10-20-2020

Do not forget our pregnant women during the COVID-19 pandemic

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Osanan, Gabriel Costa; Vidarte, Maria Fernanda Escobar; and Ludmir, Jack, "Do not forget our pregnant women during the COVID-19 pandemic" (2020). *Department of Obstetrics and Gynecology Faculty Papers*. Paper 64. 
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To cite this article: Gabriel Costa Osanan, Maria Fernanda Escobar Vidarte & Jack Ludmir (2020) Do not forget our pregnant women during the COVID-19 pandemic, Women & Health, 60:9, 959-962, DOI: 10.1080/03630242.2020.1789264

To link to this article: https://doi.org/10.1080/03630242.2020.1789264

Published online: 03 Sep 2020.
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Introduction

In late December 2019, a cluster of atypical cases of severe pneumonia was reported in Wuhan, China. On January 7, the causative agent of pneumonia was identified, a new type of Coronavirus, called SARS-CoV2. Since then, the virus has spread all around the world, and as we write on 1st June, more than 350,000 deaths and more than 6 million people infected have been reported. It did not take long until pregnant women were infected and the need for the development of guidelines concerning the prevention and management of COVID-19 during pregnancy emerged (Boelig et al. 2020a).

It is estimated that currently, more than 100 million women are pregnant worldwide, potentially exposing their babies to COVID-19. So far, studies have demonstrated that the risk for healthy pregnant women for morbidity and mortality from COVID-19 is similar to the non-pregnant population of the same age. Vertical transmission of the virus does not appear to be a great risk, although further studies are necessary to confirm this finding. Furthermore, disease on newborns does not seem to be more aggressive than in adults (Mullins et al. 2020).

Concerns about the capacity of health systems to respond to the COVID-19 pandemic have generated unprecedented mobilization of health systems around the world. Public policies have been focused mainly on treating infected patients by SARS-CoV-2 and on restrictive measures to protect people from being infected. Unfortunately, due to the fast spread of this virus combined with its high morbidity and mortality, many countries are witnessing how their health-care systems become overwhelmed and on the verge of collapse. As a result of this global crisis, many governments are facing difficulties in organizing their already precarious health-care systems while trying to respond to COVID-19 Pandemic and keeping essential health-care services running (Organization 2020).

In this scenario, elective and preventive care has been deferred or eliminated. In addition, many patients are not going to health-care providers or to hospitals, even when there is a need, due to the fear of getting infected by SARS-CoV-2. The clinical impact of this trend is not clear, but concerns arise especially for patients in need of treatment and follow-up. By limiting the provision of essential care, patients will experience a near miss situation, or even a lethal event, not related to COVID-19 (Rosenbaum 2020). The provision of prenatal care could be one of the conditions compromised by the above scenarios with the potential of resulting in adverse outcomes.

Impact of pandemic crisis on maternal mortality

Approximately 800 women die every day from pregnancy and childbirth-related complications around the world. It is well known, that most of these deaths can be prevented by adequate and timely obstetrical care during pregnancy, delivery and puerperium. Three well-known factors or delays increase the risk for adverse maternal outcome: delay in seeking care; delay in reaching health-care services; and delay in receiving adequate care at the health facility (Calvello et al. 2015).

On the face of the COVID-19 pandemic, these delays are more likely to occur increasing the risk for maternal and perinatal mortality. Reasons for the greater risk include (1) pregnant women hesitant to reach caregivers or maternities due to the fear of getting the disease; (2) financial problems and access to transportation may be limited due to restriction measures and lockdown to avoid virus spread; (3) maternal isolation, if COVID-19 is suspected or confirmed, may prevent the patient from receiving obstetrical care in a timely manner; and (4) lack of medical supplies, reduction of obstetrical care facilities and scarcity of skilled birth attendants as a result of health system redistribution related to the
Pandemic. For these reasons, governments should direct and guide their health-care systems with the resources to meet the needs of pregnant women with the provision of adequate obstetrical care and COVID-19 prevention and treatment.

Lessons learned from other epidemic crises have shown that lack of obstetrical care can represent a life-threatening condition for pregnant women and their babies. In 2014, Sierra Leone when faced with the severe Ebola outbreak experienced a decrease on the number of women attending antenatal care by 18%, a reduction in postnatal care by 22%, and 11% decrease in women going to a health-care facility for delivery; resulting in an increase of 34% on maternal mortality and of 24% the rate of stillbirth (Jones et al. 2016).

The above example reaffirms the World Health Organization (WHO) mandate that obstetric care should be an essential and high priority health-care service that should not be neglected or interrupted even during this COVID-19 Pandemic. The interruption of obstetric services may result in additional maternal and perinatal morbidity and mortality, especially for the most vulnerable population (Roberton et al. 2020).

The COVID-19 Pandemic is magnifying the problem of health disparities for minorities and vulnerable populations in the US and worldwide. In poor communities in the US, the number of African Americans and Latinos affected by COVID-19 and deaths related to it is much larger when compared to the rates in Caucasians (Cleveland Manchanda, Couillard, and Sivashanker 2020). The reasons for these are multiple and rooted in many years of neglect presence of comorbidities and lack of access to health care. When it comes to pregnant women, African Americans already have an inherently greater risk for mortality, raising the concern that the COVID-19 crisis can eventually result in greater mortality for this minority vulnerable group. Vulnerable populations across the globe suffering from poverty, discrimination, lack of access to health care and unable to benefit from newer technologies such as telemedicine are suffering the most during this Pandemic and if pregnancy occurs there is a greater risk for adverse maternal and perinatal outcome.

**Antenatal care during COVID-19 and new strategies**

Different prenatal guidelines and recommendations have been published during the COVID-19 pandemic in order to establish strategies to reduce the risk of infection to pregnant women and medical teams during visits (Chen et al. 2020; Favre et al. 2020). Most of them highlight the importance of obstetrical care and the use of telemedicine to reduce some face-to-face visits, when it is feasible and safe. They also usually suggest to try to take laboratorial and ultrasound exams during these appointments.

The institutions must publish in their websites, social media accounts or electronic documents in order to provide accurate and timely information for obstetric care, all changes that are implemented during this contingency period. Previous published evidence from low- and middle-income countries suggests that attendance at fewer than five control visits is associated with an increased risk of perinatal mortality (Dowswell et al. 2015). Recently, Maternal Fetal-Medicine (MFM) guidance for COVID-19 has suggested, for an uncomplicated and low-risk gestation, obstetrical in-person visits at 11–13 weeks, 20 weeks, 28 weeks and 36 weeks of gestation, with a weekly access by telemedicine after it (Boelig et al. 2020b).

When patients require face-to-face consultation, a triage system to assess COVID-19 symptoms should be established prior to the appointment, either by telephone call or by an evaluation upon admission to the hospital or even upon arrival at prenatal care facilities. If a pregnant woman has respiratory symptoms, she must be attended according to the protocol established in the institution, in order to perform confirmatory test for COVID 19, define treatment, guarantee patient follow-up and management of her contacts.

Obstetric services should maximize the use of telehealth (when available) to provide additional prenatal visits. In the context of COVID-19, telehealth is a fundamental strategy as it avoids exposure
and contact between health professionals and the patients, that may be infected by Coronavirus (Greenhalgh, Koh, and Car 2020).

During COVID-19 pandemic, health service provisions must be based on occupational segregation, responsible social isolation, use of biosafety equipment, protection of health professional from infection and telemedicine (Dashraath et al. 2020). Obstetrical care can be guided under these same principles. Additionally, teleconsultation allows a pregnant woman to have a partner, family member or friend to join the appointment to receive support.

Home care is an additional strategy that can be associated with telemedicine to improve antenatal assistance during COVID-19 pandemic. However, it is important to note that staff who assist pregnant women on a home visit must strictly follow infection control procedures when entering and leaving the home. A drive-through prenatal care model is another alternative strategy in which pregnant women would remain in their automobiles while being assessed by the health-care professional. This model is projected to reduce the number of in-person clinic visits by 33% per patient compared with the traditional prenatal in the United States (Turrentine et al. 2020)

Telehealth seems a good strategy for large cities where they are at a higher risk of COVID-19 infection. It also can be useful for problems related to the availability of specialists in some facilities. However, the problem of obstetric care in rural areas during the pandemic increases as transport of high-risk pregnant women for specialized evaluation may be difficult (Boelig et al. 2020b). The same is true for vulnerable populations that do not have access to the newer technologies.

Conclusions
The Covid-19 Pandemic poses a worldwide challenge in maternal health. Essential health services including prenatal care are under threat and may result in an unpredictable increase in maternal and perinatal mortality, not related to COVID-19. In these challenging times, we should not forget our pregnant women and must work to guarantee the provision of services in a protective and safe environment.

Disclosure statement
No potential conflict of interest was reported by the author(s).

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