

Infants Born to Mothers with COVID-19 During Pregnancy: The First Four Months of the Pandemic

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Dear Sir,

A recent UK report on COVID-19 in pregnancy found that, of the infants delivered, 25% were preterm and 5% tested positive for SARS-CoV-2, half of which required admission to NICU¹. In contrast, a US study of 120 infants born to mothers with SARS-CoV-2, all tested negative for SARS-CoV-2 in the first 24 hours, and of those followed up, all remained PCR negative and asymptomatic at 14 days².

Our aim was to describe the outcome of infants born to women with SARS-CoV-2 PCR detected during pregnancy in the Rotunda Hospital. This was a retrospective review of the first four months (1st March to 1st July 2020) of the COVID-19 outbreak in Ireland (n=26). Ethical approval was obtained (RAG-2020-023).

The median gestational age (GA) at diagnosis of SARS-CoV-2 was 36+6 weeks (interquartile range (IQR) 32+1 - 39+1 weeks). The median date of diagnosis was 3rd April 2020 and median time from diagnosis to delivery was 11 days. Twelve (46%) were detected more than 14 days before delivery. Four women (15%) were from Ireland's Roma community, a vulnerable group disproportionately affected by COVID-19³.

The median GA at birth was 39+3 weeks (IQR 37 – 40+1 weeks), although 6 (23%) were preterm. The mean birth weight was 3.29kg (+/- 0.69kg).

As per National Guidelines, infants routinely roomed-in with their mothers in a designated covid ward if mothers were symptomatic, < 14 days from symptom onset or positive test. Mothers were allowed to breast feed, with strict hand hygiene and a maternal face mask⁴. Nineteen infants (73%) were breast fed before discharge. Seven (27%) required admission to the Neonatal Unit, three for prematurity and four for non-COVID neonatal problems. Two infants were tested for SARS-CoV-2 (one due to excessive nasal congestion and one following discharge), both were negative and remained well.

The median day of life (DOL) at discharge was DOL 4 (IQR DOL 3 to 6). Twenty-five infants (96%) were discharged home and one to a self-isolation facility to complete 14 days of isolation. Eleven (42%) were followed up in clinic for routine issues and 8 (31%) (maternal diagnosis < 14 days before delivery) were contacted by phone 4 to 8 weeks after discharge; none had developed suspected or confirmed COVID-19.

There was a high rate of prematurity, similar to the UK (26%) and US study (17%), although it was unclear if this was due to maternal COVID-19 or other confounding factors. The study limitations include small sample size and all maternal infections/diagnoses were in the 3rd trimester. Infants were not routinely tested for SARS-CoV-2 unless clinically indicated, as per National Guidelines⁴.

These figures provide some reassurance regarding the neonatal outcomes of infants born to mothers with COVID-19 during pregnancy or at delivery, and the postnatal guidelines currently in place in our hospital. As we approach potential further surges of COVID-19, we must continue to monitor the neonatal outcomes, in particular the incidence of preterm birth and evaluate the outcome of infants following maternal infection early in gestation, the effects of which are not yet known.

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