

Insufficient antiretroviral therapy in pregnancy: missed opportunities for prevention of mother-to-child transmission of HIV in Europe.

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## **Abstract**

### **BACKGROUND:**

Although mother-to-child transmission (MTCT) rates are at an all-time low in Western Europe, potentially preventable transmissions continue to occur. Duration of antenatal combination antiretroviral therapy (ART) is strongly associated with MTCT risk.

### **METHODS:**

Data on pregnant HIV-infected women enrolled in the Western and Central European sites of the European Collaborative Study between January 2000 and July 2009 were analysed. The proportion of women receiving no antenatal ART or 1-13 days of treatment was investigated, and associated factors explored using logistic regression models.

### **RESULTS:**

Of 2,148 women, 142 (7%) received no antenatal ART, decreasing from 8% in 2000-2003 to 5% in 2004-2009 ( $\chi^2=8.73$ ;  $P<0.01$ ). A further 41 (2%) received 1-13 days of ART. One-third (64/171) of women with 'insufficient' (0 or 1-13 days) antenatal ART had a late HIV diagnosis (in the third trimester or intrapartum), but half (85/171) were diagnosed before conception. Pre-term delivery <34 weeks was associated with receipt of no and 1-13 days antenatal ART (adjusted odds ratios [ORs] 2.9 [ $P<0.01$ ] and 4.5 [ $P<0.01$ ], respectively). History of injecting drug use was associated with an increased risk of no ART (adjusted OR 2.9;  $P<0.01$ ) and severe symptomatic HIV disease with a decreased risk (adjusted OR 0.2;  $P<0.01$ ). MTCT rates were 1.1% (15/1,318) among women with  $\geq 14$  days antenatal ART and 7.4% (10/136) among those with insufficient ART.

### **CONCLUSIONS:**

Over the last 10 years, around one in 11 women in this study received insufficient antenatal ART, accounting for 40% of MTCTs. One-half of these women were diagnosed before conception, suggesting disengagement from care.

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