

## Antiretrovirals included in the review

Initially, we surveyed the ARV used by the Brazilian HIV/AIDS program (1,2). Additionally, we checked the drugs described in the WHO ATC, including those that were not used in Brazil (3). Afterward, we had a meeting with an infectologist who worked in the HIV/AIDS program of the Brazilian Ministry of Health to check which of the ARVs on the list were still being used in clinical practice.

In the title and abstract selection step, we collected the names of other ARV that had not been identified in the previous steps. As studies with ART no longer used in clinical practice or at doses other than those currently recommended were part of the exclusion criteria for our review, we checked the doses in different sources (1,2,4–7). We prepared a table with the description of the doses found. ARVs that did not have doses described in these sources were evaluated to determine whether they had been discontinued or were in development (8–10).

The ARV considered in this review, with the respective classes and doses used in adults and children, are described in Table S2.

**Table S2 – Antiretrovirals included in this review with the respective classes and doses (to be continued)**

Antiretroviral	Pharmacological class	Adult	Child
Abacavir	Nucleoside and nucleotide reverse transcriptase inhibitors	300 mg 12/12h 600 mg/day	Children $\geq$ 3 months 1) By weight (mg/kg) 8 mg/kg/dose 12/12h 16-20 mg/kg/dose/day 2) By weight range 14 - <20 kg 150 mg 12/12h; 300 mg/day 20 - <25 kg 150 mg/ morning and 300 mg/evening; 450 mg/day $\geq$ 25 kg 300 mg 12/12h; 600 mg/day or 14 - 20 kg 150 mg 12/12h; 300 mg/day 21 - 29 kg 150/morning and 300 mg/evening; 450 mg/day $\geq$ 30 kg 300 mg 12/12h; 600 mg/day

**Table S2 – Antiretrovirals included in this review with the respective classes and doses (continuation)**

Antiretroviral	Pharmacological class	Adult	Child
Atazanavir	Protease inhibitors	300 mg/day with ritonavir or cobicistat 400 mg/day without ritonavir 400 mg/day with ritonavir if concomitant use of efavirenz or tenofovir	1) Oral powder $\geq$ 3 months with ritonavir or cobicistat 5 - <15 kg 200 mg/day (if intolerance to this dose, 150 mg/day) 15 - <25 kg 250 mg/day $\geq$ 25 kg 300 mg/day 2) Capsule $\geq$ 6 years and $\geq$ 15 kg with ritonavir or cobicistat 15 - <35 kg 200 mg/day $\geq$ 35 kg 300 mg/day or 15 kg - 20 kg 150 mg/day 20 kg - 40 kg 200 mg/day $\geq$ 40 kg 200-300 mg/day 3) Without ritonavir or cobicistat >6 - <13 years 520 mg m <sup>2</sup> /dose/day 13 - <18 years 620 mg m <sup>2</sup> /dose/day
Bictegravir	Integrase inhibitors	50 mg/day	14 - <25 kg 30 mg/day $\geq$ 25 kg 50 mg/day
Cabotegravir	Integrase inhibitors	1) Oral 30 mg/day 2) Injectable (IM) with rilpivirine starting dose 600 mg maintenance dose 400 mg/month	$\geq$ 12 years and $\geq$ 35 kg 1) Oral 30 mg/day 2) Injectable (IM) with rilpivirine starting dose 600 mg maintenance dose 400 mg/month
Cobicistat	Cytochrome P450 3A inhibitor	150 mg/day	1) With elvitegravir $\geq$ 25 kg 150 mg/day 2) With atazanavir $\geq$ 35 kg 150 mg/day 3) With darunavir $\geq$ 40 kg 150 mg/day Children $\geq$ 3 years 1) By weight (mg/kg) 10-15 kg: 20 mg/kg/twice/day 2) By weight range: 10-<11kg 200 mg twice/day; 350 mg/day 11-<12kg 220 mg twice/day; 385 mg/day 12-<13 kg 240 mg twice/day; 420 mg/day 13-<14 kg 260 mg twice/day; 455 mg/day 14-<15 kg 280 mg twice/day; 490 mg/day 15-<30 kg 375 mg twice/day; 600 mg/day 30-<40 kg 450 mg twice/day; 675 mg/day $\geq$ 40 kg 600 mg twice/day; 800 mg/day or 20-30 kg 375mg 12/12h 30-40 kg 450mg 12/12h $\geq$ 40 kg 600mg 12/12h or (for $\geq$ 12 years) 30 - <40 kg 400 mg twice/day 675 mg/day $\geq$ 40 kg 800 mg/day 600 mg twice/day
Darunavir	Protease inhibitors	800 mg/day 600 mg 12/12h	$\geq$ 40 kg 600 mg twice/day; 800 mg/day or 20-30 kg 375mg 12/12h 30-40 kg 450mg 12/12h $\geq$ 40 kg 600mg 12/12h or (for $\geq$ 12 years) 30 - <40 kg 400 mg twice/day 675 mg/day $\geq$ 40 kg 800 mg/day 600 mg twice/day

**Table S2 – Antiretrovirals included in this review with the respective classes and doses (continuation)**

Antiretroviral	Pharmacological class	Adult	Child
Didanosine	Nucleoside and nucleotide reverse transcriptase inhibitors	no longer used in adults	1) Powder for oral solution <60 kg 125 mg 12/12h; 250 mg/day >= 60 kg 200 mg 12/12h; 400 mg/day or Children 1-7 months 50-100 mg/m <sup>2</sup> /dose 12/12h Children 8 months-17 years 120-240 mg/m <sup>2</sup> /dose/day 2) Delayed release capsule 20 - <25 kg 200 mg/day 25 - <60 kg 250 mg/day >= 60 kg 400 mg/day
Dolutegravir	Integrase inhibitors	50 mg/day 50 mg 12/12h (if resistance or risk of interaction)	1) Soluble tablets for oral solution 3 - <6 kg 5 mg/day 6 - <10 kg 15 mg/day 10 - <14 kg 20 mg/day 14 - < 20 kg 25 mg/day >= 20 kg 30 mg/day 2) Tablets 14 - <20 kg 40 mg/day >= 20 kg 50 mg/day; 50 mg 12/12h (if resistance or risk of interaction)
Doravirine	Non-nucleoside reverse transcriptase inhibitors	100 mg/day	-
Efavirenz	Non-nucleoside reverse transcriptase inhibitors	600 mg/day In some sources, if used in combination with tenofovir and lamivudine or tenofovir and emtricitabine: 400 mg/day	1) Children aged 3 months to <3 years Extensive metabolizers 3 - <5 kg 200 mg/day 5 - <7 kg 300 mg/day 7 - <14 kg 400 mg/day 14 - <17 kg 500 mg/day >= 17 kg 600 mg/day Slow metabolizers 3 - <7 kg 50 mg/day 7 - <14 kg 100 mg/day >= 14 kg 150 mg/day Another scheme 3,5 - < 5 kg 100 mg/day 5 - <7,5 kg 150 mg/day 7,5 - <15 kg 200 mg/day 15 - <20 kg 250 mg/day 2) Children >3 years and adolescents 10 - <15 kg 200 mg/day 15 - <20 kg 250 mg/day 20 - <25 kg 300 mg/day 25 - <32,5 kg 350 mg/day 32,5 - <40 kg 400 mg/day >= 40 kg 600 mg/day By body surface 367 mg/m <sup>2</sup> /dose/day

**Table S2 – Antiretrovirals included in this review with the respective classes and doses (continuation)**

Antiretroviral	Pharmacological class	Adult	Child
Elsulfavirine	Non-nucleoside reverse transcriptase inhibitors	Approved only in Russia	Approved only in Russia
Elvitegravir	Integrase inhibitors	85 mg/day with ritonavir plus atazanavir or lopinavir 150 mg/day with ritonavir plus darunavir or fosamprenavir 150 mg/day with cobicistat	Children 6-11 years >= 25 kg 150 mg/day Children 12-17 years >=35 kg 150 mg/day
Emtricitabine	Nucleoside and nucleotide reverse transcriptase inhibitors	capsule 200 mg/day solution 240 mg/day	1) Children 1 - <3 months 3 mg/kg/dose/day 2) Children >= 3 months Oral solution <33 kg 6 mg/kg/dose/day >= 33 kg 240 mg/day capsule >= 25 kg 200 mg/day
Enfuvirtide	Fusion inhibitors	90 mg subcutaneous twice/day	Children 6-16 years (>= 11 kg) 1) By weight 2 mg/kg/dose twice/day 2) By weight range 11 - 15,5 kg 27 mg twice/day 15,6 - 20 kg 36 mg twice/day 21,1 - 24,5 kg 45 mg twice/day 24,6 - 29 kg 54 mg twice/day 29,1 - 33,5 kg 63 mg twice/day 33,6 - 38 kg 72 mg twice/day 38,1 - 42,5 kg 81 mg twice/day >= 42,6 kg 90 mg twice/day
Etravirine	Non-nucleoside reverse transcriptase inhibitors	200mg twice/day	Children >=2 years (>= 10 kg) 10 - <20 kg 100 mg 12/12h 20 - < 25 kg 125 mg 12/2h 25 - <30 kg 150 mg 12/12h >= 30 kg 200 mg 12/12h
Fosamprenavir	Protease inhibitors	With ritonavir: 700 mg 12/12h 1400 mg/day Without ritonavir: 1400 mg 12/12h	With ritonavir: <11 kg 45 mg/kg/dose 12/12h 11 - <15 kg 30 mg/kg/dose 12/12h 15 - <20 kg 23 mg/kg/dose 12/12h 20 - <40 kg 18 mg/kg/dose 12/12h >= 40 kg 700 mg 12/12h Without ritonavir: >= 2 years 30 mg/kg/dose 12/12h >= 47 kg 1400 mg 12/12h
Fostemsavir	Fusion inhibitors	600 mg 12/12h	-

**Table S2 – Antiretrovirals included in this review with the respective classes and doses (continuation)**

Antiretroviral	Pharmacological class	Adult	Child
Ibalizumab	Post-attachment inhibitors	Starting dose 2 g IV Maintenance dose 800 mg IV every 14 days	-
Indinavir	Protease inhibitors	800 mg 8/8h 800 mg 12/12h with ritonavir	350 a 500 mg/m <sup>2</sup> /dose 8/8h 400 mg/m <sup>2</sup> /dose 12/12h with ritonavir  1) By weight (mg/kg) <3 months 4 mg/kg/dose 12/12h >=3 months 5 mg/kg/dose 12/12h >= 3 years 8-10 mg/kg/dose/day 2) By weight range 3 - <6 kg 30 mg 12/12h 6 - <10 kg 40 mg 12/12h 10 - <14 kg 60 mg 12/12h 14 - <20 kg 75 mg 12/12h; 150 mg/day 20 - <25 kg 75 mg/morning and 150 mg/night; 225 mg/day >=25 kg 150 mg 12/12h; 300 mg/day or 14 - 21 kg 75 mg 12/12h; 150 mg/day 21 - 29 kg 75 mg/morning and 150 mg/night; 225 mg/day >=30 kg 150 mg 12/12h; 300 mg/day
Lamivudine	Nucleoside and nucleotide reverse transcriptase inhibitors	150 mg 12/12h 300 mg/day	

**Table S2 – Antiretrovirals included in this review with the respective classes and doses (continuation)**

Antiretroviral	Pharmacological class	Adult	Child
Lopinavir	Protease inhibitors	400 mg 12/12h 800 mg/day If in combination with efavirenz, nelfinavir or nevirapine: solution 520 mg 12/12h tablets 500 mg 12/12h	<p>Children <math>\geq</math> 14 days</p> <p>1) By weight (mg/kg) 16 mg/kg/dose 12/12h</p> <p>2) By weight range &lt;15 kg 12 mg/kg/dose 12/12h 15-40 kg 10 mg/kg/dose 12/12h &gt;40 kg 400 mg 12/12h or tablet: <math>\geq</math> 15 kg - 25 kg 200 mg 12/12h &gt;25 - 35 kg 300 mg 12/12h &gt;35 kg 400 mg 12/12h</p> <p>3) By body surface 230 ou 300 mg/m<sup>2</sup>/dose 12/12h <math>\geq</math>0,6 - &lt;0,9 m<sup>2</sup> 200 mg 12/12h <math>\geq</math>0,9 - &lt;1,4 m<sup>2</sup> 300 mg 12/12h <math>\geq</math>1,4 m<sup>2</sup> 400 mg 12/12h or Children 14 days-5 months 3,75 mL/m<sup>2</sup> 12/12h Children 6 months-17 years 2,9 mL/m<sup>2</sup> 12/12h Children 2-17 years 0,5 - 0,7 m<sup>2</sup> 200 mg 12/12h 0,8 - 1,1 m<sup>2</sup> 300 mg 12/12h <math>\geq</math>1,2 m<sup>2</sup> 400 mg 12/12h</p> <p>4) Special situations * If experienced on ARV or with decreased sensitivity to lopinavir: &lt;15 kg 13 mg/kg/dose 12/12h 15-45 kg 11 mg/kg/dose 12/12h &gt;45 kg 400 mg 12/12h or tablet: <math>\geq</math> 15 kg - 20 kg 200 mg 12/21h &gt;20 - 30 kg 300 mg 12/12h &gt;30 kg 400 mg 12/12h * If in combination with efavirenz, nelfinavir or nevirapine: 300 mg/m<sup>2</sup>/dose 12/12h <math>\geq</math>0,6 - &lt;0,8 m<sup>2</sup> 200 mg 12/12h <math>\geq</math>0,8 - &lt;1,2 m<sup>2</sup> 300 mg 12/12h <math>\geq</math>1,2 - &lt;1,7 m<sup>2</sup> 400 mg 12/12h <math>\geq</math>1,7 m<sup>2</sup> 500 mg 12/12h &lt;15 kg 13 mg/kg/dose 12/12h 15-45 kg 11 mg/kg/dose 12/12h &gt; 45 kg solução 520 mg 12/12h or tablet: <math>\geq</math> 15 kg - 20 kg 200 mg 12/21h &gt;20 - 30 kg 300 mg 12/12h &gt;30 - 45 kg 400 mg 12/12h &gt; 45 kg 500 mg 12/12h</p>

**Table S2 – Antiretrovirals included in this review with the respective classes and doses (continuation)**

Antiretroviral	Pharmacological class	Adult	Child
Maraviroc	CCR5 antagonists	<p>1) With drugs without interaction: 300 mg 12/12h</p> <p>2) With interaction: 150 mg 12/12h or 600 mg 12/12h</p>	<p>1) With drugs without interaction: 2 - &lt;4 kg 30 mg 12/12h 4 - &lt;6 kg 40 mg 12/12h 6 - &lt;10 kg 100 mg 12/12h 10 - &lt;14 kg 150 mg 12/12h 14 - &lt;30 kg 200 mg 12/12h ≥30 kg 300 mg 12/12h</p> <p>2) With interaction: Tablets 10 - &lt;20 kg 50 mg 12/12h 20 - &lt;30 kg 75 mg 12/12h 30 - &lt; 40 kg 100 mg 12/12h ≥40 kg 150 mg 12/12h</p> <p>Oral solution 10 - &lt;20 kg 50 mg 12/12h 20 - &lt;30 kg 80 mg 12/12h 30 - &lt; 40 kg 100 mg 12/12h ≥40 kg 150 mg 12/12h</p>
Nelfinavir	Protease inhibitors	<p>750 mg 8/8h 1250 mg 12/12h</p>	<p>Children ≥= 2 years</p> <p>1) By weight (mg/kg) 45 - 55 mg/kg/dose 12/12h 25 - 35 mg/kg/dose 8/8h</p> <p>2) By weight range 10 - &lt;13 kg 500 mg 12/12h or 250 mg 8/8h 13 - &lt;19 kg 750 mg 12/12h or 500 mg 8/8h 19 - &lt;21 kg 1000 mg 12/12h or 500 mg 8/8h ≥21 kg 1000 - 1250 mg 12/12h or 750 mg 8/8h</p>
Nevirapine	Non-nucleoside reverse transcriptase inhibitors	<p>Starting: 200 mg/day/14 days</p> <p>Maintenance: 200 mg 12/12h 400 mg/d (extended-release)</p>	<p>1) Children &lt;8 years 200 mg/m<sup>2</sup>/dose/day for 14 days, after 12/12h or 200 mg/m<sup>2</sup>/dose 12/12h</p> <p>2) Children ≥= 8 years 120 - 150 mg/m<sup>2</sup>/dose/day for 14 days, after 12/12h</p> <p>3) Children ≥=6 years capable of ingesting an extended-release tablet 0,58 - 0,83 m<sup>2</sup>: 200 mg/day 0,84 - 1,16 m<sup>2</sup>: 300 mg/day ≥1,17 m<sup>2</sup>: 400 mg/day</p> <p>4) Adolescent = adult</p>

**Table S2 – Antiretrovirals included in this review with the respective classes and doses (continuation)**

Antiretroviral	Pharmacological class	Adult	Child
Raltegravir	Integrase inhibitors	400 mg 12/12h 1200 mg/day	1) Oral suspension By weight 6 mg/kg/dose 12/12h By weight range 3 - <4 kg 25 mg 12/12h 4 - <6 kg 30 mg 12/12h 6 - <8 kg 40 mg 12/12h 8 - <11 kg 60 mg 12/12h 11 - <14 kg 80 mg 12/12h 14 - <20 kg 100 mg 12/12h 2) Chewable tablets By weight 6 mg/kg/dose 12/12h 3 - <6 kg 25 mg 12/12h 6 - <10 kg 50 mg 12/12h 10 - <14 kg 75 mg 12/12h 14 - <20 kg 100 mg 12/12h 20 - <28 kg 150 mg 12/12h 28 - <40 kg 200 mg 12/12h ≥40 kg 300 mg 12/12h 3) Coated tablets ≥ 25 kg 400 mg 12/12h ≥ 40 kg 400 mg 12/12h ou 1200 mg/day
Rilpivirine	Non-nucleoside reverse transcriptase inhibitors	1) Oral 25 mg/day 2) Injectable (IM) with cabotegravir starting dose 900 mg maintenance dose 600 mg/month	≥ 12 years and ≥ 35 kg 1) Oral 25 mg/day 2) Injectable (IM) with cabotegravir starting dose 900 mg maintenance dose 600 mg/month
Ritonavir	Protease inhibitors	Isolated: 300 mg 12/12h, increased by 100 mg 12/12h every 2-3 days up to 600 mg 12/12h In combination with another protease inhibitor: - With atazanavir 100 mg/day - With darunavir 100-200 mg/day - With lopinavir 200 mg/day - With tipranavir 400 mg/day 100 - 400 mg/day in 1-2 doses	1) Children >1 month 250 mg/m <sup>2</sup> /dose 12/12h, increased by 50 mg/m <sup>2</sup> /dose 12/12h every 2-3 days up to 350 mg/m <sup>2</sup> /dose 12/12h 2) With atazanavir 15-19 kg 80-100 mg/day ≥ 20 kg 100 mg/day 3) With darunavir 15-29 kg 50 mg 12/12h 30-39 kg 60 mg 12/12h ≥ 40 kg 100 mg 12/12h 12-17 years with single dose darunavir ≥40 kg 100 mg/day 3) With fosamprenavir 25-32 kg 3 mg/kg/dose 12/12h ≥ 33 kg 100 mg 12/12h 4) With tipranavir Children 2-11 years 150 mg/m <sup>2</sup> /dose 12/12h Children 12-17 years 200 mg 12/12h
Saquinavir	Protease inhibitors	500 mg 12/12h/7 days, then 1000 mg 12/12h	Children ≥ 2 years 5 - <40 kg 50 mg/kg/dose 12/12h ≥ 40 kg 1000 mg 12/12h



**Table S2 – Antiretrovirals included in this review with the respective classes and doses (continuation)**

Antiretroviral	Pharmacological class	Adult	Child
Stavudine	Nucleoside and nucleotide reverse transcriptase inhibitors	<60 kg 30 mg 12/12h ≥ 60 kg 40 mg 12/12h	< 30 kg 1 mg/kg/dose 12/12h 30 - <60 kg 30 mg 12/12h ≥ 60 kg 40 mg 12/12h
Tenofovir alafenamide	Nucleoside and nucleotide reverse transcriptase inhibitors	25 mg/day with bictegravir and emtricitabine; or rilpivirine and emtricitabine 10 mg/day with elvitegravir, cobicistat and emtricitabine; or darunavir, cobicistat and emtricitabine	1) Children 12-17 kg ≥ 35 kg 25 mg/day 2) With bictegravir and emtricitabine ≥ 25 kg 25 mg/day 3) With rilpivirine e emtricitabine ≥ 35 kg 25 mg/day 4) With elvitegravir, cobicistat and emtricitabine ≥ 25 kg 10 mg/day 5) With darunavir, cobicistat and emtricitabine ≥ 40 kg 10 mg/day
Tenofovir disoproxil fumarate	Nucleoside and nucleotide reverse transcriptase inhibitors	245 mg/day or 300 mg/day	Children ≥ 2 years 1) By weight (mg/kg) ≥ 10kg 8 mg/kg/dose/day or 6,5 mg/kg/day 2) Oral powder 10 - <12 kg 80 mg/day 12 - <14 kg 100 mg/day 14 - <17 kg 120 mg/day 17 - <19 kg 140 mg/day 19 - <22 kg 160 mg/day 22 - <24 kg 180 mg/day 24 - <27 kg 200 mg/day 27 - <29 kg 220 mg/day 29 - <32 kg 240 mg/day 32 - <34 kg 260 mg/day 34 - <35 kg 280 mg/day ≥35 kg 300 mg/day 3) Tablet 17 - <22 kg 123 or 150 mg/day 22 - <28 kg: 163 or 200 mg/day 28 - <35 kg: 204 or 250 mg/day ≥35 kg: 245 or 300 mg/day
Tipranavir	Protease inhibitors	500 mg 12/12h (used in combination with ritonavir 200 mg 12/12h)	Children ≥ 2 years By weight 14 mg/kg/dose 12/12h By body surface 375 mg/m <sup>2</sup> /dose 12/12h With ritonavir: 6 mg/kg/dose 12/12h

**Table S2 – Antiretrovirals included in this review with the respective classes and doses (conclusion)**

Antiretroviral	Pharmacological class	Adult	Child
Zidovudine	Nucleoside and nucleotide reverse transcriptase inhibitors	250-300 mg 12/12h	1) By weight (mg/kg) <9 kg 12 mg/kg/dose 12/12h; 8 mg/kg/dose 8/8h 9 - <30 kg 9 mg/kg/dose 12/12h; 6 mg/kg/dose 8/8h ≥30 kg 300 mg 12/12h; 200 mg 8/8h 2) By weight range 8-13 kg 100 mg 12/12h 14-20 kg 100 mg/morning and 200 mg/night 21-27 kg 200 mg 12/12h 28-29 kg 200-250 mg 12/12h ≥ 30 kg 250-300 mg 12/12h 3) By body surface 160 or 180 or 240 mg/m <sup>2</sup> /dose 12/12h