

Commentary on Donati et al. SARS-CoV-2 infection among hospitalized pregnant women and impact of different viral strains on COVID-19 disease severity in Italy

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Unlike many viral infections such as influenza, and the two previous incarnations of the coronavirus, SARS and MERS, Covid-19 originally appeared to be of similar severity, after adjusting for age, BMI and other co-morbidities, in the pregnant as in the non-pregnant population. Worryingly the paper from the Italian Obstetric Surveillance System COVID-19 Working Group (p ...), suggests that, in pregnancy, the virus may be getting more virulent with the advent of newer variants. Specifically the need for ventilation or ICU admission was significantly increased during the second wave (alpha variant predominant) compared to the first (wild-type predominant), albeit with no maternal deaths during the first wave and only one during the second. If real, this is both unexpected and concerning. Unexpected, because viruses tend to mutate in the direction of reduced severity; it is not in the interests of the virus that the host dies. Concerning, because it suggest that the newer variants are behaving more like other viral diseases; causing more severe disease in pregnancy.

The evidence from Italy is supported by at least three other sources. In August a preprint from the UK Obstetric Surveillance Service (Vousden et al. MedRxiv 2021.07.22.21261000; doi: <https://doi.org/10.1101/2021.07.22.21261000> accessed 30 September) reported disease severity in pregnancy when wild type predominated, when alpha predominated and when delta predominated. In each succeeding phase disease severity in increased. On 24 September the UK Intensive Care National Audit & Research Centre reported (ICNARC 17 September 2021 <https://www.icnarc.org/Our-Audit/Audits/Cmp/Reports> accessed 30 September) that the absolute numbers of pregnant women admitted to critical care with Covid were significantly higher in the second (alpha) wave than the first (wild type), and looked set to be significantly higher again in the third (delta) wave. Finally a large series from Nair Hospital, the largest hospital caring for Covid in Mumbai (Mahajan et al. Obstet Gynecol: July 7, 2021 doi: 10.1097/AOG.0000000000004529), reported significantly higher maternal mortality during the second (alpha predominant) wave than the first (wild type).

The lesson for women is simple, get vaccinated. Vaccines are safe and if the disease is really getting more severe, the balance of risks and benefits will be moving overwhelmingly in favour of vaccination. The lesson for obstetricians is more complicated. Encourage women to get vaccinated and take the disease seriously. Keep women with Covid out of hospital if possible, but monitor them with saturation monitors reliably, so those who deteriorate can be picked up quickly. When they need admission follow evidence-based treatment guidelines, and keep using personal protective equipment. We're not yet done with Covid.

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