

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

| | Abacavir (ABC) | Lamivudine (3TC) | Efavirenz (EFV) | Lopinavir/ritonavir (LPV/rvt) | Ritonavir boosting (RTV) | Stavudine (d4T) | Didanosine (ddI) | Nevirapine (NVP) | Zidovudine (AZT) | Target Dose |
|-------------------------------|---|--|---|---|---|---|--|---|--|-------------------------------|
| Target Dose | 8mg/kg TWICE daily OR ≥10kg: 16mg/kg ONCE daily | 4mg/kg TWICE daily OR ≥10kg: 8mg/kg ONCE daily | By weight band ONCE daily | 300/75mg/m ² /dose LPV/rvt TWICE daily | ONLY as booster for LPV/rvt when on Rifampicin TWICE daily (0.75xLPV dose bd) | 1mg/kg/dose TWICE daily | 180-240mg/m ² /dose ONCE daily | 160-200 mg/m ² /dose TWICE daily (after once daily lead-in x 2 wks) | 180-240mg/m ² /dose TWICE daily | Target Dose |
| Available Formulations | Sol 20mg/ml Tabs 60mg (scored dispersible), 300mg (not scored), ABC/3TC 600/300mg | Sol. 10mg/ml Tabs 150mg (scored), 300mg, ABC/3TC 600/300mg | Caps 50,200mg Tabs 50,200, 600mg (not scored) | Sol. 80/20mg/ml Adult Tabs 200/50mg, Paeds Tabs 100/25mg | Sol. 80mg/ml | Sol. 1mg/ml Caps 15,20,30mg | Tabs 25,50,100mg (dispersible in 30ml water) Caps 250mg EC | Sol. 10mg/ml Tabs 200mg (scored) | Sol. 10mg/ml Caps 100mg Tabs 300mg (not scored), AZT/3TC 300/150mg | Available Formulations |
| Wt. (kg) | Currently available tablet formulations of abacavir (except 60mg), efavirenz, LPV/rvt and AZT must be swallowed whole and NOT chewed, divided or crushed | | | | | | | | | Wt. (kg) |
| <3 | Consult with a clinician experienced in paediatric ARV prescribing for neonates (<28 days of age) and infants weighing <3kg | | | | | | | | | <3 |
| 3-3.9 | 2ml bd | 2ml bd | Avoid using when <10kg or <3 years: dosing not established | *1ml bd | 1ml bd | 6ml | Avoid | 5ml bd | 6ml bd | 3-3.9 |
| 4-4.9 | | | | | | | | | | 4-4.9 |
| 5-5.9 | 3ml bd | 3ml bd | | *1.5ml bd | 1.5ml bd | 7.5mg bd: open 15mg capsule into 5ml water: give 2.5ml | 100mg od: (2x50mg tabs) | 8ml bd | 9ml bd | 5-5.9 |
| 6-6.9 | | | | | | | | | | 6-6.9 |
| 7-7.9 | | | | | | | | | | 7-7.9 |
| 8-8.9 | 4ml bd | 4ml bd | | 200mg nocte (1x200mg cap/tab) | 2ml bd | 1.5ml bd | 15mg bd: open 15mg capsule into 5ml water | 10ml bd | 1 cap bd OR 12ml bd | 8-8.9 |
| 9-9.9 | | | 9-9.9 | | | | | | | |
| 10-10.9 | Choose only one option: | | 300mg nocte: (200mg cap/tab + 2x50mg cap/tab) | 2ml bd | 1.5ml bd | 20mg bd: open 20mg capsule into 5ml water (if the child is unable to swallow a capsule) | 150mg od: (1x100mg + 1x50mg tabs) | 10ml bd | 2 caps am OR 1 cap pm OR 15ml bd | 10-10.9 |
| 11-13.9 | 6ml bd OR 2x60mg tabs bd | 12ml od OR 4x60mg tabs od | | | | | | | | 6ml bd OR 12ml od |
| 14-16.9 | 8ml bd OR 2.5x60mg tabs bd | 5x60mg tabs od OR 1x300mg tab od OR 15ml od | ½ x150mg tab bd OR 8ml bd | 1x150mg tab od OR 15ml od | 2ml bd | 20mg bd: open 20mg capsule into 5ml water (if the child is unable to swallow a capsule) | 175mg od: (1x100mg + 1x50mg + 1x25mg) | 1 tab am ½ tab pm OR 15ml bd | 2 caps am OR 1 cap pm OR 15ml bd | 14-16.9 |
| 17-19.9 | | | | | | | | | | 17-19.9 |
| 20-22.9 | 10ml bd OR 3x60mg tabs bd | 1x300mg tab + 1x60mg tab od | 1x150mg tab bd OR 15ml bd | 2x150mg tab od OR 300mg tab od OR 1x300mg tab od OR 30ml od | 2.5ml bd | 20mg bd: open 20mg capsule into 5ml water (if the child is unable to swallow a capsule) | 200mg od: (2x100mg tabs) | 1 tab am ½ tab pm OR 15ml bd | 2 caps bd OR 20ml bd | 20-22.9 |
| 23-24.9 | | 1x300mg tab + 2x60mg tabs od | | | | | | | | 23-24.9 |
| 25-29.9 | 1x300mg tab bd | 2x300mg tabs od OR 1xABC/3TC 600/300mg tab od | 1x150mg tab bd | 2x150mg tabs od OR 1x300mg tab od OR 1xABC/3TC 600/300mg tab od | 3ml bd | 30mg bd | 250mg od: (2x100mg + 1x50mg tab) OR 1x250mg EC cap od | 1 tab bd | 1x300mg tab bd OR 1xAZT/3TC 300/150mg tab bd | 25-29.9 |
| 30-34.9 | | | | | | | | | | 30-34.9 |
| 35-39.9 | | | | | | | | | | 35-39.9 |
| >40 | | | 600mg tab nocte | | 4ml bd | | | | | >40 |

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

* Avoid LPV/rvt 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.
Children 25-34.9kg may also be dosed with LPV/rvt 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 |

PRACTICAL ADVICE ON ADMINISTRATION OF ARV DRUGS

Abacavir (ABC)

Caregivers must be warned about potential severe progressive hypersensitivity reaction which may include fever, rash, gastrointestinal & respiratory symptoms. If hypersensitivity occurs it is usually during first six weeks of therapy, symptoms tend to worsen in the hours immediately after the dose and worsen with each subsequent dose.

Caregivers or patients should discuss symptoms early with the clinician rather than terminating therapy without consultation. ABC should be stopped permanently if hypersensitivity reaction occurs. Avoid combining ABC and NVP in a regimen and avoid concurrent initiation of ABC and co-trimoxazole. Tablets (except 60mg) must not be chewed, divided or crushed; swallow whole with or without food.

Lamivudine (3TC)

Well tolerated, no food restrictions, oral solution may be stored at room temperature. Tablets are scored and can be easily divided; may be crushed and mixed with a small amount of water or food and immediately ingested.

Stavudine (d4T)

Well tolerated & palatable but oral solution requires refrigeration after reconstitution. Discard after 30 days. Capsules may be opened and powder contents dispersed in water (stable in solution for 24 hours) or mixed with a small amount of food (e.g. yoghurt). See dosing chart for further details. Consider early drug substitution if toxicity e.g. lipoatrophy develops.

Lopinavir/ritonavir (Kaletra® solution; Aluvia® tablets)

Dose is calculated on lopinavir component. Solution should be taken with food as increases absorption. Solution should be refrigerated however can be stored at room temperature up to 25°C for 6 weeks. May need techniques to increase tolerance & palatability: coat mouth with peanut butter, dull taste buds with ice, follow dose with sweet foods. Tablets must not be chewed, divided or crushed; swallow whole with or without food. Many drug interactions due to RTV inhibition of cytochrome p450.

Efavirenz (EFV)

EFV is not approved for children <3years/<10kg. Tablets must not be chewed, divided or crushed; swallow whole with or without food e.g. yoghurt or banana. Capsules may be opened and powder contents dispersed in water or mixed with a small amount of food (e.g. yoghurt) to disguise peppery taste and immediately ingested. Food, especially high-fat meals, increases absorption. Best given at bedtime to reduce CNS side-effects, especially during first 2 weeks. Consider drug-drug interactions.

Zidovudine (AZT)

No food restrictions and oral solution may be stored at room temperature. Capsules may be opened and powder contents dispersed in water or mixed with a small amount of food (e.g. yoghurt) and immediately ingested. Currently available tablets are not scored. Use with caution in children with anaemia due to potential for bone marrow suppression.

Didanosine (ddl)

At least 2 tablets of appropriate strength must be used at any one time for adequate buffering. Tablets may be chewed or crushed and dispersed in 30ml water and immediately ingested. Enteric coated (EC) capsules (250mg) are available for once daily use in children >25kg. It is recommended to administer ddl on an empty stomach at least 30 minutes before or 2 hours after meals.

Ritonavir (RTV)

Only recommended use at present is as booster for lopinavir/ritonavir when co-administered with rifampicin-containing TB treatment. Ritonavir boosting dose is not less than 0.75 x lopinavir/ritonavir dose. Should be taken with food. May be stored at room temperature, limited shelf life of 6 months. May need to use techniques described for Kaletra® to improve tolerance of bitter taste.

Nevirapine (NVP)

Once-daily dosing during the first 2 weeks of treatment reduces frequency of rash. If a mild rash occurs during the induction period, continue once daily dosing and only escalate dose to twice daily once the rash has subsided and the dose is well tolerated.

NVP should be permanently discontinued and not restarted in children who develop severe rash especially if accompanied by fever, blistering or mucosal ulceration. No food restrictions. Tablets can be crushed and mixed with a small amount of water or food and immediately ingested. Avoid NVP if rifampicin is being co-administered. Consider drug-drug interactions.

NEED HELP?

Contact the TOLL-FREE
National HIV & TB Health Care Worker
HOTLINE

0800 212 506
or 021 406 6782

Alternatively send an SMS
or 'Please call me' to 071 840 1572

www.hivhotline.uct.ac.za



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