MANAGEMENT of Pregnant Women in Covid-19 Pandemic

Dr Nidhi Jindal
Asstt Professor
Kamla Nehru Hospital, Shimla
POINTS TO PONDER

- Effect of Covid-19 on pregnancy
- Effect of Covid-19 on fetus
- Routine ANC during COVID pandemic
- Pregnancy Care of Covid-19 Suspect/ Confirmed Case
- Intra-partum care
- Postpartum care
STANDARD RECOMMENDATIONS

❖ ICMR
❖ FOGSI GCPR
❖ WHO
❖ ACOG
❖ RCOG
❖ Lancet
EFFECT OF COVID-19 ON PREGNANCY

- Pregnant women are NOT AT INCREASED RISK
- Certain Conditions like:
  - Heart Disease
  - Diabetes
  - Hypertension
  - Asthma
  - immunocompromised conditions like HIV, SLE
• Risk of spread via respiratory droplets calls for stringent Infection Prevention practices

• On account of lockdown situation and isolation, perinatal anxiety and depression/ Domestic Violence may increase, and pregnant women may require additional mental health support
EFFECTS OF COVID-19 ON FETUS

- No data suggesting an increased risk of miscarriage or early pregnancy loss

- No evidence currently of teratogenicity

- Currently **not an indication for Medical Termination of Pregnancy** or change in antenatal care, mode of delivery or Postnatal care

- **NO evidence as yet of Vertical transmission** (from mother to baby antenatally or intrapartum) or during breast feeding
Clinical presentation remains same as of general population

Mean Incubation Period: 5-7 days

Typical presentation includes:

- Fever ≥38°C (100.4°F) or Any one or more of the following:
  - Dry cough
  - Sore throat
  - Difficulty breathing or shortness of breath
  - Gastrointestinal symptoms

Laboratory testing to diagnose remains same as of general population
INVESTIGATIONS

- leucopenia,
- lymphocytopenia,
- Mild thrombocytopenia,
- Mild elevation of liver enzymes
- Other acute infection markers 
- Radio-imaging with abdominal shield
**DO’S & DONT’S FOR OBSTETRICIANS**

- A woman meeting criteria for testing should be tested. Until test results are available, she should be treated as confirmed COVID-19.

- Do not delay obstetric management in order to test for COVID-19.

- Elective procedures like induction of labour for indications that are not strictly necessary, routine growth scans not for a strict guidance-based indication and routine investigations should be reduced to minimum.

  If the ultrasound equipment should be decontaminated.
ANTENATAL CARE SERVICE DELIVERY

• Minimal antenatal visits during pregnancy

➢ 1st visit: Within 12 weeks—preferably as soon as pregnancy is suspected

➢ 2nd visit: Between 14 and 26 weeks

➢ 3rd visit: Between 28 and 34 weeks

➢ 4th visit: Between 36 weeks and term

• Additional ANC visit may be planned at the discretion of the maternal care provider, if there are any specific symptoms or danger signs related to pregnancy.
CONT'D...

- Encouraged the patient to visit nearest Primary Health Centre/Subcentre.

- Whenever a pregnant woman visits a facility for ANC, she should be examined on priority and segregated from the routine patients waiting for their appointments.

- Fixed day approach for antenatal check up in a week may be adopted and adequate IEC to be done prior.
CONT'D....

• In no case, shall the PW visit a facility dedicated for COVID-19 for antenatal check up.

• MO-PHC or a CHO may arrange a Tele-consultation of the patient with the Obstetrician at the hub as and when required.

• women should be counselled that if she tests positive for COVID-19 during pregnancy or immediately before delivery, she shall have to deliver at a dedicated COVID facility.
• If a pregnant woman develops symptoms like fever, Cough, difficulty in breathing or flu like symptoms, she shall inform the concerned ASHA and ANM/CHO, who shall further promptly inform the MO–PHC and BMO.

• Sampling of such case for COVID–19 shall be done.

• Clinical condition of the PW including assessment of high risk pregnancy shall be criteria for deciding whether the sample shall be taken from home or under observation in an institution.
Intervention in Various Scenarios

- PW having flu symptoms tested negative and no obstetric intervention required, she shall be home quarantined till the symptoms resolve.
- Referral for antenatal ultrasound services for fetal growth surveillance recommended after 14 days after resolution of acute illness.
- For women self-quarantined because of some household has possible symptoms of COVID-19, appointments should be deferred for 14 days for antenatal visits.
• For women having symptoms, appointments can be deferred until 7 days after the start of symptoms, unless symptoms (aside from persistent cough) become severe.

• Even if previously a pregnant woman tested negative for Covid-19, and if symptoms reappear, she should be treated as COVID suspect and should be tested for COVID-19 again.

• Any pregnant woman who has a routine appointment delayed for more than 3 weeks should be contacted by the ANM and ASHA.
**ADVISORY FOR ANTENATAL WOMEN**

- Disinfection of surfaces to reduce fomites related spread.
- For women working outside the house, it is preferable to take Work from Home. Keeping a distance of at least one metre in various necessary interactions and activities.
- Avoid non-essential travel. If travel is undertaken, it is preferable to use a private vehicle.
- Avoid gatherings and functions to celebrate the 7-month milestone, which is a common cultural practice.
- Minimize visitors from coming to meet the mother and newborn after delivery.
Use of low-dose aspirin or other nonsteroidal anti-inflammatory drugs (NSAIDs)

- **NO change in recommendation.** Use of NSAIDs, like ibuprofen, are not recommended. However, due to the importance of low-dose aspirin in preeclampsia prevention, low-dose aspirin should continue to be offered to pregnant and postpartum women as medically indicated.

*RCOG, UK recommendations*

- **Use of Magnesium for preeclampsia/seizure prophylaxis.**
- The risk of eclampsia should be balanced against the risk of respiratory depression in the setting of SARS-CoV2.
- A single 4-gram bolus dose of MgSO4 may serve as an alternative to usual dosing in the setting of mild respiratory distress.

*RCOG, UK recommendations*
• Use of antenatal corticosteroids (ACS): Before 34 0/7 Weeks of Gestation
• NO changes in recommendation

Tocolytic Drugs
In general Contraindicated in a Covid Suspect/ confirmed case
Yet decision can be individualised
INTRAPARTUM CARE SERVICES

➢ Ensure safe institutional delivery

➢ Maintain due list of all pregnant women with Expected Date of Delivery (EDD) in next three months (last trimester) at SHC level for active follow up.

➢ Each pregnant woman to be linked to appropriate health facility for delivery by the ANM / CHO or PHC MO.
CONT'D...

➢ All districts should identify and communicate to peripheral facilities a list of functional and staffed COVID Hospitals

➢ Availability of *dedicated ambulances for COVID and non-COVID patients* must be ensured at the district/ block level.

➢ Assessment of the severity of COVID-19 symptoms, which should follow a multi disciplinary team approach including an infectious diseases or medical specialist.
All women despite the pandemic have a right to have safe and positive childbirth experience

Informed Consent

In addition to routine consent, it would be prudent to include aspects related to COVID-19 infection for the time of the pandemic. The points that should be included are the probable chances of COVID-19 infection while in hospital and its consequences and the precautions to be taken to avoid the infection.
Contd...

- Minimise the number of people involved in any procedure
- A single, asymptomatic birth partner can be permitted to stay with the woman, at a minimum, through pregnancy and birth.
- Standard universal precautions to prevent contact with body fluids need to be followed & BMW managed as per protocols
LABOUR: TIMING OF DELIVERY

• COVID-19 infection should not dictate timing of delivery except the cases where the potential for rapid deterioration in maternal respiratory status or maternal life is at risk

• For women with suspected or confirmed COVID-19 early in pregnancy who recover, no alteration to the usual timing of delivery

• For women with suspected or confirmed COVID-19 in the third trimester, it is reasonable to attempt to postpone delivery till they recover, provided no other medical indications arise
**INTRAPARTUM MONITORING**

- Besides strict monitoring maternal and fetal well being with partograph, also
  - Periodic evaluation of respiratory status
  - Symptoms of difficulty or shortness of breath
  - Oxygen saturation using pulse oximeter - hourly oxygen saturation needs to be examined and should be >94%

- Prolonged labour should be avoided - early decision for c section should be taken in case of prolonged labour. Indications for intervention should follow standard obstetric practice
Mode of Delivery for COVID-19 Suspected or Confirmed Case

Mode of birth should not be influenced by the presence of COVID-19, unless the woman’s respiratory condition demands urgent delivery.

C-Section Indication? –
COVID-19 is NOT an indication for c-section.
Decision based on obstetric (fetal or maternal) indications and not COVID-19 status alone.

Scheduled Inductions of Labor or Cesarean Deliveries:
Inductions of labor and cesarean deliveries should continue to be performed as indicated.
Labour: Other Advisories

Early epidural analgesia for labor should be considered to mitigate risks associated with general anesthesia in the setting of an urgent cesarean.

Amniotomy: Given the reassuring (but limited) data to date pertaining to maternal-to-child transmission, amniotomy may still be utilized for labor management as clinically indicated.

Delayed cord clamping: According to WHO, delayed umbilical cord clamping is highly unlikely to increase the risk of transmitting pathogens from the mother to the fetus even in the case of maternal infection.
MEDICAL MANAGEMENT

➢ Supportive therapy include rest, oxygen supplementation, fluid management & nutritional care

➢ **Hydroxychloroquine** in a dose of 600 mg (200 mg thrice a day with meals) and Azithromycin (500 mg once a day) for 10 days

➢ **Anti-viral Therapy** Lopinavir-ritonavir, Remdesivir, Oseltamivir

➢ **Antibiotics**: If there is a suspicion of secondary bacterial infection

➢ **Oxygen**: If there is difficulty in breathing, oxygen supplementation by nasal prongs or mask may be added. High flow nasal oxygen at 4 to 6 liters per minute should be immediately administered. Non invasive ventilation can also be used.

At this point, there should be a re-evaluation of the patient's status
ICU Admission Indications

- Respiratory rate > 30 breaths/min
- Oxygen saturation < 93% at rest
- Arterial partial pressure of oxygen (PaO2)/oxygen concentration (FiO2) < 300 mm Hg
- Patients with > 50% lesions progression within 24 to 48 hours in lung imaging
- Quick Sequential Organ Failure Assessment Score (qSOFA) score can be a useful adjunct to decision making for ICU management
## qSOFA Score

<table>
<thead>
<tr>
<th>Number</th>
<th>Criteria</th>
<th>Point</th>
<th>Score ≥ 2 is suggestive of sepsis and needs intensive care</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Respiratory rate</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>≥ 22 breaths/min</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Mental status</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Altered</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Systolic Blood pressure</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>≤ 100 mm Hg</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
POSTPARTUM CARE

➢ Birth doses to continue uninterrupted as these beneficiaries are already in the health facilities

➢ Ensure availability of IFA and calcium tablets during PNC period.

➢ Breast feeding practices to be promoted with early initiation of breast feeding

➢ Consider temporary separation of mother and baby (Isolation or using physical barriers depending on mother preference/availability of healthy caregiver)

➢ High risk of postpartum depression
MOTHER/BABY CONTACT

If separate room is not the option: permit Rooming – In of newborn with ill mother:

• Use physical barriers (e.g., a curtain between the mother and newborn)
• Keep newborn ≥6 feet away from the ill mother

If no other healthy adult is present for caregiving:

❖ Mother should put on a facemask and practice hand hygiene before each feeding or other close contact with her newborn.
❖ Facemask should remain in place during contact with the newborn.
Discharge Counselling

• Basic Strategy is to reduce the Physical visits to healthcare facility of mother and her newborn unless URGENT. Inform how she can communicate with their obstetric/pediatric care team, especially in the case of an emergency.

• Inform woman to return to facility in case of Fever, Respiratory symptoms, or any danger sign.

• For patients who express interest in postpartum contraception, Suggest all family planning options within the limitations of decreased postpartum in-person visits.

• Those experiencing anxiety regarding the COVID-19 pandemic or are at an increased risk of intimate partner violence, offer mental health or social work services or referrals to provide additional resources.
Discharge Recommendations

- Discharge for postpartum women should follow recommendations for discharge of Hospitalized Patients with COVID-19 i.e. when Tests are negative and maternal and neonatal condition should be stable.

- Stable neonates exposed to COVID19 and being roomed-in with their mothers may be discharged together at time of mothers’ discharge.