HUMAN IMMUNODEFICIENCY VIRUS (HIV) ● 1/3

Vertical transmission of HIV can be prevented only if maternal HIV status known

ANTENATAL

- Check latest version of care plan and last maternal HIV viral load
- If mother is to have zidovudine IV, ensure prescribed antenatally by obstetric team
- Confirm labour ward has antiretrovirals indicated for baby
- Recommend formula feeding; provide bottles/steriliser if necessary
- if mother wishes to breastfeed, refer to HIV team

POSTNATAL

Maternal blood tests

- Check HIV result of every mother
- if no result, recommend mother tested urgently (point of care if available)
- if declined, offer baby testing (urgent HIV antibody)
- if declined, refer urgently to lead HIV consultant/consultant-on-call

NEONATAL

Very low risk

- 2 weeks' zidovudine monotherapy recommended if all the following criteria met:
- mother has been on combined antiretroviral therapy (cART) >10 weeks **and**
- 2 documented maternal HIV viral loads <50 HIV RNA copies/mL during pregnancy ≥4 weeks apart **and**
- maternal HIV viral load <50 HIV RNA copies/mL at or after 36 weeks

Low risk group

- Extend to 4 weeks' zidovudine monotherapy:
- if criteria for very low risk are not all fulfilled, but maternal HIV viral load <50 HIV RNA copies/mL at or after 36 weeks
- if baby born prematurely (<34 weeks) but most recent maternal HIV viral load <50 HIV RNA copies/mL

High risk group

- Use combination post-exposure prophylaxis (PEP) for 4 weeks:
- if maternal birth HIV viral load known to be or likely to be >50 HIV RNA copies/mL on day of birth
- if uncertainty about recent maternal adherence **or**
- if viral load not known
- If maternal resistance to zidovudine and/or nevirapine and viral load >50 copies/mL, follow individualised plan
- If no maternal resistance to zidovudine and/or nevirapine, or resistance result not immediately available, give baby zidovudine, lamivudine and nevirapine
- If mother diagnosed postpartum, start baby on triple therapy immediately if aged <72 hr

TREATMENT OF BABY

- Do not delay treatment for blood tests or any other reason
- Start as soon as possible after birth, definitely within 4 hr

Table 1: Zidovudine (10 mg/mL) (gestational age at birth)

<30 weeks and on feeds	2 mg/kg oral/NG 12-hrly
30–34 weeks and on feeds	2 mg/kg oral/NG 12-hrly for first 2 weeks **Then if not very low risk:** 2 mg/kg oral/NG 8-hrly for second 2 weeks
<34 weeks and not tolerating feeds	1.5 mg/kg IV over 30 min 12-hrly Change to 6-hrly at 34 weeks
>34 weeks and feeding	4 mg/kg oral 12-hrly (see **Table 2**)
≥34 weeks and not tolerating feeds	1.5 mg/kg IV over 30 min 6-hrly

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Table 2: Oral zidovudine dose at 4 mg/kg by weight

Weight range (kg)	Oral dose (mg) 12-hrly (equivalent to 4 mg/kg)	Volume (mL) to be given oral 12-hrly
2.01–2.12	8.5	0.85
2.13–2.25	9	0.9
2.26–2.37	9.5	0.95
2.38–2.5	10	1
2.51–2.75	11	1.1
2.76–3.00	12	1.2
3.01–3.25	13	1.3
3.26–3.50	14	1.4
3.51–3.75	15	1.5
3.76–4.00	16	1.6
4.01–4.25	17	1.7
4.26–4.50	18	1.8
4.51–4.75	19	1.9
4.76–5.00	20	2

- Lamivudine 2 mg/kg oral 12-hrly for 4 weeks
- Nevirapine 2 mg/kg oral daily for 1 week, then 4 mg/kg daily for 1 week, then stop
  - if mother on nevirapine >3 days, give baby 4 mg/kg daily for 2 weeks then stop
- Round doses **up** to the nearest 0.5 mg to assist administration
- If medication cannot be given orally, give zidovudine IV
  - if high risk, change to zidovudine oral for 4 weeks as soon as medication can be given orally and add lamivudine oral for 4 weeks and nevirapine for 2 weeks
- If maternal viral load <50 copies/mL and previous resistance to zidovudine
  - zidovudine monotherapy is recommended for infant PEP
- If maternal viral load >50 copies/mL and antiretroviral resistance
  - follow individualised care plan
  - if care plan not available discuss with lead consultant for HIV perinatal care
- Advice available (24 hr) from regional hub [e.g. Birmingham Heartlands Hospital (0121 424 2000), North Manchester (0161 624 0420)] or national lead centre in London: St Mary's (0207 886 6666) or St George's (0208 725 3262)

TESTING OF BABY

- HIV viral load (RNA PCR) minimum 2 mL EDTA venous (not cord/heel prick) at local virology laboratory
  - during first 48 hr and before hospital discharge
- If recommended by HIV specialist also send HIV DNA PCR, (1.3 mL EDTA) to Public Health England at Colindale with paired sample from mother

DISCHARGE AND FOLLOW-UP

- Advise postnatal staff not to recommend breastfeeding
- Contact obstetric team to organise cabergoline for mother to suppress milk
- If mother does breastfeed, monthly HIV viral load testing for mother and baby
- If baby vomits within 30 min of taking medicines, or if medicine is seen in the vomit, give the dose again
- Prescribe first dose zidovudine as stat dose, then prescribe twice daily doses at convenient time of day e.g. 9 am and 9 pm (first 2 doses can be given close together without toxicity)
- Dose does not need to be changed with baby's weight change
- Ensure mother confident to give antiretrovirals to baby
- Dispense antiretroviral supply on discharge
- Notify lead paediatric HIV/infectious diseases consultant who will notify British Paediatric Surveillance Unit (BPSU)
- Follow-up appointment with HIV/infectious diseases consultant at 2 weeks for high risk, or 6 weeks low and very low risk
- Ensure all involved have record of perinatal care: mother, paediatrician, obstetrician, infectious diseases consultant

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SUBSEQUENT MANAGEMENT

Investigations

- Exclusively non-breastfed infants:
- if high risk at aged 2 weeks
- all at 6 weeks (at least 2 weeks post cessation of infant prophylaxis) **and**
- at 12 weeks (at least 8 weeks post cessation of infant prophylaxis)
- on other occasions if additional risk
- HIV antibody testing at aged 2 yr if laboratory only using combined antibody/antigen test
- Breastfed infants:
- HIV viral load at 2 weeks then every 4 weeks for as long as any breastfeeds, and 1 and 2 months after stopping breastfeeding
- then as above

PCP prophylaxis

- From aged 4 weeks if HIV positive

Immunisations

- Recommend all other vaccinations as per routine schedule (including rotavirus and MMR)
- Do not delay BCG if low or very low risk of HIV transmission and BCG indicated