Ms Helen Peters
University College London
Audit of perinatally acquired HIV in UK-born children reported 2014-2017

Helen Peters, Laura Byrne, Pat Tookey, Sharon Webb, Claire Thorne

UCL GOS Institute of Child Health, London

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Background

Vertical transmission (VT) of HIV in diagnosed women in the UK and Ireland has continued to decline as a result of:

- high uptake of routine antenatal HIV screening
- improvements in HIV management in pregnancy
- increased proportion of women on ART from conception

However...

a small number of HIV-diagnosed children born in the UK are still reported each year. The National Study of HIV in Pregnancy & Childhood (NSHPC) conducts an ongoing audit of perinatal HIV in the UK
MTCT rates in diagnosed women, UK & Ireland 2000-2014

- Most recent update of MTCT rate 0.27% for 2012-14
- Significant decline over time ($p<0.001$)

NSHPC Perinatal Audit

- **108 vertically infected children** born in UK 2006-2013 (reported by April 2014)
- Paper published in *HIV Medicine* (covering 108 cases)

Main findings:
- **decline in the number** of perinatal transmissions over the period
- two-thirds born to women undiagnosed by delivery
- main issues: engagement, late booking, declined HIV testing, seroconversion
- over half of mothers experienced adverse social circumstances

Results have been fed into national standards and guidelines
Aims

Investigate antenatal screening and management of women whose infants acquire HIV perinatally to contribute to:

• monitoring and improvement of antenatal HIV screening protocols
• understanding of timing and circumstances of maternal and infant acquisition of infection
Methods

National Study of HIV in Pregnancy & Childhood (NSHPC):
• All pregnancies in diagnosed women living with HIV in the UK/Ireland reported
• Children diagnosed with HIV and children born to mothers living with HIV

NSHPC Perinatal Audit:
• Enhanced data collection performed for each case born in UK since 2006
• Structured telephone interviews with reporting clinicians
• Expert Review Panel: clinicians from relevant specialties + lay representatives
• Once all cases discussed, review meeting to decide recommendations
Results

25 new cases reported since April 2014: 17 born to mothers dx after pregnancy
• 53 interviews conducted with clinicians (2-3 interviews per case)

108 cases reported by April 2014
Of 25 cases reported since 2014...

- Before, 5 (20%)
- During, 3 (12%)
- After, 17 (68%)

Timing of maternal diagnosis in relation to pregnancy

Results

- Majority born to undiagnosed women
- Child’s age at diagnosis ranged from birth to 8 years
- Over half of cases had adverse social circumstances reported
Women diagnosed before or during pregnancy (8/25)

Contributing factors

- 3 postnatal/likely breastfeeding
- 2 booked late
- 1 with problems taking ART
- 1 seroconverted
- 1 not known

Timing of transmission

- 3/8 transmissions in utero
- 3/8 were postnatal
- 1/8 intrapartum
- 1/8 timing unknown
Women diagnosed after pregnancy (17/25)

Contributing factors

- 12 seroconversions
- 4 declined HIV test(s)
- 1 booked late
Women diagnosed after pregnancy (17/25)

Seroconversions (12/17)
- 7/12 had partners diagnosed after pregnancy
- 1/12 had an HIV+ partner who did not disclose
- 2/12 had new partners in pregnancy

Declined tests (4/17)
- All prior to 2010 (i.e. before current IDPS standards)
- 2/4 were by the same woman in subsequent pregnancies

Late Booking (1/17)
- Booked at >30 weeks, delivered preterm and diagnosed following delivery

2/7 partners died from HIV
Conclusions

- Among 25 recent cases of vertical transmissions in the UK, **two-thirds involved undiagnosed women**
- Issues identified are similar to those previously reported; **seroconversion was a common factor**, highlighting the importance of partner testing/PrEP use in pregnancy
- No recent cases where HIV test was declined
- This ongoing audit provides valuable insights into the circumstances of the small number of transmissions still occurring in the UK, and helps to strengthen future PMTCT strategies
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