Preventing Vertical Transmission & Care for the Pregnant Woman with HIV: Module 4 Answers

Strengthening Interprofessional Education for HIV

ART Options in Pregnancy

ART Class	Acceptable ART during pregnancy
NRTI	TDF, FTC, 3TC, ABC, AZT
NNRTI	EFV
INSTI	RAL, DTG
PI	r/ATV or r/DRV or r/LPV
First-Line: 1st Trimester	TDF + 3TC + either DTG or EFV (after shared decision making)
First-Line: 2nd/3rd Trimester	TDF + 3TC + DTG

Preferred and alternative first-line regimens for all adults and adolescents

Doses may need to be adjusted for pregnant women

Population	Preferred first-line regimen	Alternative first-line regimen	Special circumstances
Adults and adolescents	TDF + 3TC (or FTC) + DTG[a]	TDF + 3TC + EFV 400 mg[b]	TDF + 3TC (or FTC) + EFV 600 mg[b] AZT + 3TC + EFV 600 mg[b] TDF + 3TC (or FTC) + PI/r[b] TDF + 3TC (or FTC) + RAL TAF[c] + 3TC (or FTC) + DTG ABC + 3TC + DTG[a]

3TC: lamivudine; ABC: abacavir; AZT: zidovudine; DTG: dolutegravir; EFV: efavirenz; FTC: emtricitabine; LPV/r: lopinavir/ritonavir; NVP: nevirapine; PI/r: protease inhibitor boosted with ritonavir; RAL: raltegravir; TAF: tenofovir alafenamide; TDF: tenofovir disoproxil fumarate.

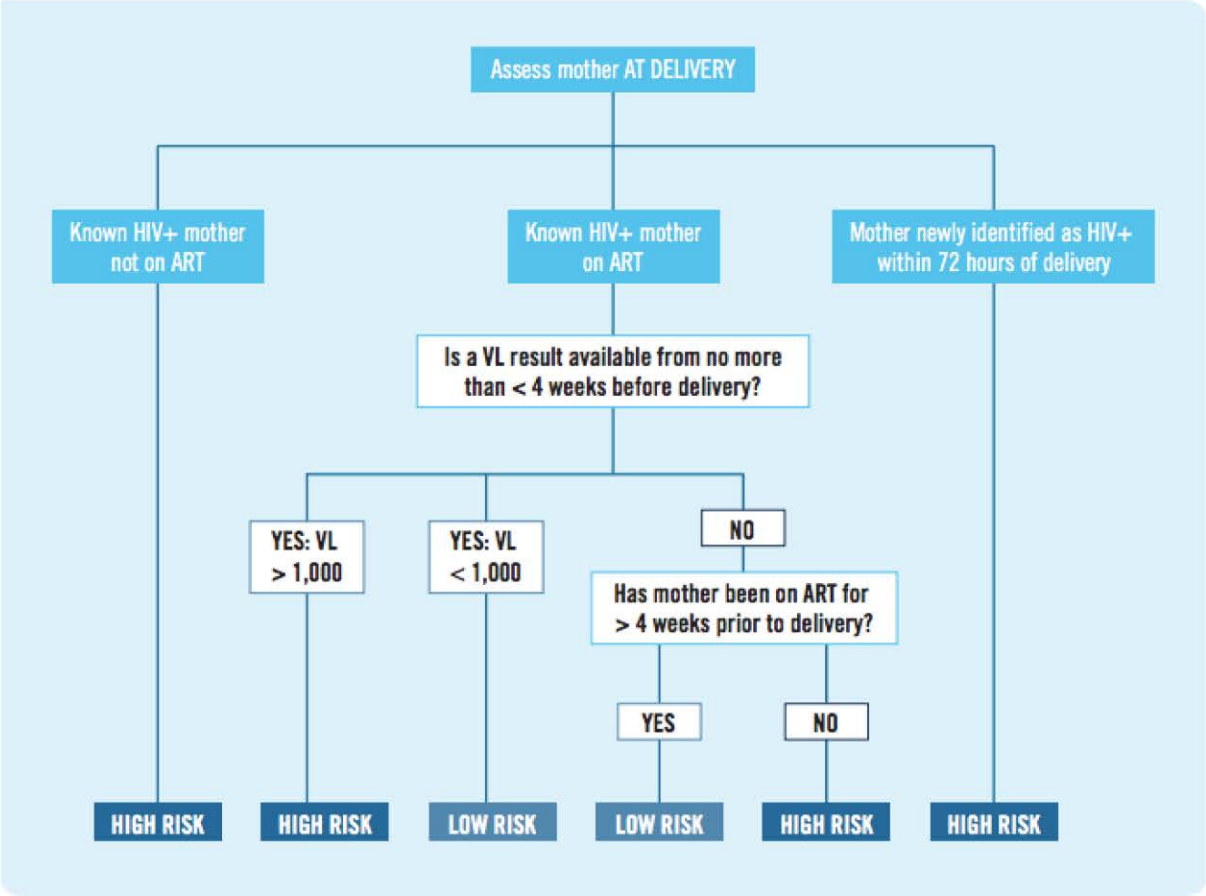
[a]Effective contraception should be offered to adult women and adolescent girls of childbearing age or potential. DTG can be prescribed for adult women and adolescent girls of childbearing age or potential who wish to become pregnant or who are not otherwise using or accessing consistent and effective contraception if they have been fully informed of the potential increase in the risk of neural tube defects (at conception and until the end of the first trimester). If women identify pregnancy after the first trimester, DTG should be initiated or continued for the duration of the pregnancy (Box 2).

[b]EFV-based ART should not be used in settings with national estimates of pretreatment resistance to EFV of 10% or higher. DTG-based ART is preferred, and if DTG is unavailable, a boosted PI-based regimen should be used. The choice of PI/r depends on programmatic characteristics.

[c]TAF may be considered for people with established osteoporosis and/or impaired kidney function.

Source: WHO. Update of recommendations on first- and second-line antiretroviral regimens. July 2019.

Risk for perinatal HIV acquisition

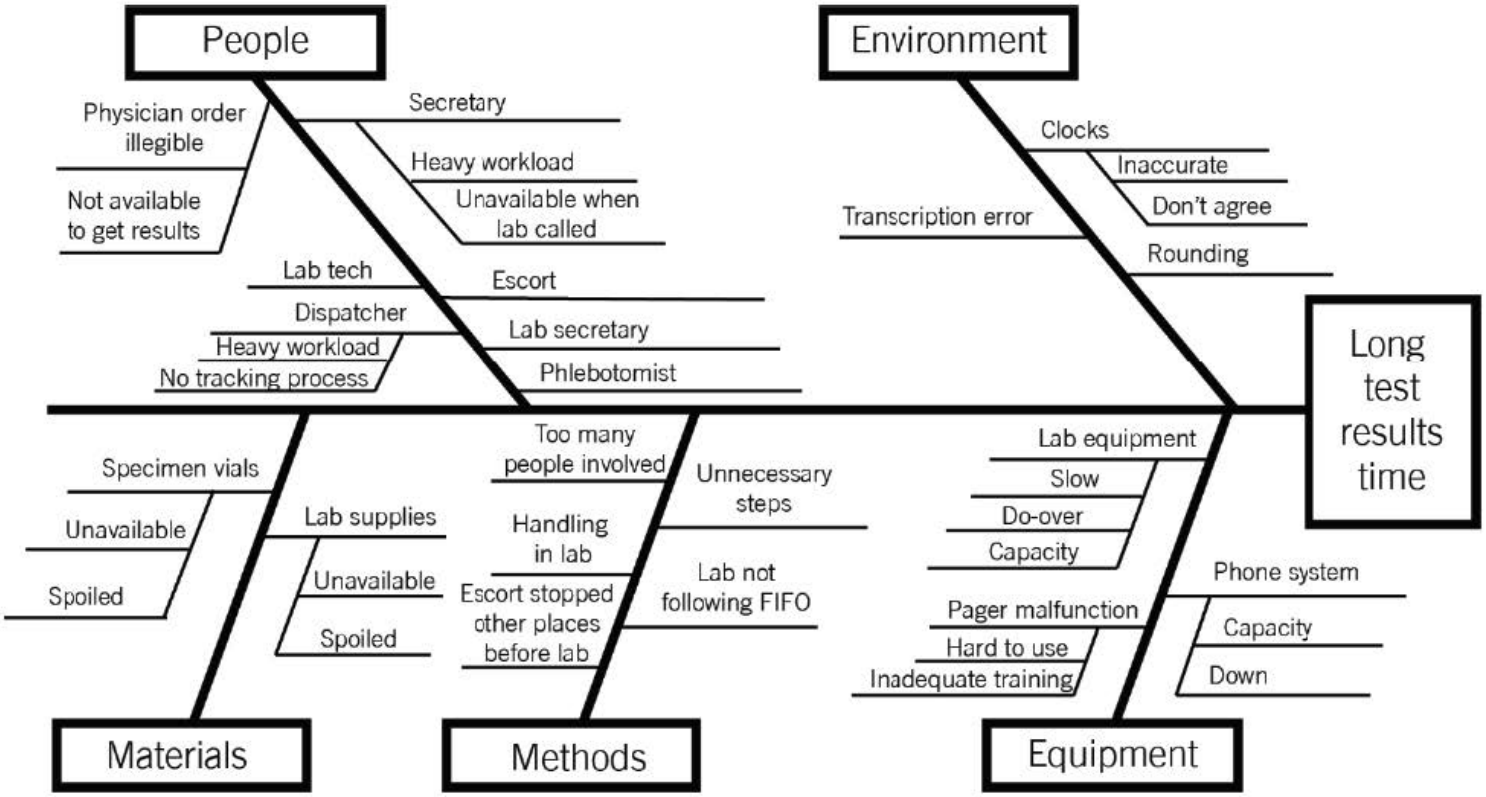


Source: WHO. HIV diagnosis and ARV use in HIV-exposed infants: a programmatic update. 2018.

Early Infant Diagnosis (EID)

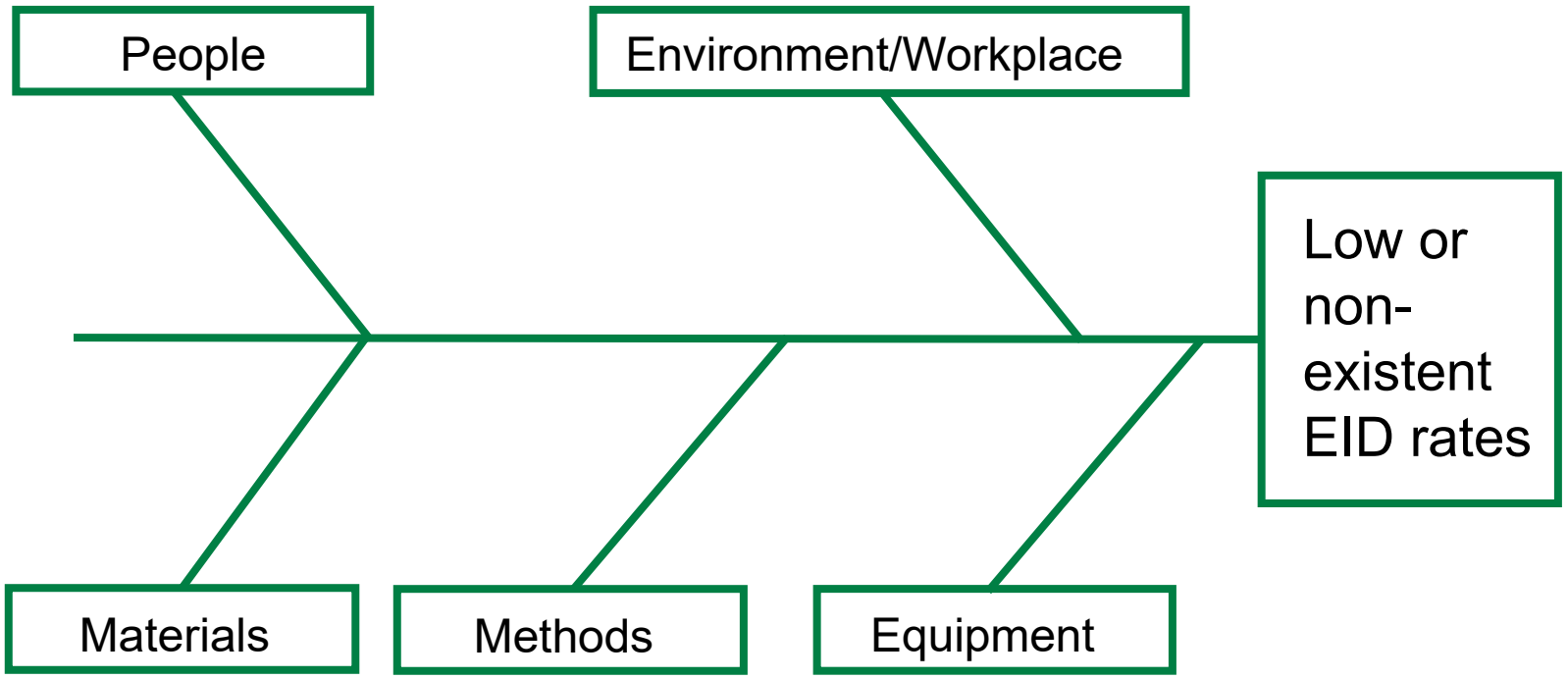
- Peak mortality for infants diagnosed with HIV is between 2 and 4 months of age.
- Infants with HIV who are given ART within the first 12 weeks of life are less likely to die from AIDS-related illnesses.
  - EID is critical to early initiation of lifesaving treatment and all healthcare providers can play a role in encouraging mothers to have their babies tested.
- EID is based on the WHO recommendation that infants born to mothers with HIV should be tested for HIV-1 DNA between 4 and 6 weeks of age.
  - Children should have a repeat HIV DNA test at 18 months and/or when breastfeeding ends, whichever one is later, to provide the final infant diagnosis.

Fishbone Diagram



Source: Institute for Healthcare Improvement Patient Safety Essentials Toolkit

Fishbone Diagram



Module 4: Learning Objectives

1. Recognize the risks of HIV acquisition during pregnancy and breastfeeding
2. Identify appropriate ART options during pregnancy, delivery and breastfeeding
3. Explain strategies to prevent mother-to-child transmission (PMTCT) in a mother presenting late in pregnancy with a high viral load, including ART prophylaxis for exposed infants
4. Explain the importance of early infant diagnosis (EID)
5. Illustrate factors leading to low EID rates using a fishbone diagram (QI)
6. Discuss the unique needs of mothers and newborns related to HIV (IPE)