PMTCT FOR MOTHERS 2019

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MONITORING FOR ALL PATIENTS AT FIRST ANC VISIT

TB screening and sputum Gene Expert (GXP)[$] *To identify TB suspects and assess TPT eligibility*	**TB diagnosed:** start TB Rx. If on ART, continue. If not yet on ART: see algorithm on centre spread **TB excluded:** start ART. If CD4 > 350, defer TPT until 6 weeks postpartum. If CD4 ≤ 350, initiate TPT for 12 months
CrAg (cryptococcal antigen), if CD4 ≤ 100 *To treat or provide prophylaxis for cryptococcal meningitis*	**If CrAg-positive**: refer for urgent LP and patient should be discussed with an expert. Fluconazole is teratogenic. Defer ART if ART-naïve, but don't stop ART if already on ART **If CrAg-negative:** start or continue ART
Screen for chronic diseases *To identify high risk pregnancy*	Treat according to relevant guidelines
Nutritional assessment *To detect deficiency and provide necessary nutritional support*	All pregnant women should get calcium, folate and iron supplementation. Be aware that DTG interacts with some medicines: refer to PMTCT guideline p17. Women with BMI < 23: refer to dietician
Family planning	Provide counselling for safer sex, post-natal contraception and partner testing
STI and syphilis screening (RPR) *To identify and treat STIs*	**If RPR done before 20 weeks and negative:** repeat RPR at 32 weeks. Treat all women with a positive syphilis screening test irrespective of titre: refer to PMTCT guideline p11
Viral load, if on ART *To identify treatment failure*	See algorithm on centre spread. **Be sure to check results and respond quickly!**
Hb or FBC *To detect anaemia and/or neutropaenia*	Treat according to relevant guidelines
Mental health screening *To identify mental health issues*	Treat according to relevant guidelines
HBsAg[**] **,** *if unknown To assess HBV status*	If HBsAg-positive: include TDF in regimen. Provide post-exposure prophylaxis of hepatitis B for infant as per relevant guidelines

[$] If the client has recently had TB, the GXP may give a false-positive. Please call an expert or the hotline to discuss; [**] If HBsAg negative and not immune, provide Hep B vaccination as per National Viral Hepatitis guidelines. Hep B vaccination is not contraindicated in pregnancy. If high-risk and status unknown at delivery, test.

MONITORING AT MONTHLY ANC VISITS: PATIENTS ON ART

TEST AND PURPOSE	TIMING AND RESPONSE
Viral load *To confirm viral suppression or detect virological failure timeously*	Refer to VL algorithm on previous page
CD4 count *To assess immunological status, risk of OIs and need for prophylaxis*	At 12 months on ART. Thereafter, repeat every 6 months until client meets criteria to discontinue CPT Stop CD4 monitoring if client's VL remains < 1000 c/mL. If VL > 1000 c/mL, monitor CD4 count every 6 months
TB symptom screening *To identify TB suspects and assess TPT eligibility*	Every clinic visit
FBC, if on AZT *To detect anaemia and/or neutropaenia*	At initiation, month 3, month 6, then annually
s-Creatinine[ϖ]**,** if on TDF *To assess renal function and eligibility for TDF*	At initiation, month 3, month 6, month 12 and then annually. **If s-Creatinine**[ϖ] **> 85 µmol/L:** do not use TDF. See front page

[ϖ] Please note: calculated eGFR is not accurate during pregnancy. Serum creatinine and **not** eGFR should be used

BREASTFEEDING

- Breastfeeding should be initiated within one hour of delivery
- Exclusive breastfeeding for first 6 months of life
- If mother is suppressed on ART, mixed feeding is not a reason to stop breastfeeding
- Introduction of age-appropriate solids from 6 months onwards
- Continue breastfeeding until 2 years of age or older
- Ensure mother is on ART, adherent and VL is suppressed
- It is recommended that women with a VL ≥ 1000 c/mL on first-line ART continue to breastfeed. Infant prophylaxis should be extended/restarted while a concerted effort is made to re-suppress the mother's VL
- Stopping breastfeeding should be done **slowly**, over a month
- Breastfeeding should be avoided in mothers who are failing second- or third-line

WHAT DOES EXCLUSIVE BREASTFEEDING MEAN?
For the first six months of life, the baby only gets mother's milk and medication. This means no water, formula, other foods or fluids

3TC = lamivudine; **ABC =** abacavir; **ART =** antiretroviral treatment; **ATV/r** = atazanavir/ritonavir; **AZT** = zidovudine; **CPT** = cotrimoxazole preventive therapy; **CrAg** = cryptococcal antigen; **DTG** = dolutegravir; **EFV =** efavirenz; **FTC** = emtricitabine; **GXP** = Gene Expert TB test; **Hb** = haemoglobin; **HCT** = HIV counselling and testing; **HIV** = human immunodeficiency virus; **IRIS** = immune reconstitution syndrome; **LP** = lumbar puncture; **LPV/r** = lopinavir/ritonavir; **MTCT =** mother to child transfer; **NTD =** neural tube defect; **NVP =** nevirapine; **OI** = opportunistic infections; **PCR =** polymerase chain reaction; **PICT** = provider-initiated counselling and testing; **PMTCT** = prevention of mother to child transfer; **LTFU** = lost to follow-up; **RTHB** = road to health booklet; **Rx =** treatment; **sCr** = serum creatinine; **STI =** sexually transmitted infections; **TDF** = tenofovir; **TEE** = tenofovir + emtricitabine + efavirenz; **TLD** = tenofovir + lamivudine + dolutegravir; **TPT =** tuberculosis preventive therapy; **VL** = viral load; **WOCP** = woman of childbearing potential

RECOMMENDED REGIMENS

TLD is the preferred regimen in pregnant women, after 6 weeks of completed gestation (4 weeks post-conception), and in women who are not actively trying to conceive.
In order to make an informed choice between a DTG- or EFV-based regimen, provide the mother with all the necessary information, including the potential risk of NTDs and contraceptive choices

UNBOOKED/PRESENTS IN LABOUR

Women not on ART, who test HIV-positive in labour	Stat dose of TLD + NVP. Start life-long ART the next day	Check s-Creatinine[ϖ] and CD4. Review results at 3-6 day visit and adapt ART accordingly

[ϖ] Please note: calculated eGFR is not accurate during pregnancy. Serum creatinine and **not** eGFR should be used

FIRST-LINE ART FOR PREGNANT AND BREASTFEEDING WOMAN
(> 6 WEEKS OF PREGNANCY OR 4 WEEKS POST-CONCEPTION)

If a pregnant woman presents to the clinic before 6 weeks of pregnancy (4 weeks post-conception), contact the HIV hotline

		Preferred regimen
ART-naïve		TLD[*] (refer to algorithm on next page)
Contra-indications to TDF	Renal disease (sCr > 85)	ABC/AZT + 3TC + DTG[*]
	Weight < 35 kg	ABC + 3TC + DTG[*]
Already on TEE	VL < 50 within last 6 months	Offer switch to TLD[*]
	VL > 50 within last 6 months	See VL algorithm on the next page
Not currently on ART and previously on TEE e.g. PMTCT or LTFU on ART If previous ART was not TEE, contact hotline		VL < 50 while on TEE: TLD[*] Unsuppressed VL or no documented VL while previously on ART: AZT + 3TC + DTG[*]

Keeping the mom's VL suppressed is the best way to protect her infant

*Before DTG initiation, all women and adolescent girls of childbearing potential must be appropriately counselled on the potential risk of NTDs with DTG use around conception and within the first 6 weeks of pregnancy (4 weeks post-conception). They should be provided with their choice of contraception if not pregnant

SECOND-LINE ART FOR PREGNANT/BREASTFEEDING WOMEN
If HBV status unknown, check HBsAg

Current failing regimen	Second-line regimen	
	HBsAg negative	**HBsAg positive**
TDF + 3TC/FTC + EFV/NVP	AZT + 3TC/FTC + DTG	AZT + TLD
	If DTG not suitable[α]: AZT + 3TC/FTV + LPV/r	**If DTG not suitable[α]:** TDF + 3TC/FTC + LPV/r
TLD (> 2 years)	AZT + 3TC/FTV + LPV/r	TDF + 3TC/FTC + LPV/r
AZT/TDF + 3TC/FTC + LPV/r or ATV/r (> 2 years)	**No PI resistance:** continue ART, address adherence. If intolerance to LPV/r is affecting adherence, discuss substitutions with hotline or expert **PI resistance:** refer to 3rd line committee	

[α] DTG should not be used within the first 6 weeks of pregnancy. Women can make an informed choice to use or not use DTG

NEED HELP?
Contact the TOLL-FREE National HIV & TB Health Care Worker Hotline
0800 212 506 /021 406 6782
Alternatively "WhatsApp" or send an SMS or "Please Call Me" to 071 840 1572
www.mic.uct.ac.za

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ART INITIATION ALGORITHM

Any pregnant or breastfeeding women with a new HIV diagnosis or any known HIV-positive woman (not currently on ART) with a new pregnancy diagnosis

Take a history and do a clinical examination (see Table on Monitoring for All Patients at First ANC Visit)**:**
Exclude contra-indications to starting ART on the same day (refer to 2019 Consolidated ART Guideline). Ask about TB symptoms, a history of renal disease, or current psychiatric symptoms.
Determine the client's WHO Clinical Stage. Start cotrimoxazole (CPT) if eligible.
Do the following tests on ALL HIV-positive pregnant women, regardless of symptoms or history: **CD4 count, s-Creatinine, sputum for TB Gene Expert (GXP), and urine dipstix**

TB Symptoms with danger signs:
If the woman appears very ill with any of the following signs, **discuss with a doctor or refer for further assessment. Do not start ART until TB is excluded/ diagnosed as these women may be at a higher risk of developing IRIS:** weight loss > 5 %, difficulty breathing, respiratory rate >30/min, temperature > 38°C, pulse > 100 min, BP < 90/60, coughing up blood, confusion, agitation, or unable to walk unaided

Ensure a thorough evaluation for TB

TB GXP-negative, but still TB symptoms

Investigate with CXR, 2nd sputum for culture/line probe assay (LPA) +/- antibiotics as per National TB Guidelines. If CD4 <100, do a urine LAM

TB GXP-positive

TB diagnosis confirmed → Initiate TB Rx

Review in 2 weeks. If stable and tolerating TB Rx, initiate or continue ART. DTG requires boosting with rifampicin-based TB treatment to 50 mg twice daily. If TB symptoms worsen after ART initiation, consider TB IRIS and refer/discuss with the HIV hotline. If TB meningitis, defer ART for 4 to 6 weeks

TB Symptoms without danger signs

No abnormal history

Initiate ART same day: TLD preferred, see first page
(Refer to PMTCT guideline p17 for detailed DTG information)
If TDF contraindicated due to history of/suspected renal disease replace TDF with ABC.
Review results in 3-7 days

TB GXP-negative (or unable to produce sputum), AND no TB symptoms

Continue ART:
TDF + 3TC/FTC + DTG

CD4 ≤ 100

Reflex serum CrAg

Negative

Positive

Refer urgently for LP

TPT in pregnancy

No TST necessary. Ensure that active TB has been excluded, and check for other contra-indications before starting TPT

CD4 > 350: defer until 6 weeks after delivery
CD4 < 350 and the client is tolerating ART: initiate TPT for 12 months

Creatinine > 85 µmol/L

Continue/adjust ART to **ABC**, 3TC and DTG. Adjust dose of 3TC (and any other drugs) as needed. Discuss with an expert/ HIV hotline regarding further investigations and management

No abnormal results and CD4 > 100

Continue ART
If CD4 ≥ 350, defer TPT until 6 weeks after delivery

WOMEN ON ART

Pregnant (> 6 weeks) or breastfeeding

Continue current ART regimen.
Do VL and adjust ART, if necessary.
See VL monitoring below

Timing of ART initiation in pregnancy is critical. Every week a mother is on ART further decreases her risk of MTCT

Use the following EGK codes:
C#PMTCT
for VLs done during ANC or breastfeeding,
C#DELIVERY
for VLs done at delivery.

VL MONITORING

	When to do VL	How to respond
Established on ART	At first visit to ANC **If VL < 50 c/mL, repeat at delivery**	If on TEE and VL < 50 c/mL, offer TLD* If VL > 50 c/mL, see NSA algorithm →
Newly initiated	At 3 months on ART **If VL < 50 c/mL, repeat at delivery**	If VL > 50 c/mL, see NSA algorithm →
Previous ART history	At 3 months after restart on DTG-regimen **Repeat at delivery**	If VL > 50 c/mL, see NSA algorithm →
During breast-feeding	Every 6 months or when indicated clinically	If VL > 50 c/mL, see NSA algorithm →

VIRAL LOAD NON-SUPPRESSION ALGORITHM (NSA)

Do a thorough assessment of the cause of the elevated VL (**A**dherence; **B**ugs, Infections; **C**orrect Dose; **D**rug Interactions; RE**s**istance)

VL 50 - 999 → Repeat VL in 8-10 weeks
- VL 50 - 999 → Repeat VL in 8-10 weeks
- VL < 50 → Repeat VL as per VL Monitoring Table

VL ≥ 1000 → Start, restart or extend infant high-risk prophylaxis. Repeat VL in 4-6 weeks
- VL dropped by > 1 log → Repeat VL in 8-10 weeks
- VL > 1000 → Determine if the client should switch to second-line, taking into account her current regimen and time she has been on ART. Refer to 2019 Consolidated ART Guideline or consult an expert/the hotline for further management