Vertical HIV Transmissions in the UK- insights and remaining challenges

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Background

Vertical HIV transmission has become a rare event among diagnosed women living with HIV (WLWH) in the UK, with a transmission rate below 0.3% since 2012. Despite very high uptake of antenatal screening, a small number of vertical transmissions (VTs) occur among undiagnosed women. VTs are monitored by the Integrated Screening Outcomes Surveillance Service (ISOSS), part of PHE's Infectious Diseases in Pregnancy Screening programme. We describe the latest picture on VTs reported in 2014-2019.

Methods

ISOSS conducts active surveillance of all pregnancies to WLWH, their infants and any children diagnosed with HIV (<16yrs). ISOSS carries out this work on behalf of the NHS Infectious Diseases in Pregnancy Screening Programme. ISOSS conducts enhanced data collection of VTs occurring in children born since 2006. Supplementary maternal and infant information is collected through interviews with paediatric, maternity and HIV clinicians involved in each case. A Clinical Expert Review Panel (CERP) establishes circumstances surrounding transmissions and any contributing factors; cases reported 01/14 to 12/19 were reviewed.

Results

There were 35 VTs in infants born to 33 mothers (1 set siblings, 1 twin pair). Years of birth ranged from 2006-2019 and infant age at diagnosis from birth-11years. Cases occurred in London (15), Midlands (7), North (6), South (3) and Wales/Scotland (4). Twenty-five (71%) infants were born to mothers undiagnosed by delivery and 11 to diagnosed women (7 pre-pregnancy, 4 antenatal). Median maternal age at delivery was 33 years (IQR: 28, 36); 74% of mothers were born in Africa, 9% in Eastern Europe and 17% in the UK. In 17 cases mothers screened negative in pregnancy; in five cases mothers declined antenatal HIV screening (all pre-2010). Five VTs to diagnosed women were postnatal transmissions (undisclosed breastfeeding). Other cases mainly involved late antenatal booking and/or engagement issues. Over half of mothers (54%) had adverse social circumstances reported at the time of pregnancy including safeguarding, housing problems and intimate partner violence.

Conclusion

Two-thirds of recent VTs in the UK involved undiagnosed women. Issues identified here support findings from previous reviews; seroconversion was a common factor, highlighting the importance of sexual health in pregnancy. Ongoing enhanced data collection and ISOSS CERPs provide valuable insights into the circumstances of the few transmissions still occurring in the UK.