

Current overview of paediatric follow-up of infants exposed to HIV in England

P038

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Background

The vertical transmission rate among diagnosed women living with HIV (WLWH) in England has remained <0.4% since 2012 reflecting **high uptake of HIV antenatal screening** (99.8%) as well as the impact of the NHS IDPS programme and **HIV treatment and care services**.

BHIVA GUIDELINES: INFANT PEP and FOLLOW-UP



- All HIV-exposed infants should be given ZDV post-exposure prophylaxis (PEP) within 4 hours of birth. PEP should continue for 4 weeks for 'low risk infants'
- Since 2018 'very low-risk' infants are recommended PEP (ZDV) for 2 weeks.
- 'High-risk' infants should receive combination PEP for 4 weeks
- All infants should be tested at birth, 6 weeks and 3 months and followed up to 18-24 months to confirm infection status with antibody testing ('18-24Ab').

Methods

- The **Integrated Screening Outcomes Surveillance Service (ISOSS)** is part of the NHS IDPS programme
- ISOSS reports cover all pregnancies to WLWH in England, their infants and any children diagnosed with HIV
- ISOSS conducts paediatric follow-up of all infants exposed to HIV to 18-24 months** to establish infection status
- All transmissions are reviewed by a Clinical Expert Review Panel including experts across specialities and BHIVA representatives
- Data collected includes infant PEP, test results, infant feeding and any adverse outcomes including congenital anomalies
- We describe the **follow-up status** of 1,277 infants born in 2018-19 to women diagnosed with HIV by delivery, with a paediatric report submitted to ISOSS by December 2021

Results

Maternal characteristics

- 89.3% were diagnosed before pregnancy
- 99.9% were on ART
- 92.3% delivered with viral load <50 copies/ml

Clinical care and infant PEP

- 99.5% of the 1277 infants received PEP. This information was not reported for 6 infants (Figure 1).
- The **majority** (1215, 95.7%) of infants were **on monotherapy (ZDV)** and 54 (4.3%) were on triple therapy for 4 weeks.
- Reasons for triple therapy** included: maternal VL blips during breastfeeding, high VL at delivery, ART resistance, adherence/engagement and later booking for antenatal care or no antenatal care.
- PEP duration was reported for 744 infants, and among these **three-quarters received PEP for 4 weeks** (Figure 1).
- 10 infants with 6 week PEP included some being breastfed (supported) and others whose mothers had detectable VL at delivery.
- 2 week PEP group:** 97.8% (137/140) mothers had delivery VL <50 copies/ml and 44 were missing VL/not reported to ISOSS.
- 4 week PEP group:** 90.4% (395/437) had delivery VL <50 copies/ml and 155 were missing VL/not reported to ISOSS.

Infant testing

Overall, **95.5% (1,229/1,277)** of infants were reported as uninfected by clinicians, with 65.7% (808/1,229) having negative 18-24Ab.

- The remaining 34.3% (421/1,229) were reported to have a negative PCR ≥ 6 weeks and/or negative antibody test aged <18 months; of these, 83 (19.7%) were lost-to-follow-up before age 18 months, 44 (10.5%) were discharged before 18 months, 2 (0.5%) died and 292 (69.4%) had 18-24Ab results pending.
- In addition, **44/1,277 infants only had a negative birth PCR:** 34 were still in follow-up, 2 died and 12 were lost-to-follow-up.
- Of the 4 infants who died in total, 3 died from complications arising from prematurity and 1 from a congenital condition.

Vertical transmission rate, 2018-19

- There were **3 pregnancies resulting in transmission(s)*** with known infection status born in 2018-2019 to **women diagnosed by delivery**
- Of these infants, **all received PEP and one met all the criteria for 'very low-risk' so received 2 weeks ZDV**
- Maternal disengagement with healthcare services and late antenatal booking (≥ 20 weeks gestation) were identified as contributing factors

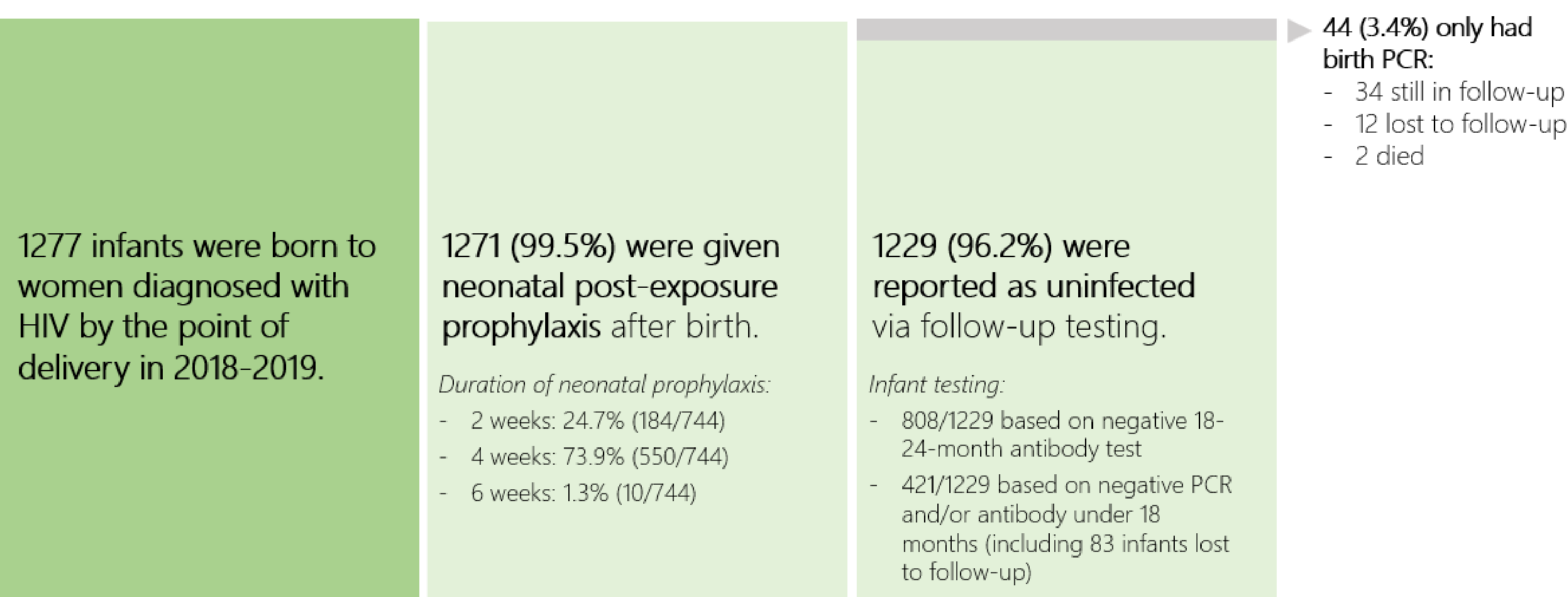
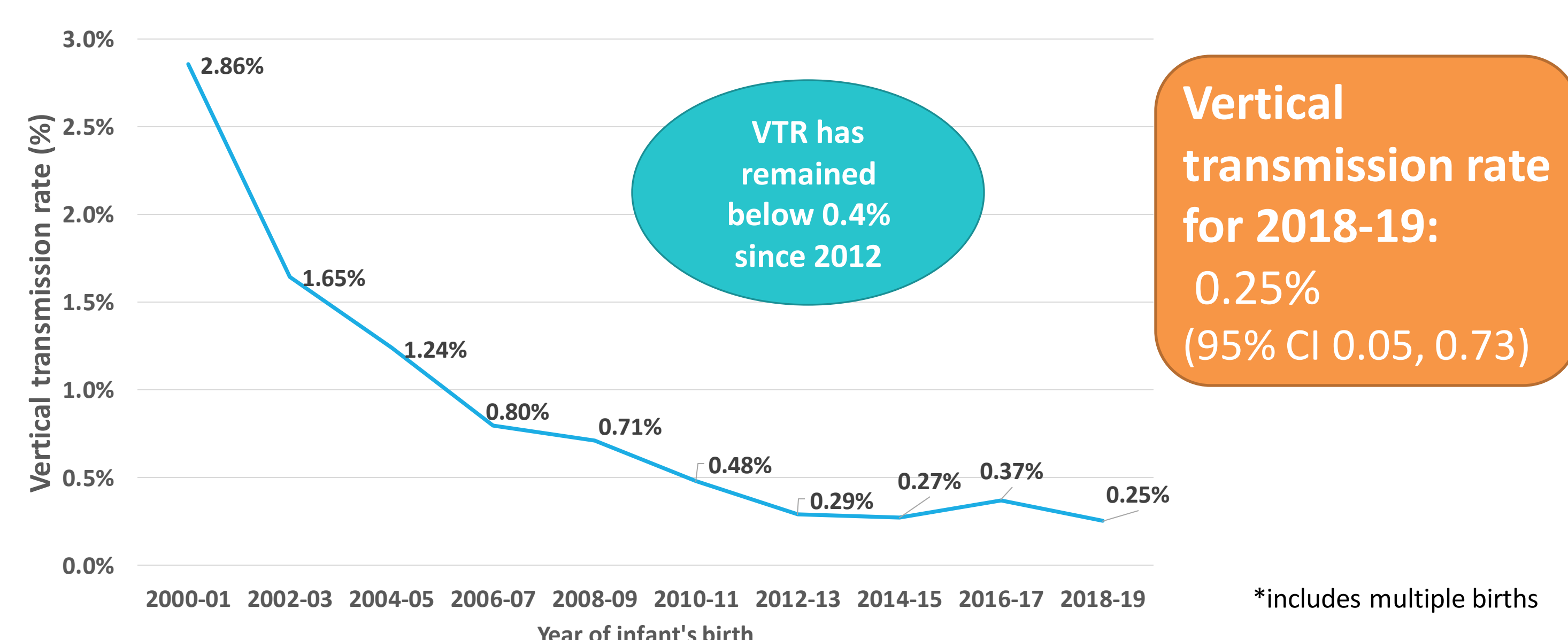


Figure 1: paediatric follow-up of HIV-exposed infants born in 2018-2019



Conclusions

- The **sustained low vertical transmission rate reflects the success of the antenatal screening programme** and established maternity and paediatric clinical pathways.
- However, there is still variation in practice regarding paediatric follow-up of infants born to WLWH, with some infants prematurely discharged without 18-24 month antibody testing taking place

- The **risk stratification approach to infant PEP is being applied:** most infants received 4 weeks of PEP, with a quarter of infants receiving 2 weeks
- The infected infant in the 'very low risk' group highlights the complexities of prevention of vertical transmission
- Ongoing monitoring of transmissions and clinical practice is required to support implementation of BHIVA guidelines** and contribute to work being done by the NHSE on inequalities.

Funding and governance

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