Ghidul Pediatric EACS - tratament și profilaxie 2025
Paediatric EACS Guidelines- treatment and prophylaxis 2025

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A child doesn’t come into this world with a good practice guideline…

Summary of the global HIV epidemic, 2024

	People living with HIV	People acquiring HIV	People dying from HIV-related causes
Total	**40.8 million** [37.0–45.6 million]	**1.3 million** [1.0–1.7 million]	**630 000** [490 000–820 000]
Adults (15+ years)	**39.4 million** [35.7–44.0 million]	**1.2 million** [950 000–1.5 million]	**550 000** [430 000–720 000]
Women (15+ years)	21.0 million [19.0–23.5 million]	530 000 [410 000–710 000]	240 000 [180 000–320 000]
Men (15+ years)	18.5 million [16.5–20.7 million]	650 000 [530 000–830 000]	320 000 [240 000–410 000]
Children (<15 years)	**1.4 million** [1.1–1.8 million]	**120 000** [82 000–170 000]	**75 000** [53 000–110 000]

Note: The 2024 estimates were made before the implementation of cuts to foreign aid.

Source: UNAIDS/WHO estimates, 2025.

Women living with HIV in Eastern Europe

Key Figures

2022

30,256 cisgender women with HIV in East WHO Region
= **76%** of total WHO European Region
(*[ECDC, 2023]*)

2023

30,400 cisgender women with HIV in East WHO Region (*[UNAIDS, 2023]*)
= **75%** of total WHO European Region
(*[ECDC, 2024]*)

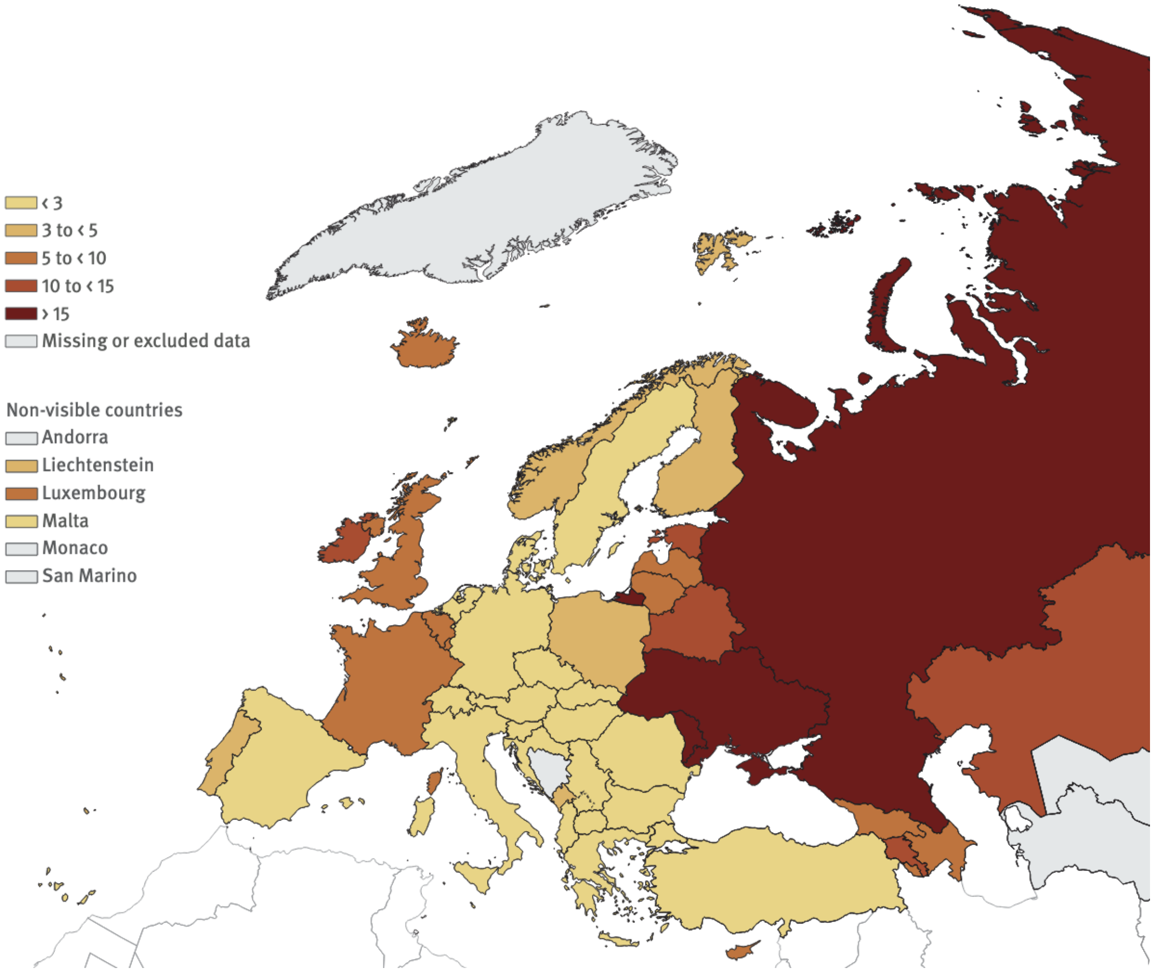
2023

Increasing numbers in new **HIV cases in transgender women in Eastern Europe and Central Asia**.
97% of new infections occur in people from key populations and their partners.
(*[UNAIDS, 2023]*)

2023

101% increase in new HIV infections among **transgender women** in the Eastern Europe and Central Asia between 2010 and 2022.
(*[UNAIDS, 2023]*)

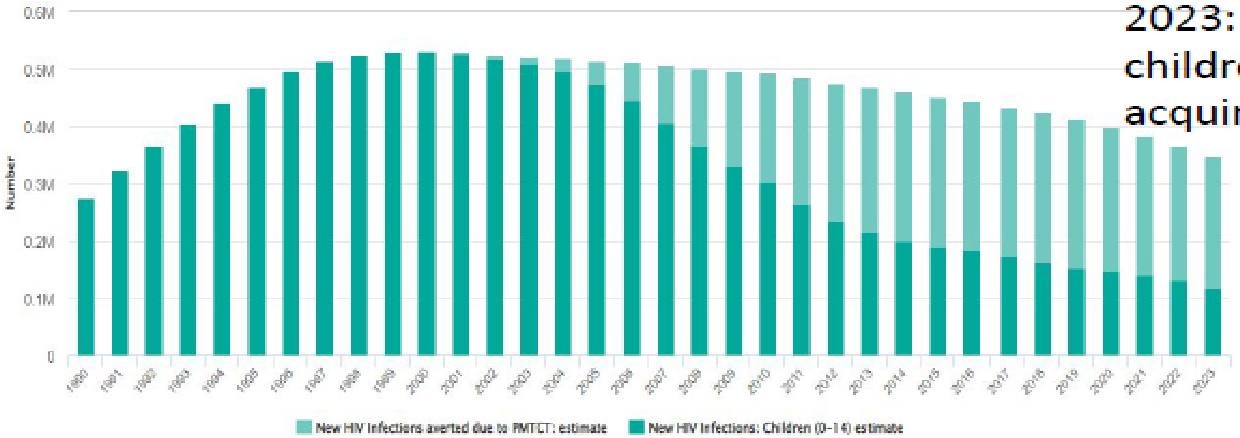
Map 3. HIV diagnoses in women per 100 000 female population, 2023



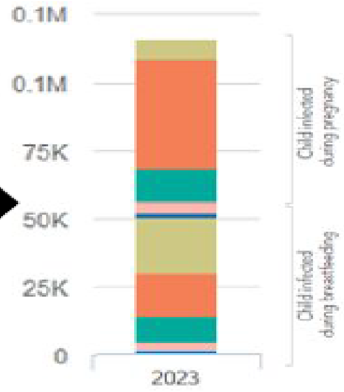
Global reduction in vertical transmission (VT)

- Since 2000, new paediatric infections have reduced by over 77% globally
- However, this decline was not fast enough to achieve UNAIDS targets which were to reduce the number of children acquiring HIV to <20,000 by 2020

Number of new HIV child infections vs number of infections averted due to VT prevention methods



2023: 120,000 children (0-14) acquired HIV

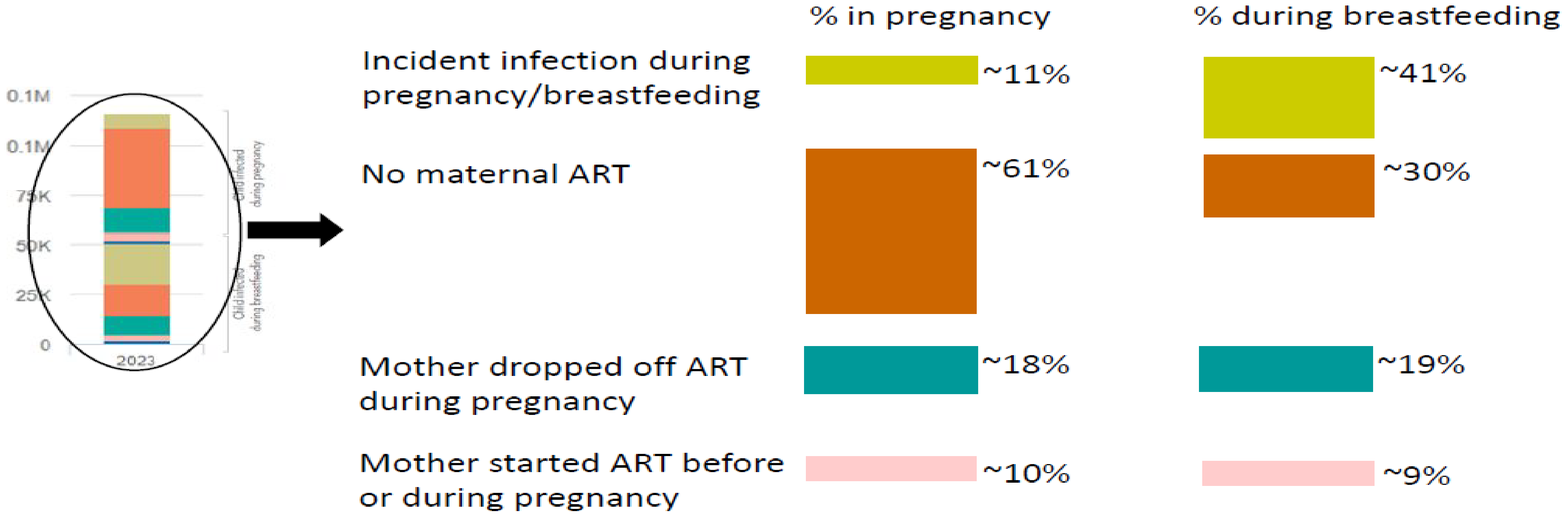


~ 55% VT in pregnancy

~ 42% VT during breastfeeding

Source: UNAIDS epidemiological estimates 2024: *aidsinfo.unaids.org*

Circumstances around transmissions: 2023



Source: UNAIDS epidemiological estimates 2024: *aidsinfo.unaids.org*


PREVENTION
comes
FIRST

Key elements in the cares provided to HIV women

Needs

- Multidisciplinary team
- Psychological support for acceptance of diagnostics

Pregnancy

- **The pregnant woman – surveillance for maintaining adherence to specific cares**
- **Evaluation of co-infections: HBV, HCV, TB**
- **If not pregnant- special focus on contraceptives and drug-drug interactions**

ART in pregnancy

- Recently diagnosed?
- Yes/No
- Monitoring of possible toxicities, if in ART for a long period of time
- Long-term effects of ART on the fetus and new-born

Risk factors associated with HIV vertical transmission

The stage of HIV infection corroborated with:

- Viral load in the pregnant woman
- STIs
- Time since rupture of membranes to the moment of delivery
- Prolonged delivery
- Type of delivery
- Invasive procedures during pregnancy, cordocentesis. Amniocentesis and procedures during delivery (invasive fetal monitoring) and obstetrical maneuvers (forceps, vacuum extractor, etc)
- Alteration of integrity of human feto-placental vessels, Chorioamnionitis
- Age of fetus at the time of exposure; gestational maturation

Source: M. Mardarescu. 90:90:90: Which Women Are Being Left Behind? International Workshop on HIV & Women, 6-7 March, 2020, Boston USA

International recommendations to reduce vertical transmission of HIV

Universal and rapid testing of all pregnant women

ART in pregnancy as well as during labor and, consequently, to the newborn

Type of opted delivery- natural or C-section- scheduled, prior to the onset of labor and rupture of membranes

Type of feeding- breastfeeding or artificial?

Close monitoring of the newborn for rapid identification of HIV status

Assessment of long and short-term toxicities in the newborn, as a result of exposure to ART *"in utero"* and after birth

Prophylaxis of pneumocystis

Assessment of maternal co-infections- HBV, HCV, syphilis, CMV, toxoplasmosis, herpetic virus infections

Vaccination of newborns and toddlers perinatally exposed to HIV

Support provided to families dealing with HIV- medical, psychological, social, education, etc

Per author's clinical practice

Postnatal Prophylaxis and Infant Feeding

- Evidence to guide practice in relation to postnatal prophylaxis (PNP) and feeding for infants at risk of HIV acquisition during pregnancy and during breastfeeding comes mainly from low and middle-income countries and is limited in settings with universal access to maternal ART, and regular viral load monitoring as well as alternative feeding options. For this reason and due to the different interpretation of the available data and of the possible risks, guidance and practices vary across Europe, and in other high-income settings.

- Although viral suppression markedly reduces transmission, there is no definitive evidence confirming that “U=U” can be applied to vertical transmission (including transmission through breastfeeding).

- Recommendations for PNP should be based on risk stratification. The most important factor is maternal HIV VL at the time of delivery. Other important factors determining the risk are duration of ART before or during pregnancy, and VL in the weeks leading up to delivery.

Contact

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QUICK LINKS

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- Cancer
- Cardiovascular & Metabolic Complications
- Summary of Changes from v12.0 to v13.0
- References

Guidelines 2025

EACS Website

Welcome to the EACS Guidelines 2025!

These Guidelines were developed by the European AIDS Clinical Society (EACS), a not-for-profit organisation, whose mission is to promote excellence in care, research and education for HIV and related conditions across Europe. We advocate for equitable access to healthcare and aim to improve quality of life for those at risk of or affected by HIV, while shaping public health policies to reduce disease burden.

The aim of the EACS Guidelines is to provide easily accessible and comprehensive recommendations to clinicians involved in all aspects of care. Unless stated otherwise, they always refer to the specific management of people with HIV.

The EACS Guidelines were first published in 2005, and are currently available online as a web-based version, and as a free App for iOS and Android devices.

The Guidelines undergo formal minor revisions annually and major revisions every second year. Interim updates may however also be provided whenever section leads consider it necessary.

Each respective section of the Guidelines is managed by a panel of experienced HIV experts, with additional experts in other fields included where necessary. All recommendations are evidence-based whenever possible and based on expert opinion in the rare instances where adequate evidence is unavailable.

Recently Viewed

- Summary of Changes from v12.1 to v13.0
- ART: Initiation and Initial Regimen
- Postnatal Prophylaxis and Infant Feeding
- First Line Options, Formulations, Dosing

Recently Modified

- STI Screening and Treatment
- Chemsex
- Travel
- Bone Health
- HIV-2
- Summary of Changes from v12.1 to v13.0
- Visceral Leishmaniasis
- Virological Failure

Source: https://eacs.sanfordguide.com/

Paediatric HIV management, prophylaxis & feeding

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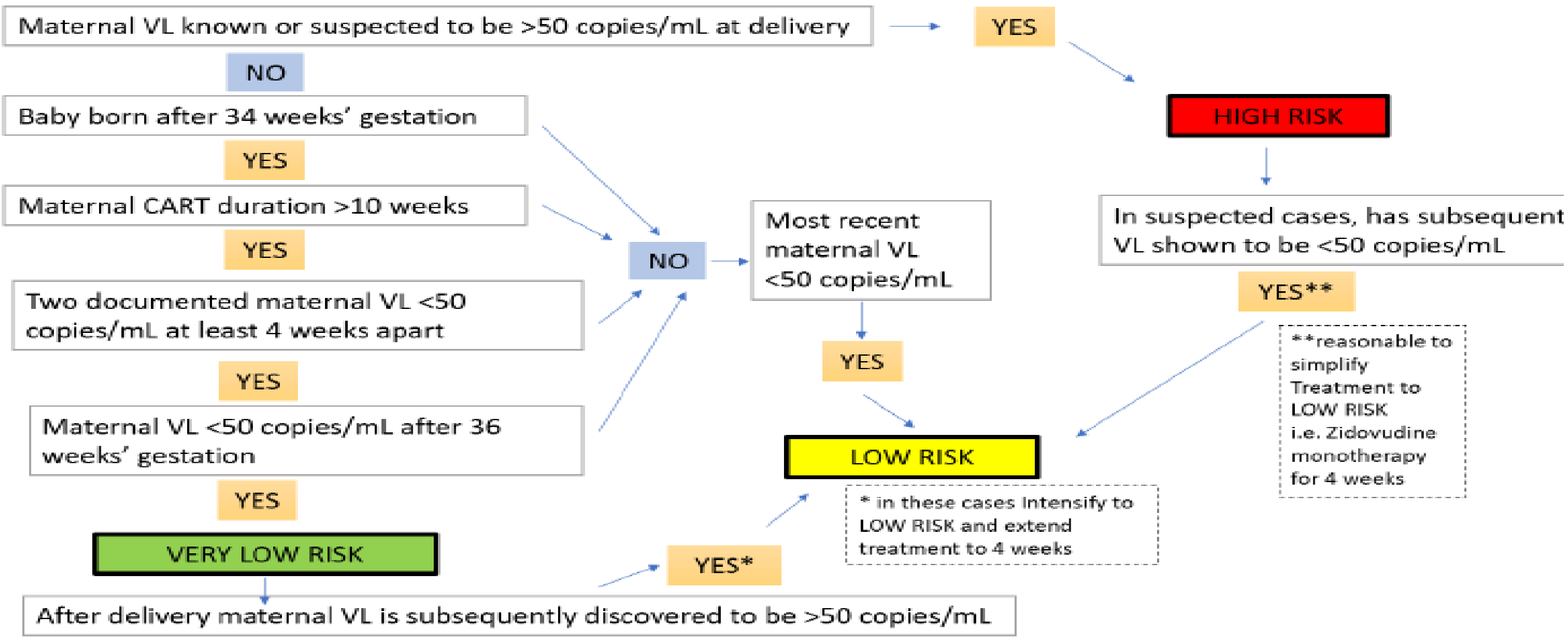
Source: https://eacs.sanfordguide.com/

Risk Stratification

Diagram 2.1 Algorithm for Risk Stratification and treatment of HIV exposed infants



Source: National Neonatal Network Guideline: Blood Borne Virus during pregnancy. *Management of Infants exposed to HIV in pregnancy.* K:\09 PCF\NSD\Strategic Networks\Perinatal

General Principles of Postnatal Prophylaxis and Infant Feeding 2025

- **Current evidence does not yet demonstrate that "undetectable = untransmissible" in the context of vertical transmission.**

- Recommendations for PNP should be based on risk stratification.

- The most important factor *is maternal HIV VL at the time of delivery*. Other important factors determining the risk are duration of ART before or during pregnancy and VL in the weeks leading up to delivery. Other risk factors for transmission may also be taken in to account e.g. mode of delivery, duration of rupture of membranes, prematurity etc.

- If an infant is considered very low risk for transmission, in most settings single agent PNP (most commonly ZDV or NVP) for **2-6 weeks** is recommended. In some countries, it is recommended that neonates fulfilling criteria for very low risk do not require PNP.

- Recommendation: **therapeutic dosage** instead of prophylactic ones

- For non-breastfed infants, PCR based infant testing should take place at birth, 2 weeks after stopping PNP and at 3 months of age

- If high risk of transmission an additional PCR can be done at 2 weeks of age.

- HIV serology can be done at around 2 years of age to confirm loss of placentally transferred maternal antibody

Source: https://eacs.sanfordguide.com/contents/changes-v11-0-to-v11-1

General Principles of Postnatal Prophylaxis and Infant Feeding 2025

- **In the situations where the mother wishes to breastfeed, this option should be discussed based on the recommendations in the national guidelines.**

- If specific criteria are met including optimal maternal ART adherence, suppressed VL and availability of regular medical support and VL monitoring, then the option of supported breastfeeding should be provided.

- Recommendation- monitoring of V.L. for 1-2 months in mothers. If detectable, the recommendation is to stop breastfeeding and give artificial feeding.

- Infant PCR based HIV testing should take place regularly during breastfeeding and 2-4 weeks after cessation of breastfeeding with follow up PCR testing as per usual practice (e.g. 3 months after stopping breastfeeding).

- **The risk of HIV transmission during breastfeeding with an undetectable VL in maternal blood is very low, but not zero**, and continues with longer duration of breastfeeding, so as short a duration of breastfeeding as possible should be encouraged with an aim to wean around 6 months of age

Source: https://eacs.sanfordguide.com/contents/changes-v11-0-to-v11-1

But…

5. International guidelines' recommendations for ART initiation in children 2025 update

International guidelines
2025

WHO	PENTA	DHHS
ART in *all* children regardless of WHO stage and CD4 count[1]	**ART in *all* children.[2] *For those with good CD4 count time can be taken in order to address: issues of adherence and psychological effects of treatment.[2]**	**ART in *all* children regardless of CD4 count, clinical stage- asymptomatic or with mild symptoms.[3]**
	Priority: infants and children <3 years of age, to adolescents, and to children with symptoms and/or low age-specific CD4 counts.[2]	

1. World Health Organization. *Consolidated Guidelines on the use of antiretroviral drugs for treating and preventing HIV infection. Recommendations for a Public Health Approach.* Second edition 2016. p.33

2. 2019 Penta guidelines for the first and second line antiretroviral treatment, https://penta-id.org/hiv/treatment-guidelines/

3. Guidelines for the use of Antiretroviral Agents in Paediatric HIV infection. 2019 Revision.
< https://clinicalinfo.hiv.gov/sites/default/files/guidelines/documents/PedARV_GL.pdf >

Guidelines for the Use of Antiretroviral Agents in Pediatric HIV Infection Aidsinfo.nih.gov 2022

Table 5: HIV Infection Stage Based on Age-Specific CD4 Cell Count or Percentage

Stage[a]	Age at the Time of the CD4 Test					
	<1 Year	%	1 to <6 Years	%	≥6 Years	%
	Cells/µL		Cells/µL		Cells/µL	
1	≥1,500	≥34	≥1,000	≥30	≥500	≥26
2	750–1,499	26–33	500–999	22–29	200–499	14–25
3	<750	<26	<500	<22	<200	<14

[a] The stage is based primarily on the CD4 cell count; the CD4 cell count takes precedence over the CD4 percentage, and the percentage is considered only when the count is missing. If a Stage 3-defining condition has been diagnosed (see Table 6), then the stage is 3 regardless of CD4 test results.

Source: Centers for Disease Control and Prevention. Revised surveillance case definition for HIV infection—United States, 2014. *MMWR* 2014;63(No. RR-3):1-10.

Key to Acronyms: CD4 = CD4 T lymphocyte

Sursa: *Guidelines for the Use of Antiretroviral Agents in Pediatric HIV Infection*.
https://aidsinfo.nih.gov/guidelines/html/2/pediatric-arv/70/when-to-initiate-therapy-in-antiretroviral-naive-children

Penta Guidelines
2025

Initiation of ART in Children and Adolescents:

- *We recommend the initiation of ART in all children and adolescents diagnosed with HIV*

- We emphasise the need for urgent diagnosis and initiation of treatment for infants diagnosed with HIV, due to their high risk of rapid disease progression.

- *We endorse the "U=U" campaign (undetectable (defined as VL < 200 copies/ml for > 6 months) = untransmissible) for sexual transmission of HIV, which is particularly relevant to sexually active adolescents and is a motivational message to enhance adherence and prevent onward HIV transmission.*

- Although viral suppression markedly reduces transmission, there is no definitive evidence confirming that "U=U" can be applied to vertical transmission (including transmission through breastfeeding)

SSource: https://eacs.sanfordguide.com/en/eacs-hiv/paediatric-hiv-treatment/art-initiation-and-inital-regimen

Penta/EACS Guidelines 2025

	Backbone		Anchor drug (in alphabetical order)	
Age	Preferred	Alternative	Preferred	Alternative
0 - 4 weeks[i]	ZDV[ii] + 3TC ABC[iii] + 3TC	-	DTG [iv]	LPV/r[v, vi] NVP[v, vi,] RAL[v, vii]
4 weeks - 3 years	ABC[iii] + 3TC TAF[viii] + XTC[ix]	ZDV[ii] + 3TC TDF[x] + 3TC	BIC[xi] DTG[xii]	LPV/r[v, vi] NVP[v, vi] RAL[v, vii]
3 - 6 years	ABC[iii, xiii] + 3TC[xiii] TAF[viii] + XTC[ix]	TDF[x] + XTC[ix] ZDV[ii] + XTC[ix]	BIC[xi] DTG[xii]	DRV/r[xiv] EFV[xiii, xiv] LPV/r[xiv] NVP[xiv] RAL[xiv]
6 - 12 years	ABC[iii, xiii] + 3TC[xiii] TAF[viii] + XTC[ix]	TDF[x] + XTC[ix]	BIC[xi] DTG[xii]	DRV/r[xiv] EFV[xiii, xiv] EVG/c[xiv] RAL[xiv]
> 12 years	ABC[iii, xiii] + 3TC[xiii] TAF[viii] + XTC[ix]	TDF[x] + XTC[ix]	BIC[xi] DTG[xii]	DRV/b[xiv] DOR[xiv] EFV[xiii, xiv] RAL[xiv] RPV[xiv]

Source: https://eacs.sanfordguide.com/en/eacs-hiv/paediatric-hiv-treatment/art-initiation-and-inital-regimen

ARV – PENETRARE LA NIVELUL LICHIDULUI CEFALO-RAHIDIAN

	CPE			
ARV Class	4	3	2	1
NRTIs	Zidovudine	Emtricitibine Abacavir	Lamivudine Stavudine Didanosine	Tenofovir Zalcitabine
NNRTIs	Nevirapine	Delavirdine Efavirenz	Etravirine Rilpivirine	
PIs	Indinavir/r	Darunavir/r Fosasmprenavir/r Indinavir Lopinavir/r	Atazanavir/r Atazanavir Fosamprenavir	Nelfinavir Ritonavir Saquinavir/r Saquinavir Tipranavir/r
Fusion/entry inhibitors		Maraviroc		Enfuvirtide
Integrase inhibitors	Dolutegravir	Raltegravir	Elvitegravir	

CPE = CNS penetration effectiveness score (după Letendre et al. - Neurologic complications of HIV disease and their treatment. *Top HIV Med* 2010; 18:45–55)

DORAVIRINA – penetrare bună la nivelul SNC (Banti E, Dhiver C, Aherfi S, Motte A, Solas C. High penetration of doravirine in the central nervous system: What are the benefits? Infect Dis Now. 2022 Mar;52(2):116-117)

BICTEGRAVIR – penetrare redusă la nivelul SNC (Gelé T et al. - Cerebrospinal fluid exposure to bictegravir/emtricitabine/tenofovir in HIV-1-infected patients with CNS impairment. J Antimicrob Chemother. 2021 Nov 12;76(12):3280-3285

Antiretroviral formulations useful for Paediatric and Adolescent Dosing and Administration
EACS Guidelines 2024

Table 2. Antiretroviral Formulations Useful for Paediatric and Adolescent Dosing and Administration

NRTI	
ABC	tablet (300 mg) solution (20 mg/mL)
FTC	capsule (200 mg) solution (10 mg/mL)
3TC	tablet (300, 150 mg) solution (10 mg/mL)
TDF	tablet (245, 204, 163, 123 mg) granules (33 mg/g)
ZDV	capsule (250 mg, 100 mg) solution (10 mg/mL) iv infusion: 10 mg/mL (20 mL/vial)
TAF/FTC	tablet (25/200 mg and 10/200 mg)
TDF/FTC	tablet (300/200 mg)
ABC/3TC	tablet (600/300 mg)
ZDV/3TC	tablet (300/150 mg)
NNRTI	
EFV	tablet (600 mg) capsule (200, 100, 50 mg)
NVP	tablet (200 mg) prolonged release tablet (400, 100 mg) suspension (10 mg/mL)
RPV	tablet (25 mg)
TDF/FTC/EFV	tablet (300/200/600 mg)
TAF/FTC/RPV	tablet (25/200/25 mg)
TDF/FTC/RPV	tablet (300/200/25 mg)
PI	
DRV	tablet (800, 600, 400, 150, 75 mg) solution (100 mg/mL)
DRV/c	tablet (800/150 mg)
LPV/r	tablet (200/50 mg and 100/25 mg) solution (80/20 mg/mL)
RTV	tablet (100 mg) powder for oral suspension (100 mg sachet)
TAF/FTC/DRV/c	tablet (10/200/800/150 mg)
INSTI	
DTG	tablet (50, 25, 10 mg) dispersible tablets (5 mg)
RAL	tablet (600 mg, 400 mg) chewable tablets (100, 25 mg) granules for oral suspension (100 mg)
ABC/3TC/DTG	tablet (600/300/50 mg)
TAF/FTC/BIC	tablet (25/200/50 mg)
TAF/FTC/EVG/c	tablet (10/200/150/150 mg)
TDF/FTC/EVG/c	tablet (300/200/150/150 mg)

Source: https://eacs.sanfordguide.com/contents/changes-v11-0-to-v11-1

Strategies that help prevent mother to child transmission of HIV in Romania

Early testing of all pregnant women	*Artificial feeding*	*Evaluation of maternal co-infections (HBV, HCV, syphilis, CMV, toxoplasmosis, herpes virus)*
• ART during pregnancy, delivery and consequently to the new-born • Scheduled C-section, before labor and rupture of membranes	• Monitoring of the child to determine, as fast as possible, his/her status • Assessment of risks regarding long and short-term toxicities as a consequence of in-utero exposure to the mother's ART and after birth. • Prophylaxis of pneumocystis	• Vaccination of the new-born perinatally exposed to HIV • Support for the families with HIV (medical, pshychological, social, educational)

Thank you!