A matter of taste: improving & simplifying ARVs for young children

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Best HIV regimens for children: webinar 25 January 2023

Disclosures

- HIV guidelines committee, Technical Working Group, National Department of Health, South Africa

- HAST Policy Review Committee, Department of Health, Western Cape Government

Outline

- Better ARV drugs & formulations for young children
  - Scored dispersible tablets: ABC/3TC & DTG
  - 4-in-1 ABC/3TC/LPV/r capsule containing granules for dispersion in water/soft food
- Children who are starting ART
- Switching ART regimens in children already on ART
- Treatment literacy & creating demand for better treatment

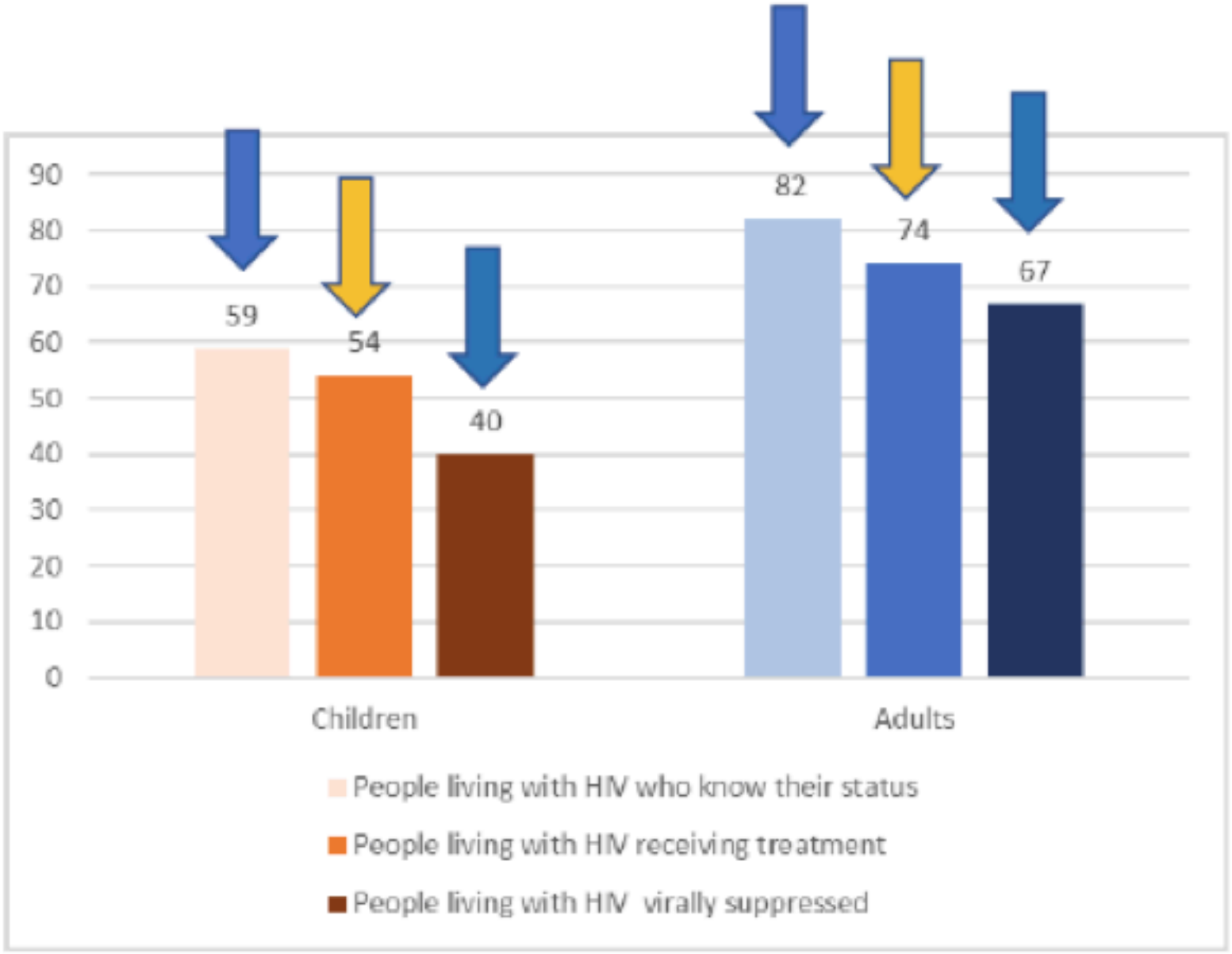
The numbers

- Globally, since 2010, new HIV infections among children have declined by 52%, from 320 000 in 2010 to 160 000 in 2021

- 1.7 million children are living with HIV

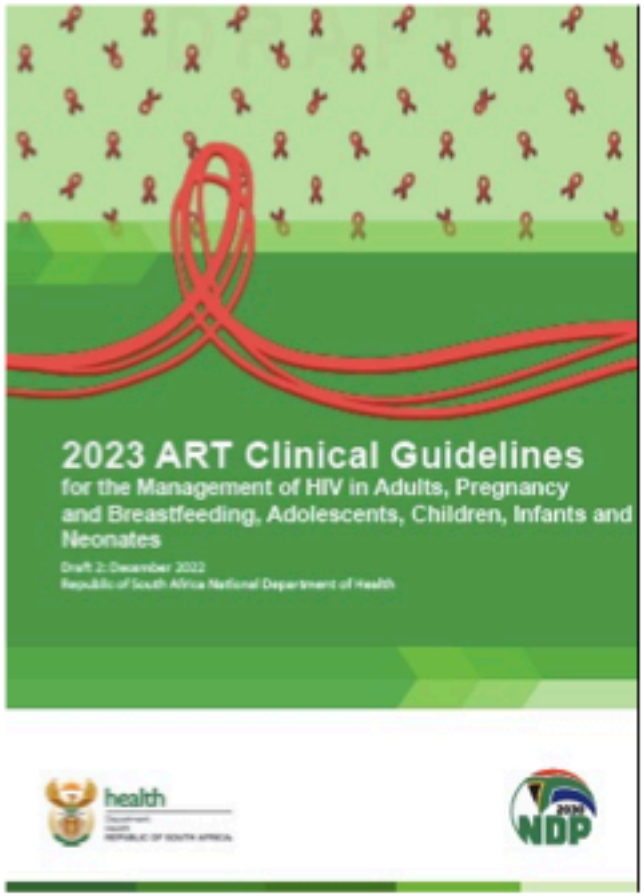
- In 2021, 52% of children had access to treatment vs 76% of adults (>15 yrs of age)

UNAIDS Global HIV statistics



Treatment cascade for children and adults, global, 2020

Slide courtesy M. Archary



Standard Treatment Guidelines and Essential Medicines List for South Africa

Primary Healthcare Level
2020 Edition

health

NDP

health

NDP

STANDARD TREATMENT GUIDELINES

AND

ESSENTIAL MEDICINES LIST

FOR

SOUTH AFRICA

HOSPITAL LEVEL
PAEDIATRICS

2017 EDITION

First-Line ART Regimens in Adults, Adolescents, Pregnant Women, Children, Infants, and Neonates

All Adult and Adolescent Females and Males ≥ 30 kg and ≥ 10 years of Age

TDF + 3TC + DTG (TLD)

Neonates, Infants and Children 0 to < 10 years of Age

For further detail on transitioning between regimens, see "Switching existing clients to DTG-containing regimens" on page 13-14

2.0 kg — Birth to < 4 weeks of age[1]

3 kg — ≥ 4 wks of age, to < 10 years of age

30 kg — and ≥ 10 years of age

Neonates: AZT + 3TC + NVP

Infants and Children: ABC + 3TC + DTG

Adults and Adolescents: TDF + 3TC + DTG (TLD)

For further details on initiating ART in term and pre-term neonates see pages 20-21

Transition does not require a VL before switching

Transition does not require a VL before switching
Ensure adequate renal function[2]

[1] For neonates with severe anaemia, obtain advice from an expert or through one of the helplines provided on page 18

[2] Before switching to TDF, ensure adequate renal function by checking eGFR/creatinine as outlined in table on page 7

≥2.0 kg
and
≥35 weeks
gestational age
at birth

Birth to <4 weeks of age

≥3.0 kg
AND
≥4 weeks of age

AZT + 3TC + NVP → ABC + 3TC + DTG

Baseline Assessment

- Clinical review
- Bloods: confirmatory HIV PCR, CD4 count, FBC +/- HIV drug resistance test if mother failing treatment on protease inhibitor / dolutegravir regimen
- Counsel parent / caregiver
- Ensure mother on ART / advise on breastfeeding

Review after 1 week then 1-2 weekly

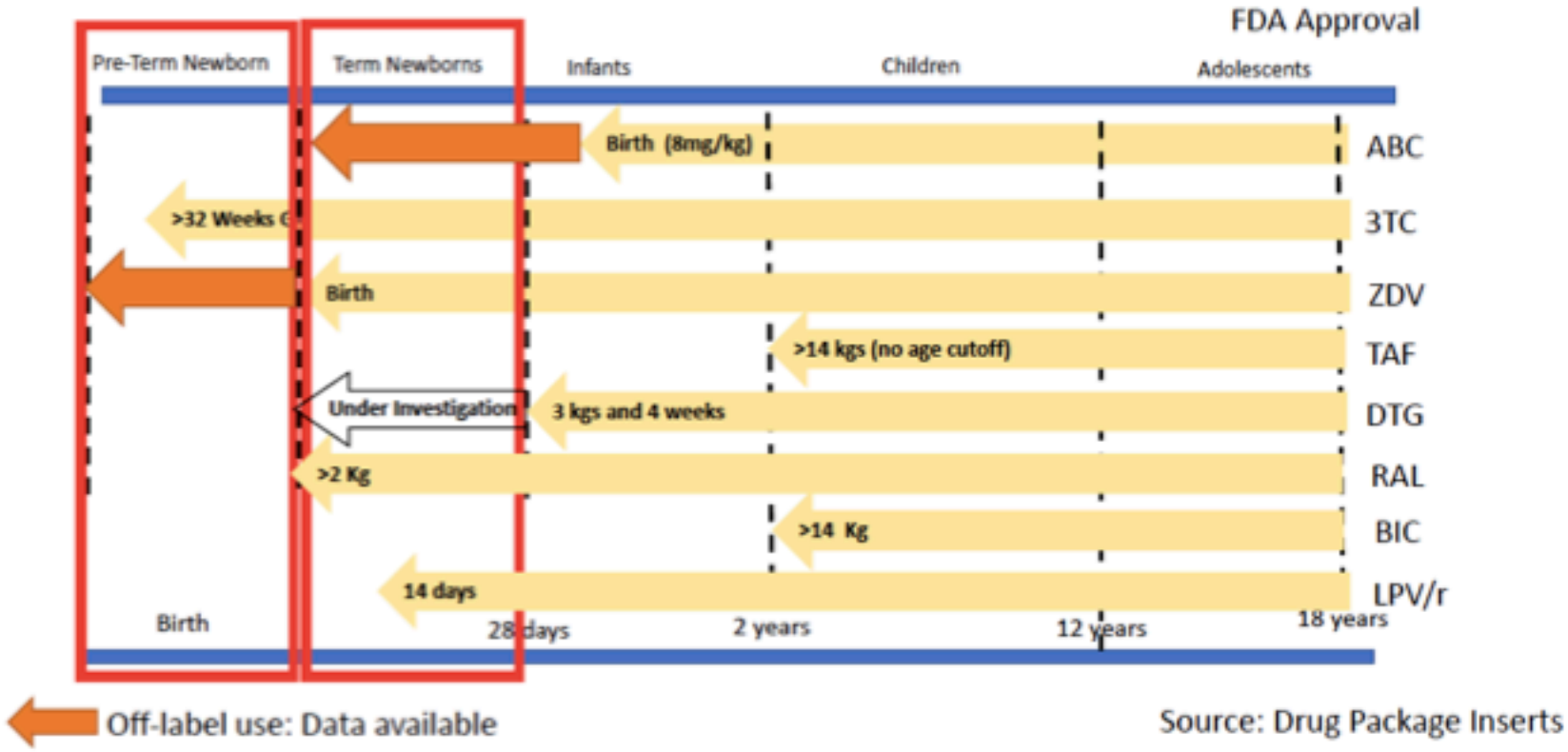
- Clinical review and counselling
- Check baseline blood results
- If indeterminate / negative confirmatory HIV PCR test result, refer to Guideline for Family-Centered Transmission Prevention of Communicable Infections

Review when 4 weeks of age

- Clinical review and counselling
- If <3 kg, assess reasons for poor weight gain & manage appropriately, continue ART with AZT (12 mg/kg/ dose twice daily) + 3TC (4 mg/kg/ dose twice daily) + NVP (6 mg/kg/dose twice daily) until ≥3.0 kg
- If >3 kg, switch ART to ABC + 3TC + DTG (refer to ARV dosing chart for doses)
- Continue monitoring and evaluations as per section 9.1.3

	Lamivudine (3TC)		Zidovudine (AZT)		Nevirapine (NVP)	
Available formulation	Solution 10 mg/mL		Solution 10 mg/mL		Solution 10 mg/mL	
Weight (kg) at birth	Dose		Dose		Dose	
	AM	**PM**	AM	PM	AM	PM
≥2.0 – <3.0	5 mg (0.5 mL)	5 mg (0.5 mL)	10 mg (1 mL)	10 mg (1 mL)	15 mg (1.5 mL)	15 mg (1.5 mL)
≥3.0 – <4.0	8 mg (0.8 mL)	8 mg (0.8 mL)	15 mg (1.5 mL)	15 mg (1.5 mL)	20 mg (2 mL)	20 mg (2 mL)
≥4.0 – <5.0	10 mg (1 mL)	10 mg (1 mL)	20 mg (2 mL)	20 mg (2 mL)	30 mg (3 mL)	30 mg (3 mL)

Closing the Gap – Towards Optimized Regimens



Source: Drug Package Inserts

Slide courtesy M. Archary

ARVs for young children

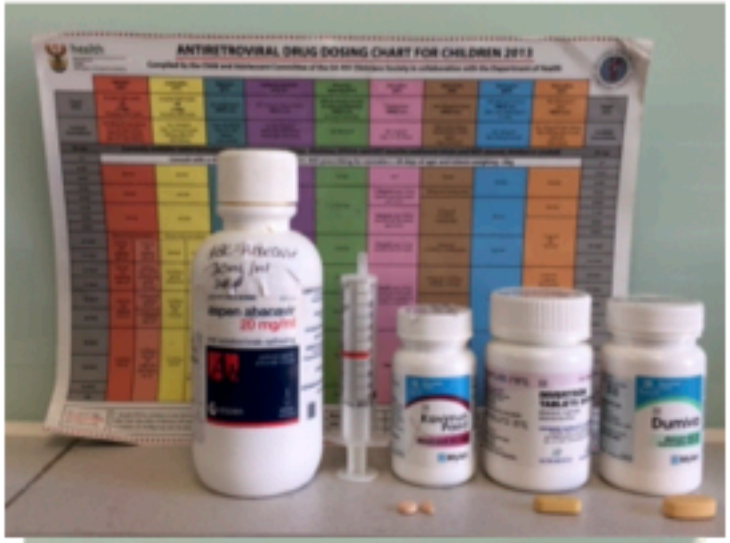
Current

- Individual drug formulations
  - Mostly liquids
  - Large volumes
  - Taste bad, poorly tolerated (spitting, vomiting)
  - Often twice a day dosing
  - Adverse effects
  - Expensive

New

- Dispersible scored small combination tablets or capsules containing granules or powder for dispersion
  - Disperse in water or small amount of food
  - Better taste
  - Once daily dosing
  - More effective
  - Safer
  - Easier to store
  - Cheaper

ARVs for young children: Current

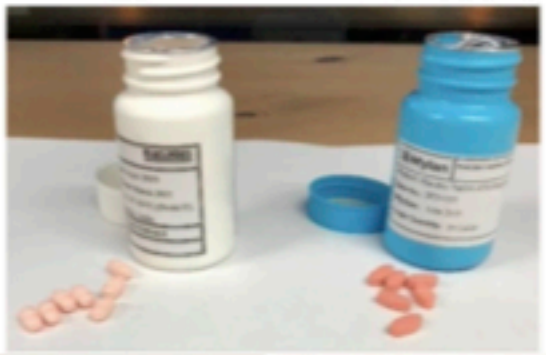


ARVs for young children: New

Abacavir + lamivudine 120/60 mg
Scored dispersible tablet

DTG 10mg
Dispersible

Suppliers	Dosage
Mylan MacLeods	10mg



ARVs for young children: New

ABC/3TC/LPV/r granules (4-in-1)

ANTIRETROVIRAL DRUG DOSING CHART FOR CHILDREN 2022

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

	Abacavir + Lamivudine (ABC + 3TC)	Abacavir (ABC)	Lamivudine (3TC)	Zidovudine (AZT)	Dolutegravir (DTG)	Dolutegravir when on Rifampicin	Lopinavir/ritonavir (LPV/r)	Abacavir + Lamivudine + Lopinavir/ ritonavir	Lopinavir/ritonavir when on rifampicin (and for 2 weeks after stopping rifampicin)		# Atazanavir (ATV) + Ritonavir (RTV)	Efavirenz (EFV)	
Target dose	As for individual medicines ONCE daily	8 mg/kg/dose TWICE daily OR if ≥ 10kg: 16 mg/kg/dose ONCE daily	4 mg/kg/dose TWICE daily OR if ≥ 10kg: 8 mg/kg/dose ONCE daily	180-240 mg/m2/dose TWICE daily	By weight band ONCE daily	By weight band TWICE DAILY	300/75 mg/m2/dose LPV/r TWICE daily	By weight band TWICE daily	LPV/r std dose + super-boosting with ritonavir (RTV) powder TWICE daily (≥0.75xLPV dose bd)	Double-dose LPV/r tabs ONLY if able to swallow whole LPV/r tabs TWICE daily	By weight band ONCE daily	By weight band ONCE daily	Target dose
Available formulations	Dispersible tablet FDC: ABC/3TC 120/60 mg Tablets FDC: ABC/3TC 600/300 mg ABC/3TC/DTG 600/300/50 mg	Sol. 20 mg/ml Tabs 60 mg (scored, dispersible), 300 mg (not scored)	Sol. 10 mg/ml Tabs 150 mg (scored)	Sol. 10 mg/ml, Tabs 100, 300 mg (not scored), FDC: AZT/3TC 300/150 mg	Dispersible tabs (DT) 10 mg, Film coated (FC) tabs 50 mg, FDC: TLD 300/300/50 mg OR ABC/3TC/DTG 600/300/50 mg DT AND FC TABLETS ARE NOT BIOEQUIVALENT	Dispersible tabs (DT) 10 mg, Film coated (FC) tabs 50 mg, FDC: TLD 300/300/50 mg OR ABC/3TC/DTG 600/300/50 mg DT AND FC TABLETS ARE NOT BIOEQUIVALENT	Sol. 80/20 mg/ml Adult tabs 200/50 mg, Paed tabs 100/25 mg TABLETS MUST BE SWALLOWED WHOLE Pellets 40/10 mg per capsule ONLY FOR USE IF NOT TOLERATING LPV/r SOLUTION. CAPSULES ARE NOT RECOMMENDED < 6 MONTHS OF AGE	Caps 30/15/40/10 mg IF PATIENT IS ON RIFAMPICIN TB TREATMENT, ADD RTV POWDER (next column)	Oral powder 100 mg/packet	Adult tabs 200/50 mg, Paed tabs 100/25 mg	ATV caps 150, 200 mg; RTV tabs 100 mg; FDC: ATV/RTV 300/100 mg RTV TABLETS AND ATV/r FDC TABLETS MUST BE SWALLOWED WHOLE	Caps/tabs 50, 200, 600 mg; FDC: TEE 300/200/600 mg; TABLETS MUST BE SWALLOWED WHOLE	Available formulations
Wt. (kg)	Consult with a clinician experienced in paediatric ARV prescribing for neonates (< 28 days of age) and infants weighing < 3kg												Wt. (kg)
3 - 5.9	1 x 120/60 mg tab od	3 ml bd OR 1 x 60 mg tab bd	3 ml bd	6 ml bd	0.5 x 10 mg DT od	0.5 x 10 mg DT bd	* 1 ml bd OR 2 capsules bd	2 capsules bd	LPV/r std dose (see purple column) + oral RTV powder 100 mg (1 packet) bd	Do not use double-dose LPV/r tabs	Not recommended	Not recommended	3 - 5.9
6 - 9.9	1.5 x 120/60 mg tabs od	4 ml bd OR 1.5 x 60 mg tab bd	4 ml bd	9 ml bd	1.5 x 10 mg DT od	1.5 x 10 mg DT bd	* 1.5 ml bd OR 3 capsules bd	3 capsules bd					6 - 9.9
10 - 13.9	2 x 120/60 mg tabs od	Once daily dosing > 10 kg: 4 x 60 mg tabs od OR 12 ml od	Once daily dosing > 10 kg: 12 ml od	12 ml bd OR 1 x 100 mg tabs bd	2 x 10 mg DT od	2 x 10 mg DT bd	2 ml bd OR 4 capsules bd OR 2 x 100/25 mg paed tabs am + 1 x 100/25 mg paed tab pm	4 capsules bd	LPV/r std dose (see purple column) + oral RTV powder 200 mg (2 packets) bd	5 x 100/25 mg paed tabs bd	ATV 1 x 200 mg cap od + RTV 1 x 100 mg tab or 100 mg oral powder (1 packet) od	1 x 200 mg cap/tab nocte	10 - 13.9
14 - 19.9	2.5 x 120/60 mg tabs od	5 x 60 mg tabs od OR 1 x 300 mg tab od	1 x 150 mg tab od	2 x 100 mg tabs am + 1 x 100 mg tab pm OR 15 ml bd	2.5 x 10 mg DT od	2.5 x 10 mg DT bd	2.5 ml bd OR 5 capsules bd OR 2 x 100/25 mg paed tabs bd OR 1 x 200/50 mg adult tab bd	5 capsules bd		4 x 100/25 mg paed tabs bd OR 2 x 200/50 mg adult tabs bd		1 x 200 mg cap/tab + 2 x 50 mg caps/tabs nocte	14 - 19.9
20 - 24.9	3 x 120/60 mg tabs od	1 x 300 mg tab + 1 x 60 mg tab od OR 6 x 60 mg tabs od	2 x 150 mg tabs od	2 x 100 mg tabs bd OR 20 ml bd	3 x 10 mg DT od OR 1 x 50 mg FC tab od	3 x 10 mg DT bd OR 1 x 50 mg FC tab bd	3 ml bd OR 6 capsules bd OR 2 x 100/25 mg paed tabs bd OR 1 x 200/50 mg adult tab bd	6 capsules bd					20 - 24.9
25 - 29.9	1 x 600/300 mg tab od OR ABC/3TC/DTG FDC (600/300/50 mg) if eligible od	2 x 300 mg tabs od		1 x 300 mg tab bd OR 1 x AZT/3TC 300/150 mg tab bd	1 x 50 mg FC tab od OR FDC: ABC/3TC/DTG if eligible od	1 x 50 mg FC tab bd OR FDC: ABC/3TC/ DTG if eligible od + 50 mg DTG FC tab 12 hours later	3.5 ml bd OR 7 capsules bd OR 3 x 100/25 mg paed tabs bd OR 1 x 200/50 mg adult tab bd + 1 x 100/25 mg paed tab bd	Not recommended	LPV/r std dose (see purple column) + oral RTV powder 300 mg (3 packets) bd	6 x 100/25 mg paed tabs bd OR 3 x 200/50 mg adult tabs bd	1 x ATV/RTV 300/100mg FDC od OR ATV 2 x 150 mg caps od + RTV 1 x 100 mg tab or 100 mg oral powder (1 packet) od	2 x 200 mg caps/tabs nocte	25 - 29.9
30 - 39.9					1 x 50 mg FC tab od OR FDC: TLD if eligible od OR FDC: ABC/3TC/DTG if eligible od	1 x 50 mg FC tab bd OR FDC: TLD if eligible od + 50 mg DTG FC tab 12 hours later OR FDC: ABC/3TC/ DTG if eligible od + 50 mg DTG FC tab 12 hours later	5 ml bd OR 10 capsules bd OR 4x100/25 mg paed tabs bd OR 2x200/50 mg adult tabs bd			8 x 100/25 mg paed tabs bd OR 4 x 200/50 mg adult tabs bd			30 - 39.9
≥ 40												2 x 200 mg caps/tabs nocte OR FDC: TEE if eligible od	≥ 40

* Avoid LPV/r solution in any full-term infant <14 days of age and any premature infant <42 weeks post conceptual age (corrected gestational age) or obtain expert advice.
# Children weighing 25-39.9 kg may also be dosed with LPV/r 200/50 mg adult tabs: 2 tabs am + 1 tab pm.
^ Atazanavir + Tenofovir should not be used in children/adolescents on treatment with Rifampicin, obtain expert advice.
No dosage adjustments are required for children receiving treatment with Efavirenz and Rifampicin.

od = once a day; nocte = at night; bd = twice a day; am = in the morning; pm = in the evening; std = standard; FDC = fixed dose combination; TLD = tenofovir/ lamivudine/dolutegravir; TEE = tenofovir/ emtricitabine/efavirenz

Weight (kg)	3 - 5.9	6 - 13.9	14 - 24.9	≥ 25
Cotrimoxazole Dose	2.5 ml od	5 ml or ½ tab	10 ml or 1 tab od	2 tabs od
Multivitamin Dose	2.5 ml od	2.5 ml od	5 ml od	10 ml od

https://sahivsoc.org/Subheader/Index/sahcs-guidelines http://www.mic.uct.ac.za/

ARV DOSING CHART FROM BIRTH TO 28 DAYS OF AGE[¥]

Birth weight ≥ 2 kg and gestational age ≥ 35 weeks*

	Lamivudine (3TC)		Zidovudine** (AZT)		Nevirapine (NVP)	
Target dose	2 mg/kg/dose TWICE daily (BD)		4 mg/kg/dose TWICE daily (BD)		6 mg/kg/dose TWICE daily (BD)	
Available formulation	10 mg/ml		10 mg/ml		10 mg/ml	
Weight (kg)	Dose in ml	Dose in mg	Dose in ml	Dose in mg	Dose in ml	Dose in mg
≥2 - <3	0.5 ml BD	5 mg BD	1 ml BD	10 mg BD	1.5 ml BD	15 mg BD
≥3 -<4	0.8 ml BD	8 mg BD	1.5 ml BD	15 mg BD	2 ml BD	20 mg BD
≥4 - <5	1 ml BD	10 mg BD	2 ml BD	20 mg BD	3 ml BD	30 mg BD

- Dosing is based on the birth weight of the child. It is not necessary to change the dose before 28 days of age if for example if the weight decreases in the first week or two of life.
- Caregivers administering ARV medication to the child must be supplied with a syringe (2 ml or 5 ml) for each of the 3 ARVs and shown how to prepare and administer the prescribed dose. If required, bottles and syringes should be colour coded with stickers and a sticker of the relevant colour used to mark the correct dose on the syringe.

[¥]Refer to the protocol for initiation of ART in HIV-infected neonates in the HIV guidelines which includes guidance on ARV management after 28 days of age
*Consult with a clinician experienced in paediatric ARV prescribing or the National HIV & TB Health Care Worker Hotline for neonates with birth weight < 2 kg or gestational age < 35 weeks
**If infant is found to have significant anaemia or neutropenia prior to or during treatment with AZT, discuss with a clinician experienced in paediatric ARV prescribing or any of the helplines listed below about switching to ABC

PRACTICAL ADVICE ON ADMINISTRATION OF ARV DRUGS

ARV Drug	Formulations (as used in dosing chart)	Can tablets/capsules be split/crushed/opened if unable to swallow?	Comment
Abacavir (ABC)	Oral solution: 20 mg/ml Tablets: 60 mg, 300 mg FDC tablets: ABC/3TC 120/60 mg; ABC/3TC 600/300 mg; ABC/3TC/DTG 600/300/50 mg	Tablets: YES FDC 120/60 mg tablet is a dispersible tablet. May be split/crushed. FDC capsules should be opened and contents added to a small amount of food or dispersed in a liquid.	Hypersensitivity reaction (fever, rash, GIT & respiratory symptoms) may occur during first 6 weeks of therapy, very uncommon in black african patients. Symptoms typically worsen in the hours immediately after the dose and after each subsequent dose. Caregivers or patients should discuss symptoms early with the clinician rather than stopping therapy. Stop ABC permanently if hypersensitivity reaction has occurred.
Lamivudine (3TC)	Oral solution: 10 mg/ml Tablets: 150 mg; FDC tablets: ABC/3TC 120/60 mg; ABC/3TC 600/300 mg, TLD 300/300/50 mg ABC/3TC/DTG 600/300/50 mg FDC capsules: ABC/3TC/LPV/r 30/15/40/10 mg		Well tolerated, adverse-effects uncommon. Pure red cell aplasia causing anaemia can occur but is very rare.
Zidovudine (AZT)	Oral solution: 10 mg/ml Tablets: 100 mg, 300 mg Capsules: 100 mg FDC tablet: AZT/3TC 300/150 mg	Tablets & FDC: YES Capsules: Can be opened and added to a small amount of soft food/liquid and ingest immediately.	Avoid or use with caution in neonates or children with anaemia (Hb <8 g/dl) due to potential to cause bone marrow suppression.
Tenofovir (TDF)	Tablets: 300 mg FDC tablets: TDF/3TC 300/200 mg, TEE 300/200/600 mg, TLD 300/300/50 mg	Tablet and FDC tablets: YES	TDF may be prescribed for adolescents ≥ 10 years of age AND ≥ 30 kg body weight after ensuring adequate renal function by checking eGFR/creatinine using the appropriate formula (refer to HIV guidelines). TDF is usually prescribed as part of an FDC tablet: TDF/3TC, TDF/3TC/EFV or TDF/3TC/DTG. To assess for TDF-induced nephrotoxicity, do creatinine and eGFR at months 3, 6 and 12 and thereafter repeat every 12 months.
Lopinavir/ritonavir (LPV/r)	Oral solution: 80/20 mg/ml Capsules: Pellets 40/10 mg per capsule Tablets: 200/50 mg, 100/25 mg FDC capsules: ABC/3TC/LPV/r 30/15/40/10 mg	Tablets: NO **Must be swallowed whole and not divided, crushed or chewed.** Capsules: Can be opened and added to a small amount of soft food/liquid and ingest immediately.	Oral solution should be refrigerated/stored at room temperature (if <25°C) for up to 6 weeks. Preferably administer oral solution with food as increases absorption. Strategies to improve tolerance and palatability of oral solution: coat mouth with peanut butter, dull taste buds with ice, follow dose with sweet foods. Many drug-drug interactions.* LPV/r 40/10 mg capsules should be opened, and contents (pellets) of each capsule poured onto a spoon of soft food and fed to child. Don't try and dissolve pellets in food or water as they will develop a bad taste. ABC/3TC/LPV/r capsules should be opened and contents (granules) of each capsule poured onto a spoon of soft food or dissolved in water and fed to child. Capsules should never be swallowed whole. Discard capsule casing after contents have been emptied from it.
Ritonavir (RTV)	Oral powder: 100 mg/packet Tablets: 100 mg		Each 100 mg packet of RTV powder should be mixed with a small amount of water or soft food and immediately ingested. Many drug-drug interactions.*
Atazanavir (ATV)	Capsules: 150 mg, 200 mg FDC tablets: ATV/RTV 300/100 mg	Capsules: Can be opened and added to a small amount of soft/food/liquid and ingested immediately. FDC tablets: NO **Must be swallowed whole and not divided, crushed or chewed.**	ATV is used in combination with RTV. May cause unconjugated hyperbilirubinaemia resulting in jaundice but this does not indicate hepatic toxicity and not a reason to discontinue the drug unless it is worrying the patient. Consider drug-drug interactions.*
Dolutegravir (DTG)	Dispersible tablet (DT): 10 mg Film coated (FC) tablets: 50 mg FDC tablets: TLD 300/300/50 mg FDC tablets: ABC/3TC/DTG 600/300/50 mg	Dispersible tablets: YES Film coated tablets (including FDCs): YES	Iron supplements decrease DTG concentrations if taken together on an empty stomach. To prevent this, DTG and iron supplements can be taken at the same time if taken with food. May be helpful to administer as a morning dose rather than an evening dose if insomnia occurs with evening dosing. May raise creatinine levels by up to 15% without affecting renal function. Consider drug-drug interactions.* DTG DT and DTG FC tablets are not bioequivalent: 50 mg of DTG DT corresponds to 50 mg DTG FC tablets. DTG 50 mg FC tablets are preferred for children who have reached 20 kg (unless they cannot swallow tablets).
Efavirenz (EFV)	Capsules: 50 mg, 200 mg Tablets: 50 mg, 200 mg, 600 mg FDC tablets: TEE 300/200/600 mg	Tablets: NO **Must be swallowed whole and not divided, crushed or chewed.** Capsules: YES. Open and add to small amount of soft food and ingest immediately.	Best given at bedtime to reduce CNS side-effects, especially during first 2 weeks. Consider drug-drug interactions.*

FDC = fixed dose combination; eGFR = estimated glomerular filtration rate; GIT = gastrointestinal tract; TEE = Tenofovir/Emtricitabine/Efavirenz; TLD = Tenofovir/Lamivudine/Dolutegravir; *EENL-Antiretroviral interactions table (http://www.mic.uct.ac.za) OR www.hiv-druginteractions.org/checker OR the Liverpool HIV iChart application for smart phones, or any of the helplines: National HIV and TB Health Care Worker Hotline: 0800 212 506 or Right to Care Paediatric and Adolescent HIV Helpline: 082 352 6442 and KZN Paediatric Hotline: 0800 004 603

NEED HELP?
Contact the TOLL-FREE National HIV & TB Health Care Worker Hotline at 0800 212 506 / 021 406 6782
Alternatively "whatsapp" or send an SMS or "Please Call Me" to 071 840 1572

health

Annexure 5 *Antiretroviral Drug Dosing Chart for Children (2022)*

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

	Abacavir + Lamivudine (ABC + 3TC)	Dolutegravir (DTG)	Dolutegravir when on Rifampicin	Abacavir (ABC)	Lamivudine (3TC)	Zidovudine (AZT)
Target dose	As for individual medicines **ONCE daily**	By weight band **ONCE daily**	By weight band **TWICE DAILY**	8 mg/kg/dose **TWICE daily** OR If ≥ 10 kg: 16 mg/kg/dose **ONCE daily**	4 mg/kg/dose **TWICE daily** OR If ≥ 10 kg: 8 mg/kg/dose **ONCE daily**	180 - 240 mg/m²/dose **TWICE daily**
Available formulations	Dispersible tablet FDC: ABC/3TC 120/60 mg Tablets FDC: ABC/3TC 600/300 mg ABC/3TC/DTG 600/300/50 mg	Dispersible tabs (DT) 10 mg, Film coated (FC) tabs 50 mg, FDC: TLD 300/300/50 mg OR ABC/3TC/DTG 600/300/50 mg **DT AND FC TABLETS ARE NOT BIOEQUIVALENT**	Dispersible tabs (DT) 10 mg, Film coated (FC) tabs 50 mg, FDC: TLD 300/300/50 mg OR ABC/3TC/DTG 600/300/50 mg **DT AND FC TABLETS ARE NOT BIOEQUIVALENT**	Sol. 20 mg/ml Tabs 60 mg (scored, dispersible), 300 mg (not scored)	Sol. 10 mg/ml Tabs 150 mg (scored)	Sol. 10 mg/ml Tabs 100 mg, 300 mg (not scored), FDC: AZT/3TC 300/150 mg
Wt. (kg)	Consult with a clinician experienced in paediatric ARV prescribing for neonates (< 28 days of age) and infants weighing < 3kg					
3 - 5.9	1 x 120/60 mg tab od	0.5 x 10 mg DT od	0.5 x 10 mg DT bd	3 ml bd **OR** 1 x 60 mg tab bd	3 ml bd	6 ml bd
6 - 9.9	1.5 x 120/60 mg tabs od	1.5 x 10 mg DT od	1.5 x 10 mg DT bd	4 ml bd **OR** 1.5 x 60 mg tab bd	4 ml bd	9 ml bd
10 - 13.9	2 x 120/60 mg tabs od	2 x 10 mg DT od	2 x 10 mg DT bd	Once daily dosing > 10 kg 4 x 60 mg tabs od **OR** 12 ml od	Once daily dosing > 10 kg 12 ml od	12 ml bd **OR** 1 x 100 mg tabs bd
14 - 19.9	2.5 x 120/60 mg tabs od	2.5 x 10 mg DT od	2.5 x 10 mg DT bd	5 x 60 mg tabs od **OR** 1 x 300 mg tab od	1 x 150 mg tab od	2 x 100 mg tabs am + 1 x 100 mg tab pm **OR** 15 ml bd
20 - 24.9	3 x 120/60 mg tabs od	3 x 10 mg DT od **OR** 1 x 50 mg FC tab od	3 x 10 mg DT bd **OR** 1 x 50 mg FC tab bd	1 x 300 mg tab + 1 x 60 mg tab od **OR** 6 x 60 mg tabs od	2 x 150 mg tabs od	2 x 100 mg tabs bd **OR** 20 ml bd
25 - 29.9	1 x 600/300 mg tab od **OR** ABC/3TC/DTG FDC (600/300/50 mg) if eligible od	1 x 50 mg FC tab od **OR** FDC: ABC/3TC/DTG if eligible od	1 x 50 mg FC tab bd OR FDC: ABC/3TC/ DTG if eligible od + 50 mg DTG FC tab 12 hours later	2 x 300 mg tabs od		1 x 300 mg tab bd **OR** 1 x AZT/3TC 300/150 mg tab bd
30 - 39.9		1 x 50 mg FC tab od **OR** FDC: TLD if eligible od **OR** FDC: ABC/3TC/DTG if eligible od	1 x 50 mg FC tab bd **OR** FDC: TLD if eligible od + 50 mg DTG FC tab 12 hours later **OR** FDC: ABC/3TC/ DTG if eligible od + 50 mg DTG FC tab 12 hours later			
≥ 40						

Lopinavir / ritonavir (LPV/r)	Abacavir + Lamivudine + Lopinavir/ ritonavir	Lopinavir/ritonavir when on rifampicin (and for 2 weeks after stopping rifampicin)		# Atazanavir (ATV) + Ritonavir (RTV)	Efavirenz (EFV)	
300/75 mg/m²/dose LPV/r **TWICE daily**	**By weight band TWICE daily**	LPV/r std dose + super-boosting with ritonavir (RTV) powder **TWICE daily** (≥ 0,75 x LPV dose bd)	Double-dose LPV/r tabs ONLY if able to swallow whole LPV/r tabs **TWICE daily**	**By weight band ONCE daily**	**By weight band ONCE daily**	**Target dose**
Sol. 80/20 mg/ml Adult tabs 200/50 mg, Paed tabs 100/25 mg TABLETS MUST BE SWALLOWED WHOLE Pellets 40/10 mg per capsule **ONLY FOR USE IF NOT TOLERATING LPV/r SOLUTION. CAPSULES ARE NOT RECOMMENDED < 6 MONTHS OF AGE**	Caps 30/15/40/10 mg **IF PATIENT IS ON RIFAMPICIN TB TREATMENT, ADD RTV POWDER** (next column)	Oral powder 100 mg/packet	Adult tabs 200/50 mg, **Paed tabs** 100/25 mg	ATV caps 150, 200 mg; RTV tabs 100 mg; FDC: ATV/RTV 300/100 mg RTV TABLETS AND ATV/r FDC TABLETS MUST BE SWALLOWED WHOLE	Caps/tabs 50, 200, 600 mg; FDC: TEE 300/200/600 mg; TABLETS MUST BE SWALLOWED WHOLE	**Available formulations**
Consult with a clinician experienced in paediatric ARV prescribing for neonates (< 28 days of age) and infants weighing < 3kg						**Wt. (kg)**
* 1 ml bd **OR** 2 capsules bd	2 capsules bd	LPV/r std dose (see purple column) + oral RTV powder 100 mg (1 packet) bd	Do not use double-dose LPV/r tabs	Not recommended	Not recommended	3 - 5.9
* 1.5 ml bd **OR** 3 capsules bd	3 capsules bd					6 - 9.9
2 ml bd OR 4 capsules bd **OR** 2 x 100/25 mg paed tabs am + 1 x 100/25 mg paed tab pm	4 capsules bd	LPV/r std dose (see purple column) + oral RTV powder 200 mg (2 packets) bd	3 x 100/25 mg **paed tabs** bd	ATV 1 x 200 mg cap od + RTV 1 x 100 mg tab or 100 mg oral powder (1 packet) od	1 x 200 mg cap/tab nocte	10 - 13.9
2.5 ml bd OR 5 capsules bd **OR** 2 x 100/25 mg paed tabs bd **OR** 1 x 200/50 mg adult tab bd	5 capsules bd		4 x 100/25 mg **paed tabs** bd **OR** 2 x 200/50 mg **adult tabs** bd		1 x 200 mg cap/tab + 2 x 50 mg caps/ tabs nocte	14 - 19.9
3 ml bd OR 6 capsules bd OR 2 x 100/25 mg paed tabs bd OR 1 x 200/50 mg adult tab bd	6 capsules bd					20 - 24.9
3.5 ml bd OR 7 capsules bd OR 3 x 100/25 mg paed tabs bd OR 1 x 200/50 mg adult tab bd + 1 x 100/25 mg paed tab bd	Not recommended	LPV/r std dose (see purple column) + oral RTV powder 300 mg (3 packets) bd	6 x 100/25 mg **paed tabs** bd **OR** 3 x 200/50 mg **adult tabs** bd	1 x ATV/RTV 300/100mg FDC od **OR** ATV 2 x 150 mg caps od + RTV 1 x 100 mg tab or 100 mg oral powder (1 packet) od	2 x 200 mg caps/ tabs nocte	25 - 29.9
5 ml bd OR 10 capsules bd **OR** 4x100/25 mg paed tabs bd **OR** 2x200/50 mg adult tabs b			8 x 100/25 mg **paed tabs** bd **OR** 4 x 200/50 mg **adult tabs** bd			30 - 39.9
					2 x 200 mg caps/ tabs nocte OR FDC: TEE if eligible od	≥ 40

1

Add the correct number of DTG10 and ABC/3TC tablets to a clean, empty glass based on your child's weight. (See Dosing Table).

Weight	No. of DTG Daily Tablets	No. of ABC/3TC 120/60 mg Daily Tablets
3 to < 6 kg	0.5	1
6 to < 10 kg	1.5	1.5
10 to < 14 kg	2	2
14 to < 20 kg	2.5	2.5

2

Add 10-20 mL (2-4 teaspoons) of clean water into the glass and stir until the tablets dissolve. If the tablets do not dissolve completely (i.e., they lump together), stir and slowly add a small amount of extra water until the tablets fully dissolve.

3

Give the medicine to your child to drink. Make sure they drink all the medicine right away or within a maximum of 30 minutes.

4

If any medicine remains in the glass, add a little more water to the glass and give to your child. Repeat until no medicine remains in the glass.

Reminders

- Remember to give Paediatric DTG 10 mg (and other ARVs) at the same time everyday.
- Use other liquids or foods for mixing if your child is unable to take the tablets in water. Follow the same volume recommendations as above to avoid spills and to ensure the child takes the full dose.
- Crushing, chewing, or mixing with other foods or liquids can be considered as long as the entire tablet is ingested.
- Give the child another full dose of Paediatric DTG 10 mg if they vomit within 30 minutes of taking their initial dose. If they vomit after 30 minutes, you do not need to give them another dose.

Switching children who are already on ART to better, simpler regimens

- Doing well, virally suppressed, continue….
- Can we simplify the regimen with new available formulations of current ARVs in regimen in discussion with caregiver and child?
- Non viral load-dependent regimen switches to a DTG-containing regimen
  - NNRTI-based regimens, PI-based regimens for <2 years
- Viral load-dependent & duration-on-ART regimen switch considerations
  - PI-based regimens for >2 years, viral load >1000 x 2 or more, adherent
  - Resistance testing (genotyping)

Switching Children on PI-containing Regimens to DTG-containing Regimens

Child (< 10 years, or weight < 30 kg) on a PI-containing regimen
(who have never used a DTG-containing regimen in the past)

On PI for at least 2 years

On PI for less than 2 years, irrespective of VL

Two or more VLs ≥ 1000 c/mL taken two or more years after starting PI regimen

VL < 1000 c/mL

Adherence > 80% [1]

Adherence < 80% [1]

For children on LPV/r solution or pellets, consider switch to 4-in-1 ABC/3TC/LPV/r capsules to improve tolerance/ adherence & repeat VL after 2-3 months

Children on LPV/r tablets

VL ≥ 1000 c/mL

VL < 1000 c/mL

Discuss with an HIV expert [2] to authorise and interpret a resistance test

Individualised regimen as recommended by HIV expert

ABC + 3TC + DTG

If the most recent VL before their regimen change was > 50 c/mL, repeat VL 3 months after starting the new regimen to confirm viral re-suppression

1. Although objective measures of poor adherence include pharmacy refills or attendance of scheduled clinic visits in the previous 6-12 months of <80%, adherence difficulties in young children are often linked to poor tolerability of unpalatable formulations, particularly LPV/r solution. It is important to ask the caregiver about how the child tolerates the medication e.g., does the child refuse to swallow the medicine or spit out or vomit the medicine, and whether the caregiver has been able to overcome this. Considering these limitations, objective measures of good adherence could include one of the following:
   a. Pharmacy refills > 80% in the last 6-12 months (if this is known)
   b. Attendance of > 80% of scheduled clinic visits in the last 6-12 months (if this is known)
   c. Detection of current antiretroviral drug/s in the client's blood or urine, if available
2. The following would qualify as HIV experts: the HIV Helplines, a paediatric infectious disease specialist or the paediatric Third line ART committee

If in doubt about any aspect of viral load management or switching to second-line, contact one of the following resources:

National HIV & TB Health Care Worker Hotline: **0800 212 506**
Right to Care Paediatric, Adolescent and Adult HIV Helpline: **082 352 6642**
KZN Paediatric Hotline: **0800 006 603**

Treatment literacy & creating demand for accessing better ARV treatment

Health care providers

- Prescribers (doctors & nurses)
- Pharmacists
- Counsellors

Patients – parents / caregivers / adolescents

Treatment Action Campaign, Media, other civil society organisations

Have you heard?

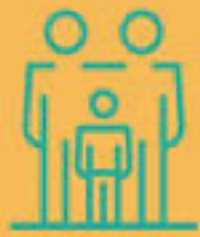
A new and improved ARV for young children living with HIV is available.

Paediatric Dolutegravir 10 mg Dispersible Tablets (pDTG)

Works fast to

Safer & has fewer

Easy to administer,



Same drug as us

Paediatric DTG advocacy video for communities

https://www.newhivdrugs.org/post/pdtg-advocacy-video-for-communities-english-french

Clinton Health Access Initiative: HIV new product introduction toolkit

Acknowledgements

- Southern African HIV Clinicians Society
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- Medicines Information Centre / National HIV & TB Health Care Worker Hotline
  - Anri Uys
- National Department of Health
  - HIV guidelines committee & technical working group
  - Jeannette Wessels

Case

- A 3-year-old girl was diagnosed with HIV infection at birth. She started ART on day 6 of life with AZT/3TC/NVP, switched to ABC/3TC/LPV/r at 4 weeks of age. She has struggled to take her ART and her mother reports frequent spitting out of medication, especially LPV/r solution. Her mother tries to repeat the dose when this happens but sometimes she spits it out again, and she gives up. She has had 3 viral loads >1000 copies/mL & missed or was late for 3 clinic visits & medication collections in the last 12 months as she doesn't always have money for transport. Her current weight is 13 kg.

  - What ARV formulations & doses are likely being used in her current ART regimen?
  - What options are there for a simpler and better ART regimen?
  - How would you proceed with her management?

ANTIRETROVIRAL DRUG DOSING CHART FOR CHILDREN 2021

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

	Abacavir (ABC)		Lamivudine (3TC)		Abacavir + Lamivudine (ABC + 3TC)	Zidovudine (AZT)	Lopinavir/ritonavir (LPV/r)	Lopinavir/ritonavir when on rifampicin (and for 2 weeks after stopping rifampicin)		[#] Atazanavir (ATV) + Ritonavir (RTV)	Dolute-gravir (DTG)	Dolutegravir when on Rifampicin	Efavirenz (EFV)	
Target dose	8 mg/kg/dose TWICE daily OR if ≥10kg: 16 mg/kg/dose ONCE daily		4 mg/kg/dose TWICE daily OR if ≥10kg: 8 mg/kg/dose ONCE daily		As for individual medicines ONCE daily	180-240 mg/m²/dose TWICE daily	300/75 mg/m²/dose LPV/r TWICE daily	LPV/r std dose + super-boosting with ritonavir (RTV) powder TWICE daily (≥0.75xLPV dose bd)	Double-dose LPV/r tabs ONLY if able to swallow whole LPV/r tabs TWICE daily	By weight band ONCE daily	By weight band ONCE daily	By weight band TWICE DAILY	By weight band ONCE daily	Target dose
Available formulations	Sol. 20 mg/ml Tabs 60 mg (scored, dispersible), 300 mg (not scored), FDC: see column on Abacavir + Lamivudine		Sol. 10 mg/ml Tabs 150 mg (scored), FDC: see column on Abacavir + Lamivudine		Dispersible tablet FDC: ABC/3TC 120/60 mg Tablets FDC: ABC/3TC 600/300 mg	Sol. 10 mg/ml, Tabs 100, 300 mg (not scored), FDC: AZT/3TC 300/150 mg	Sol. 80/20 mg/ml Adult tabs 200/50 mg, Paed tabs 100/25 mg TABLETS MUST BE SWALLOWED WHOLE Pellets 40/10 mg per capsule ONLY FOR USE IF NOT TOLERATING LPV/r SOLUTION CAPSULES ARE NOT RECOMMENDED < 6 MONTHS OF AGE CAPSULES MUST NOT BE SWALLOWED WHOLE	Oral powder 100 mg/packet	Adult tabs 200/50 mg, Paed tabs 100/25 mg	ATV caps 150, 200 mg; RTV tabs 100 mg; FDC: ATV/RTV 300/100 mg ATV CAPSULES, RTV TABLETS AND FDC TABLETS MUST BE SWALLOWED WHOLE	Tabs 50mg, FDC: TLD 300/300/50 mg	Tabs 50 mg	Caps/tabs 50, 200, 600 mg; FDC: TEE 300/200/600 mg TABLETS MUST BE SWALLOWED WHOLE	Available formulations
Wt. [kg]	Consult with a clinician experienced in paediatric ARV prescribing for neonates (<28 days of age) and infants weighing <3kg													Wt. [kg]
3-3.9	2 ml bd		2 ml bd		1 x 120/60 mg tab od	6 ml bd	CHOOSE ONLY ONE OPTION: [*] 1 ml bd OR 2 capsules bd	LPV/r std dose (see purple column) + oral ritonavir powder 100 mg (1 packet) bd	Do not use double-dose LPV/r tabs	Avoid ATV capsules when <15 kg or <6 years	Not currently recommended: dosing & formulations not available	Not currently recommended: dosing & formulations not available	Avoid using when <10 kg or <3 years	3-3.9
4-4.9														4-4.9
5-5.9	3 ml bd		3 ml bd				[*] 1.5 ml bd OR 2 capsules bd							5-5.9
6-6.9						9 ml bd								6-6.9
7-7.9	4 ml bd		4 ml bd		1.5 x 120/60 mg tabs od		[*] 1.5 ml bd OR 3 capsules bd							7-7.9
8-8.9						12 ml bd								8-8.9
9-9.9														9-9.9
10-10.9	Choose only one option		Choose only one		2 x 120/60mg tabs od	OR 1x100 mg tab bd	2 ml bd OR 4 capsules bd OR 2 x 100/25 mg paed tabs am + 1 x 100/25 mg paed tab pm		3x100/25 mg paed tabs bd				1x200 mg cap/tab nocte	10-10.9
11-13.9	6 ml bd OR 2x60 mg tabs bd	12 ml od OR 4x60 mg tabs od	6 ml bd	12 ml od										11-13.9
14-14.9	8 ml bd OR 2.5x60 mg tabs bd	5x60 mg tabs od OR 1x300 mg tab od OR 15 ml od	½x150 mg tab bd OR 8 ml bd	1x150 mg tab od OR 15 ml od	2.5 x 120/60 mg tabs od	2x100 mg tabs am + 1x100 mg tab pm OR 15 ml bd	2.5 ml bd OR 5 capsules bd OR 2 x 100/25 mg paed tabs bd OR 1 x 200/50 mg adult tab bd	LPV/r std dose (see purple column) + oral ritonavir powder 200 mg (2 packets) bd	4x100/25 mg paed tabs bd OR 2x200/50 mg adult tabs bd	ATV 1x200 mg cap od + RTV 1x100 mg tab od	1x50 mg tab od	1x50 mg tab bd	1x200 mg cap/tab + 2 x 50 mg caps/tabs nocte	14-14.9
15-16.9														15-16.9
17-19.9														17-19.9
20-22.9	10 ml bd OR 3x60 mg tabs bd	1x300 mg tab + 1x60 mg tab	1x150 mg tab bd OR 15 ml bd	2x150 mg tab od OR 30 ml od	3 x 120/60 mg tabs od	2x100 mg tabs bd OR 20 ml bd	3 ml bd OR 6 capsules bd OR 2x100/25 mg paed tabs bd OR 1x200/50 mg adult tab bd							20-22.9
23-24.9		1x300 mg tab + 2x60 mg tabs od												23-24.9
25-29.9	1x300 mg tab bd	2x300 mg tabs od	1x150 mg tab bd	2x150 mg tabs od	1x600/300 mg tab od	1x300 mg tab bd OR 1xAZT/3TC 300/150 mg tab bd	3.5 ml bd OR 7 capsules bd OR 3x100/25 mg paed tabs bd OR [§] 1x200/50 mg adult tab bd + 1x100/25 mg paed tab bd	LPV/r std dose (see purple column) + oral ritonavir powder 300 mg (3 packets) bd	6x100/25 mg paed tabs bd OR 3x200/50 mg adult tabs bd	1xATV/RTV 300/100mg FDC od OR ATV 2x150 mg caps od + RTV 1x100 mg tab od	1x50 mg tab od OR FDC: TLD if eligible od	1x50 mg tab bd OR FDC: TLD if eligible od + 50 mg 12 hours after TLD dose	2 x 200 mg caps/tabs nocte	25-29.9
30-34.9							5 ml bd OR 10 capsules bd OR 4x100/25 mg paed tabs bd OR 2x200/50 mg adult tabs bd		8x100/25 mg paed tabs bd OR 4x200/50 mg adult tabs bd					30-34.9
35-39.9														35-39.9
≥40													1x600 mg tab nocte OR FDC: TEE if eligible od	≥40

[*] Avoid LPV/r solution in any full-term infant <14 days of age and any premature infant <42 weeks post conceptual age (corrected gestational age) or obtain expert advice.
[§] Children weighing 25-29.9 kg may also be dosed with LPV/r 200/50 mg adult tabs: 2 tabs am + 1 tab pm.
[#] Atazanavir + ritonavir should not be used in children/adolescents on treatment with Rifampicin, obtain expert advice. No dosage adjustments are required for children receiving treatment with Efavirenz and Rifampicin.

od = once a day; nocte = at night; bd = twice a day; am = in the morning; pm = in the evening; std = standard; FDC = fixed dose combination; TLD = tenofovir/lamivudine/dolutegravir; TEE = tenofovir/emtricitabine/efavirenz

Weight [kg]	3-5.9	6-13.9	14-24.9	≥25
Cotrimoxazole Dose	2.5 ml od	5 ml or ½ tab	10 ml or 1 tab	2 tabs od
Multivitamin Dose	2.5 ml od	2.5 ml od	5 ml od	10 ml od

ANTIRETROVIRAL DRUG DOSING CHART FOR CHILDREN 2022

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

	Abacavir + Lamivudine (ABC + 3TC)	Abacavir (ABC)	Lamivudine (3TC)	Zidovudine (AZT)	Dolutegravir (DTG)	Dolutegravir when on Rifampicin	Lopinavir/ritonavir (LPV/r)	Abacavir + Lamivudine + Lopinavir/ ritonavir	Lopinavir/ritonavir when on rifampicin (and for 2 weeks after stopping rifampicin)		# Atazanavir (ATV) + Ritonavir (RTV)	Efavirenz (EFV)	
Target dose	As for individual medicines ONCE daily	8 mg/kg/dose TWICE daily OR if ≥ 10kg: 16 mg/kg/dose ONCE daily	4 mg/kg/dose TWICE daily OR if ≥ 10kg: 8 mg/kg/dose ONCE daily	180-240 mg/m2/dose TWICE daily	By weight band ONCE daily	By weight band TWICE DAILY	300/75 mg/m2/dose LPV/r TWICE daily	By weight band TWICE daily	LPV/r std dose + super-boosting with ritonavir (RTV) powder TWICE daily (≥0.75xLPV dose bd)	Double-dose LPV/r tabs ONLY if able to swallow whole LPV/r tabs TWICE daily	By weight band ONCE daily	By weight band ONCE daily	Target dose
Available formulations	Dispersible tablet FDC: ABC/3TC 120/60 mg Tablets FDC: ABC/3TC 600/300 mg ABC/3TC/DTG 600/300/50 mg	Sol. 20 mg/ml Tabs 60 mg (scored, dispersible), 300 mg (not scored)	Sol. 10 mg/ml Tabs 150 mg (scored)	Sol. 10 mg/ml, Tabs 100, 300 mg (not scored), FDC: AZT/3TC 300/150 mg	Dispersible tabs (DT) 10 mg, Film coated (FC) tabs 50 mg, FDC: TLD 300/300/50 mg OR ABC/3TC/DTG 600/300/50 mg DT AND FC TABLETS ARE NOT BIOEQUIVALENT	Dispersible tabs (DT) 10 mg, Film coated (FC) tabs 50 mg, FDC: TLD 300/300/50 mg OR ABC/3TC/DTG 600/300/50 mg DT AND FC TABLETS ARE NOT BIOEQUIVALENT	Sol. 80/20 mg/ml Adult tabs 200/50 mg, Paed tabs 100/25 mg TABLETS MUST BE SWALLOWED WHOLE Pellets 40/10 mg per capsule ONLY FOR USE IF NOT TOLERATING LPV/r SOLUTION. CAPSULES ARE NOT RECOMMENDED < 6 MONTHS OF AGE	Caps 30/15/40/10 mg IF PATIENT IS ON RIFAMPICIN TB TREATMENT, ADD RTV POWDER (next column)	Oral powder 100 mg/packet	Adult tabs 200/50 mg, Paed tabs 100/25 mg	ATV caps 150, 200 mg; RTV tabs 100 mg; FDC: ATV/RTV 300/100 mg RTV TABLETS AND ATV/r FDC TABLETS MUST BE SWALLOWED WHOLE	Caps/tabs 50, 200, 600 mg; FDC: TEE 300/200/600 mg; TABLETS MUST BE SWALLOWED WHOLE	Available formulations
Wt. (kg)	Consult with a clinician experienced in paediatric ARV prescribing for neonates (< 28 days of age) and infants weighing < 3kg												Wt. (kg)
3 - 5.9	1 x 120/60 mg tab od	3 ml bd OR 1 x 60 mg tab bd	3 ml bd	6 ml bd	0.5 x 10 mg DT od	0.5 x 10 mg DT bd	* 1 ml bd OR 2 capsules bd	2 capsules bd	LPV/r std dose (see purple column) + oral RTV powder 100 mg (1 packet) bd	Do not use double-dose LPV/r tabs	Not recommended	Not recommended	3 - 5.9
6 - 9.9	1.5 x 120/60 mg tabs od	4 ml bd OR 1.5 x 60 mg tab bd	4 ml bd	9 ml bd	1.5 x 10 mg DT od	1.5 x 10 mg DT bd	* 1.5 ml bd OR 3 capsules bd	3 capsules bd					6 - 9.9
10 - 13.9	2 x 120/60 mg tabs od	Once daily dosing > 10 kg: 4 x 60 mg tabs od OR 12 ml od	Once daily dosing > 10 kg: 12 ml od	12 ml bd OR 1 x 100 mg tabs bd	2 x 10 mg DT od	2 x 10 mg DT bd	2 ml bd OR 4 capsules bd OR 2 x 100/25 mg paed tabs am + 1 x 100/25 mg paed tab pm	4 capsules bd	LPV/r std dose (see purple column) + oral RTV powder 200 mg (2 packets) bd	5 x 100/25 mg paed tabs bd	ATV 1 x 200 mg cap od + RTV 1 x 100 mg tab or 100 mg oral powder (1 packet) od	1 x 200 mg cap/tab nocte	10 - 13.9
14 - 19.9	2.5 x 120/60 mg tabs od	5 x 60 mg tabs od OR 1 x 300 mg tab od	1 x 150 mg tab od	2 x 100 mg tabs am + 1 x 100 mg tab pm OR 15 ml bd	2.5 x 10 mg DT od	2.5 x 10 mg DT bd	2.5 ml bd OR 5 capsules bd OR 2 x 100/25 mg paed tabs bd OR 1 x 200/50 mg adult tab bd	5 capsules bd		4 x 100/25 mg paed tabs bd OR 2 x 200/50 mg adult tabs bd		1 x 200 mg cap/tab + 2 x 50 mg caps/tabs nocte	14 - 19.9
20 - 24.9	3 x 120/60 mg tabs od	1 x 300 mg tab + 1 x 60 mg tab od OR 6 x 60 mg tabs od	2 x 150 mg tabs od	2 x 100 mg tabs bd OR 20 ml bd	3 x 10 mg DT od OR 1 x 50 mg FC tab od	3 x 10 mg DT bd OR 1 x 50 mg FC tab bd	3 ml bd OR 6 capsules bd OR 2 x 100/25 mg paed tabs bd OR 1 x 200/50 mg adult tab bd	6 capsules bd					20 - 24.9
25 - 29.9	1 x 600/300 mg tab od OR ABC/3TC/DTG FDC (600/300/50 mg) if eligible od	2 x 300 mg tabs od		1 x 300 mg tab bd OR 1 x AZT/3TC 300/150 mg tab bd	1 x 50 mg FC tab od OR FDC: ABC/3TC/DTG if eligible od	1 x 50 mg FC tab bd OR FDC: ABC/3TC/ DTG if eligible od + 50 mg DTG FC tab 12 hours later	3.5 ml bd OR 7 capsules bd OR 3 x 100/25 mg paed tabs bd OR 1 x 200/50 mg adult tab bd + 1 x 100/25 mg paed tab bd	Not recommended	LPV/r std dose (see purple column) + oral RTV powder 300 mg (3 packets) bd	6 x 100/25 mg paed tabs bd OR 3 x 200/50 mg adult tabs bd	1 x ATV/RTV 300/100mg FDC od OR ATV 2 x 150 mg caps od + RTV 1 x 100 mg tab or 100 mg oral powder (1 packet) od	2 x 200 mg caps/tabs nocte	25 - 29.9
30 - 39.9					1 x 50 mg FC tab od OR FDC: TLD if eligible od OR FDC: ABC/3TC/DTG if eligible od	1 x 50 mg FC tab bd OR FDC: TLD if eligible od + 50 mg DTG FC tab 12 hours later OR FDC: ABC/3TC/ DTG if eligible od + 50 mg DTG FC tab 12 hours later	5 ml bd OR 10 capsules bd OR 4x100/25 mg paed tabs bd OR 2x200/50 mg adult tabs bd			8 x 100/25 mg paed tabs bd OR 4 x 200/50 mg adult tabs bd			30 - 39.9
≥ 40												2 x 200 mg caps/tabs nocte OR FDC: TEE if eligible od	≥ 40

* Avoid LPV/r solution in any full-term infant <14 days of age and any premature infant <42 weeks post conceptual age (corrected gestational age) or obtain expert advice.
# Children weighing 25-39.9 kg may also be dosed with LPV/r 200/50 mg adult tabs: 2 tabs am + 1 tab pm.
^ Atazanavir + Tenofovir should not be used in children/adolescents on treatment with Rifampicin, obtain expert advice.
No dosage adjustments are required for children receiving treatment with Efavirenz and Rifampicin.

od = once a day; nocte = at night; bd = twice a day; am = in the morning; pm = in the evening; std = standard; FDC = fixed dose combination; TLD = tenofovir/ lamivudine/dolutegravir; TEE = tenofovir/ emtricitabine/efavirenz

Weight (kg)	3 - 5.9	6 - 13.9	14 - 24.9	≥ 25
Cotrimoxazole Dose	2.5 ml od	5 ml or ½ tab	10 ml or 1 tab od	2 tabs od
Multivitamin Dose	2.5 ml od	2.5 ml od	5 ml od	10 ml od

https://sahivsoc.org/Subheader/Index/sahcs-guidelines http://www.mic.uct.ac.za/

Switching Children on PI-containing Regimens to DTG-containing Regimens

Child (< 10 years, or weight < 30 kg) on a PI-containing regimen
(who have never used a DTG-containing regimen in the past)

On PI for at least 2 years

On PI for less than 2 years, irrespective of VL

Two or more VLs ≥ 1000 c/mL taken two or more years after starting PI regimen

VL < 1000 c/mL

Adherence > 80% [1]

Adherence < 80% [1]

For children on LPV/r solution or pellets, consider switch to 4-in-1 ABC/3TC/LPV/r capsules to improve tolerance/ adherence & repeat VL after 2-3 months

Children on LPV/r tablets

VL ≥ 1000 c/mL

VL < 1000 c/mL

Discuss with an HIV expert [2] to authorise and interpret a resistance test

Individualised regimen as recommended by HIV expert

ABC + 3TC + DTG

If the most recent VL before their regimen change was > 50 c/mL, repeat VL 3 months after starting the new regimen to confirm viral re-suppression

1. Although objective measures of poor adherence include pharmacy refills or attendance of scheduled clinic visits in the previous 6-12 months of <80%, adherence difficulties in young children are often linked to poor tolerability of unpalatable formulations, particularly LPV/r solution. It is important to ask the caregiver about how the child tolerates the medication e.g., does the child refuse to swallow the medicine or spit out or vomit the medicine, and whether the caregiver has been able to overcome this. Considering these limitations, objective measures of good adherence could include one of the following:
   a. Pharmacy refills > 80% in the last 6-12 months (if this is known)
   b. Attendance of > 80% of scheduled clinic visits in the last 6-12 months (if this is known)
   c. Detection of current antiretroviral drug/s in the client's blood or urine, if available
2. The following would qualify as HIV experts: the HIV Helplines, a paediatric infectious disease specialist or the paediatric Third line ART committee

If in doubt about any aspect of viral load management or switching to second-line, contact one of the following resources:

National HIV & TB Health Care Worker Hotline: **0800 212 506**
Right to Care Paediatric, Adolescent and Adult HIV Helpline: **082 352 6642**
KZN Paediatric Hotline: **0800 006 603**