HIV in Pregnancy
current trends and challenges in the UK

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Prevention of Perinatal HIV Infection: Aiming for zero transmission
BHIVA multidisciplinary event marking World AIDS Day
Friday 27 November 2015, Royal College of Obstetricians and Gynaecologists, London

HIV in pregnancy in the UK
- demographics
- timing of diagnosis
- management and
- pregnancy and infant outcomes

Antenatal screening for HIV
- uptake
- diagnosis and detection
- impact
Paediatric AIDS surveillance established in 1986, extended to included pregnancies in 1989

Comprehensive observational national surveillance study (UK and Ireland)
Complementary obstetric and paediatric active reporting schemes (BPSU, RCOG, PHE)
Reports linked, infant infection status established
Substantial feedback to respondents and HIV networks maximises coverage and case ascertainment (>95%)
Further details at [www.ucl.ac.uk/nshpc](http://www.ucl.ac.uk/nshpc)

- NSHPC data (and data from Collaborative HIV Paediatric Study [http://www.chipscohort.ac.uk/](http://www.chipscohort.ac.uk/)) contributes to PHE HIV surveillance systems

- Antenatal HIV Screening Programme – managed by the National Screening Programme’s Infectious Diseases in Pregnancy Screening Programme (PHE)
Antenatal infection screening in the UK

- Longstanding universal offer policy for syphilis and rubella susceptibility
- Universal offer and recommendation policy for hepatitis B and HIV from 2000
- Annual UK births currently ~800,000, about 25% to women who were born abroad

HIV antenatal screening uptake
- ~70% in 2000,
- 90% by 2004,
- >97% since 2011

Over 19,000 pregnancies reported in the UK, currently 1100-1200 each year
Nearly 2000 from Ireland, about 80-100 annually

Table: UK and Ireland HIV pregnancies by time period

- 1990-94: 475
- 1995-99: 896
- 2000-04: 800
- 2005-09: 4274
- 2010-14: 7548
- 2015-date: 6844

* In 2012 a change in the denominator data was collected, which improved the accuracy and consistency of the denominator from then on.

## Changing demographics, trends over time

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<thead>
<tr>
<th></th>
<th>1990-94</th>
<th>2010-14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median maternal age</td>
<td>27 years</td>
<td>33 years</td>
</tr>
<tr>
<td>IDU-acquired infection</td>
<td>48%</td>
<td>2%</td>
</tr>
<tr>
<td>UK/Irish-born women</td>
<td>48%</td>
<td>15%</td>
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<tr>
<td>African-born women</td>
<td>44%</td>
<td>74%</td>
</tr>
<tr>
<td>Pregnancy ended in TOP</td>
<td>27%</td>
<td>2%</td>
</tr>
<tr>
<td>MTCT rate (dx women)</td>
<td>20%</td>
<td>0.4%</td>
</tr>
<tr>
<td>Preganacies reported from</td>
<td></td>
<td></td>
</tr>
<tr>
<td>London</td>
<td>55%</td>
<td>38%</td>
</tr>
<tr>
<td>rest of England</td>
<td>16%</td>
<td>49%</td>
</tr>
<tr>
<td>Scotland Wales NI</td>
<td>20%</td>
<td>5%</td>
</tr>
<tr>
<td>Ireland</td>
<td>10%</td>
<td>8%</td>
</tr>
</tbody>
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## Timing of diagnosis & ART at conception

UK & Ireland 1998-2015

* All pregnancies reported by September 2015, regardless of outcome; reporting delay for recent years
** Other category is pregnancies lacking information on precise timing of diagnosis and/or ART use
Sequential pregnancies by conception year, 1998-2014
Pregnancies reported by end September 2015, UK and Ireland

- First pregnancy with HIV diagnosis
- Second pregnancy since HIV diagnosis
- Third or subsequent pregnancy since HIV diagnosis

Year of conception
*Reporting delay for recent years

Changing mode of delivery among all diagnosed women
Deliveries 2000-2015 reported by end September 2015, UK births only

- Elective CS
- Emergency CS
- Vaginal delivery

Year of delivery (number)

- Data for deliveries since 2013 incomplete due to reporting delay
- BHIVA Guidelines and evolution of recommendations on mode of delivery
MTCT rates in diagnosed women, UK & Ireland 2000-2011

~12,500 singleton births; significant decline in MTCT over time ($p<0.001$)


MTCT rates in diagnosed women, UK & Ireland 2000-2011

VERY LOW MTCT RATE MAINTAINED SINCE 2011; <1 PER 1000 IN TERM DELIVERIES WITH VL <50

Health implications for HIV & ARV exposed uninfected infants
Despite great progress MTCT rate remains higher for some groups

Recent analysis to explore timing of key elements of care to understand more about factors likely to be contributing to higher MTCT rates in specific groups

5700 pregnancies delivered 2009-2014
• 51% diagnosed, on ART at conception
• 28% diagnosed, no ART at conception
• 21% AN HIV diagnosis
• Late AN booking (≥13 weeks) in 42% of women
• 6% booked after 23 weeks

Preliminary data presented at 2015 conference

Overall continuing improvement in time to antenatal booking, laboratory assessment and ART initiation in pregnancy

But still sub-optimal in women diagnosed antenatally

Migrants, parous women, and diagnosed women not already on treatment at conception, at higher risk of late booking

Women started ART significantly earlier in more recent period

But 13% of women not on ART at conception started ART after 26 weeks; with longer time to ART initiation for
  – women diagnosed pre-pregnancy with parity >2, and
  – newly diagnosed SSA migrants
Perinatal transmissions

Most perinatally infected infants born to women not aware of their infection until after delivery, eg when screened in a subsequent pregnancy, or child presents with symptoms

Evidence suggests number of perinatal transmissions from undiagnosed women reducing – suggesting fewer women remain undiagnosed

Laura Byrne’s presentation on Perinatal Transmissions later

Challenges

Maintaining high uptake of antenatal screening when 85% of women already know their status at conception

Enabling timely screening for excluded and vulnerable groups

Ensuring second offer to those who decline

Optimising care for all positive women including outside, during and after pregnancy

Ensuring access to appropriate peer and professional support, not just for healthcare, but to help deal with immigration, housing, disclosure issues and stigma

Antenatal screening and seroconversions
- Low numbers, some likely postnatal
- Evidence does not support routine re-offer of screening later in pregnancy in UK currently
Move towards normalising management of pregnancy & delivery


Multidisciplinary team approach recommended

Emerging and vulnerable groups include

- **Perinatally infected women** (<100 so far, but highly treatment experienced, often with sub-optimal regimens)
- **Migrants** (75% of women from Sub-Saharan Africa; slowly increasing number from Eastern Europe, Asian SC)
- **Women with co-infections and/or challenging social circumstances**

Assessing effectiveness of screening and management

Consider other issues besides MTCT

- % delivering with suppressed virus
- % having normal delivery
- % remaining engaged in care
- % exposed infants receiving appropriate care, prophylaxis and testing

*Ensuring high quality timely care, appropriate support, and equity of access for all women*
Acknowledgements

NSHPC team at ICH, PHE HIV and STI Department, and Infectious Diseases in Pregnancy Screening Programme

All respondents to the NSHPC, steering group and collaborators, antenatal screening coordinators, midwives

Main funding for this work

Public Health England (HIV & STI department)
Infectious Diseases in Pregnancy Screening Programme (PHE NSP)
Clare French: MRC PhD studentship
Laura Byrne: MRC Clinical Research Training Fellowship

Ethics

MREC/04/2/009
NIHR Ref. PIAG/BPSU 2-10/04/2005
IG Toolkit Version 12 2014/15 EE133902-FOPHS-PPAPIASG

NSHPC is currently under review with the Health Research Authority’s Confidentiality Advisory Group

The views expressed in this presentation are those of the speaker and not necessarily those of the funders