

COVID-19 infection in pregnancy: initial management and escalation to Level 3 care

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Objective:

There is growing evidence that pregnant women, when compared to non-pregnant women, are at a higher risk of severe illness from COVID-19, particularly in the third trimester. Overall, the mortality risk remains low. Optimised support is key in improving the patient's prognosis. The initial management of Covid hypoxemia includes conventional oxygen therapy, high-flow nasal cannula oxygen (HFNO), non-invasive ventilation (CPAP) and Mechanical ventilation. The aim of this audit was to identify women requiring ITU/Level 3 care after being managed in an Enhanced maternity Care setting.

Results:

Ten patients were identified during the study period. The median age was 32.5 years (range 20- 41). The mean BMI was 26 (range 20-38). Six of them had pre-pregnancy comorbidities (two with Asthma, one with type one DM and three with hypothyroidism). Eight ladies were Caucasians and two were Asian. None of them were vaccinated at time of infection. All were in the antenatal period. Among them, six were delivered by LSCS to improve chest condition out of which four were delivered less than 37 weeks. Four patients remained pregnant after discharge from ITU and subsequently delivered at term.

In ITU seven patients had HFNO to start with and five needed CPAP. Three cases required CPAP straightaway. Two patients eventually required intubation and mechanical ventilation following CPAP. All ten patients were given steroids and four were given Tocilizumab. None of them required renal support.

Conclusion:

Unvaccinated, Black, Asian, and minority ethnic backgrounds, BMI above 25 kg/m2, pre-pregnancy co-morbidities, maternal age 35 years or older and living in increased socioeconomic deprivation are all risk factors for COVID-19 infection and hospitalisation.

Timely management with multidisciplinary input leads to good maternal outcome. Enhanced Maternity Care service helped in managing most COVID-19 infected patients as first line prior to needing Level 3 admission.

Design:

We Identified women's risk factors and monitored their management and inpatient course, in order to inform future practice and training needs.

Methods:

Retrospective study from January 2021 to December 2021. Patients were identified from the ITU admissions database. Criteria for inclusion was all maternity patients who required admission to ITU/level 3 care unit in this period. Data was analysed using Microsoft Excel.

References:

- 1) Coronavirus (COVID-19) Infection in Pregnancy, March 2022
<https://www.rcog.org.uk/media/xsubnsma/2022-03-07-coronavirus-covid-19-infection-in-pregnancy-v15.pdf>
- 2) World Health Organization. Therapeutics and COVID-19: living guideline.
<https://www.who.int/publications/i/item/WHO-2019-nCoV-therapeutics-2022.1>.