voice prompts and select option 1 to register to use the hotline A hotline registration form will be sent to you by fax or e-mail.

Complete the form and return it by fax or e-mail to the hotline to complete your registration process.

Once you are registered, you will be contacted with your unique number. This number is a security measure to ensure that the results are provided to an authorized user.

To use the hotline dial 0860 RESULT (737858)



- $\hfill \Box$ You will be asked for your HPCSA or SANC number by the operator.
- You will be asked for your Unique Number.
- Please quote the CCMT ARV request form tracking number (bar coded) and confirm that the result requested is for the correct patient.

Should the results not be available when you call, you will be provided with a query reference number which must be used when you follow up at a later date to obtain the result.

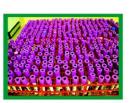
Once you have a Reference number

Select option 3 to follow up on a reference number

Should the requested results not be available, a query reference number will be provided to you.

A hotline operator will call you within 48 hours of receiving the laboratory results.

Registering for this service from the NHLS, will assit in improving efficiency, providing improved patient care and streamlining clinic processes. Call now and register to access results for HIV Viral Load, HIV DNA PCR and CD4.





Closing the loop: Weekly PCR results



Sub District	Facility	Ward	Folder	Patient	Patient	Patient	Patient	Patient Tel	Patient Age	Taken	Reviewed	Episode	Unique	HIV PCR
Sub District	racility	vvalu	No	Surname	Name	DOB	Address	No	ratient Aye	Date	Date	No	Patient ID	Result
City of Tshwane	Boekenhout Clinic	Not Applicable				30-MAR-2016		UNKNOWN	2 days	01-APR-2016	04-APR-2016	RG00437700	119400326	Positive
City of Tshwane	Mandise Shiceka Clinic	Ward Not Stated				22-OCT-2015		UNKNOWN	5 months 10 days	01-APR-2016	08-APR-2016	RC00773679	119915168	Positive
City of Tshwane	Gazankulu Clinic	Arv Clinic				31-AUG-2015		UNKNOWN	7 months 4 days	04-APR-2016	10-APR-2016	MG01934519	117366175	Positive
City of Tshwane	Gazankulu Clinic	Arv Clinic				01-MAY-2015		UNKNOWN	11 months 4 days	05-APR-2016	10-APR-2016	MG01934523	108890832	Positive
City of Tshwane	Kt Matubatse Clinic	Arv Clinic				06-DEC-2014		UNKNOWN	1 year 3 months 30 days	05-APR-2016	08-APR-2016	MA01752002	119580379	Positive
City of Tshwane	Jubilee Hospital	Labour Ward				06-APR-2016		UNKNOWN	1 day	06-APR-2016	10-APR-2016	RC00774659	120023297	Positive
City of Tshwane	Soshanguve Clinic 3	Arv Clinic				30-MAR-2016		UNKNOWN	1 day	30-MAR-2016	04-APR-2016	MA01743521	119512184	Positive
City of Tshwane	Soshanguve Clinic Jj	Arv Clinic				22-DEC-2015		UNKNOWN	3 months 8 days	30-MAR-2016	07-APR-2016	MA01748359	119790661	Positive
City of Tshwane	Jubilee Hospital	Labour Ward				31-MAR-2016		UNKNOWN	1 day	31-MAR-2016	04-APR-2016	RC00772040	119683793	Positive
City of Tshwane	Kt Matubatse Clinic	Arv Clinic				06-DEC-2014		UNKNOWN	1 year 3 months 25 days	31-MAR-2016	07-APR-2016	MA01748367	119580379	Positive
City of Tshwane	Laudium Clinic	Arv Clinic				19-JAN-2016		UNKNOWN	2 months 12 days	31-MAR-2016	07-APR-2016	MG01932308	116174608	Positive
City of Tshwane	Kalafong Hospital	Medical Opd				17-FEB-1977		UNKNOWN	39 years 1 month 12 days	29-MAR-2016	05-APR-2016	RH00765056	88549648	Indeterminate
City of Tshwane	Soshanguve Clinic T	Arv Clinic				09-MAR-2015		UNKNOWN	1 year 22 days	31-MAR-2016	07-APR-2016	MA01748353	107450688	Indeterminate

Minimizing missed opportunities in access to care



- —Tracing: How to find the infected babies?
 - Linking of WBOTs
 - Babies from difficult psycho-social backgrounds?
- Retention in care:
 - Counselling
 - Information: If mothers understand the process they are more compliant with follow-up
 - Issues: Language, finances, travelling, support structure, fear...



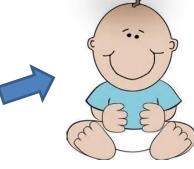
























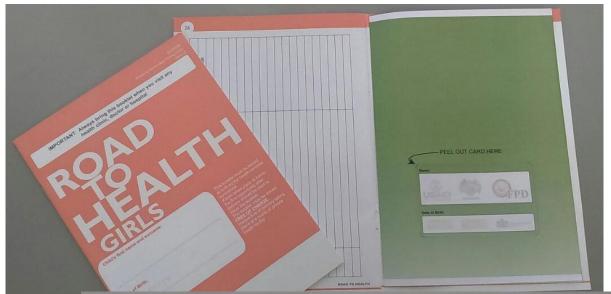






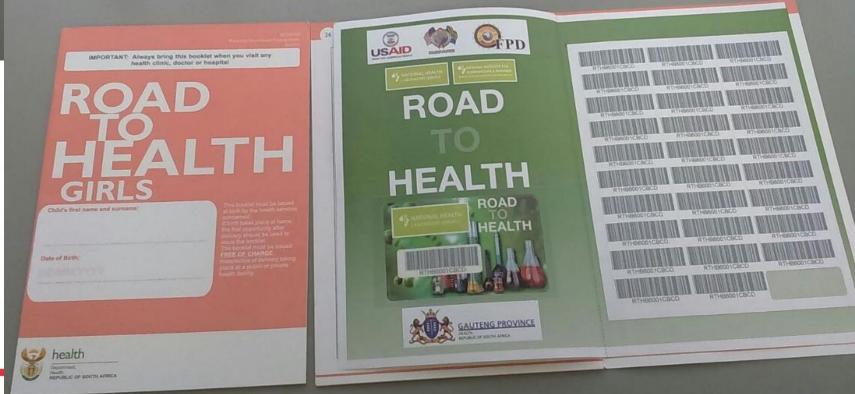








Unique RTHB identifier



Keeping track of what is happening: DHIS



	Tshwane District		2015									
		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
69	Targeted birth PCR test				269	671	744	604	695	949	792	745
70	Targeted birth PCR test positive				0	1	7	9	5	11	6	9
71	Infant 1st PCR test around 6 weeks	789	771	790	562	301	288	285	219	236	200	259
72	Infant 1st PCR test positive around 6 weeks	19	8	14	6	6	3	3	4	9	11	12

Sub-district	Facility			Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
gp Tshwane	gp Jubilee	31	Delivery in facility total	425	426	397	363	376	393	289	331	343	336	325
2 Health	Hospital	34	Live birth to HIV positive woman	134	60	125	106	52	98	193	113	60	73	129
sub-District		56	Targeted birth PCR test					70	89	63	68	51	60	96
		57	Targeted birth PCR test positive					0	0	1	0	2	1	1
	gp Refentse Clinic	31	Delivery in facility total	57	66	64	59	46	57	40	55	58	50	57
	(Odi)	34	Live birth to HIV positive woman	10	13	11	16	7	10	8	15	13	13	15
		56	Targeted birth PCR test					7		8	15	15	13	15
		57	Targeted birth PCR test positive					0	0	0	0	0	0	0
	gp Temba CHC	31	Delivery in facility total	54	49	55	49	43	45	48	48	53	60	54
		34	Live birth to HIV positive woman	14	14	11	12	11	14	13	14	14	17	25
		56	Targeted birth PCR test					20		15	15	14	16	25
		57	Targeted birth PCR test positive					0	0	1	0	0	0	2





City of Tshwane Metro District for the Month of Mar 2016













Facility

Rur









Quarterly Overview for Gauteng Q

All Ages

District	Month	Total	Total LY	Pos	Pos LY	% Pos													
	Jan 2016	3,602	2,622	136	148	3.9	5.7	1,404	1,586	22	26	1.6	1.6	2,198	1,036	114	122	5.4	12.1
City of	Feb 2016	3,865	2,824	176	147	4.7	5.3	1,434	1,644	30	28	2.2	1.7	2,431	1,180	146	119	6.2	10.4
Johannesburg Metro	Mar 2016	3,916	3,456	160	164	4.2	4.9	1,434	1,903	28	26	2.0	1.4	2,482	1,553	132	138	5.5	9.4
	Total	11,383	8,902	472	459	4.3	5.3	4 272	5 133	80	80	1.9	1.6	7,111	3,769	392	379	5.7	10.5
	2010	2,262	1,502	36	47	1.7	3.5	1,070	845	11	20	1.1	2.4	1,192	657	25	21	2.2	5.1
city of Tshwane	Feb 2016	2,441	1,513	58	55	2.6	4.1	1,157	728	19	6	1.7	0.8	1,284	785	39	49	3.4	7.8
Metro	Mar 2016	2,343	1,694	70	56	3.2	3.7	1,138	929	23	22	2.1	2.5	1,205	765	47	34	4.2	5.4
	Total	7.046	4,709	164	158	2.5	3.7	3,365	2,502	53	48	1.6	2.0	3,681	2,207	111	110	J.U	6.2
	Jan 2016	2,991	1,847	83	71	2.8	3.9	1,428	1,147	20	22	1.4	1.9	1,563	700	63	49	4.1	7.2
Elumbudani Mates	Feb 2016	3,297	2,202	96	94	3.0	4.4	1,530	1,319	22	28	1.5	2.1	1,767	883	74	66	4.3	7.7
Ekurhuleni Metro	Mar 2016	3,199	2,352	90	106	2.9	4.7	1,523	1,349	15	25	1.0	1.9	1,676	1,003	75	81	4.6	8.5
	Total	9,487	6,401	269	271	2.9	4.3	4,481	3,815	57	75	1.3	2.0	5,006	2,586	212	196	4.4	7.9
	Jan 2016	716	460	17	15	2.4	3.4	333	281	3	2	0.9	0.7	383	179	14	13	3.7	7.6
Sedibena	Feb 2016	712	586	23	22	3.4	3.8	302	326	1	4	0.3	1.2	410	260	22	18	5.6	7.2
Sediberig	Mar 2016	678	632	22	26	3.3	4.2	288	386	5	5	1.8	1.3	390	246	17	21	4.4	8.9
	Total	2,106	1,678	62	63	3.0	3.8	923	993	9	11	1.0	1.1	1,183	685	53	52	4.6	7.9
	Jan 2016	734	461	27	15	3.7	3.3	325	291	3	3	0.9	1.0	409	170	24	12	6.0	7.5
West Rand	Feb 2016	897	473	25	31	2.9	6.7	389	289	8	10	2.1	3.5	508	184	17	21	3.4	12.0
west Raffu	Mar 2016	883	538	33	30	3.8	5.7	415	353	9	7	2.2	2.0	468	185	24	23	5.2	12.9
	Total	2,514	1,472	85	76	3.4	5.3	1,129	933	20	20	1.8	2.2	1,385	539	65	56	4.8	10.9
Total		32,536	23,162	1,052	1,027	3.3	4.6	14,170	13,376	219	234	1.6	1.8	18,366	9,786	833	793	4.7	8.7

Facility

Adelaide Tambo Clinic

Bronkhorstspruit Phc Clinic

Dark City Community Clinic

Dr George Mukhari Hospital

De Wagens Drift Clinic

Atteridgeville Clinic

Boekenhout Clinic

Boikhutsong Clinic

Bophelong Clinic

Danville Clinic

Dilopye Clinic

East Lynne Clinic Eersterus Clinic (Eersterus)

Eersterus Clinic

[hammanskraal] Ekangala Clinic

Eldoraigne Clinic

Ff Ribeiro Clinic A

Gazankulu Clinic

Hercules Clinic

Jubilee Hospital

Kalafong Hospital

Kameeldrift Clinic

Karen Park Clinic

Kekana Stad Clinic

Kanana Clinic - Kungwini

Kekana Gardens Clinic

Kgabo Health Centre Clinic

Holani Clinic Jubilee Gateway Clinic

Ga Rankuwa View Clinic

Folang Clinic

Sub District

City of Tshwane

MDO

7d-<2mo 7d-<2mo 2-<6 mo 2-<6 mo 6-<18 mo 6-<18 mo >=18 mo >=18 mo

Total: 2343 (70+)

1006 (16+) <7d:

7d-2m: 132 (7+)

2-6m: 653 (24+)

6-18m: 386 (18+)

166 (5+) >18m:



Fast-tracking PCR+ babies into care



- Neonatal ART initiated: Doctor-initiated
 - Initially at large ART sites
 - Capacity building at all hospitals / ART sites
- Premature infants
- Clear referral pathways a pre-requisite
- Guidelines on down-referrals need to be in place

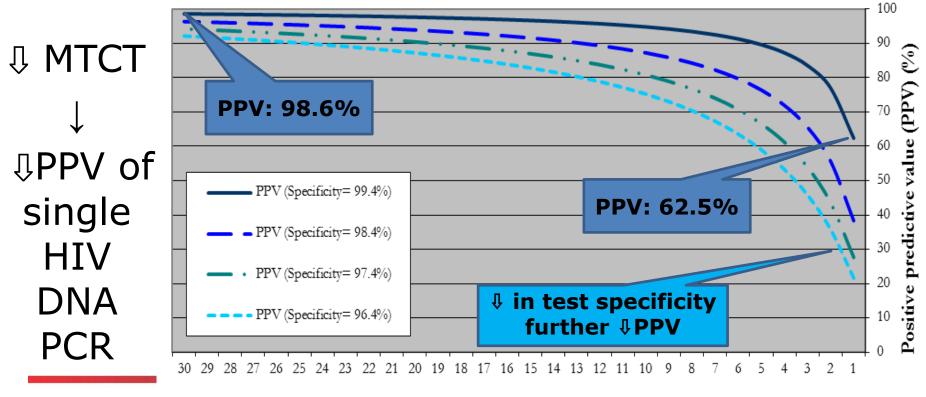


Avoiding HIV misdiagnosis





Meticulous checking of HIV+ status is vital before starting life-long ART



When Birth PCR is POSITIVE:



- Confirmatory HIV DNA PCR
- Refer infant to nearest centre for neonatal ART
 - If no referral site, contact specialist telephonically for advice
- Investigate gaps in PMTCT cascade
- Avoid creating sense of maternal guilt
 - Some do everything correctly but still their infant is positive
 - Some encounter significant barriers (access to care/adherence)
 - Full support with rapid ART initiation



Counselling: Positive HIV PCR



- Clearly communicate result to mother/caregiver
- Provide emotional support
- Emphasise importance of early ART
- Encourage continuation of breastfeeding (≥ 2 years)
- Develop a treatment and adherence plan
- Link to health worker who will initiate ART
- Provide a follow-up appointment date
- Counselling should be <u>provided repeatedly</u>



Neonatal ART: Step-wise Approach



- → Actively trace infant with positive PCR & link to care
- → Baseline clinical assessment, baseline bloods & genotype if mother 2^{nd/}3rd line
- → Initiate ART on the same day
- → Week 1 review: Bloods, treatment, counselling, weigh & adjust doses
- → Week 2 review: treatment, counselling, weigh & adjust doses
- → Week 4 review: treatment, counselling, bloods, start CPT, weigh & adjust doses
- → Monthly review: treatment, support, weigh & adjust doses
- → Month 6: check Viral Load

Neonatal Management: Steps 1 - 3

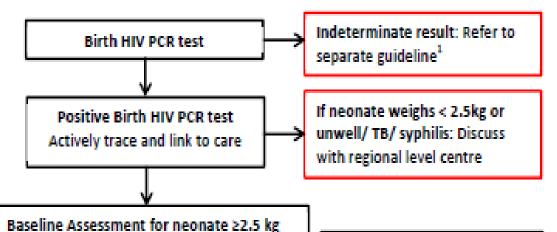


Protocol for initiation of ART in HIV-infected neonates ≥2.5kg at birth

Refer to documents below where numbered in the protocol:

- Managing Indeterminate HIV PCR test results guideline
- 2. Counselling model
- 3. Dosage chart if <28 days of age
- 4. SA NDOH dosing chart

Initial counselling for mother / caregiver on positive birth HIV PCR & starting ART²



Bloods: confirmatory HIV PCR, CD4 count/% FBC/diff, ALT (Genotype if mother is failing 2nd/3rd line ART)

Clinical review

Ensure mother is on antiretroviral therapy (ART); Advice on breastfeeding²

Start ART on same day³

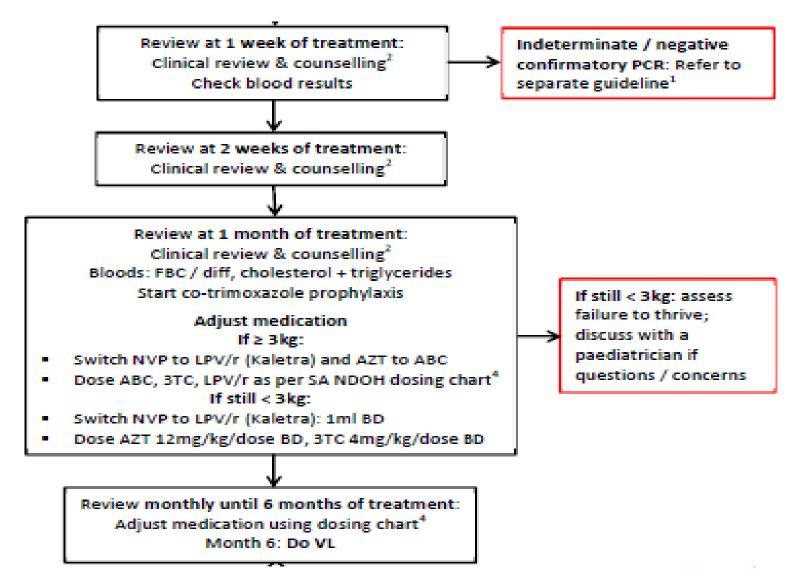
(if oral feeding is established)

AZT (4mg/kg/dose BD)

3TC (2mg/kg/dose BD)

NVP (6mg/kg/dose BD)

Neonatal Management: Steps 4 - 8



Why is the Regimen Different for Neonates?



- Neonates, who are <28 days old and weigh >2.5kg, to be initiated on AZT, 3TC, NVP
- LPV/r (Kaletra®) not safe <14d of age/ <42w gestation
- ABC can only be given once >3kg
- For premature babies (<35w gestation) or babies weighing <2.5kg the options are even more limited
 - Premature/LBW babies with a positive birth HIV PCR require urgent ART initiation & management by a specialist



Neonatal ART Dosage Chart



Only if <28 days AND >2.5kg

	Lamivudi	ne (3TC)	Zidovudin	ie (AZT)	Nevirapine (NVP)			
Target dose	2mg/kg	/dose	4mg/kg,	/dose	6mg/kg/dose			
	TWICE da	ily (BD)	TWICE da	ily (BD)	TWICE d	aily (BD)		
Available formulation	10mg	g/ml 10mg/ml		/ml	10mg/ml			
Weight (kg)	Dose in ml	Dose in mg	Dose in ml	Dose in mg	Dose in ml	Dose in mg		
≥2.5-<3.0	0.6 ml BD	6 mg BD	1.2 ml BD	12 mg BD	1.8 ml BD	18 mg BD		
≥3.0-<3.5	0.7 ml BD	7 mg BD	1.4 ml BD		2.1 ml BD	21 mg BD		
≥3.5-<4.0	0.8 ml BD	8 mg BD	1.6 ml BD	16 mg BD	2.4 ml BD	24 mg BD		
≥4.0-<4.5	0.9 ml BD 9 mg BD		1.8 ml BD	18 mg BD	2.7 ml BD	27 mg BD		
≥4.5-<5.5	1.0 ml BD	1.0 ml BD 10 mg BD		2.0 ml BD 20 mg BD		30 mg BD		
≥5.5-<6.5	1.2ml BD		2.4 ml BD 24 mg BD		3.6 ml BD	36 mg BD		

ART Dosage Chart

if > 4 weeks and > 3 kg





ANTIRETROVIRAL DRUG DOSING CHART FOR CHILDREN 2013

Compiled by the Child and Adolescent Committee of the SA HIV Clinicians Society in collaboration with the Department of Health



od – once a day (usually at night) bd – twice a day

Avoid LPV/rtv solution in any full term infant <14 days of age and any premature infant <14 days after their due date of delivery (40 weeks post conception) or obtain expert advice.
 E Children ES-34.9kg may also be dosed with LPV/rtv 200/50mg adult tabs: 2 tabs am; 1 tab pm

Weight (kg)	3-4.9	5-9.9	10-13.9	14-29.9	≥30
Cotrimoxazole Dose	2.5ml od	5ml od	5ml od	10ml or 1 tab od	2 tabs od
Multivitamin Dose	2.5ml od	2.5ml od	5ml od	5ml od	10ml or 1 tab od

Supporting Correct Dosage at Home



- Emphasise TWICE DAILY treatment (unlike maternal FDC)
- Supply 3 separate syringes & mark correct dosage
- Colour code bottles and syringes
- Demonstrate to caregiver how to correctly administer ART
- Observe caregiver give ART
- Explain to caregiver that doses will be reviewed at every visit and will change as baby gains weight



Conclusions



- Birth PCR testing gives us the opportunity to start ART early
- Tracing of infants is absolutely crucial
- Small numbers of infants due to PMTCT success, but

their management is more complex

