Management of HIV in Pregnancy

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Goals of Management

- Maintain maternal health
- Achieve and sustain viral suppression
- Prevent mother-to-child transmission (MTCT)
- Provide safe intrapartum and postpartum care

Pre-conception & Early Pregnancy

- Pre-conception counselling and ART review
- Baseline tests: HIV viral load, CD4, resistance testing
- Start or continue ART immediately — do not delay
- Shared decision-making for regimen choices

Table 8.3 Choice of first-line ART when starting treatment in pregnancy

Regimen	Details	Grade
Recommended as initial treatment for most pregnant women/people		
Dolutegravir plus emtricitabine/tenofovir DX	First choice in the absence of renal or bone concerns	1A
Dolutegravir plus emtricitabine/tenofovir AF	Association with weight gain should be discussed Consider baseline weight if in overweight range	1A
Dolutegravir/lamivudine/abacavir	Ensure HLA B*5701 negative Estimated 10-year risk of cardiovascular disease should be <10% Ensure no active HBV infection Ensure immune to HBV Association with weight gain should be discussed Consider baseline weight if in overweight range	1C
Alternative regimens that may be preferred in certain clinical situations		
Rilpivirine plus emtricitabine/tenofovir DX or emtricitabine/tenofovir AF or lamivudine/abacavir	Not recommended if viral load >100,000 copies/mL or CD4 count <200 cells/mm^3 Take with food	1C
Raltegravir 400 mg twice daily plus emtricitabine/tenofovir DX or emtricitabine/tenofovir AF or lamivudine/abacavir	May be considered if evidence of liver dysfunction prevents use of dolutegravir	1B
Darunavir 600 mg plus ritonavir 100 mg twice daily plus emtricitabine/tenofovir DX or emtricitabine/tenofovir AF or lamivudine/abacavir	Twice-daily dosing if initiating in pregnancy (or known resistance)	1C
Efavirenz plus emtricitabine/tenofovir DX or emtricitabine/tenofovir AF or lamivudine/abacavir	Non-preferred regimen due to side effect profile; may be used to manage drug interactions with tuberculosis treatment and can be switched postpartum	1A

Recommended ART Regimens

- Preferred: Dolutegravir (DTG)–based regimens
- Combine with NRTI backbone (TDF/3TC or TDF/FTC)
- Avoid switching effective regimens unnecessarily
- Consider drug interactions, tolerability, toxicity
- **Bictegravir (BIC) plus tenofovir alafenamide (TAF) plus emtricitabine (FTC) (available as the fixed-dose combination [FDC] BIC/TAF/FTC) is now recommended as a *Preferred* antiretroviral therapy (ART) regimen for HIV during pregnancy.**

- **BIC/TAF/FTC was previously recommended as an *Alternative* ART regimen.**

Monitoring During Pregnancy

- Viral load monitoring every trimester
- More frequent VL checks if suppression not achieved
- CD4 count as clinically indicated
- Avoid invasive procedures unless essential
- Plan delivery based on late-pregnancy viral load

Screening for gestational diabetes

it is reasonable to consider use of protease inhibitor-based ART as an indication for earlier glucose challenge screening, given the potential association between these agents and glucose intolerance in the general population with HIV.

What infection should be screened

Pregnant individuals with HIV should be screened for hepatitis A, hepatitis B, and hepatitis C virus (HCV) infections

testing for hepatitis C infection includes serologic testing; patients with advanced HIV infection (CD4 cell count <100 cells/microL) and risk factors for HCV (eg, injection drug use history) should also have HCV RNA testing since antibody testing can be falsely negative.

What infection should be screened

- **Testing for tuberculosis**
- **Screening for gonococcal, chlamydial, and trichomonal infection**
- **Toxoplasma serologies**
- **IMMUNIZATIONS**

CD4- count once only if
Currently taking antiretroviral (ART) consistently for ≥2 years
- Last CD4 count ≥300 cells/microL
- Have sustained virologic control (≥2 consecutive undetectablectable viral load assays that were ≥4 weeks apart)

For patients who have been taking ART for <2 years but have sustained virologic control and CD4 count ≥300 cells/microL, CD4 counts can be checked every six months.

For all other patients, CD4 counts should continue to be checked every three months during the pregnancy.

As with all patients with HIV

- complete blood count (CBC), blood urea nitrogen (BUN) and creatinine, and liver function tests are checked prior to ART initiation and every three to six months thereafter.
- Urinalysis is also checked after ART initiation and every six months while on a tenofovir-containing regimen

Intrapartum Management

- Mode of delivery based on viral load:
- • VL <50 copies/mL → Vaginal delivery
- • VL >500–1000 copies/mL → Elective C-section at 38 weeks
- Avoid artificial rupture of membranes
- Avoid fetal scalp electrodes and instrumental delivery

Intrapartum management for pregnant women [FN1] with HIV in resource-abundant settings*

	VL status of the mother		
	Undetectable VL (<50 copies/mL) within 4 weeks of delivery	**Detectable VL (≥50 copies/mL) but ≤1000 copies/mL within 4 weeks of delivery**	**VL >1000 copies/mL within 4 weeks of delivery**
Risk for HIV transmission	Low risk	High risk	High risk
Preferred delivery mode	Determined by obstetric indications	Determined by obstetric indications	Scheduled cesarean delivery at 38 weeks
Intrapartum antiretrovirals	Continue baseline ART regimen	▪ Continue baseline ART regimen ▪ Consider intrapartum intravenous zidovudine[Δ◊]	▪ Continue baseline ART regimen ▪ Intrapartum intravenous zidovudine[◊]
Other intrapartum interventions	Avoid fetal scalp electrodes	▪ Avoid artificial rupture of membranes ▪ Avoid operative delivery with forceps or vacuum extractor ▪ Avoid fetal scalp electrodes	▪ Avoid artificial rupture of membranes (if no undergoing cesarean) ▪ Avoid operative delivery with forceps or vacuum extractor (if not undergoing cesarean) ▪ Avoid fetal scalp electrodes

Zidovudin prophylaxy

Intrapartum zidovudine is administered intravenously with a 2 mg/kg dose followed by a continuous infusion of 1 mg/kg/hour until delivery.

For women undergoing scheduled cesarean delivery, zidovudine is initiated 3 hours before the procedure.

For women who present in labor and have not received antepartum ART, intravenous zidovudine should be administered immediately

postpartum

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Infants with exposure to breastmilk from a person with a newly detectable viral load should be treated as high-risk breastfed infants for the remainder of the breastfeeding period. Presumptive HIV therapy is recommended while diagnostic testing is pending and for the next six weeks if the infant tests negative for HIV

The infant should undergo an HIV nucleic acid diagnostic test as soon as possible to determine HIV infection status.

. If breastfeeding is continued, the infant should receive daily single-drug antiretroviral prophylaxis (nevirapine or lamivudine) throughout breastfeeding and for one to four weeks after weaning to minimize the risk of vertical transmission.

Intrapartum ARV Prophylaxis

- Consider IV zidovudine (AZT) if viral load unsuppressed
- Continue maternal ART during labour
- Minimize maternal–fetal blood exposure

Infant HIV Testing

- Virologic testing schedule:
- • Birth test (especially high-risk)
- • 14–21 days
- • 1–2 months
- • 4–6 months
- Additional tests required if breastfeeding

Neonatal Prophylaxis

- Start prophylaxis within 6 hours of birth
- Low-risk: ZDV monotherapy for 2 weeks
- High-risk: 3-drug ARV regimen for 2–6 weeks
- If <6 weeks of triple therapy, extend ZDV to complete 6 weeks

Infant Feeding Counselling

- Shared decision-making approach
- Formula feeding if safe and available
- Breastfeeding allowed if mother has sustained VL suppression
- Stop breastfeeding if maternal VL becomes detectable

Postpartum Maternal Care

- Continue lifelong ART
- Regular viral load monitoring
- Contraception counselling
- Support adherence and mental health

Neonatal Follow-up & Long-Term Care

- Monitor infant for toxicity and growth
- Early detection of HIV infection
- Routine vaccinations
- Transition to long-term paediatric HIV care if needed

Key Messages

- Early ART = best maternal and neonatal outcomes
- Viral suppression prevents MTCT
- Shared decision-making guides feeding choices
- Coordinated multidisciplinary care essential


thank
you