SPECIAL COMMUNICATION

COVID-19 Obstetrics Task Force, Lombardy, Italy: executive management summary and short report of outcome

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Keywords: COVID-19; pregnancy; SARS-CoV-2

Synopsis: In Lombardy, criteria for the management of COVID-19 pregnancies were established by a structured obstetrical task force from the beginning of the epidemic. Recommendations and preliminary data are reported here.

Abstract

From February 24, 2020, a COVID-19 obstetric task force was structured to deliver management recommendations for obstetric care. From March 1, 2020, six COVID-19 hubs and their spokes were designated. An interim analysis of cases occurring in or transferred to these hubs was performed on March 20, 2020 and recommendations were released on March 24, 2020. The vision of this strict organization was to centralize patients in high-risk maternity centers in order to concentrate human resources and personal protective equipment (PPE), dedicate protected areas of these major hospitals, and centralize clinical multidisciplinary experience with this disease. All maternity hospitals were informed to provide a protected labor and delivery room for nontransferable patients in advanced labor. A pre-triage based on temperature and 14 other items was developed in order to screen suspected patients in all hospitals to be tested with nasopharyngeal swabs. Obstetric outpatient facilities were instructed to maintain scheduled pregnancy screening as per Italian guidelines, and to provide pre-

triage screening and surgical masks for personnel and patients for pre-triage-negative patients. Forty-two cases were recorded in the first 20 days of hub and spoke organization. The clinical presentation was interstitial pneumonia in 20 women. Of these, seven required respiratory support and eventually did well. Two premature labors occurred.

The Regional Health Authority of Lombardy, Italy, instructed the COVID-19 Obstetrics Task Force (OTF) to develop recommendations by March 24, 2020, for the management of pregnant women during the coronavirus disease 2019 (COVID-19) pandemic and to designate a dedicated network of maternity hubs for COVID-19-positive patients.

(1) Since pregnancy is a time-dependent condition in terms of health care, the OTF recommended that all outpatient facilities should continue to provide the same level of care as required by pregnant women. Outpatient areas should have a pre-triage area where each patient's temperature and 14 specific items can be checked to identify possible suspected cases based on symptoms, and possible contacts with positive patients. Each outpatient facility should have a dedicated area where pregnant patients with suspected COVID-19 can be tested safely by healthcare personnel wearing personal protective equipment (PPE); PPE should also be worn during consultation or ultrasound with such patients. Patients with suspected COVID-19 must self-isolate until the test results are known, with PPE being provided by the hospital for home self-quarantine.

(2) The OTF designated a network of six COVID-19 maternity hubs along with their connecting spokes. The aim of the reorganization was to concentrate COVID-19 cases, procedures and medical devices, and research into a geographic ring of six referral hospitals with maternal–fetal medicine and neonatal intensive care unit (ICU) facilities.

This network was activated on March 1, 2020. By that time, progressive lockdown measures were in force. In a liberal country, imposing measures suddenly was deemed difficult; however, not imposing strict lockdown or strict measures of personal restriction of mobility and individual distancing sooner was a mistake — as replicated in other countries [1]. The media played a key role in helping to disseminate the information surrounding the lockdown restrictions.

(3) All maternity centers should perform a pre-triage based on temperature and a specific questionnaire before entering the common emergency room in order to identify as far as possible suspected cases, who should receive nasopharyngeal swabs and be admitted to isolated facilities or transferred as suspected positives to designated maternity hubs.

(4) Maternity hubs should have a 24-hour pre-triage policy at all centers, plus separate emergency room facilities for pregnant women (transferred from other hospitals) with suspected or confirmed COVID-19, separate labor and delivery suites, and a separate postpartum ward. Healthcare providers should wear appropriate PPE for confirmed and suspected cases in all areas.

(5) All connecting network hospitals (n=50) should be able to organize a protected vaginal or cesarean delivery for a woman in advanced labor who cannot be transferred. This means appropriate PPE must be available, and one dedicated labor and delivery or operating room must be made available for this emergency situation.

The first interim analysis was carried out during the period March 1–20, 2020, deriving data from a dedicated database shared by all maternity hubs and summarized in the present article.

A total of 42 pregnant women with confirmed COVID-19 delivered during this time period [2]. These cases represent approximately 0.6% of the expected 7000 deliveries in the same region over the same time period.

The clinical presentation was interstitial pneumonia in 20 (48%) women; 7 (35%) of these required continuous positive airway pressure (cPAP) or were admitted to the ICU. All did well in a shorter period of time compared with the typical 10-15 days required to overcome the critical phase of SARS-CoV-2 pneumonia**.**

A total of 18 (43%) women were delivered by cesarean, and 24 (57%) delivered vaginally. Only two patients had a spontaneous premature delivery.

Since this report was collected a few more cases requiring major respiratory support have been recorded by COVID-19 hubs, presenting with dyspnea that required immediate treatment, both during pregnancy and postpartum. These few but critical cases underline the benefits of the policy of centralization, as patients were transferred to the designated maternity hubs.

On the other hand, in women who develop COVID-19 during pregnancy, the symptoms tend to be mild or moderate [3], possibly as a result of the combined effects of gender,

young age, and immune status of pregnancy; this suggests that, in an area of high prevalence of infection, more women may be positive but asymptomatic. Therefore, the rules of protection for healthcare providers working in labor and delivery have been updated to cover ALL laboring women:

- During labor the midwife and laboring woman wear surgical masks.
- During the second stage of labor the midwife wears appropriate PPE**.**
- A woman's partner is permitted to attend during labor and delivery but is not permitted on the postpartum ward.

Regarding breastfeeding:

- ALL women breastfeed while wearing a surgical mask.
- COVID-19-positive mothers with mild or no symptoms can breastfeed.
- COVID-19-positive and symptomatic mothers are separated from their newborns, and women can use pumps to express breast milk.

The OTF typically holds a video conference call every 15 days to discuss possible upgrading of the recommendations.

AUTHOR CONTRIBUTIONS

EMF, IC, PV, EP, and GG contributed as members of the COVID-19 Obstetric Task Force. LF, EMF, IC, PV, AS and FP contributed to the interim analysis. GG and EP chaired the task force on behalf of the Regional Health Care Authority.

ACKNOWLEDGMENTS

We are grateful to all healthcare providers who worked with the best of their skills and dedicated care to mothers and their newborns both in the hubs and spokes of our region, which was the first to experience the brunt of this pandemic in Europe.

CONFLICTS OF INTEREST

The authors have no conflicts of interest.

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