HIV Exposure, Acquisition and Diagnosis in the Antenatal Period

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ASHM HIV&AIDS Trainee Case Presentation Breakfast

Austin HEALTH

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Acknowledgement of Country

We acknowledge the Kaurna people as the Traditional Owners of the Adelaide Plains and pay respects to the people, the cultures, and Elders past and present.

We acknowledge their continuing connection to land, waters and community.

Acknowledgements

I’d like to acknowledge people living with HIV around the world, whose willingness to participate in research has made advances like this possible. Their tireless advocacy and commitment to improving the lives of others continues to inspire and guide the work we do today.

Disclosure of interest

Nothing to disclose

Overview

1. Three cases of HIV diagnosis during the antenatal period
2. Missed diagnostic windows and testing during pregnancy
3. Rapid diagnostics and early initiation of antiretroviral therapy
4. Engagement in care and a multidisciplinary approach

Case #1

Austin HEALTH

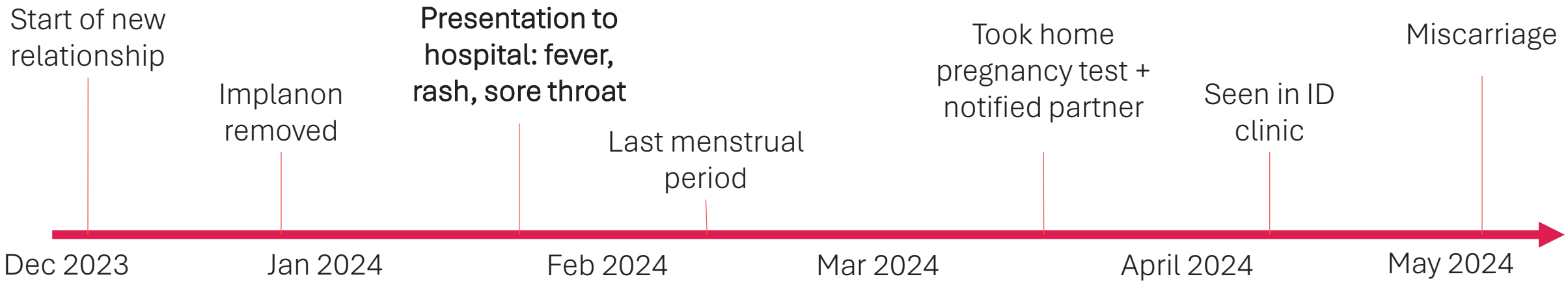
26F

History of PTSD and depression

HIV serology neg, PCR pending

Home with parents and 14-month-old son

Overwhelmed, did not want to come back to clinic



Considerations: Navigating uncertainty in compressed timeframes, need for rapid diagnostics, early ART initiation

Case #2

Austin HEALTH

29F

No past medical history
Primary school teacher

Routine antenatal HIV test negative

3-month-old son diagnosed with PJP + HIV

Viral illness: fevers, myalgias, Bell's palsy

Gestational thrombocytopenia

Husband also diagnosed at the same time

Considerations: Role of repeating HIV testing later in pregnancy after an initial negative HIV test

Case #3

Austin HEALTH

31F

No past medical history
2x previous pregnancies – HIV neg

Viral illness: fevers, lymphadenopathy and myalgias

Routine antenatal HIV test **positive**

Diagnosis was a shock

Recently released from custody – HIV negative at the time

Needed multidisciplinary care → suppressed + healthy baby

Considerations: Importance of multidisciplinary input and compassionate care with effective communication

Discussion

Missed diagnostic windows

Routine antenatal screening is recommended globally[1]

Seroconversion after first screen can be missed

Cost analyses support repeat testing[5]

	Australia (National HIV Testing Policy)[2]	UK (BHIVA)[3]	USA (CDC/USDHHS)[4]
Routine antenatal test	Recommended – offered to all women early in pregnancy	Recommended (opt-out testing at booking)	Recommended (opt-out testing at first prenatal visit)
Repeat HIV testing	Recommended if ongoing exposure / risk factors	Recommended if ongoing exposure or risk factors + offered in high prevalence areas	Recommended if ongoing exposure or risk factors + routinely offered in 3rd trimester in high-prevalence settings
Testing if symptomatic	No specific recommendation	Recommended regardless of risk factors/exposure (e.g. acute retroviral symptoms)	Recommended regardless of risk factors/exposure (e.g. acute retroviral symptoms)

1. *American College of Obstetricians and Gynecologists. Obstet Gynecol 132:e138–42. 2018.*
2. *ASHM National HIV Testing Policy (2020) – testingportal.ashm.org.au*
3. *British HIV Association. London: BHIVA; 2025 June.*
4. *Branson BM, et al. MMWR Recomm Rep. 2006;55(RR-14):1–17.*
5. *Samson S et al. Obstet Gynaecol 102(4):782-790, 2003.*

Rapid diagnostics & early ART

PEP only within 72h[1] → after that, priority is rapid diagnosis and ART initiation

Antibody tests may miss acute infection → PCR key for early detection

Turnaround times often slow, risk of delay

Once confirmed, ART should start immediately[2]

Safe & effective regimens with no teratogenic effects[3]

Table 6. What to Start: Initial Antiretroviral Regimens During Pregnancy When Antiretroviral Therapy Has Never Been Received

Preferred Initial Regimens in Pregnancy		
Drugs or drug combinations are designated as *Preferred* for therapy during pregnancy when clinical trial data in adults have demonstrated efficacy and durability with acceptable toxicity and ease of use, and pregnancy-specific PK data are available to guide dosing. In addition, the available data must suggest a favorable risk-benefit balance for the drug or drug combination compared with other ARV drug options; the assessment of risks and benefits should incorporate outcomes for health during pregnancy as well as the health of the fetus and infant. Some *Preferred* drugs or regimens may have minimal toxicity or teratogenicity risks that are offset by other advantages during pregnancy or when trying to conceive. Therefore, it is important to read all the information on each drug in the Perinatal Guidelines before administering any of these medications to patients (see Appendix B: Safety and Toxicity of Individual Antiretroviral Agents in Pregnancy).		
***Preferred* Dual-NRTI Backbones**	**Advantages**	**Disadvantages**
TAF/FTC or TAF Plus 3TC	• Once-daily dosing • Available as an FDC • Reassuring PK data and extensive use during pregnancy; no dose adjustment required in pregnancy • Both NRTI combinations active against HBV • Minimal toxicity compared with ZDV/3TC • When combined with DTG, the efficacy and toxicity of TAF/FTC and TDF/FTC in pregnancy are similar, but TAF/FTC is associated with fewer adverse birth outcomes and less risk of insufficient weight gain in pregnancy.	• When combined with DTG, TAF/FTC is associated with more treatment-emergent obesity in nonpregnant adult women compared to TDF/FTC. (Notably, the impact on weight gain in pregnancy may be beneficial, as noted in the Advantages column.)
TDF/FTC or TDF/3TC	• Once-daily dosing • Available as an FDC • Reassuring PK data and	• Potential concerns about fetal bone and early-life growth abnormalities exist with TDF, although clinical findings are reassuring to date.

ART Regimen Component	Initiating ART in Pregnancy When ARV Drugs Have Never Previously Been Used	Continuing ART When Pregnancy Occurs on a Fully Suppressive, Well-Tolerated Regimen	Starting or restarting ART During Pregnancy When ARV Drugs Have Been Used in the Past[a]	Switching to a New ART Regimen During Pregnancy When Current Regimen Is Not Well Tolerated and/or Is Not Fully Suppressive	Starting ART When Trying to Conceive[b]
EVG/c[f]	Not recommended[f]	Continue with frequent viral load monitoring or consider switching.[f]	Not recommended[f]	Not recommended[f]	Not recommended[f]
Protease Inhibitor (PI) Drugs Used in combination with a dual-NRTI backbone[c]					
ATV/r[g]	Alternative[g]	Continue	Alternative[g]	Alternative[g]	Alternative[g]
DRV/r[a,g]	Alternative[a,g]	Continue	Alternative[a,g]	Alternative[g]	Alternative[a,g]
LPV/r[g]	Not recommended, except in special circumstances[g]	Continue	Not recommended, except in special circumstances[g]	Not recommended, except in special circumstances[g]	Not recommended except in special circumstances[g]
ATV/c[f]	Not recommended[f]	Continue with frequent viral load monitoring or consider switching.[f]	Not recommended[f]	Not recommended[f]	Not recommended[f]
DRV/c[f]	Not recommended[f]	Continue with frequent viral load monitoring or consider switching.[f]	Not recommended[f]	Not recommended[f]	Not recommended[f]

1. *Tanner M et al. MMWR Recomm Rep 74(No. RR-1):1–56, 2025*
2. *Dugdale CM et al. Lancet. 2025;406:349–57.*
3. *US DHHS Perinatal HIV Guidelines, 2024 .*

Engagement in care

Barriers

Stigma
Fear of unintended disclosure
Depression
Intimate partner violence
Unstable housing
Substance use

Enablers

Supportive partners → financial, logistical, emotional
Peer programs
Non-judgmental care from clinicians
Consistent communication

Tuthill EL et al. AIDS Behav. 2021. doi:10.1007/s10461-021-03283-z
Mphonda S et al. BMC Pub Health. 2023 Oct 4;23(1):1922.

Learning Points

Think about repeat testing in pregnancy if ongoing exposures or symptomatic

Early initiation of ART once HIV confirmed

Need for rapid diagnostics

Multidisciplinary, compassionate care is essential

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