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HIV and breastfeeding : a difficult issue

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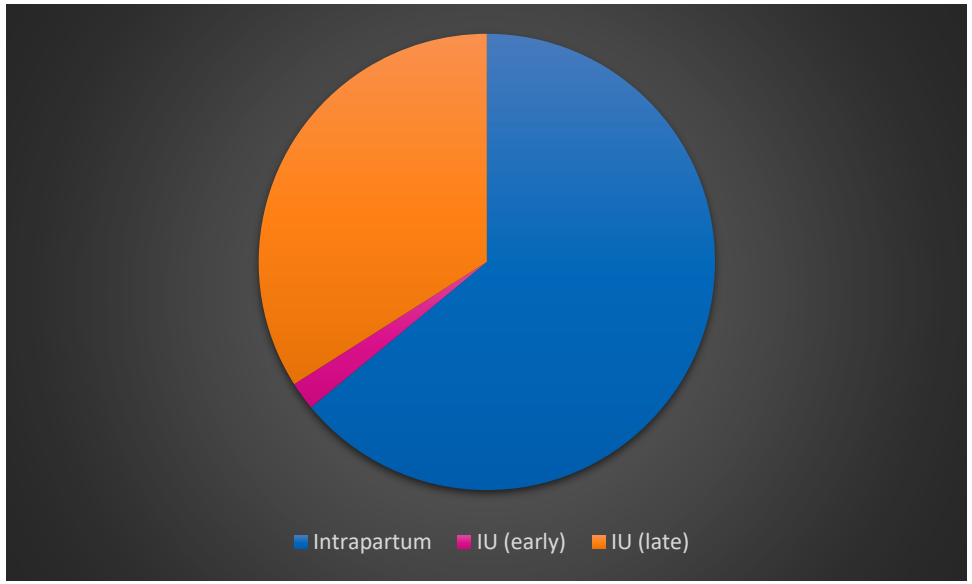
30/11/2021 BREACH – Dolce La Hulpe

Mother-to-child transmission

- Without any intervention : 15 à 35 % risk of transmission
- Transmission occurs
  - Intrapartum +++
  - In-utero (mostly 2d-3d trimester)
  - Breastfeeding (+ 10%)



Prevention of mother-to-child transmission = CORNERSTONE

PROMISE
IMPAACT 1077
Promoting Maternal and Infant Survival Everywhere

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mART (TDF/FTC/LPVr)	iNVP
1218	1211
Median time to breastfeeding cessation : 16 months	
7 infections (0.57%)	7 infections (0.58%)

HIV-1 free survival @ 2 years : 97.1 vs 97.7%
Transmission rate @ 6 months : 0.3%
HIV p VL : data missing
5% of women were late presenters

J Acquir Immune Defic Syndr. 2018 Apr 1; 77(4): 383–392.

World Health Organization

In resource-limited settings, such as some parts of Africa, the World Health Organization (WHO) recommends that HIV-infected mothers breastfeed exclusively for the first 6 months of life and continue breastfeeding for at least 12 months, with the addition of complementary foods. These mothers should be given ART to reduce the risk of transmission through breastfeeding.

Breastfeeding should then only stop once a nutritionally adequate and safe diet without breast milk can be provided.

If my cousin is breastfeeding in her country why could I not do the same ?

Acceptable in HRC ?

Many HIV-infected women in Western Europe have emigrated from countries that apply WHO guidelines in this way. As breastfeeding is currently not supported in European countries, this leads to confused mothers. This is accentuated by social and cultural pressures, which may cause difficulties and even stigmatisation of HIV-infected women who are advised not to breastfeed

EACS European AIDS Clinical Society

BHIVA British HIV Association GUIDELINES

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October 2021

- We advise against breastfeeding
- In situations where a woman chooses to breastfeed, we recommend input from an interdisciplinary team including adult HIV specialist, paediatrician and obstetrician/gynecologist
- Maternal HIV-VL > 50 copies/mL should result in cessation of breastfeeding, providing cabergoline and support from interdisciplinary team and a nursing specialist.

2020 3d interim guidelines

- We therefore continue to recommend that women living with HIV feed their babies with formula milk
- A fully suppressed HIV VL for as long a period as possible, but certainly during the last trimester of pregnancy)
- A good adherence history
- Strong engagement with the perinatal MDT
- Attend monthly clinic review and blood HIV VL for themselves and their infant during and for 2 months after stopping breastfeeding

frontiers in Pediatrics

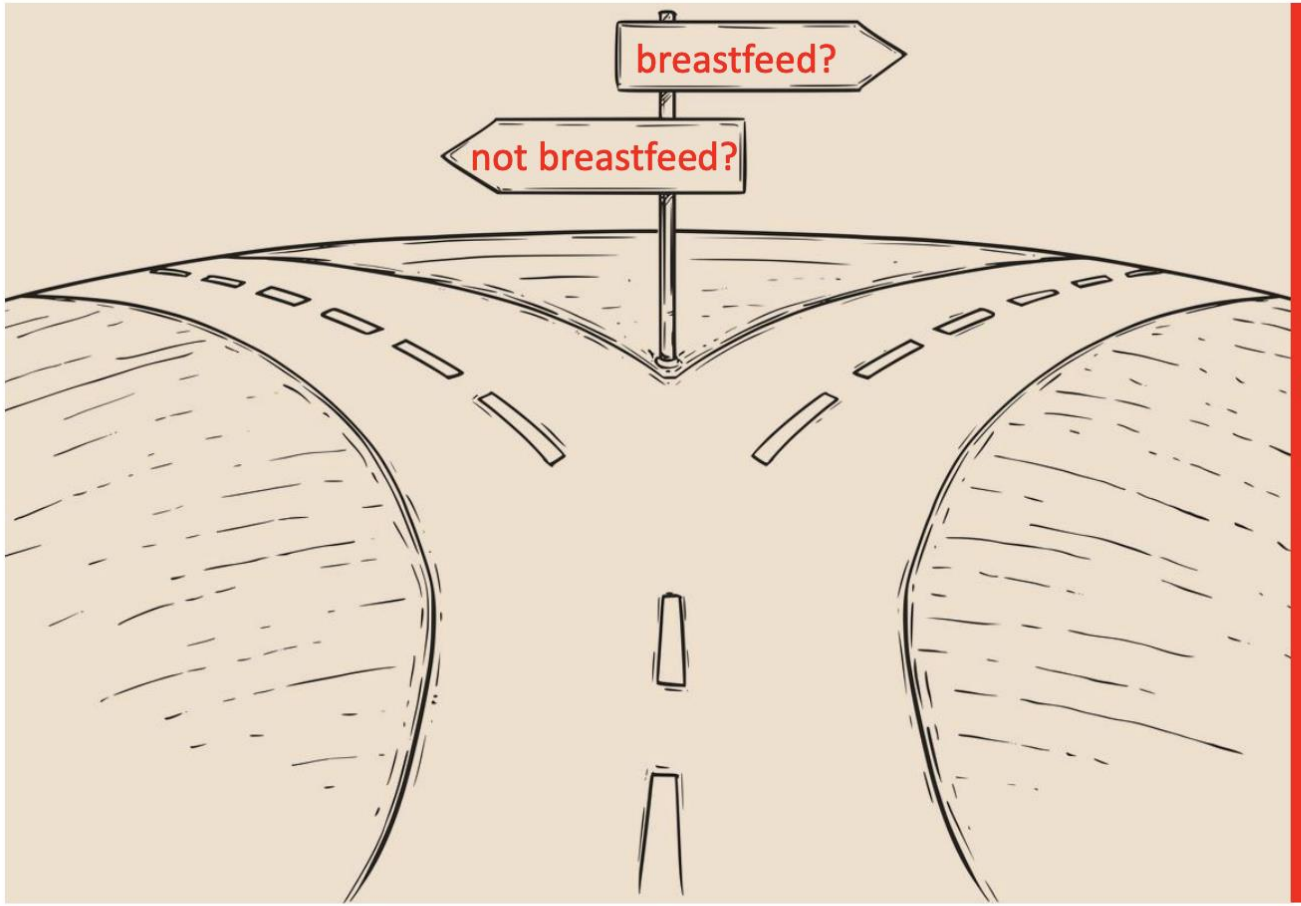
Front Pediatr. 2020; 8: 248.
Published online 2020 May 27. doi: 10.3389/fped.2020.00248

PMCID: PMC7266974
PMID: 32537442

HIV-Infected Mothers Who Decide to Breastfeed Their Infants Under Close Supervision in Belgium: About Two Cases

Nordin Bansaccal,[1,†] Dimitri Van der Linden,[1,2,*†] Jean-Christophe Marot,[3] and Leïla Belkhir[2,4]

experience



1) clinical EQUIPOISE

(...) when the clinical **potential risk** as well as the **benefit** of an intervention **tend towards zero**
-> **balancing risk and benefit** is utmost challenging, or even impossible. (...)

2) patient's AUTONOMY

(...) **based on ethical principles** (...)

Christian R. Kahlert, WAVE Workshop EACS 2019, Basel

Risk/benefits deep discussion

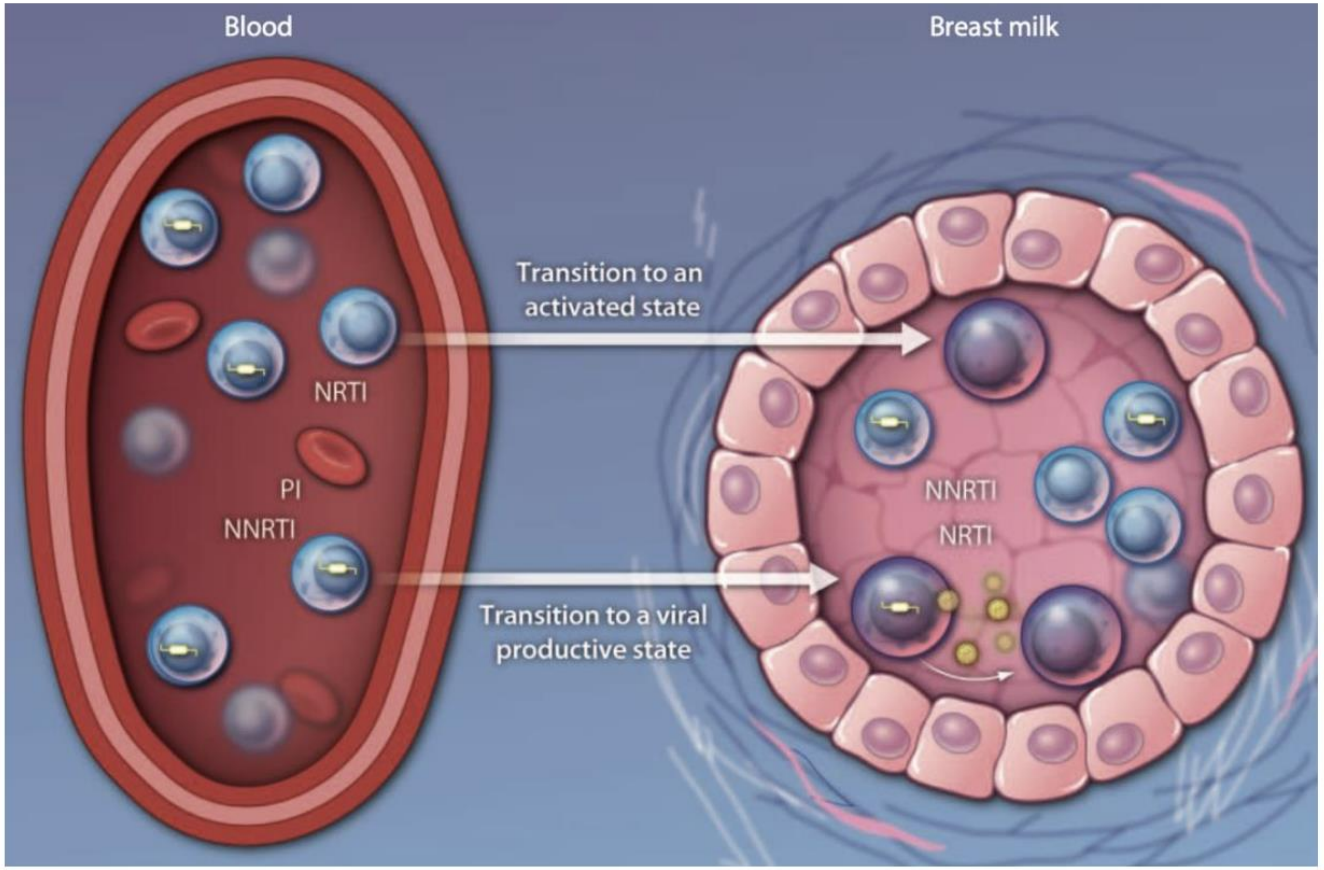
- Uniform global recommendation
- Simple, easy and free way of providing nutrition, psychologically essential!
- Child: microbiome, atopic disease (eczema, wheezing, asthma), infectious diseases (airways, gut)
- Mother: postpartum recovery (involution uterus, depression), breast cancer, glucose homeostasis

- HIV MTCT cannot be ruled out
- Postpartum vulnerable period
- Infant: extended cART exposure
- Mastitis known as increased risk
- Exclusive breastfeeding lower versus mixed breastfeeding
- Cell-associated virus, HIV MTCT risk not fully understood

2018, Recommendations of the Swiss Federal Commission for Sexual Health (FCSH), DOI 10.13140/RG.2.2.21470.08004/

Adapted from Christian R. Kahlert, WAVE Workshop EACS 2019, Basel

HIV-1 reservoir in breastmilk



2012, van de Perre, DOI 10.1126/scitranslmed.3003327

Genital shedding in 5.8% of about 1000 women on cART with suppressed HIV pVL (2017, King, JID)

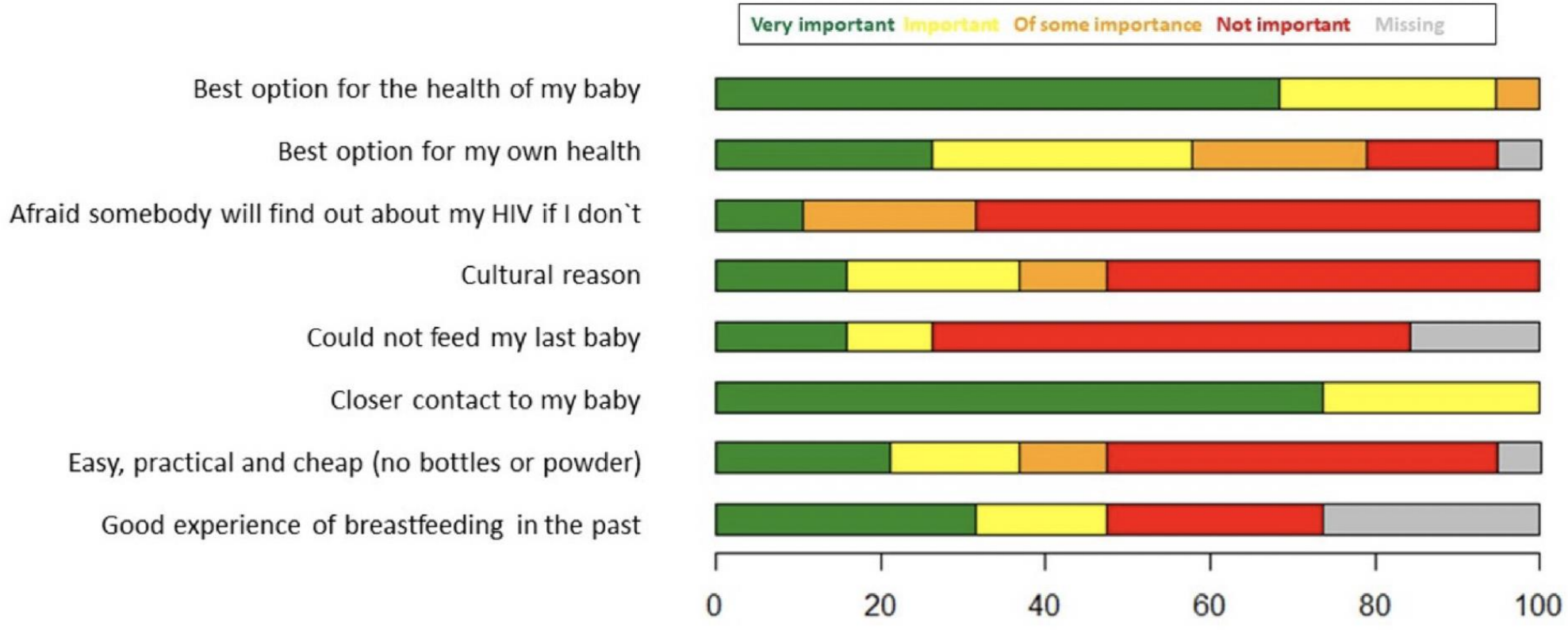
Prospective data

- 2019-2020 : 41 women delivered a child and 20 decided to b/f (49%)
- Median age (IQR) : 35 (32-39)
- Time since HIV-diagnosis : 10.5 y in b/f vs 4.5 y in non-b/f $p < 0.04$
- All HIV-infected women had undectable VL before delivery
- Median (IQR) CD4 during pregnancy : 649 (468-885)

Prospective data

- Duration of breastfeeding
  - @ 3 months : 75% (15/20)
  - @ 6 months : 45% (9/20)
- No neonate received HIV post-exposure prophylaxis
- 85% (17/20) found interdisciplinary discussion about breastfeeding essential or very helpful

Prospective data



Courtesy Christian R. Kahlert, 19.11.2021

Eligibility criteria @ CUSL

1. HIV-infected woman with regular f/up in one reference centre in Belgium
2. B/F project has been deeply interdisciplinary discussed with ID/HIV physician, nurse, gynecologist and with the pediatrician in charge of the baby prior to the delivery
3. Being on cART with undetectable VL for ≥ 6 months
4. Maintain undetectable VL during the whole pregnancy and at delivery
5. Be aware of the support procedure for women wishing to breastfeed (doc 1)
6. Sign the informed consent form

F/up mother-infant @ CUSL

Mother	Infant
PCR blood + milk 1x/month	PCR blood 1x/month ⟹ 1 month post weaning
Strict adherence to cART	4 weeks of ZDV PP
Exclusive b/f max 6 months	Monthly clinical visit
Early detection of b/f issues (eg: mastitis)	Prompt contact if gastro-enteritis or failure to thrive
Prompt contact with pediatrician if detectable VL	Supervision during weaning
Supervision during weaning	Classical f/up after weaning (eg: 18 month serology)

Conclusions

- Breastfeeding not actively recommended to women living in HRC
- Maternal cART significantly reduces but does not eliminate the risk of postnatal transmission (U=U ?)
- Importance to recognize and to accompany women who wish to breastfeed their infant and to provide them clear information about risks and benefits + get their informed consent. Equipoise.
- Lack of evidence on
  - the guidance for clinical and virological monitoring of both mother and infant
  - the action to be taken in case of mastitis nor viral rebound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