



Guidelines on operationalization of maternal health services during Covid-19 pandemic

Maternal Health Division

Ministry of Health & Family Welfare

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List of abbreviations

AB-HWC- Ayushman Bharat - Health and Wellness Centre

ANC- Antenatal care

ANM- Auxiliary Nursing Midwifery

ASHA- Accredited Social Health Activist

CFR- Case Fatality Rate

CBC- Complete blood count

CCC- COVID Care Center

CHO- Community Health Worker

CPCB- Central Pollution Control Board

CRP- C-reactive protein

CVC- COVID-19 Vaccination Centers

DCHC- Dedicated Covid Health Centre

DHC- Dedicated Covid Hospital

DPI/MDI- Dry powder inhalers /Metered dose inhalers

ECMO- Extracorporeal membrane oxygenation

FLW- Front line workers

HBNC- Home Based New Born Care

HCW- Health care workers

HIV- Human Immunodeficiency Virus

HRP-High Risk Pregnancy

HSC- Health Sub Centre

HWC- Health and Wellness Centre

ICMR- Indian Council of Medical Research

ICU-Intensive Care Unit

LMWH- Low molecular weight heparin

LR-Labour Room

MO-Medical Officer

MoHFW- Ministry of Health and Family Welfare

NCDC- National Centre for Disease Control
NHM-National Health Mission
NIRRH-National Institute for Research in Reproductive Health
NSAID-Non-steroidal anti-inflammatory drugs
OGTT-Oral glucose tolerance test
OPD-Outpatient Department
OT-Operation theatre
PHC-Primary health care
PMSMA-Pradhan Mantri Surakshit Matritva Abhiyan
PPE-Personal protective equipment
PROM-Premature rupture of membranes
PW-Pregnant Woman
RAT-Rapid Antigen Test
RMNCHA+N- Reproductive, Maternal, Newborn, Child, Adolescent Health Plus Nutrition
RT-PCR- Real-time reverse transcription–polymerase chain reaction
SARS-CoV-2- Severe acute respiratory syndrome coronavirus 2
SHCs-Sub Health centres
SMFM- Society for Maternal-Fetal Medicine
SPO2- Oxygen saturation
Td- Tetanus diphtheria
UFH- Unfractionated Heparin
USG- Ultrasonography
VHSND- Village Health, Sanitation and Nutrition Day

1. Introduction

COVID-19 pandemic has been one of the biggest public health emergencies for mankind. The disease is caused by SARS-CoV-2 strain of coronavirus. Transmission of the virus is known to occur through close contact with an infected individual or from contaminated surfaces. The virus can also be transmitted from person to person in the pre-symptomatic phase and from asymptomatic individuals.

The adverse effects of the COVID-19 pandemic on maternal and perinatal health are not limited to the morbidity and mortality caused directly by the disease itself, but also include the challenges faced while providing services to the Pregnant Woman (PW) amidst unfavourable circumstances like lockdown, and unprecedented demands on health systems. Further, the risk of acquiring COVID-19 from infected PW poses unique challenges to healthcare personnel viz. doctors, nurses etc. in providing antenatal care. As per a study conducted by NIRRH-ICMR in India, the case fatality rate (CFR) among PW and postpartum women was found to be 5.7 per cent during the second wave, which was significantly higher compared to the first wave when CFR was only 0.7 percent. Rates of severe coronavirus disease 2019 (COVID-19), intensive care unit admission, and maternal mortality increased among pregnant and postpartum women admitted for COVID-19 in the second wave compared with the first wave in India.¹

There is now growing evidence that PW may be at increased risk of severe illness from COVID-19 compared with non-PW, particularly in the third trimester and symptomatic maternal COVID-19 is associated with an increased likelihood of iatrogenic preterm birth.² The study published in *The Lancet Global Health* (31st March 2021), found that maternal and fetal outcomes have worsened during the COVID-19 pandemic, with an increase in maternal deaths, stillbirth, ruptured ectopic pregnancies, and maternal depression. The review included 40 studies and three of which were from India.³

COVID-19 presents an immediate and emergent challenge to the healthcare system. However, it should be ensured that the provision of safe maternal and child health services is not impaired during this period. Given the context, it is pertinent to re-organize essential RMNCHA+N services and develop appropriate guidance to tackle this emergent and evolving situation. The MoHFW, in order to ensure continuity of RMNCHA+N services during the COVID-19 pandemic, issued guidance^{4,5,6} to States & UTs from time to time as given in Box-1

1.1 Purpose & Scope of the Guidelines

Re-organisation of antenatal care and visits for all PW during the current pandemic need to be considered by States/UTs not only to reduce the possibility of exposure of a healthy PW to infected individuals but also to minimize health care workers' exposure to PW who maybe infected but are asymptomatic.

This document provides necessary guidance for management of PW at community and facility level during the COVID-19 pandemic, including utilization of Telemedicine for Antenatal Care services.

Box-1: MoHFW guidance to States & UTs to ensure continuity of RMNCHA+N services during the COVID-19 pandemic is as follows

- **14th April 2020 - “Enabling Delivery of Essential Health Services during the COVID-19 Outbreak”**
- **24th May 2020 - “Guidance Note on Provision of Reproductive, Maternal, Newborn, Child, Adolescent Health Plus Nutrition (RMNCHA+N) services during & post COVID-19 Pandemic**
- **16th June 2020 -A letter from AS&MD (NHM) communicated to all States/UTs to emphasize on the following:**
 - **Under no circumstances should there be a denial of essential services to PW.**
 - Every opportunity is to be utilised for providing services to PW, if they have already reported at a facility for seeking a particular service and in no case, service should be denied irrespective of their COVID status
 - To maintain due list of all PW using available records with expected date of delivery (EDD) for active follow-up using **Tele Consultation services**
 - **Establish referral linkages** so as to ensure that every PW is linked with an appropriate nearby health facility for delivery and ambulance services to be tied up in advance for timely transport
- **19th May 2021-A webinar was conducted by MoHFW for all service providers in all States/UTs, ensuring continuity of maternal health services during COVID-19 Pandemic for healthcare workers, wherein domain experts delivered presentations on various aspects of management of pregnancy during Covid-19 pandemic**

1.2 Effect of COVID infection on pregnancy

Effect on the Pregnant Woman

Pregnancy does not increase susceptibility to SARS-CoV-2 infection but appears to worsen the clinical course of COVID-19 compared with non-pregnant women of the same age. Although most (>90 percent) infected pregnant women recover without undergoing hospitalization, rapid clinical deterioration can occur, and symptomatic pregnant women appear to be at increased risk of severe disease and death.

Risk factors for severe disease and death in pregnancy include older mean age (≥35 years), obesity, and pre-existing medical comorbidities (particularly hypertension and diabetes). Older mean age (especially ≥35 years), obesity, and pre-existing medical comorbidities (particularly hypertension and diabetes or more than one comorbidity increase these risks.

In a systematic review (192 studies and over 64,000 pregnant and recently PW with suspected or confirmed COVID-19) by Allotey J et al⁷, pregnant and recently pregnant women with Covid-19 attending or admitted to the hospitals for any reason are less likely to manifest symptoms such as fever, dyspnoea, and myalgia, and **are more likely to be admitted to the intensive care unit or needing invasive ventilation than non-pregnant women of reproductive age**. Pregnant women with covid-19 versus without covid-19 **are more likely to deliver preterm and could have an increased risk of maternal death and of being admitted to the intensive care unit**.

PW should be informed that though they are not at an increased risk of COVID 19 infection but if infected they may be at an increased risk of severe infection and adverse pregnancy outcomes in the form of ICU admission, invasive ventilation, need for ECMO or death, hence they should take all precautions to protect themselves from exposure and get themselves and their family members vaccinated.

Effect on the Foetus

- **Risk of miscarriage** - The frequency of miscarriage does not appear to be increased, but data on first and second trimester infections are limited.
- **Congenital anomalies** -There are no reports of any increased risk of congenital anomalies with COVID-19 infection.
- **Stillbirth**—Evidences from global studies are variable. Analysis of data from PW with confirmed or suspected COVID-19 infection from 12 countries, reported still birth rates of 0.4 to 0.6 percent, which appear to be similar to national population-based data⁸. However, results from a recent **systematic review published in Lancet Glob Health March 2021, depicts significant increase in stillbirth⁹**.

It is important for HCWs to realise that stillbirth rates may increase because of indirect causes such as missing antenatal scheduled visits due to risk of getting infected, or pandemic-related disruptions to in delivery of RMNCH services from lockdown policies.

Labour & Delivery- A positive COVID-19 report without any other co-morbid or obstetric complications is not an indication to expedite birth. The rate of neonatal COVID-19 infection, neonatal deaths, and maternal deaths are no greater when the mother gave birth through vaginal delivery¹⁰. A positive COVID-19 result is also not an indication for conducting Caesarean Section unless there are other obstetric factors justifying the same. Hence, the decision for mode of birth should not be influenced by positive COVID-19 result (unless urgent birth indicated).¹¹ Caesarean section should ideally be undertaken only when medically justified and dictated by usual obstetric factors. Emphasis should be to support the principles of normal

vaginal birth¹². However, most of the studies report an increase in preterm birth and caesarean delivery rates in women with confirmed or suspected SARS-CoV-2 infection.

HCWs should remember that infection with COVID is not an indication for caesarean section. Covid positive PW should be delivered by C-Section only for obstetric indications or refractory hypoxemic respiratory failure or worsening critical illness.

Vertical Transmission

The extent of vertical transmission of COVID-19 is still unclear. Vertical transmission has not been convincingly demonstrated or excluded^{13,14,15}. As of now there are a few documented cases of probable vertical transmission published in literature. In a systematic review of infants born to 936 COVID-19 infected mothers done by Kotlyar et al¹⁶, neonatal viral RNA testing was positive in 27 (2.9%) nasopharyngeal samples taken immediately after birth or within 48 hours of birth, 1/34 cord blood samples, and 2/26 placental samples; in addition, 3/82 neonatal serologies were immunoglobulin M (IgM) positive for SARS-CoV-2.

It is important to reassure the PW that vertical transmission seems to be uncommon and unaffected by mode of birth, feeding choice or rooming in. New-borns of COVID positive mothers should be segregated from other babies.

Neonatal outcome

Over 95% of new-borns of SARS-CoV-2 positive mothers have been in good condition at birth. Most of the new-borns are asymptomatic at birth¹⁷. Analysis of global data from pregnant women with confirmed or suspected SARS-CoV-2 infection in 12 countries reported all cause early neonatal death rates of 0.2 to 0.3 percent, which is no higher than expected based on pre COVID-19 national data¹⁸.

1.3 Testing Strategy for Covid-19 in PW

Health care workers and health facilities should adhere to the ICMR's latest testing strategy which is updated from time to time.

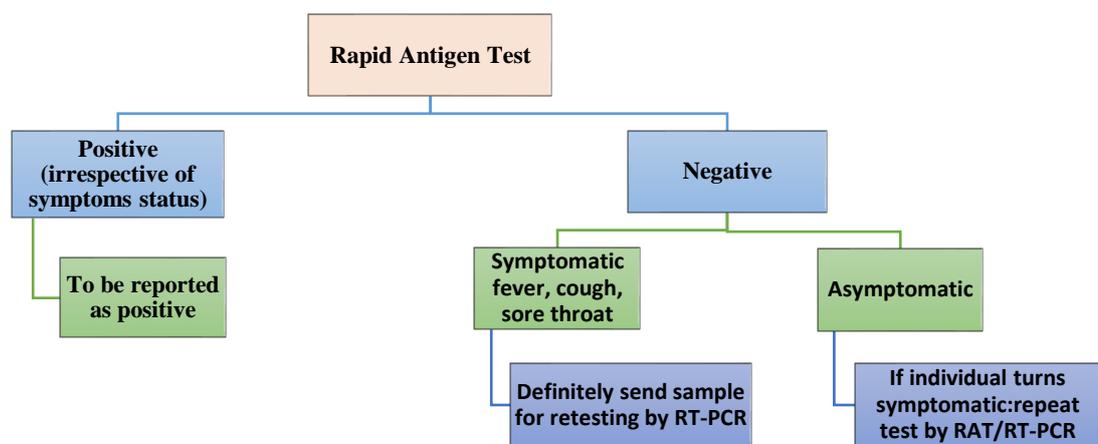
In a hospital setting, all PW admitted in spontaneous labor or who are hospitalized for planned delivery by induction of labour or caesarean section or those admitted in the ward for some other obstetric indications should be tested for Covid-19 by RT-PCR. If RT-PCR is not available or in cases of emergency, Rapid Antigen Testing (RAT) can be done with approved

kits (Fig 1). If RAT is negative, it needs to be confirmed with RT-PCR, if the patient is symptomatic. It is pertinent to remember that:

- **Although testing should be done wherever indicated and feasible, no emergency procedure (including deliveries) should be delayed for lack of COVID test report.**
- **No PW should be transferred or referred just for lack of testing in the facility.**
- **Arrangements should be made to collect and transfer samples to testing facilities while managing the woman as a suspect.**

Records of COVID positive women and newborns including outcome should be completed in detail and communicated at higher level for compilation at District & State level.

Figure 1: Algorithm for COVID-19 test interpretation using rapid antigen point-of-care test



- All +ve & -ve result should be entered into the ICMR portal on a real time basis after performing the antigen test
- Result of samples subjected to RT-PCR should be entered after the RT-PCR results are available

Indications of COVID-19 testing in PW and neonates:

- PW with symptoms
- All PW in/near labor who are hospitalized for delivery
- All pregnant women admitted for other obstetric conditions
- All symptomatic neonates presenting with acute respiratory / sepsis like illness. (Features suggestive of acute respiratory illness in a neonate are respiratory distress or apnoea with or without cough, with or without fever. Neonates may also manifest with only non-respiratory symptoms like fever, lethargy, poor feeding, seizures, or diarrhoea)

It is recommended that all PW reporting to health facility for admission should be screened and tested for COVID-19, however it is important to note that no PW should be denied immediate care on the basis of non-availability of testing facility.

Advisory for COVID-19 testing and admission (Patient-Centric)

1. RT-PCR test must not be repeated in any individual who has tested positive once either by RAT or RT-PCR.
2. No testing is required for COVID-19 recovered individuals at the time of hospital discharge in accordance with the discharge policy of MoHFW.
3. During the current upsurge of COVID-19 cases, any individual presenting with fever with / without cough, headache, sore throat, breathlessness, body ache, recent loss of taste or smell, fatigue and diarrhoea should be considered a suspect case of COVID-19 unless proven otherwise by confirmation of another etiology.
4. Positive test for COVID-19 virus is now 'Not Mandatory' for Admission to a COVID Health Facility.
5. A suspect case shall be admitted to the suspect ward of CCC, DCHC or DHC as the case may be.
6. No patient will be refused services on any count including medications such as oxygen or essential drugs.

(<https://pib.gov.in/PressReleaseDetail.aspx?PRID=1717009>)

2. Pregnancy care during COVID-19 Pandemic

2.1 Antenatal Care

Government of India has mandated that a PW needs to have at least 4 ANC check-ups along with at least 1 PMSMA visit during 2nd/3rd trimester including a USG scan. However, it is emphasized that this is only a minimum requirement and that more visits may be necessary, depending on the woman's condition and needs. The suggested schedule for antenatal visits is as follows.

- **First visit/registration** - The first visit or registration of a PW for ANC should take place as soon as the pregnancy is suspected. Every woman in the reproductive age group should be encouraged to visit her health provider if she believes she is pregnant. Ideally, the first visit should take place within 12 weeks
- **Second visit** - Between 14 and 26 weeks
- **Third visit** - Between 28 and 34 weeks
- **Fourth visit** - Between 36 weeks and term
- **At least one PMSMA visit during 2nd& 3rd trimester including a USG scan**

While the health systems (facilities and service providers) continue to provide the essential maternal health services, during the COVID-19 pandemic, it is imperative to

reorganize antenatal visits, not only to reduce the possibility of exposure of a healthy PW to infected individuals but also to minimize health care workers' exposure to pregnant women who may be infected but are asymptomatic. Special precautions also need to be taken while providing ANC services for PW while they are the infected. The details on re-organization are given in Box-2.

While every effort by the health system and PW's family should be made to achieve the above-mentioned number of visits, following instances may be faced by the PW:

- Deferring the in-person ANC visit for at least 14 days if the COVID positive PW having no or mild symptoms
- Requiring specialist consultation
- High risk pregnancy requiring additional physical visits and/or additional monitoring
- New onset complaints happening for the first time in pregnancy warranting consultation with a specialist/MO
- Interrupted VHSND due to any unforeseen circumstance posed by pandemic
- Skipping scheduled visits due to any unforeseen circumstance posed by pandemic
- Routine follow-ups, investigations and/or USG scan are due.
- A family member is affected with COVID 19
- The nearest health facility is converted to CCC/ DCH.

Box-2: ANC Services for PW during COVID-19

- ❖ **Number of visits may be reduced** with an increased interval between visits depending on the individual risk assessment.
- ❖ **Duration of the visit could also be shortened.**

Antenatal visits and care in women infected with COVID-19 infection

- a) No additional tests are required in asymptomatic or mildly symptomatic cases
 - b) Routine appointments (growth scans, OGTT, antenatal care appointments) are delayed until after the recommended period of isolation
 - c) PW is counseled regarding danger signs of pregnancy
 - d) PW is counselled for self-monitoring 4 times a day (pulse, temperature, oxygen saturation, difficulty in breathing)
 - e) Tips for home isolation (provided at Page 24)
- If any concerns about the well-being of self or fetus, immediately contact ASHA/ANM/ nearest health facility.
 - Additional care if any complications

Antenatal contact after recovery from illness:

- Recovery from infection in first trimester: Consider one obstetric ultrasound during pregnancy between 18-22 weeks of pregnancy as part of routine Ante Natal Care (ANC) package
- Recovery from infection in latter half of pregnancy: Consider sonographic assessment of fetal growth 2 weeks after infection, if required

2.2 Operationalisation of Telemedicine for PW during Covid-19

Reorganization of pregnancy care may be helpful in creating the capacity to provide face-to-face consultations for high-risk patients who require more visits and also to be beneficial for all maternity care providers offering care, given the potential for reduced health care workers as the pandemic affects all members of the community¹⁹. **However, to mitigate any potential adverse effects of reduced antenatal visits, intelligent use of evolving telemedicine capabilities can protect the continuum of care despite the overwhelming burden caused by the pandemic²⁰.**

Advantages of additional consultation using telemedicine:

1. Provide consultation to the PW who is COVID-19 positive but having no or mild symptoms.
2. Telephonic triage can be conducted to identify PW who require in person visits and thus avoid unnecessary hospital visits.
3. If a PW requires testing for COVID-19 infection, the virtual or telephonic triage may aid her in getting to the right facility/lab.
4. Furthermore, for COVID positive PW with mild or moderate symptoms, a suitable advice regarding the disease management can be given utilizing the same platform by the concerned MO/Specialist located at a distance. Referral linkages and tagging PW to the nearest COVID facility can be facilitated for the PW with moderate to severe disease.
5. Facilitate routine ANC check-up/follow up not warranting a physical or a bimanual per-vaginum examination and routine sharing and interpretation of lab reports.
6. Information on Danger Signs in pregnancy and Birth Preparedness discussion.
7. Ongoing pregnancy risk assessment – including emotional wellbeing and personal safety: If risk assessment identifies potential or actual complications more frequent contacts need to occur and these may need to be face-to-face.
8. Health care providers at the HWC-SC/PHC can schedule a telehealth appointment with a gynaecologist in case of a High-Risk Pregnancy, before a face-to-face visit, thus limiting the time required for the consultation during the face-to-face interaction.
9. Educate PW about preventive measures during a pandemic, self-care, detection of danger signs, re-assurance, mental wellbeing etc.
10. Antenatal care during the last trimester requires prioritization. Telephonic contact should be made by ASHAs or ANMs with known high-risk PW to ascertain their status and organize home-based follow-up if necessary.

The importance of telehealth for maintaining the provision of essential maternal and newborn health services during the COVID-19 pandemic has also been highlighted by the MoHFW in the Guidance Note on Provision of Reproductive, Maternal, Newborn, Child, Adolescent Health Plus Nutrition (RMNCAH+N) services during & post COVID-19 Pandemic released in May 2020.

Utilization of services was affected during the prevailing pandemic due to reduced footfall during PMSMA days and ANC OPDs. These may be due to the following barriers in accessing services:

- Perceived fear of getting infected while visiting a health facility
- Lack of transportation due to lockdown/ containment
- ANC facilities getting converted to dedicated COVID care facilities
- PW or any family member in same household being Covid-19 infected

Telemedicine for maternal health services: using the eSanjeevani platform

Ministry of Health & Family Welfare's National Telemedicine Service -eSanjeevani has been widely adopted by patients as well as doctors, and specialists across the country. The roll out of National Telemedicine Service (eSanjeevani) has enabled two types of telemedicine services viz.

- Doctor-to-Doctor at Ayushman Bharat - Health and Wellness Centres (AB-HWCs)
- Patient-to-Doctor (eSanjeevani OPD) Tele-consultations.

(a) eSanjeevani AB-HWC - the doctor-to-doctor telemedicine platform- is being implemented at all the Health and Wellness Centres (HWCs) in the country in hub and spoke model under Ayushman Bharat Scheme of Government of India. It aims to implement tele-consultation in all the 1.5 lakh HWCs.

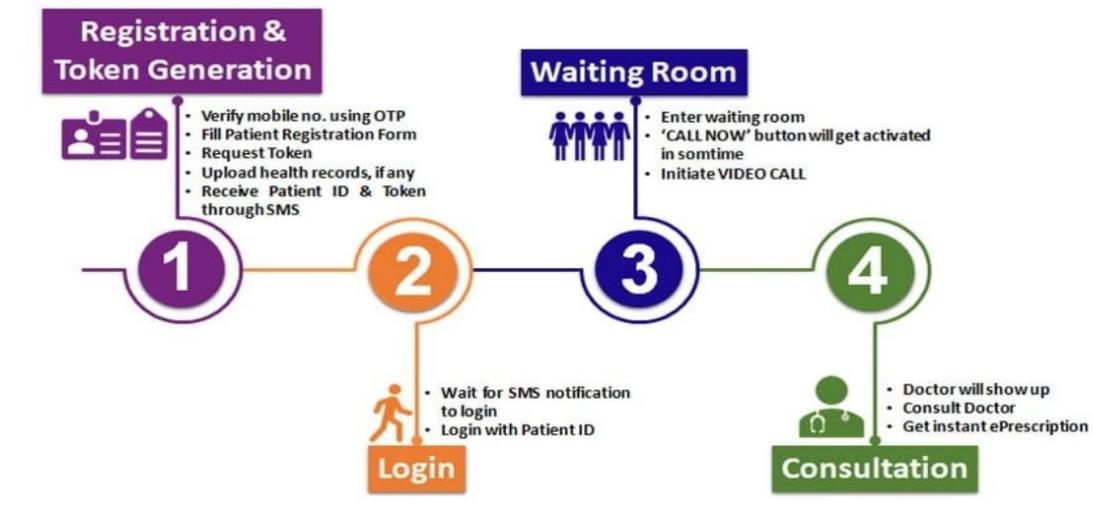
- States have identified and set up dedicated 'Hubs' in Medical Colleges and District hospitals to provide tele-consultation services to 'Spokes', i.e SHCs, PHCs and HWCs.
- In the 'Hub and Spoke Model' of service HWCs are the spokes and a HUB of Doctors (MBBS/Speciality/Super-Speciality doctors) is created at State Level or Zonal/ Divisional level, as the case may be, to provide the first level of tele-consultation and subsequent prescription to the Community Health Workers (CHOs) at HSC-HWCs and Specialist services to the Medical Officers at the PHCs. For more information, refer to Guidelines for Tele- Medicine Services in Ayushman Bharat Health & Wellness Centres (HWCs).¹

(b) eSanjeevani OPD: It is a national online OPD service that enables patients to consult doctors by providing safe & structured video-based clinical consultations between a doctor in a hospital and a patient in the confines of his/her home.

¹ <https://ab-hwc.nhp.gov.in/download/document/ecc507d177d47211fab41162b1f21271.pdf>

Through eSanjeevani, PW desirous of seeking medical consultations are placed in a virtual queue and upon their turn can see a doctor who is available virtually may be in another city. Each online OPD consultation generates an e-prescription which can be used to get medicines or go for diagnostic investigations as given in Figure 2 below.

Figure 2: e-Sanjeevani online OPD consultation Process



The detailed user guide for citizens can be accessed at https://esanjeevaniopd.in/assets/images/login//userguide_patients.pdf

ANC services through Telemedicine

It is among one of the duties of ASHA to ensure that every PW avail antenatal care and postnatal care at the nearest SC/SC-HWC/VHND. Likewise, ASHA workers will play a key role in operationalizing ANC services through telemedicine. **The essential components of ANC to be ensured by ASHAs are given in Box-3.**

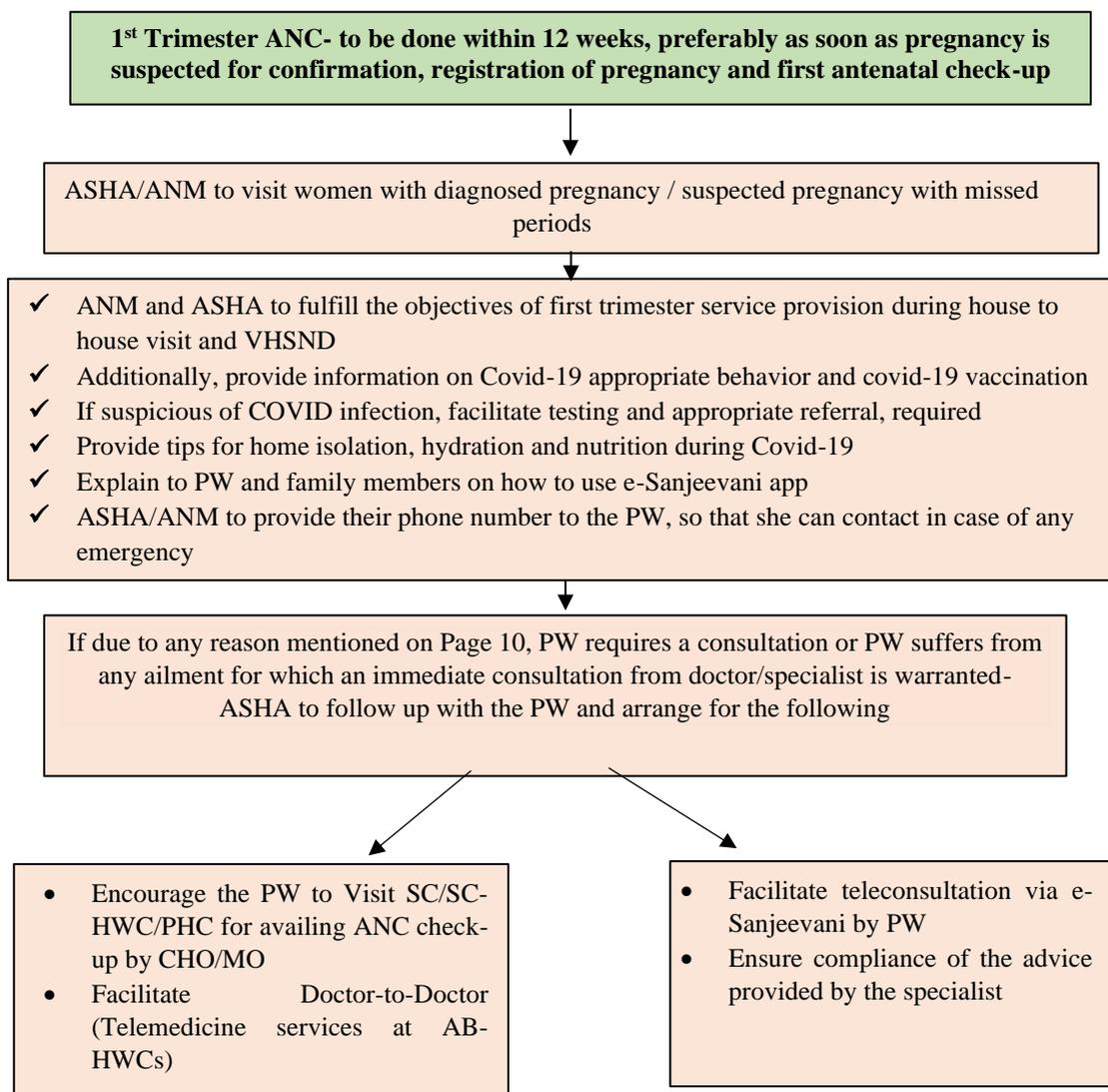
- The PW must be encouraged by ASHA/ANM to attend VHSND/nearest AB HWC for pregnancy registration and provision of other ANC services including referral. If required a Teleconsultation can be facilitated with MO/Specialist by the CHO.
- If due to any reason owing to covid-19 pandemic, PW is unable to attend in person ANC, an e-consultation using e-sanjeevani application must be promoted. ASHA/ ANM shall help the PW to seek e-consultation by using the e-sanjeevani OPD on PW's or her family member's mobile phone. ASHA will guide the PW/family member to download the application on their mobile phone and to register for appointment and seek a consultation on their own.
- For any ANC teleconsultation, it is the duty of concerned ASHA/ANM to ensure that the advice provided to PW is being followed be it in the form of medications, investigations, or further referral.

- It is also desirable that this consultation occurs in presence of Front-Line Worker (FLW) especially when PW is suspected to experience any complication/danger sign. This step will also ensure HRP tracking and proper referral.
- A trimester-wise guide on facilitating ANC visits/e-consultation for the PW by the concerned ASHA/ANM using telemedicine is detailed in an algorithmic form below at Boxes 4-7.
- It is important to note that 4 ANC check-up along with at least 1 PMSMA is the minimum desirable criteria laid down by GoI but it is not sacrosanct and the number of ANC visits have to be customized on a case-to-case basis.

Box-3: Essential components of antenatal care (to be ensured by ASHA worker)

- | | |
|-----------------------------------|--|
| • Early registration of pregnancy | • 1 tablet of IFA every day for 6 months & double doses in case of anaemia |
| • Regular weight check | • Consumption of Calcium Supplementation |
| • Blood & urine test | • Two doses of Tetanus Diphtheria Toxoid (Td) vaccine |
| • Measurement of blood pressure | • Nutrition counselling |
| • Preparing for birth. | |

Box-4: ANC in First trimester integrated with Teleconsultation



Box-5: ANC in Second trimester with integrated Teleconsultation

2nd Trimester ANC - Between 14 and 26 weeks
Besides, the routine VHND visit, the PW should be encouraged to have a PMSMA visit to avail ANC service provision including USG scan.

- ANM and ASHA to fulfill the objectives of Second trimester service provision during house to house visit and VHSND
- Additionally, provide information on Covid-19 appropriate behavior and covid-19 vaccination
- If suspicious of COVID infection, facilitate testing and appropriate referral required
- Provide tips for home isolation, hydration and nutrition during Covid-19
- Explain to PW and family members on how to use e-Sanjeevani app
- ASHA/ANM to provide their phone number to the PW, so that she can contact in case of any emergency
- Counselling on Quickening, Danger Signs of Pregnancy

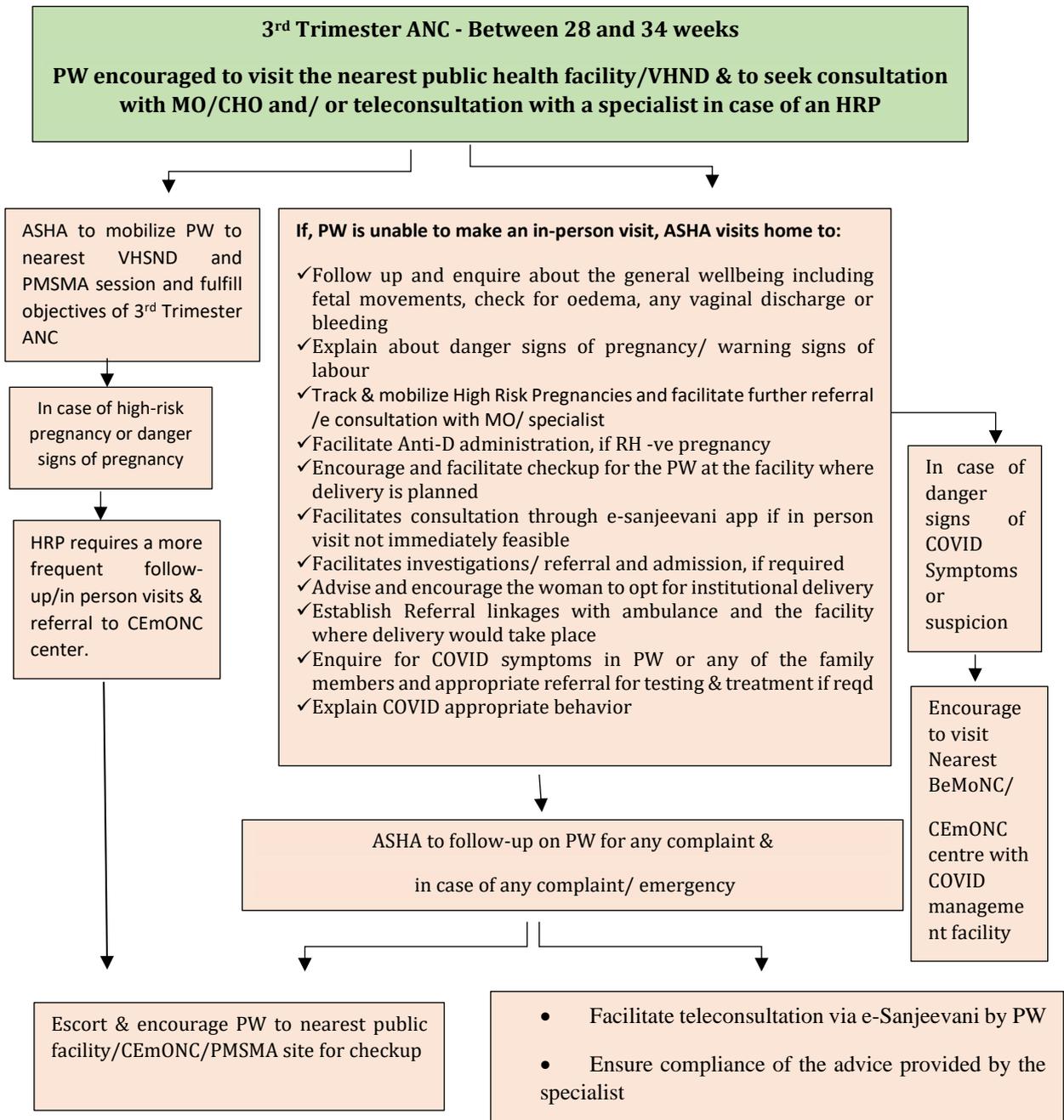
ASHA to facilitate PW for a physical visit to the PMSMA session on 9th for consultation, tests and USG scan – ASHA to facilitate consultations & investigations

If due to any reason mentioned on Page 10, PW requires a consultation or PW suffers from any ailment for which an immediate consultation from doctor/specialist is warranted- ASHA to follow up with the PW and arrange for the following

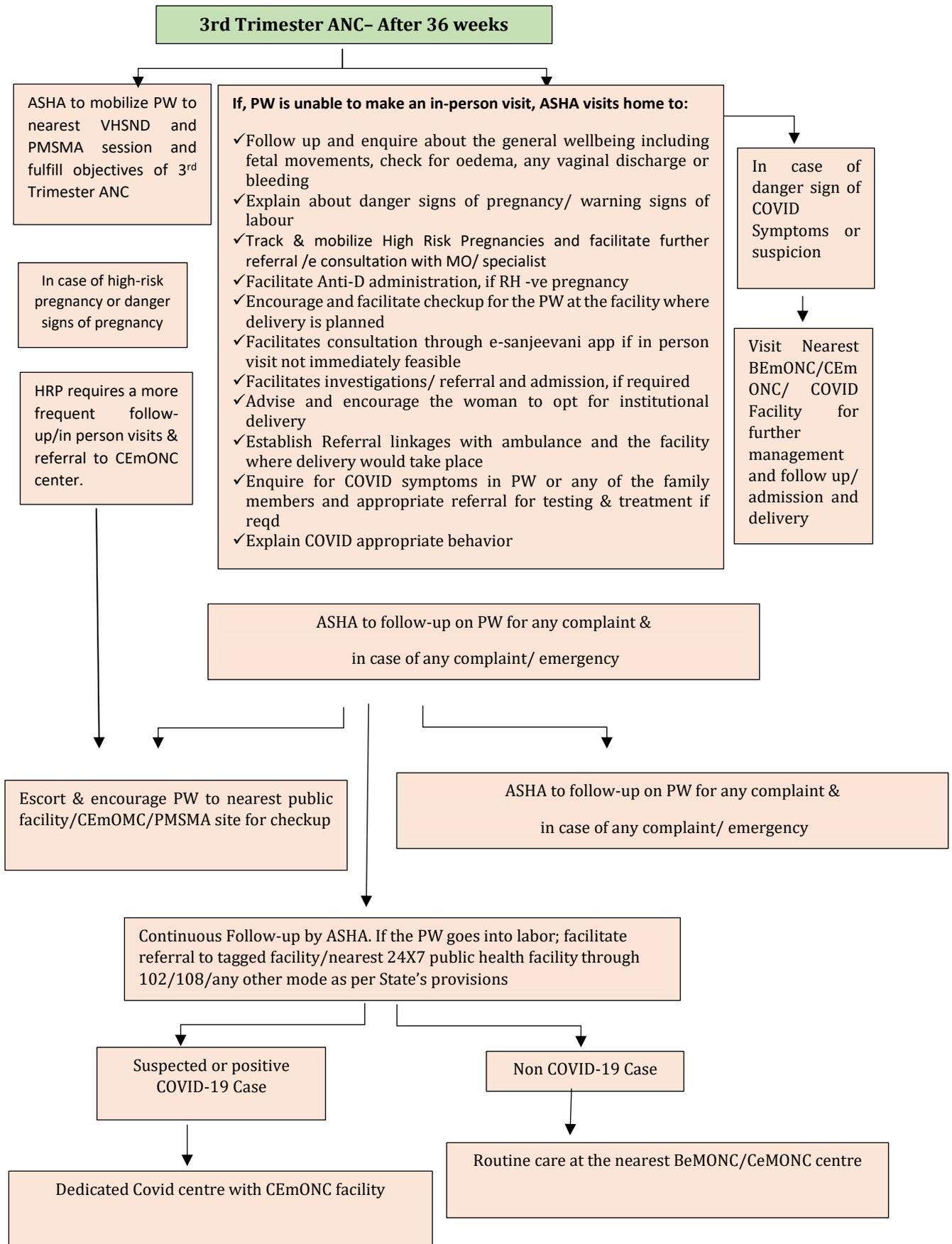
- Encourage the PW to Visit SC/SC-HWC/PHC for availing ANC check-up by CHO/MO
- Facilitate Doctor-to-Doctor (Telemedicine services at AB-HWCs)

- Facilitate teleconsultation via e-Sanjeevani by PW
- Ensure compliance of the advice provided by the specialist

Box-6: ANC in Third trimester with integrated Teleconsultation



Box-7: ANC in Third trimester with integrated Teleconsultation



3. Management of Covid-19 At Facility Level

Guiding Principles for care of PW in COVID pandemic

The care of PW in COVID Pandemic must be guided by the following principles:

- All PW, irrespective of COVID status, should have access to woman-centred, respectful skilled care. Birth preparedness needs to be ensured.
- All PW to be screened at the triage area
- Testing criteria notified by ICMR must be followed
- Delivery services to continue to be provided in all facilities
- All delivery points are advised to have isolation areas, and preferably a separate LR and OT for PW suspected with COVID infection. Septic LR and OT, if available may be utilized for this purpose.
- If a COVID suspected or positive PW in imminent labour arrives at any non-COVID facility, she should not be denied services and be delivered at that facility itself.
- Blood Banks/Blood Storage Units need to be kept functional, where available.

Facility Preparedness

- All facilities should have a written protocol for management of COVID infected PW. They should:
 - Have sufficient supplies of PPE and hand washing facilities in the LR and OT
 - Have disinfection protocols at each delivery point like sanitisation of surfaces of labour room and in-patient wards with hypochlorite solution
 - Restrict number of birth companions/ visitors in LR and wards as per State COVID SOPs
 - Keep minimum staff in OT, all of whom must wear appropriate PPE
- Allow time for a full post-operative theatre cleaning and sanitization as per SOPs.
- Train all staff (including maternity and neonatal) in the use of PPE so that emergency theatre is functional round the clock
- Staff should follow regular hand hygiene practices – handwashing before and after examining each patient, wearing sterile gloves for examining the patient etc.

It is emphasised that maternity services are essential and adequate staffing Labour room and maternity OT is paramount to maintain quality maternal and new born health services.

Triaging

Any PW seeking health care services (antenatal/ intrapartum/ postpartum) shall be screened at the triage of the health facility, to minimize contact between suspected COVID -19 and non-COVID-19 patients/ PW at the health facility. A triage area should be set up before entry into

Labour Room. Triaging should be done using a checklist which can segregate PW into three categories viz. screen negative, COVID-suspect and COVID-positive.

Place of triaging:

- Should be situated close to the main entrance
- Should be spacious enough place for the health workers to work and interact with PW maintaining safe distance with all precautions
- Should have a waiting area for women to sit with social distancing
- Should have examination area with table and fully equipped trolley
- Mechanism for proper referral of PW in case she cannot be managed at the same facility by ensuring availability of referral transport using 102/108/ other modes of transport as per State’s provisions, depending on the severity of the symptoms of the woman.

Suggestive checklist given in Box-8 may be used for screening the pregnant woman at the triage.

BOX-8: Checklist for Triaging

Name: _____ **W/O:** _____
Age: _____ **Gestational Age-** _____
Phone No.: _____ **Address:** _____

Q1. Does the PW present with the following?

- Fever with cough	Yes / No
- Fever with shortness of breath	Yes/ No
- Past history of fever with cough or shortness of breath	Yes / No
- History of contact with COVID positive	Yes / No
- The patient is a health care worker	Yes/No

Q2 Is the PW asymptomatic but a high-risk contact:

- Living in the same household with COVID positive.	Yes /No
- Health care worker providing care to COVID positive.	Yes / No
- Travelling with COVID positive	Yes / No

Q3 Does the PW belong to hotspots/clusters/ large migration gatherings / evacuee centres and presenting symptoms like Fever/Cough/Sore Throat/Runny Nose (Yes/No)
If answer to any of the above is **YES**, PW to be sent to suspect ward and sample sent for testing or referred to higher centres, if all answers are **NO**, patient to be sent to LR

- Screen negative PW should be managed as routine cases and testing in these patients should be as per standard protocol.
- COVID-suspect PW should be isolated in a suspect area and sample for testing should be sent.

- If in imminent labour or any obstetric emergency, they should preferably be managed in separate/septic labour room.
- COVID-Positive PW should be referred to the dedicated COVID block/ earmarked area for COVID cases in the same facility/ referred to a separate facility or hospital depending upon severity of illness unless they are in active labour. PW who are not in labour and are asymptomatic/pre symptomatic or have mild disease can be managed at home after consultation with the doctor. The algorithm of Triage & patient's workflow is given in figure 3 & 4 respectively.

Figure 3: Algorithm for triage

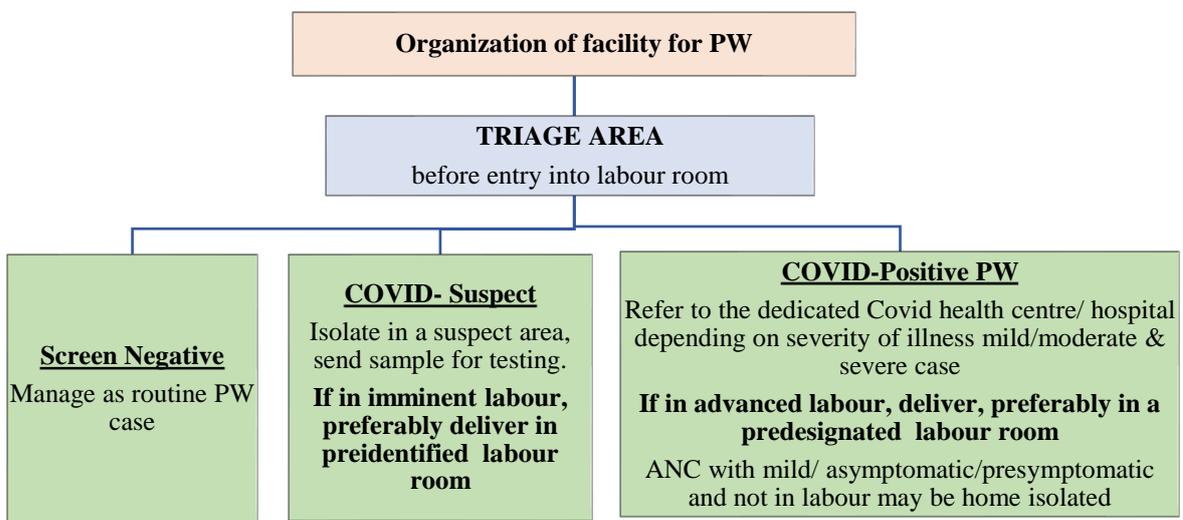
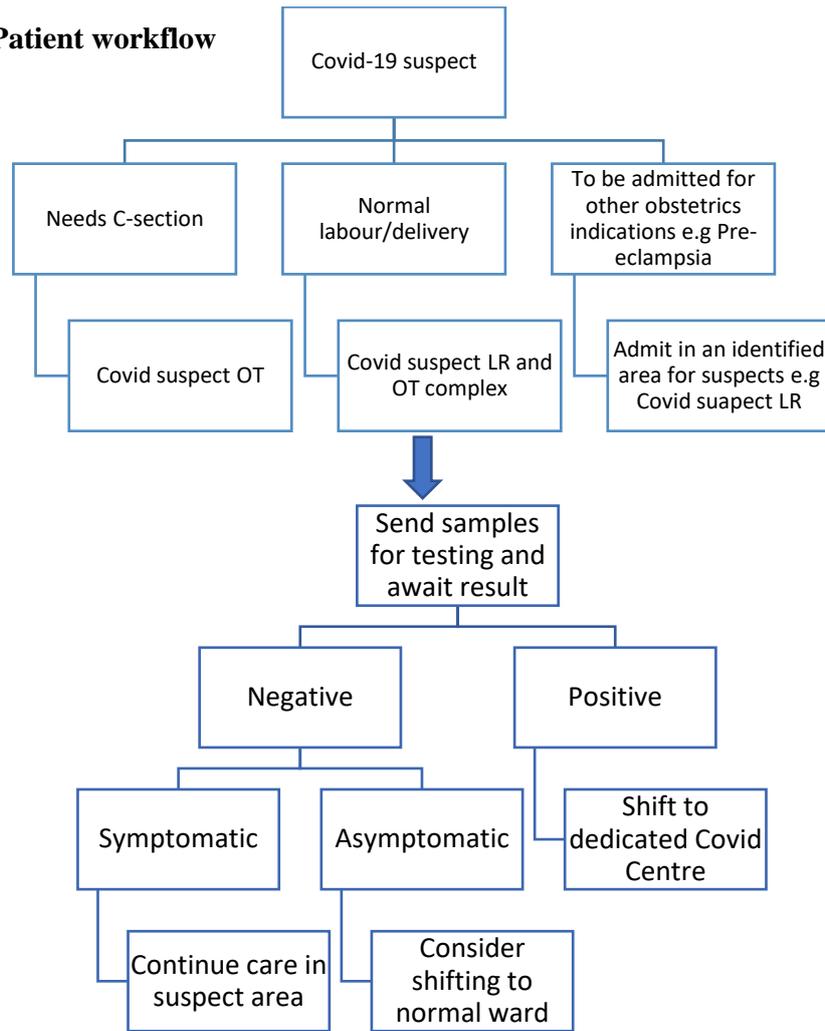


Figure 4: Patient workflow



Challenges in triaging:

It has been observed that even asymptomatic PW are sometimes found to be positive, and thus it might not be possible to avoid inadvertent exposure to other patients and health care workers. Patients may hide history of exposure to a close contact or travel and even mild symptoms. One major issue is refusal to get admitted in COVID dedicated facility by some of the patients, especially asymptomatic patients with apprehensions of acquiring the infection once admitted at these facilities.

It is emphasised that HCWs should consider all patients including pregnant women as potential carriers of Covid-19 and hence, should follow all standard precautions *for their own safety and the safety of other PW admitted in the facility.*

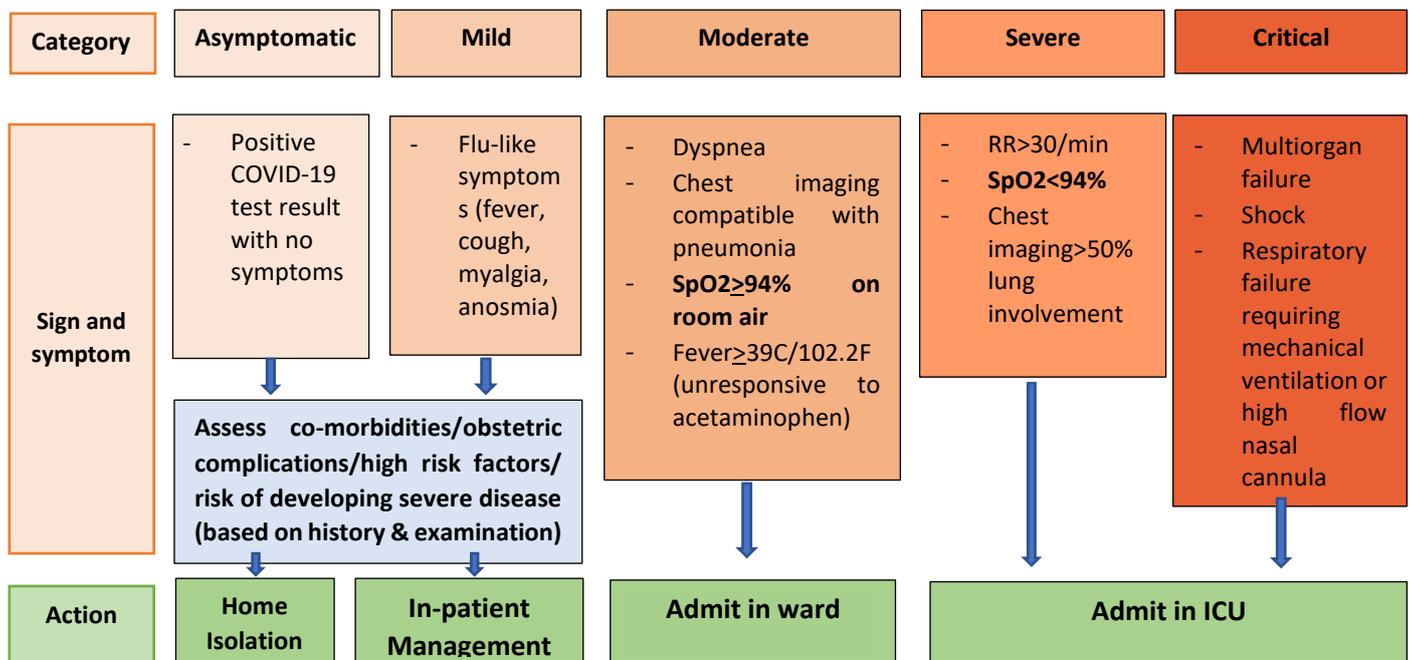
Classification of disease severity in pregnancy

A covid-19 positive pregnant woman may have Flu-like symptoms/ fever/cough/myalgia/ anosmia/ shortness of breath/GI Upset etc. Depending on the severity, disease is categorized as follows:

- **Asymptomatic:** No symptoms, tested positive on screening.
- **Mild disease:** Flu-like symptoms, such as fever, cough, myalgias, and anosmia without dyspnoea, shortness of breath, or abnormal chest imaging.
- **Moderate disease:** Lower respiratory tract disease with evidence of dyspnoea, pneumonia on imaging, abnormal blood gas analysis, refractory fever of 39.0 °C /102.2 °F or greater not relieved with paracetamol while maintaining oxygen saturation of greater than or equal to 94% on room air.
- **Severe disease:** Respiratory rate greater than 30 breaths per minute (bpm), oxygen saturation less than 94%, greater than 50% lung involvement on imaging.
- **Critical disease:** Multi-organ failure or dysfunction, shock, respiratory failure requiring mechanical ventilation. **One may experience refractory hypoxemia** with persistent, inadequate oxygenation and/or ventilation despite substantial and appropriate measures to optimize it. (PaO₂ < 70 mm Hg or PaO₂/FiO₂<150).

PW should be categorized into asymptomatic, mild, moderate, severe and critical illness. HCWs should be aware that threshold for classification is different in pregnancy and cut-off oxygen saturation is <94% SpO₂ for severe disease.

Figure 5: Assessing disease severity in pregnancy (SMFM 2021) and management



4. Clinical management of COVID-19 in pregnancy/intrapartum/postpartum

Majority of PW with COVID-19 infection have no symptoms or only mild symptoms. To decide for inpatient versus outpatient management, various co-morbidities such as hypertension, diabetes, asthma, HIV, heart disease, chronic liver, kidney or lung disease, blood dyscrasias, patients on immunosuppressive medications need to be assessed along with assessment of any obstetric complications or high-risk factors. and availability of home isolation facilities. If none are present, outpatient care with a 14-day quarantine is considered optimal. There is no need for any additional investigations like test for inflammatory markers or chest imaging (X-ray chest) or CT scan.

Tips for home isolation

- **Place of stay:**
 - Well-ventilated room with preferably attached washroom
 - Avoid sharing of personal items with other people in the household
 - Cleaning of surfaces in the room that are touched often with 1% hypochlorite solution to be ensured
- **Respiratory and hand hygiene:**
 - Triple layer medical mask to be used
 - Mask to be discarded after 8 hours of use or earlier if wet
 - Follow respiratory etiquettes
 - Frequent hand washing with soap and water for at least 40 seconds or clean with alcohol-based sanitizer.
- **Medications and other interventions:**
 - Rest, hydration, and balanced diet.
 - Rest in prone/lateral position
 - Symptomatic treatment for fever, running nose and cough
 - Warm water gargles and steam inhalation twice a day
 - If fever not controlled with a maximum dose of Tab. Paracetamol 650 mg four times a day, consider other drugs like NSAIDs (Tab. Naproxen 250 mg twice a day).
 - Inhalational Budesonide (given via DPI/MDI with Spacer at a dose of 800 mcg BD for 5 to 7 days) for persistent cough/fever beyond 5 days of illness.

- Drugs to be avoided in pregnancy: Ivermectin and Doxycycline
- **Self-monitoring 4 hourly using thermometer and pulse oximeter using a self-monitoring chart given at Figure 6**

Record on a chart:

- Temperature
- Heart rate
- SpO2

Figure 6: Self-Monitoring chart

Day of Symptoms & time (every 4 hourly)	Temperature	Heart Rate (from pulse oximeter)	SpO2 % (from pulse oximeter)	Feeling: (better/same/worse)	Breathing (better/same/worse)	Any other
8:00 AM						
12:00 PM						
4:00 PM						
8:00 PM						

When to consider inpatient management

- High risk patients
 1. Uncontrolled hypertension
 2. Inadequately controlled gestational/ pregestational diabetes mellitus
 3. Chronic kidney disease
 4. Chronic cardiopulmonary disease
 5. Malignancy
 6. Immunosuppressive states
- Inability to isolate at home
- Any concern regarding well-being of self or fetus
- In case of appearance of any of the following danger signs (Box-8) during home isolation:

Box-8: Danger signs requiring admission/in-hospital management

<u>Symptoms</u>	<u>Signs</u>
<ul style="list-style-type: none">• Worsening shortness of breath• Inability to tolerate oral hydration or needed medications• Persistent pleuritic chest pain• New-onset confusion or lethargy• Obstetrical complaints, such as preterm contractions, vaginal bleeding, or decreased fetal movement	<ul style="list-style-type: none">• Tachypnea• Unremitting fever (greater than 39 °C) despite antipyretics• Oxygen saturation less than 95% either at rest or on exertion• Cyanotic lips, face, or fingertips

Management of confirmed cases: Moderate and Severe disease

These patients need inpatient management and multidisciplinary care with specialists from infectious disease and critical care. The place of care is decided based on the condition of the patient and severity of illness.

I. Monitor the trends of inflammatory markers and perform relevant imaging

- CBC Absolute Lymphocyte Count, KFT/LFT: 24-48 hours
- CRP, Procalcitonin, IL-6, LDH, Ferritin & D-dimer: 48-72 hours
- Blood sugar monitoring should be done in women receiving steroids.
- Role of imaging:
 - Chest X Ray or a CT scan can be recommended for hospitalized patients when benefits outweigh the risks, with abdominal shield as per the discretion of the treating physician

II. Drug therapy

1. Oxygen therapy
 - Target SPO₂ \geq 95%
 - Non-rebreather Mask (NRBM)/ venturi masks/nasal cannula can be used
 - HFNC (High flow nasal cannula)- if SpO₂ not maintained
2. Inhalational Budesonide (with spacers): 800 mcg BD inhalation for 5-7 days if required
3. Steroids: Inj. Methylprednisolone 0.5 to 1 mg/kg in 2 divided doses for 5-10 days. Methyl prednisolone is preferred as it does not cross placenta.

Indications:

- Moderate to severe rise in Respiratory Rate (RR) or a fall in spO₂ even without pneumonia (in consultation with Physician)
- Bronchopneumonia
- Marked rise in pro inflammatory markers with symptoms

If steroids are needed for fetal lung maturity, usual dose of dexamethasone or betamethasone is given. This can be followed by Methylprednisolone or dexamethasone

hydrocortisone to complete the usual course of treatment for COVID. **Methylprednisolone is preferred as it does not cross the placenta.**

4. Antibiotics: Indicated for cases of bacterial pneumonia or fever persisting beyond 5-6 days.
5. Anticoagulation: Thromboembolic risk assessment²¹ should be done for all PW who have COVID infection. Low molecular weight heparin (LMWH) is given in a prophylactic dose if pregnant woman is hospitalized for mild COVID infection with comorbidities in consultation with a physician.

Box-9: Dose of anticoagulation

Weight	Enoxaparin	Dalteparin	Tinzaparin (75u/kg/day)
< 50 kg	20 mg daily	2500 units daily	3500 units daily
50-90 kg	40 mg daily	5000 units daily	4500 units daily
91-130 kg	60 mg daily	7500 units daily	7000 units daily*
131-170 kg	80 mg daily	10,000 units daily	9000 units daily*
>170 kg	0.6 mg/kg/day	75 u/kg/day	75 u/kg/day*
High prophylactic dose for women weighing 50-90 kg	40 mg 12 hourly	5000 units 12 hourly	4500 units 12 hourly

*May be given in 2 divided doses

In moderate to severe infection, LMWH is administered in a therapeutic dose (twice daily). Refer Box-9 for dose calculation.

- Antepartum: Continue thromboprophylaxis for 10 days after hospital discharge, longer duration if persistent morbidity.
- Postpartum: If the women had a CS and limited ambulation, stop anticoagulant when she is planned for discharge and home isolation.

However, duration of anticoagulation can be tailored on case-to-case basis.

No thromboprophylaxis is indicated for low risk asymptomatic PW or those with mild disease if admitted for obstetrical indications like labour, PROM etc.

Management of Critically ill patients and those with refractory hypoxemia

I. Indications for admission to ICU:

- Inability to maintain SPO2 \geq 95% with supplemental oxygen/rapidly escalating supplemental oxygen need
- Hypotension (Mean arterial pressure < 65mmHg) despite fluid resuscitation
- Evidence of new end-organ dysfunction (altered mental status, renal insufficiency, hepatic insufficiency, cardiac dysfunction, etc)

II. Indications for intubation:

(a) When oxygen requirements for a target of sPO₂ >95% are:

- 15 L per minute (by common nasal cannula or mask)
- > 40 to 50 L per minute (by HFNC)
- > 60% FiO₂ (by Venturi mask)

(b) Inability of a patient to protect the airway due to altered mental status (Glasgow Coma Scale < 8)

III. Indications for delivery:

- It is unclear whether delivery provides a substantial improvement in each of these cases.
- Individualize each case, final decision based on condition of mother and viability of fetus as mechanical ventilation alone is not an indication for delivery.

4.1 Intrapartum care

Mode of delivery:

- Active management of third stage should be practiced.
- Delayed cord clamping is recommended since early clamping does not decrease the risk of vertical transmission.
- There is no contraindication for operative deliveries.
- Indications for Caesarean delivery:
 - COVID infection per se is not an indication for caesarean delivery. Caesarean Section is indicated for:
 - Standard obstetric indications
 - In women with severe disease or critically illness in refractory hypoxaemia

Timing of delivery:

- Termination of pregnancy by planned induction should be decided based on period of gestation, indication for termination of pregnancy and severity of disease. Indicated inductions should not be postponed. In severe disease, delivery may be considered if the pregnancy is advanced and delivery allows further optimization of care.
- **37- 38 (+6/7days) weeks:**
 - Check indication for termination of pregnancy
 - If indication present, termination of pregnancy can be done.

- If no indication to terminate pregnancy, continue antenatal care, wait for spontaneous onset of labour.
- **≥ 39 weeks:**
 - Assess severity of disease
 - If indication for termination of pregnancy present, termination of pregnancy can be done.
 - If no indication to terminate pregnancy and asymptomatic/ mild disease: continue antenatal care, wait for spontaneous onset of labour.
 - Moderate disease: Individualize decision balancing the urgency of termination of pregnancy with maternal condition
- **If severe disease:**
 - Multidisciplinary approach to stabilize patient first
 - Plan termination of pregnancy after initial stabilization
 - Delivery may be considered if it allows for further optimization of care
 - Stop anticoagulants if the patient goes in labour or induction is planned. LMWH at least 24 hours before and Unfractionated Heparin (UFH) 6 hours before the procedure. In women admitted with moderate to severe disease and near term it is preferable to start the patient on UFH rather than LMWH due to short half-life of UFH. Ensure availability of protamine sulphate antidote for UFH.

Birth Companion

The birth companion may be allowed as per the State's COVID SOPs and should have a negative Covid-19 certificate. Moreover, the same person should remain with the parturient throughout labor and immediate postpartum period.

4.2 Postpartum care

Facility based care

I. Maintain hydration, encourage ambulation and a balanced diet

II. Screening & counselling for any mental health issues

III. Rooming In:

- Baby can be kept at a distance with a masked caregiver when not being fed.
- Breastfeeding, rooming-in, kangaroo mother care (when required) should be encouraged in all cases

IV. Breastfeeding:

Breast feeding can be done by mother with the following precautions:

- Mother to wear a mask
- Observe hand hygiene at all times/ clean nipple with moist cloth before feeding.
- Observe respiratory etiquettes
- Those who cannot breast feed either due to the baby or the mother being unwell, the baby can be fed by expressed breast milk. However, care should be taken to keep a separate breast pump for a COVID positive woman to prevent spread of infection.

Rooming-in of stable babies with suspect or confirmed Covid-19 mother (who are without need of critical care).

PW should be supported in their decision to breastfeed their babies as an informed choice.

No baby should be denied the right to mother's milk citing logistical reasons at any healthcare facility.

These precautions should be continued till:

- After 10 days of positive RTPCR report in asymptomatic mothers
- In symptomatic mothers 10 days after appearance of first symptoms (up to 20 days if they have more severe to or critical illness or are severely immunocompromised) and at least 3 days of afebrile period without the use of antipyretics.

Timing of discharge:

- Depends upon need for monitoring and hospital care as decided by the doctor and availability of home isolation facilities.
- *Follow the revised Discharge Policy for COVID-19 by MoHFW, which is updated from time to time.*

1. Mild disease/Asymptomatic patients:

- After 24-48 hours of NVD
- Day 3-Day 4 of C-Section

2. Moderate to severe symptoms in patients:

- Symptoms have improved
- 10 days after appearance of first symptoms (up to 20 days if they have more severe to critical illness or are severely immunocompromised)
- At least 3 days of afebrile period without the use of antipyretics

Counselling and advise at discharge

- Explain danger signs related to both postpartum period and COVID disease
- To observe COVID appropriate behaviour and necessary precautions at home
- Teleconsultation numbers to be provided.
- Routine postnatal advice including iron and calcium supplementation, perineal care, diet, general hygiene, including regular breastfeeding etc is provided
- Contraception counselling is done and a shared decision on the accepted method is taken and method specific counselling provided.

All methods of contraception except combined hormonal contraception & laparoscopic sterilisation can be started safely by most women immediately after birth, whether they choose to breastfeed or not.

Community based post-partum care

Post-natal visits

Mothers and newborns need care from the time of birth to at least six weeks after the delivery. The recommendation for postnatal care by the ASHA under HBNC guidelines is as follows:

- 3rd day, 7th day, 14th day, 21st day and 28th day & 42nd day for Institutional deliveries
- 1st day, 3rd day, 7th day, 14th day, 21st day and 28th day & 42nd day for home deliveries

Advice for the mother during these visits by ASHA:

- Assess the mother for signs of complications (see below for the post-partum complications) and ensure appropriate referral/ tele- consultation followed by referral if required.
- Encourage her to rest for at least six weeks after childbirth. Families should be counselled to ensure this.
- Encourage her to eat more food than usual. She can eat any kind of food but high protein foods – pulses and legumes (nuts are especially useful), foods of animal source should be preferred. She should also drink plenty of fluids.
- Encourage compliance to IFA & Calcium supplementation for 6 months post delivery

Post-Partum complications - Excessive bleeding, puerperal sepsis (infections), convulsions with or without swelling of face and hands, severe headache, blurred vision, anaemia, breast engorgement and breast infection, perineal swelling and infection, post-partum mood changes. Woman and her family should be made aware about these post-partum complications and advised to contact nearest health facility/ concerned ASHA, should such symptoms occur. They may also be encouraged to seek teleconsultation via e-sanjeevani

OPD or the same can be facilitated through ASHA worker through the woman's mobile phone or at HWCs if the woman can make a physical visit.

If during any of these visits, the woman is found suspicious for COVID symptoms, ASHA worker should facilitate teleconsultation or mobilize the mother to visit nearest public health facility where COVID testing and management is available.

5. Infection Prevention & Control

Since COVID-19 infection is highly infectious, every hospital handling such patients is expected to put robust infection prevention control protocol in place. Such protocols would be based on latest guidelines, issued by the MoHFW, ICMR, NCDC and CPCB. Safeguarding health of service providers, attendants and community is of paramount importance.

Roles & responsibilities of Hospital Infection Control Committee:

- Reorientation training of all categories of hospital staff on infection control and prevention.
- Adherence to infection prevention protocols including cleaning, segregation, and transport.
- Ensuring uninterrupted supply of Sodium Hypochlorite, Isopropyl Alcohol, Ethyl Alcohol, Hydrogen Peroxide, Alcohol based hand rub, Glutaraldehyde, Bins, Linens, etc.
- Ensuring supply of water and availability of liquid soap.
- Facilitate access to full complement of PPE by all category of staff and ensuring its usage on 24x7 basis.
- Availability of Alcohol based hand rub at every possible point of use by the staff and attendants.
- Collection of segregated waste from COVID patients and its labelling throughout the chain of its movement till disposal.
- Re-ensuring that Common Biomedical Waste Treatment and Disposal Facility (CBWTF) operator collects the waste at least once in a day.
- Reinforced IEC activities on hand hygiene, PPE, cough etiquette etc.
- Ventilation and air-exchangers in patient care and visitors' area.
- Appropriate Bio-safety measures in the laboratories, as per guidelines.
- Inventory of consumables need to be maintained ensuring an uninterrupted supply chain of consumables. A Nodal person should be assigned to oversee and supervise.

6. Covid-19 Vaccination in PW & Lactating Women

Vaccination in Lactating & PW

Based on the recommendations from National Technical Advisory Group on Immunization (NTAGI), MoHFW has approved vaccination of lactating & PW against COVID-19 on 19th May & 2nd July 2021 respectively.

To help pregnant women make an informed decision to be vaccinated, they should be provided with information about the risks of COVID-19 infection in pregnancy, the benefits of vaccination, along with the likely side effects of vaccination. Based on the information provided, a PW will have the choice to take the vaccination.

There are several points at which interface of the pregnant woman and the FLW occurs and where pregnant women could be counselled. These include:

- Household visits by frontline workers;
- Antenatal check-up at health facility, outreach immunization sessions, Village Health and Nutrition Days (VHNDs) and Urban Health and Nutrition Days (UHNDs).
- Facility visits by pregnant women for other reasons;
- COVID-19 Vaccination Centers (CVCs)
- Any other site where there is interaction with the pregnant woman.

During the counselling, the FLW or vaccinator (if the women reach the CVC directly and has questions related to COVID 19 vaccination) should explain to the PW the potential risks of COVID-19 on their health or that of the baby, benefits of vaccination, potential side effects and precautions they need to take following vaccination.

Timing of Vaccination

A PW who opts for vaccination, could be vaccinated at any time of the pregnancy. In case a woman has been infected with COVID-19 infection during the current pregnancy, then she should be vaccinated soon after the delivery.

Follow latest advisories from MoHFW on duration of gap between doses which may be updated from time to time.

Contraindications for COVID-19 vaccination

In the context of current situation of the SARS-CoV-2 pandemic, experts have suggested that the COVID-19 vaccine may be offered to the PW if no contraindications exist. The intent is to weigh risk versus benefit on individualized basis, so that a PW can take an informed decision. *Read more about specific contraindications from MoHFW's Operational Guidance for COVID-19 Vaccination of Pregnant Women².*

Registration for COVID -19 Vaccination

The modality for registration of beneficiaries, reporting of vaccination, generation of certificate etc. remains the same as for general population. All PW need to register themselves on Co-WIN portal or may get themselves registered on-site at the COVID-19 vaccination center. If the PW decides to get vaccinated, the process of registration for COVID-19 vaccination needs to be explained to her and the accompanying family member. She also needs to be informed about the nearest COVID vaccination center.

²<https://www.mohfw.gov.in/pdf/OperationalGuidanceforCOVID19vaccinationofPregnantWoman.pdf>

Precautions after vaccination

PW and her family members must be counselled to continue to practice COVID appropriate behaviour: wearing double mask, frequent handwashing, maintaining physical distance, and avoiding crowded areas, to protect themselves and those around from spreading the COVID-19 infection.

There is no requirement for screening of the vaccine recipients by rapid antigen test (RAT) prior to COVID-19 vaccination.

Information on side effects of COVID-19 Vaccination in PW, Adverse Events Following Immunization (AEFI) and its reporting can be obtained from MoHFW's Operational Guidance for COVID-19 Vaccination of Pregnant Women

All PW should be provided with information about the risks of COVID-19 infection in pregnancy, the benefits of vaccination, along with the likely side effects of vaccination to help pregnant women make an informed decision to be vaccinated.

7. Additional resources

To operationalize ANC teleconsultation, States/UTs are advised to utilize e-Sanjeevani OPD platform to its maximum potential. The ASHA/ANMs would be provided orientation on using e-Sanjeevani OPD for enabling pregnant women to seek consultation as and when required. The link for operational manual for using e-Sanjeevani app in the guideline at page 12.

A webinar on ensuring Maternal Health services during COVID-19 was organized for healthcare workers across the country by MoHFW on 19th May 2021. The States/UTs may also adopt the same modality for orientation and training of health care workers/front line workers periodically on a cascading mode.

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