Audit of perinatally acquired HIV in UK-born infants reported 2014-2017

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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

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

108 cases reported by April 2014

- Mother dx after pregnancy (67 cases)
- Mother dx during pregnancy (26 cases)
- Mother dx before pregnancy (15 cases)
Results

25 new cases reported since April 2014: 17 born to mothers dx after pregnancy
- 53 interviews conducted with clinicians (paed/obst/GUM) 2-3 interviews per case
Of 25 cases reported since 2014...

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

**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

Timing of maternal diagnosis in relation to pregnancy
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 dx 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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