HIV Treatment as Prophylaxis: PMTCT and PEP updates

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Prevention of Mother-to-Child Transmission

PMTCT


Eliminating MTCT


PMTCT

- Key to PMTCT:
  - Test pregnant women for HIV
    - Test early
  - Most important factor in HIV transmission
    - HIV viral load

WHO Guidelines 2013

- All pregnant and breastfeeding women with HIV should initiate triple ART
  - Preferably as lifelong treatment, but maintain for at least the duration of MTCT risk (includes breastfeeding)
  - Must continue lifelong if eligible for treatment

**WHO Guidelines 2013**

- If no feasible safe alternative to breastfeeding
  - Exclusively breastfeed for first 6 months
  - Introduce other foods thereafter, but continue breastfeeding for first 12 months
  - Stop breastfeeding once a nutritionally adequate and safe diet without breast milk can be provided

**US Guidelines**

- Neonatal PEP
  - 6 weeks of AZT to all HIV-exposed neonates
  - Initiate within 6-12 hours of delivery
  - If mother has not received ARV during pregnancy, infant should receive 6 weeks of AZT + 3 doses of NVP in the first week of life (at birth, 48 hours later, 96 hours after the second dose)
All HIV positive women at first antenatal visit
- Initiate fixed dose combination TDF + FTC + EFV immediately
- If already on ARV, continue treatment and check HIV viral load

Contraindication to TDF
- Use AZT

Contraindication to EFV
- CD4+ count <250: NVP
- CD4+ count >250 and ≤350: Aluvia
- CD4+ count >350: AZT only with sdNVP + sdTDF+FTC and AZT 3 hourly during labour

If presents in labour, HIV positive and not on ARV
- sdNVP + sdTDF+FTC and AZT 3 hourly during labour
- Start TDF + FTC + EFV if breastfeeding

Infant prophylaxis
- NVP for 6 weeks
- If mother breastfeeding and not virally suppressed, continue infant NVP until 1 week after cessation of breastfeeding

What is Potentially Infectious?
- Blood & blood stained fluid, tissue or material
- Sexual fluids
  - Vaginal secretions
  - Penile pre-ejaculate
  - Semen
- Tissue fluids
  - Any fluid from a body cavity e.g. ascites, amniotic fluid, CSF, pleural fluid, pericardial fluid and wound secretions
- Breast milk
**What is NOT Infectious?**

- Unless contaminated with infectious fluids, the following are considered to be NOT infectious
  - Nasal secretions, saliva
  - Sweat, tears
  - Urine, stool
  - Vomitus

**What is an Exposure?**

- Contact with infectious body fluid via
  - Percutaneous injury
  - Contact with mucous membranes
  - Contact with non-intact skin

**Management of an Exposure**

- Wash the wound or exposed area
  - Do not milk or scrub the wound
  - Use soap on skin, but do not use other disinfectants or antiseptics

**Management of an Exposure**

- Initiate PEP as soon as possible
  - Preferably within 1-2 hours
  - Do not wait for results of HIV testing
  - ≥72 hours: PEP not considered to be of benefit

**Testing of Source**

- HIV
  - Source patient must be counselled and consent requested, but if consent is refused and blood sample is available at the lab, testing can be done
  - 4th generation ELISA
  - HIV-1 DNA PCR if <18 months
- HBsAg
- HCV (non-sexual exposures)
  - Ab, if positive do HCV PCR

**Testing of Injured**

- HIV
- HBsAb
  - Booster dose of vaccine if antibody levels <10 mIU/ml
  - If never vaccinated and negative, give HBIG and vaccinate
- HCV (if source HCV positive)
**PEP – What to Take**

- **NRTI backbone**
  - TDF + FTC (Truvada)
  - AZT + 3TC
  - d4T + 3TC

- **3rd drug**
  - Raltegravir
  - Atazanavir/ritonavir
  - Lopinavir/ritonavir (Aluvia)
  - Darunavir/ritonavir
  - Efavirenz
  - Etravirine

**PEP for Children**

- AZT + 3TC + lopinavir/ritonavir (Kaletra)
- Paediatric formulations of tenofovir and raltegravir not yet available in South Africa

**Drug Resistance**

- If possible, obtain following from the source patient
  - Drug history
  - History of previous treatment failure
  - Recent HIV viral load
- Do HIV resistance testing
- Choose medication most likely to provide cover while waiting for results of resistance testing
  - Consult an expert

**Follow Up Testing**

- HIV ELISA at 6 weeks, 3 months and 6 months following the exposure
  - Testing beyond 4 months probably not necessary if 4th generation HIV ELISA used