

Establishment of COVID-19 Maternal Delivery Care Protocol

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INTRODUCTION

The outbreak of COVID-19 in 2019 resulted in a global pandemic, with literature indicating that pregnant women infected with the virus experience increased cardiopulmonary stress and face higher risks of severe complications and mortality, leading to serious obstetric complications, including intrauterine fetal demise (Lu et al.,2022). Our unit, a teaching hospital's maternity ward, identified a lack of familiarity among staff with the protocols and skills required for managing confirmed cases, potentially compromising the safety of both mother and infant and increasing the risk of staff infection. This prompted a motivation for improvement through a dedicated project.

AIM

Guidelines for the Care of Confirmed COVID-19 Pregnant Patients

METHOD

- Utilizing the Quality Control Circle (QCC) methodology and task-oriented QC storytelling, we referenced the 4S
- framework for essential healthcare resources during emergency infectious disease events, as proposed by George L.
- Anesi et al. (2022), addressing issues across SPACE, STAFF, STUFF, and SYSTEM domains. The results revealed
- deficiencies in environmental equipment, including the absence of dedicated negative pressure birthing rooms and timeconsuming inventory preparation. Concerning personnel, nurses exhibited insufficient knowledge of statutory infectious
- disease care, and there was poor collaboration among interdepartmental teams. Additionally, compassionate care
- measures to alleviate anxiety among pregnant women were lacking. Therefore, improvement measures were implemented, including: 1) establishment of dedicated negative pressure birthing rooms, 2) innovation in producing
- epidemic prevention vehicles and kits, 3) planning of educational training and high-fidelity simulations, 4) conducting
- interdisciplinary meetings to jointly establish the "Confirmed COVID-19 Pregnant Women Labor, Delivery, and
- Postpartum Care Operational Processes", with audit checklist integration, and 5) establishment of a caring LINE
- communication channel and an innovative interactive e-BOOK.

RESULTS

Following improvements in environmental equipment, inventory preparation time decreased from 30 minutes to 0 minutes with a 100% completion rate. Personnel knowledge increased from 77.5% to 96.8%. Compliance with the delivery care process reached 99.2%, and the time for cross-team medical decision-making decreased from 3 hours to 30 minutes. The anxiety level among confirmed pregnant women awaiting delivery decreased from 6.2 (high anxiety level) to 3.6 (low anxiety level)



CONCLUSIONS

Safeguarding the safety of mothers and infants is a crucial mission for obstetric staff. Throughout the project,

amidst the evolving pandemic and policy adjustments, the improvement team bravely faced challenges, resulting in the

successful protection of maternal and infant safety. The project's effectiveness serves as a reference for rapidly

responding to emerging infectious disease pregnancies, not only reducing maternal and infant risks but also ensuring the

occupational safety of healthcare workers.

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