

Comparing maternal postnatal readmissions during COVID-19 and pre-pandemic in a tertiary care hospital in the UK



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INTRODUCTION

The SARS-CoV-2 pandemic has had many direct and indirect impacts on healthcare and maternity services around the world since it was officially declared by the WHO in March 2020.

New guidelines were introduced in response to COVID-19, which include instructions on postpartum discharge and readmission to minimise risk of transmission.

The aim of this study is to compare the postpartum length of stay (LOS) and maternal readmission rates from delivery up to 6 weeks during COVID-19 pandemic and pre-pandemic era.

METHODS

This study was designed as part of an annual audit by the maternity clinical governance at Oxford university hospitals NHS Foundation Trust to evaluate rates of maternal postnatal readmission.

This project is a retrospective observational study, comparing pre-existing reports from January-February 2019 (pre-pandemic) and data from January- February 2021 (during the pandemic).

Data from 2019 was retrieved from maternity clinical governance archives and we extracted data from the same study period in 2021 when COVID guidelines were in practice.

RESULTS

According to updated local guidelines in response to COVID-19, practitioners are encouraged to discharge all patients by day 1 (24 hours from delivery regardless of mode) and community follow up until day 10 postpartum. Any patient who stays beyond day1 should be discussed and authorised by a consultant.

In 2021, out of 1199 deliveries, 14 women were re-admitted on an average day 7 post-delivery, with majority of women (86%) self-referred. Most common reasons for readmission were raised blood pressure (35%) and puerperal pyrexia (35%) (one case of mastitis and four cases of endometritis). Two women (14%) presented with secondary post-partum haemorrhage. One woman (7%) was admitted with a caesarean section wound hematoma and one (7%) with shortness of breath.

On comparing the data with pre-pandemic audit, we observed that 21 patients were readmitted in 2019 (out of 1201 deliveries) and the average length of postnatal stay in hospital was 1.5 days, while all women went home on day 1 in 2021. The average length of stay after readmission increased from 2 days to 3 days in 2021. The average day of readmission was the same (day 7) and mode of delivery had similar patterns except emergency caesarean section. In 2021, more women presented after emergency caesarean section (28% in 2021 vs 14% in 2019).

DISCUSSION

Early postpartum discharge of low-risk mothers has been a universal adjustment in response to COVID-19 pandemic to reduce the chain of transmission.

Given that there has not been a statistically significant difference (p value 0.118) in the rate of maternal postnatal readmission since the early discharge planning during the pandemic in our study and a few other studies across the world, it appears that early discharge in combination with community follow up (where resources are available) can be an enduring change.

We recommend reviewing this study in a longer period for more accurate results, however, conclude this as a positive outcome in terms of admission costs and patient satisfaction.

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