Pregnancies in women newly diagnosed with HIV in the UK and Ireland: 2012-2016

Helen Peters, Kate Francis, Rebecca Sconza, Claire Thorne

Population, Policy and Practice Programme, UCL Great Ormond Street Institute of Child Health

BACKGROUND

- In the UK and Ireland (UK/I) antenatal HIV screening is recommended to all women, with uptake of over 99%
- Most HIV-positive women are now aware of their diagnosis before conception (over 85% in 2012-14), but the proportion of these with recent diagnosis (i.e. in previous year) has not been explored
- Recently diagnosed pregnant women (whether before or during pregnancy) have important health needs, particularly if their HIV diagnosis is at a later disease stage

AIM

To describe pregnancies of women diagnosed in the year prior to or during pregnancy

RESULTS

- Overall, 77% (777/1028) of the recently diagnosed women were diagnosed in pregnancy
- 24% (237/1008) of women were white, 67% (672) Black African, with 85% (833/981) born outside UK/I
- Median age at diagnosis was 31yr (IQR:27,35)

Table 1: Characteristics of pregnancies in newly diagnosed women

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Dx year prior to pregnancy</th>
<th>Dx during pregnancy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pregnancy Outcome</td>
<td>(n=233)</td>
<td>(n=777)</td>
</tr>
<tr>
<td>Livebirth</td>
<td>202 (86.7%)</td>
<td>712 (91.7%)</td>
</tr>
<tr>
<td>Miscarriage</td>
<td>24 (10.3%)</td>
<td>15 (1.9%)</td>
</tr>
<tr>
<td>Termination</td>
<td>4 (1.7%)</td>
<td>38 (4.9%)</td>
</tr>
<tr>
<td>Stillbirth</td>
<td>3 (1.3%)</td>
<td>11 (1.4%)</td>
</tr>
<tr>
<td>Gone abroad</td>
<td>1 (0.1%)</td>
<td>1 (0.1%)</td>
</tr>
<tr>
<td>Antenatal booking</td>
<td>(n=209)</td>
<td>(n=727)</td>
</tr>
<tr>
<td>1st trimester</td>
<td>141 (67.5%)</td>
<td>366 (50.3%)</td>
</tr>
<tr>
<td>2nd trimester</td>
<td>56 (26.8%)</td>
<td>290 (39.9%)</td>
</tr>
<tr>
<td>3rd trimester</td>
<td>12 (5.7%)</td>
<td>71 (9.8%)</td>
</tr>
<tr>
<td>ART initiation</td>
<td>(n=233)</td>
<td>(n=777)</td>
</tr>
<tr>
<td>Prior to pregnancy</td>
<td>122 (52.4%)</td>
<td>-</td>
</tr>
<tr>
<td>≤28wk gestation</td>
<td>86 (36.9%)</td>
<td>618 (79.5%)</td>
</tr>
<tr>
<td>&gt;28wk gestation</td>
<td>6 (2.6%)</td>
<td>68 (8.8%)</td>
</tr>
<tr>
<td>During pregnancy (date nk)</td>
<td>5 (2.1%)</td>
<td>44 (5.7%)</td>
</tr>
<tr>
<td>None reported</td>
<td>14 (6.0%)</td>
<td>47 (6.0%)</td>
</tr>
</tbody>
</table>

DIAGNOSIS IN YEAR PRIOR TO CONCEPTION (n=233)

- For half (106/207) of these pregnancies, the mother was diagnosed in a genitourinary medicine (GUM) clinic (Figure 1)
  - 24% (49/207) of these pregnancies were in women diagnosed in a previous pregnancy
- Over half (122/233) conceived on ART. 14/233 were not on ART (13 pregnancies resulted in a miscarriage or termination)
- 68% (141/209) booked by 13 weeks of pregnancy
- 39% had first CD4 count in pregnancy <350 cells/ml

![Figure 1: setting of diagnosis for women diagnosed in the year prior to pregnancy](image)

CONCLUSIONS

- The proportion of women diagnosed during pregnancy continues to decline, reflecting improved testing outside pregnancy and high uptake of antenatal HIV testing over the last decade
- Half of women diagnosed in pregnancy had low CD4, indicating that HIV infection could have been identified at an earlier stage
- Challenges remain regarding management of newly diagnosed pregnant women, including late stage HIV diagnosis which was the case for half, late presentation for antenatal care and late ART initiation

METHODS

- The National Study of HIV in Pregnancy & Childhood (NSHPC) conducts active surveillance of pregnancies in women living with HIV in the UK/I
- Data on all pregnancies with expected date of delivery (EDD) 2012-2016 and reported by the end of 2017 were analysed
- New HIV diagnosis was defined as that occurring within 12 months prior to conception or during pregnancy
- 1028 pregnancies reported to NSHPC met the study definition of “newly diagnosed” (18% of total 5762 pregnancies for the time period)
- Late stage HIV diagnosis was defined as having a CD4 count <350 cells/ml at delivery

DIAGNOSIS DURING PREGNANCY (n=777)

- The proportion of pregnancies with antenatal diagnosis declined from 16% (213/1316) in 2012 to 10% (106/997) in 2016, p<0.005
- Most diagnoses in pregnancy (713/795, 94%) were in an antenatal setting; 3% (21) were in a GUM clinic, and 0.8% (6) were tested abroad
  - 91% (712/766) were diagnosed in the first or second trimester
  - 17/777 (2%) were reported to have seroconverted after a negative test earlier in the pregnancy
- Half booked late (>12 gestational weeks) (Table 1) and, of these, 13% (48/361) were diagnosed in the third trimester
- 94% (730/777) received ART in pregnancy. Median ART start week was 19wk (IQR: 16, 23wk)
- Among the 47 reported not on ART: 39 were misc/TOps and 8 livebirths (3/8 diagnosed at delivery, 2 had engagement issues, 1 was an elite controller, 2 unknown)
- Among migrants with data available, 15% (58/384) arrived in the UK/I during pregnancy and 16% (63/384) in the year prior

CD4 count at diagnosis

In women diagnosed during pregnancy, four-fifths (616/777) of cases had a CD4 count reported within 60 days of diagnosis

- Late stage HIV diagnosis was associated with Black African ethnicity, being born outside UK/I and age over 30 years, p<0.05

VERTICAL TRANSMISSIONS

- 5 transmissions occurred in pregnancies with antenatal diagnosis
  - (no transmissions to date among women diagnosed in the year prior to pregnancy)

![Late stage HIV diagnosis in nearly half of pregnancies](image)

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