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# Outcomes related to 4864 pregnancies with exposure to lopinavir/ritonavir (LPV/r)

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**Introduction**: During pregnancy, LPV/r is a common anchor drug employed to treat the mother's HIV-1 infection in addition to reducing the risk of mother-to-child transmission (MTCT). The National Study of HIV in Pregnancy and Childhood (NSHPC) conducts a comprehensive population-based surveillance of HIV infection in pregnant women exposed to antiretroviral therapy (ART) in the UK and Ireland; in 2003–2012 over a third of pregnancies reported to the NSHPC involved exposure to LPV/r.
**Methods**: We undertook a retrospective were descriptive analysis of individual NSHPC patient data, using pregnancy as the unit of observation. Clinical outcomes for pregnancies reported by June 2013, where women were exposed to LPV/r and due to deliver between January 2003 and December 2012, are described.
**Results**: A total of 4864 LPV/r exposed pregnancies in 4118 women were identified. These resulted in 4702 deliveries with 4759 live and 46 stillborn infants. Seventy five percent of women were born in sub-Saharan Africa, 13% in the UK or Ireland. Median maternal age at conception was 30 years. Nine hundred and eighty (20%) pregnancies were conceived while taking LPV/r, with a median duration of LPV/r exposure of 270 days. A total of 3884 (80%) pregnancies initiated LPV/r after conception, with a median duration of LPV/r exposure of 107 days. Viral load (VL) close to delivery was available for 4083/4702 (87%) deliveries, with VL $<50$ c/mL in 73% and $<1000$ c/mL in 94% of women. VL by timing of LPV/r initiation is shown in Table 1. Sixty three percent of deliveries were by C-section, of which 62% were classified as elective and 38% as emergency. Among singleton liveborn infants, 13% were born prior to 37 weeks gestation (2.5% $<32$ weeks) and 15% had birth weight $<2500$ g (2.3% $<1500$ g). HIV infection status was available for 4039 (89%) singleton infants. For the periods 2003–2007 and 2008–2012, MTCT rates were 1.1% (95% CI 0.6–1.6) and 0.5% (95% CI 0.2–0.8) respectively. Hundred and thirty four live born children (2.8%) had at least one congenital abnormality reported.
**Conclusions**: In the NSHPC database, in women exposed to LPV/r during pregnancy in the UK and Ireland, MTCT rates are low and continue to decline, and are similar to rates in the entire NSHPC cohort of women with diagnosed HIV [1]. The congenital abnormality rate is comparable with that reported for the uninfected population in this geographic region.

**Table 1. Viral load close to delivery, by timing of LPV/r initiation**

| | Conceived on LPV/r (n = 747) | Initiated LPV/r during pregnancy (n = 3336) | Total (n = 4083) |
|---|---|---|---|
| VL $<50$ c/mL | 91% (n = 677) | 69% (n = 2302) | 73% (n = 2379) |
| VL $<1000$ c/mL | 98% (n = 729) | 93% (n = 3100) | 94% (n = 3829) |

## Reference

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