HUMAN IMMUNODEFICIENCY VIRUS (HIV) ● 1/3

Maternal to child 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

Maternal blood tests

- Check every mother's HIV results
- if no result, recommend mother tested urgently (point of care if available)
- if declined, offer baby testing (urgent HIV antibody)
- if declined, and especially if from sub-Saharan Africa, refer urgently to lead HIV consultant/consultant-on-call
- urgent court order may be required to test baby if mother has HIV

Very low risk

- 2 weeks' zidovudine monotherapy recommended if all the following criteria met:
- mother has been on 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
- baby born at ≥34 weeks' gestation

Low risk group

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

High risk group

- Use zidovudine, lamivudine and nevirapine
- 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 VL not known
- If maternal resistance and viral load >50 copies/mL, follow individualised plan
- 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

Zidovudine (10 mg/mL) (gestational age at birth)

>34 weeks and feeding	4 mg/kg oral 12-hrly
>34 weeks and not tolerating feeds	1.5 mg/kg IV over 30 min 6-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
<30 weeks and on feeds	2 mg/kg oral/NG 12-hrly
<34 weeks and not tolerating feeds	1.5 mg/kg IV over 30 min 12-hrly Change to 6-hrly at 34 weeks

Weight range (kg)	Oral dose 12-hrly (equivalent to 4 mg/kg)	Volume (mL) to be given orally
20.1–2.12	8.5	0.85
2.13–2.25	9	0.9
2.26–2.37	9.5	0.95

HUMAN IMMUNODEFICIENCY VIRUS (HIV) ● 2/3

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 antiretroviral resistance, 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)
- If mother diagnosed after delivery, start triple therapy for baby aged <72 hr

TESTING OF BABY

- HIV viral load (RNA PCR) (2 mL EDTA) at local virology laboratory
- If recommended by HIV specialist for babies of mothers who present late in pregnancy, also send HIV DNA PCR, (1.3 mL EDTA) sent to Public Health England at Colindale with paired sample from mother (complete Reference Test form, available to download from https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/344580/S3_HIV_Reference_Test.pdf)
- Day 1 (or ≤48 hr after birth if weekend/bank holiday)
- Do not use cord blood

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; treatment dose 4 x prophylaxis – ensures no risk of toxicity from 2 close together doses
- Round dose up to nearest easily measurable volume
- Dose does not need to be changed with baby's weight gain
- Ensure mother confident to give antiretrovirals to baby
- Dispense 4 weeks' supply on discharge
- Notify lead consultant for HIV who will notify British Paediatric Surveillance Unit (BPSU)
- Follow-up appointment with lead consultant for HIV at 6 weeks and 3 months
- Ensure all involved have record of perinatal care: mother, paediatrician, obstetrician, infectious diseases consultant

SUBSEQUENT MANAGEMENT

Investigations

- Exclusively non-breastfed infants:
- during first 48 hours and before hospital discharge
- if HIGH RISK, at aged 2 weeks
- at 6 weeks (at least 2 weeks post cessation of infant prophylaxis)

HUMAN IMMUNODEFICIENCY VIRUS (HIV) ● 3/3

- 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, (or 18 months if earlier generation antibody test used)
- Breastfed infants:
- HIV viral load every 4 weeks for as long as any breastfeeds
- then as above

PCP prophylaxis from age 4 weeks if:

- If maternal viral load >1000 copies/mL or unknown, give baby co-trimoxazole:
- baby >2 kg: 120 mg
- baby <2 kg: 900 mg/m^2 or 24 mg/kg
- once daily 3 times/week (Monday, Wednesday, Friday)
- start at 4 weeks
- stop if HIV viral load still negative at 3 months

Immunisations

- Unless high risk of TB and last maternal viral load <50 copies/mL, and exclusively formula-fed, delay BCG vaccination of baby until results of 3 month PCR tests negative
- Recommend all other vaccinations as per routine schedule (including rotavirus and MMR)