PHILIPPINE OBSTETRICAL AND GYNECOLOGICAL SOCIETY (Foundation), INC.

PHILIPPINE SOCIETY OF MATERNAL FETAL MEDICINE, INC.

COVID-19 and Pregnancy: A Guide to MFM specialists and General Obstetric Practitioners

INTRODUCTION:

The World Health Organization (WHO) has declared COVID-19 a global pandemic and healthcare providers should have guidelines to address all aspects of healthcare delivery to target populations.

This document aims to provide general guidelines for MFM specialist and the General Obstetrician based on current available evidence, good practice and expert advice. The objectives of the guideline are: a) to reduce the transmission of COVID-19 to pregnant patients, realizing that asymptomatic healthcare providers may become the vector of transmission to healthy pregnant patients b) to provide care to women suspected or with confirmed COVID-19 c) and to provide continuing care for pregnant women who are not afflicted with the virus.

Most cases of COVID-19 globally have evidence of human to human transmission. The virus can be readily spread from respiratory secretions, feces and fomites, therefore healthcare providers must employ strict infection prevention and control measures (IPC).

These are only best practice recommendations that should be adapted to fit local/institutional settings. This document is offered as best practice recommendations to guide clinical judgement. The reader is advised to adjust practices as needed based on incidence of COVID and limitations in capacity and resources in their settings.

COVID-19 Effect on the Mother:

1. Large majority of women will experience only mild or moderate cold/flu symptoms
2. Relevant symptoms include: cough, fever and shortness of breath
3. Severe symptoms such as Pneumonia and marked hypoxia could also occur in pregnant women and should be identified and treated promptly

COVID-19 Effect on Fetus:

1. No data suggesting an increased risk of miscarriage or early pregnancy loss in relation to COVID-19
2. No evidence of intrauterine fetal infection with COVID-19
3. Currently considered unlikely to cause congenital defects in the fetus

4. Case reports of preterm birth in women with COVID-19 however it is unclear whether the preterm birth was iatrogenic or spontaneous
5. Iatrogenic delivery was predominantly for maternal indications related to viral infection
6. One case of fetal compromise and Prelabor Premature Rupture of Membranes

ADVICE OF HEALTHCARE PROFESSIONALS TO SHARE WITH PREGNANT WOMEN:

The DOH has recognized the pregnant population as a "vulnerable" group

Evidence so far have shown that pregnant women are still no more likely to contract the infection than the general population

However, pregnancy in a small proportion of women, may alter the response of the body to severe viral infections, and as such some pregnant women may be at a greater risk for severe illness, morbidity or mortality compared with the general population

Heath care providers must provide pregnant patients, emergency contact numbers or 24-hour hotline numbers to cater to their concerns (not necessarily COVID-19 related)

Other means of communication including teleconferencing may be a viable option

GENERAL ADVICE BY HEALTHCARE PROVIDERS TO PREGNANT WOMEN:

a. Prevention of spread should be top priority
b. Social/Physical distancing of at least 6 feet should be practiced
c. Any elective or non-urgent visits should be postponed. Antenatal visits may change depending on current local situation (extended quarantine)
d. If you get infected with COVID-19 you are more likely to experience no symptoms or a mild illness from which you are expected to make a full recovery
e. If you develop more severe symptoms (shortness of breath etc.) or you feel your symptoms are worsening contact your healthcare provider
f. If you are well at the moment, and have no medical complications in the present or even in your past pregnancies, discuss an antenatal plan with your healthcare provider
g. Do not go to the hospital/clinic without prior notifying your healthcare provider/facility
h. No support/accompanying person to outpatient visits unless they are an integral part of patient care

ANTEPARTUM CARE:

1. Testing is done based on approved local protocols. Pregnancy alone in the setting of new-flu like symptoms is sufficient to warrant COVID-19 testing especially if with additional risk factors (e.g. close contact with known COVID-19 case, immunocompromised, with co-morbidities e.g., hypertension, diabetes)

2. Obstetrical patients with respiratory symptoms are best triaged via telehealth in order to assess their need for in-patient admission or testing, they are in general presumed to be infected and should self-isolate for 14 days.

3. Expectant management at home may be appropriate for many women who have mild symptoms.

4. Symptomatic women suspected of having or having been exposed to COVID-19 (PUI or PUM) who arrive at the hospital should be managed as if they are COVID-19 positive triaged quickly, given a mask to wear and transferred to a single occupancy room immediately.

5. Designated separate areas should be created in each unit for suspected COVID-19 patients. Increase sanitization. Hand sanitizers available at the front desk and throughout the facility. Wipe down patient rooms after each patient. Wipe down waiting area chairs frequently

6. For women requiring admission, droplet/contact infection precautions are employed.

7. Healthcare providers should delay routine antepartum appointments for women who have or are being tested for COVID-19. Advice self-quarantine at home.

8. Healthcare providers can consider empiric antibiotic therapy for superimposed bacterial pneumonia in women with confirmed COVID-19 infection or women with severe respiratory disease.

9. Initiation of antenatal corticosteroids should be discussed with an Infectious-Disease subspecialist, MFM subspecialist and a neonatologist

10. For preterm cases requiring delivery, caution is advised regarding the use of corticosteroids for fetal lung maturation in a critically ill patient

11. In the case of an infected woman presenting with spontaneous preterm labor, tocolysis should not be used in an attempt to delay delivery in order to administer antenatal steroids.

12. Women with suspected/probable COVID-19 infection (PUM/PUI) or those with confirmed COVID-19 infection who are asymptomatic or recovering from an illness should be monitored for fetal growth and AFI with UMA Doppler if necessary every 2-4 weeks

13. Anterpartum fetal surveillance of confirmed COVID-19 infection acquired during the first or early second trimester of pregnancy should occur monthly and include fetal growth assessment and a detailed anatomic scan at 18-24 weeks.

Table 1: Summary of suggested antenatal visit timing in the setting of COVID-19 Pandemic.

Gestational age	OPD visit	Ultrasound	Comments
< 11 weeks*			Teleconference
11-13 weeks**	X	X (Dating/NT)	Initial OB labs***
20 weeks	X	X (Anatomy)	
28 weeks	X		Labs/Vaccines
32 weeks	X	X (if indicated)	
36 weeks	X	X (if indicated)	GBS/HIV screen
37 weeks-Delivery	X		weekly
Postpartum	X		Teleconference

*Earlier scan may be indicated if at risk for ectopic
**If viability previously established consider skipping 11-13 week scan
***Labs may be performed at lower volume sites (independent labs outside the hospital) to accomplish social distancing
X- scheduled visit

Comments:

a. All new patients for consultations should be completed by telehealth unless patient describes an urgent need to have a visit.
b. Standard timing for OPD visits described in Table 1. Interim visits (16,24,34 weeks) can be scheduled at provider discretion via telehealth.
c. Instruct patients to obtain BP apparatuses or Glucometers and involve patients in self care.
d. Postpartum evaluation of cesarean wound healing or other concerns (e.g. mastitis) may be optimized through the use of photo uploads via telehealth.

General principles for routine ultrasounds to maximize perinatal diagnosis and minimize exposure risk for both patient and healthcare provider

A. <u>Dating Ultrasound</u>

a. Combine dating and Nuchal Translucency into one ultrasound based on LMP

b. If ultrasound earlier in the first trimester (e.g. < 10 weeks) is indicated due to threatened abortion, PUL, forego NT ultrasound and offer NIPT for those desiring aneuploidy screening
c. For patients with unknown LMP or Estimated GA > 14 weeks may schedule as next available

B. Anatomic Scan (20-22 weeks)*

a. Consider follow up views in 4-8 weeks rather than 1-2 weeks**
b. Consider stopping serial cervical length after anatomic scan if transvaginal cervical length is > 35 mm
c. For patients with BMI > 40 schedule anatomic scan at 22 weeks to reduce risk of suboptimal views/need for follow up

**Consider forgoing follow up ultrasound for one to two suboptimal views (e.g spine not seen well due to fetal position but posterior fossa is normal)

C. Ultrasound for Fetal Growth

a. All single third trimester growth at 32 weeks
b. Follow up previa/low lying placenta at 34-36 weeks

Table 2. Outline of common indications for fetal growth ultrasound and suggested frequency/timing in the setting of COVID-19 Pandemic

Indication	Gestational age			Frequency			Comments
	24 w	32 w	36 w	Once	q 4w	q 6w	
Overt DM, controlled						/	
Overt DM, uncontrolled					/		
Chronic HTN on meds, controlled						/	
Chronic HTN on meds, uncontrolled					/		
Preeclampsia/gestational HTN					/		
History of severe preeclampsia						/	
History of IUGR/SGA						/	
Current IUGR					/		
Chronic Kidney Disease						/	
Multiple pregnancy Mono-Di					/		
Multiple pregnancy Mono-Mono					/		
Multiple pregnancy Di-Di					/		
GDM, controlled						/	
GDM, uncontrolled					/		

Lupus/APS					/		
Prior unexplained IUFD						/	
Maternal Cardiac disease						/	
Uncontrolled Thyroid disease				/			
Advanced Maternal Age (>35)				/			
Abnormal placentation				/			At 34-36 weeks
Uterine fibroids > 5 cm				/			

Table 3. Summary of common indications for non-stress test and how we have modified frequency of testing in the setting of additional risks related to COVID-19 exposure and transmission. Red text in COVID-19 column indicates changes in recommendation

Indication for NST	Gestational age to begin 1x/week	Gestational age to begin 2x/wk	Comments	COVID-19 Recommendations
Advanced Maternal Age (>35)	36			Fetal kick counts instead of NST
Decreased Fetal Movement	Diagnosis			One time only
Overt DM	32	36		Weekly only
GDM	32	36		Weekly only
Chronic HTN	32			36 weeks if no indication
Gestational HTN		Diagnosis		Weekly with home BP monitoring
Preeclampsia		Diagnosis		Weekly with home BP monitoring
Chronic Kidney Disease	32			
IUGR		Diagnosis		Weekly with Doppler substitute BPP when possible
Elevated Dopplers		Diagnosis		
SLE/APS	32			
Fetal Arrhtymia	Diagnosis			
Mono-Di Twins	32			
Di-Di Twins			Only if with additional indication	
Obesity/BMI >40	32			Fetal kick counts instead of NST
Oliogohydramnios	Diagnosis			

Polyhydramnios	Diagnosis			Diagnosis or at 32 weeks if < 32 weeks diagnosis. Only for AFI >30
Prior IUFD	32		1 week prior to age at previous IUFD	

INTRAPARTUM CARE:

1. Droplet/contact precautions should be used, including a surgical mask with eye protection, a gown, and gloves.

2. Use of N95 respirators should be reserved for aerosol generating procedures (e.g. intubation)

3. Unnecessary health care personnel in the room should be minimized.

4. Intrapartum fetal monitoring in the form of EFM should be considered given evidence showing fetal distress during labor.

5. Cesarean delivery should be reserved for obstetrical indications.

6. Given that intubation is considered an aerosol generating procedure, the surgical team should wear N95 respirators for cesarean delivery in case there is a need to convert from regional to general anesthesia

7. For COVID-19 infected women who are scheduled for an elective cesarean section, delivery should be delayed if possible until a woman is no longer infectious

8. Follow newborn and breastfeeding practices according to local society recommendations.

Table 4. Summary of surveillance for confirmed pregnant COVID-19 patients

	Outpatient	Hospitalized	Comments
11 to 13 6/7 weeks	If within GA window, reschedule scan in 2 weeks	Perform at bedside	Offer detailed anatomic scan at 18-24 weeks
18 to 24 weeks	Reschedule in 3-4 weeks following recovery	Perform at bedside	

Growth monitoring	Reduce frequency 28-34 weeks	Growth over 2-4 weeks or earlier based on findings	

References:

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PREGNANCY RELATED SERVICES THAT COULD BE DELIVERED VIA TELEMEDICINE