Guidelines

Sexual, Reproductive and Maternal Health Services during COVID 19

Background

The coronavirus disease 2019 (COVID-19) outbreak that began in Wuhan, Hubei Province, China in late 2019 spread within three months to the Eastern Mediterranean Region (EMR) including Pakistan. On March 11, 2020, the World Health Organization (WHO) declared COVID-19 as a pandemic. The tremendous burden caused by COVID-19 outbreak is exceeding the capacity of many national and local health systems which is jeopardizing routine service delivery and undermining other health priorities. The evolving COVID-19 pandemic may affect routine services including Sexual, Reproductive and Maternal Health service delivery in Pakistan over the next few months. The Ministry of Health is issuing the following recommendations for immediate action to avoid disruption of key services. The documents also explain special considerations while also taking care of women who are suspected or confirmed for Covid-19 infections in health care facility, community outreach services, during pregnancy, childbirth, and postpartum period. Updates will be circulated as new information becomes available.

COVID-19, Pregnancy and Delivery Outcome

The evidence on the impact of SARS-CoV-2 infection during pregnancy is limited and will continue to evolve. The following are findings from various studies to date:

- Currently, there is no difference between the clinical manifestations of COVID-19 pregnant and postpartum and non-pregnant women or adults of reproductive age.
- Lancet study published in February 2020 showed that clinical characteristics of COVID-19 pneumonia in pregnant women were like those reported for adults who are not pregnant. (cough, myalgia, sore throat)
- There are no evidence that pregnant or postpartum women are at higher risk of severe illness or are at lower risk or foetal compromise
• With the available limited scale research, there is no evidence on mother-to-child transmission when infection manifests in the third trimester, based on negative samples from
  o amniotic fluid,
  o cord blood,
  o vaginal discharge,
  o neonatal throat swabs or breastmilk
However, evidence on maternal to child transmission is evolving; there are suggestive findings that vertical transmission may be possible. A very small number of babies have tested positive shortly after birth, yet it is not confirmed if they acquired it before, during or after birth. The virus has not been detected in amniotic fluid, breastmilk, or another maternal sample.
• Evidence of increased adverse maternal or neonatal outcomes is uncertain. Limited number of infected pregnant women in the third trimester reported premature rupture of membranes, foetal distress, and preterm birth.
• Occurrence of adverse pregnancy outcomes such as preterm birth, miscarriage, preeclampsia, and perinatal death may be higher in the event of a coronavirus infection, including SARS-coV-2.
• Physiological changes in pregnancy and immune systems, expose pregnant women to be severely affected by some respiratory infections.
• Pregnant women with history of exposure to COVID-19 /contact require special considerations and close monitoring.
• Triage and risk screening of patients with symptoms or COVID-19 exposure need to be undertaken for all patients/clients and accompanying persons entering the health facility.

Guidance for Routine Sexual, Reproductive, and Maternal Health Services Provision (not affected by COVID-19)

ANTENATAL CLINICS
The prioritized listing below will be followed for routine ANC services (avoiding unnecessary exposure of all pregnant women):
• Newly identified pregnant women (first visit)
• Pregnant women with >32 weeks of gestation
• Pregnant women with <32 weeks of gestation with high risk pregnancies with obstetrics and medical disorders e.g. Antepartum haemorrhage, Pregnancy-induced hypertension, Diabetes, heart disease etc. Pregnant women with bad obstetric history e.g. IUD/stillbirth, placental disorders, foetal growth problems etc.
• Provision of medications and supplies for the ongoing management of chronic diseases, including HIV to pregnant women, mental health conditions
- Management of emergency health conditions and common acute presentations that require time-sensitive intervention, e.g. management of pre-eclampsia/ eclampsia.
- Administration of antenatal vaccination
- Hospitalize women with co-morbidities and at a risky stage as they will be on increased risk of deterioration e.g. gestational diabetes and pregnancy induced hypertension

Appointments can be conducted using telemedicine approaches provided there is no need for physical examination or tests required.

- Counselling of women about healthy diet, daily iron and multi micronutrient uptake/supplementation needs to be more emphasized
- Counselling around mobility and exercise, tobacco and 2nd hand tobacco smoke and other substances as per WHO guidelines
- Counselling on family planning services
- Self-care intervention during and after pregnancy should be encouraged especially during self-isolation. Self-care is an alternative delivery platform for health care services (home based, phone, telehealth) for follow up and other relevant consultations.
- A clinical enquiry about possible of gender-based violence should be strongly considered, where there is capacity to provide a supportive response like referral where appropriate.

LABOUR ROOMS-G/O OPERATION THEATRE

- All women in labour
- Mode of delivery should also be discussed here to avoid any personal or professional bias to reduce duration or accelerate labour/childbirth e.g. by augmentation/c-section etc; it should only be based upon obstetrics indication and the woman’s preference.
- All women with abortion symptoms for the management of complications and provision of FP services.

POST-NATAL CLINICS- MOTHERS AND NEW-BORNS

Following prioritization will be followed for routine PNC services (avoiding unnecessary exposure of mothers and new-borns):

- Mothers and new-borns with complications
- Women requiring post-pregnancy contraception

FAMILY PLANNING CLINICS

- Need to continue as it is with provision of all the methods for new and follow up clients/ role of telemedicine must be utilized.
- Infection prevention and control measures must be strictly exercised while administering contraceptive methods.

COMPREHENSIVE ABORTION CARE AND POST ABORTION CARE SERVICES

- Need to continue as before.
• Most of the equipment, medications, and supplies needed to provide vacuum aspiration (manual and electric) and medical methods of abortion are the same as those needed for other gynaecological services. Need to ensure necessary infection prevention and control measures.

• Misoprostol alone can be used for medical management of abortion.

• For post abortion care, misoprostol can be used as self-care practice for medical management of abortions up to 12 weeks gestation (in line with the country legislation). It is essential that women have access to accurate information and to a health-care provider (should they need or want it) at any stage during the process.

• Role of telemedicine must be utilized as appropriate.

**REFERRAL FOR SPECIALIZED CARE**

• Refer all pregnant women with fever and/or flu like symptoms to the designated hospitals for COVID-19 cases. The receiving institution must be informed over the phone to be prepared to receive the suspected case.

• Refer all high-risk pregnant women (newly registered or <32 weeks of gestation) for specialized care to the secondary or tertiary care facilities.

• All pregnant women ≥32 weeks of gestation should attend specialized clinics (where G/O services are available).

**BREASTFEEDING AND NEW-BORN CARE**

• Enable, encourage, and support breast feeding for all new-borns with special care for hand hygiene and wearing a face mask.

• Skin to skin contact for all new-born and Kangaroo mother care practice for preterm/low birth weight new-borns should be maintained with protective measures as for breastfeeding.

• Refer to the Ministry of NHSR&C letter about continuity of breastfeeding and complementary feeding issued on 1 April 2020 (annexed).

**COMMUNITY OUTREACH SERVICES**

Outreach services should be more targeted - Community Health Workers to provide guidance and referral to nearby facility as needed while undertaking all necessary personal protective precautions.

• Antenatal registration should be continued during home visits.

• Family planning services should be provided in an uninterrupted manner.

• Postpartum care to be provided at household level to identify new-borns/children for starting/continuing routine immunization.

• Home visits for other under five children should be conducted only if required.

• Routine health promotion visits should be suspended.

• Following key messages to be delivered to all the pregnant women during community outreach:
  - Ensure handwashing and social distancing.
  - In case of any respiratory or obstetric problem, they must seek immediate medical care through phone.
  - Maintain kick count chart at home for women with ≥32 weeks of gestation.
Must avoid public gatherings, public transport, and social events (like funerals, weddings, markets, baby showers (godh bharai) as much as possible.

Always stay at home except when seeking medical care.

- Advise community on social distancing (avoid hugging/hand shaking, keep 2ms distance from others, avoid crowded places etc.)
- Advocate for home quarantine and self-isolation for healthy people with high-risk contacts*.
- Mobilize communities for informing relevant authorities about any suspected cases and their contacts.
- Where human resources are limited, using task-sharing and task-shifting approaches, health workers can be considered for the various tasks related to maternal health and comprehensive abortion care, including awareness raising, counselling, birth preparedness, lactation management etc. related to pregnancy, delivery or postpartum care.
- Referral of all high-risk cases to specialized care (secondary or tertiary health facilities) must be ensured1.

Please refer to the section on “General Infection Prevention Measures” below for specific guidance on dealing with suspected or confirmed COVID-19 cases.

*Contact: A person living in the same household as a suspected or confirmed COVID-19 case OR had direct physical contact with a suspected or confirmed COVID-19 case (e.g. shaking hands) OR having unprotected direct contact with infectious secretions of a suspected or confirmed COVID-19 case (e.g. being coughed on, touching used paper tissues with a bare hand) OR had face-to-face contact with a suspected or confirmed COVID-19 case within 1 meter and > 15 minutes OR who was in a closed environment (e.g. classroom, meeting room, hospital waiting room, etc.) with a suspected or confirmed COVID-19 case for 15 minutes or more and at a distance of less than 1 meter.

Guidance on care for pregnant women with suspected or confirmed COVID 19

All the hospitals providing maternal care services must have a predesignated isolation area for pregnant/postpartum women and new-borns suspected or diagnosed with COVID-19. This should also include a designated area to conduct emergency delivery and provide neonatal care until the mother and/or new-born are fit for transfer to a hospital dedicated for care for COVID. It is advisable to designate healthcare facilities/units for management of COVID-19 cases. Ensure delivery of integrated RMNCAH&N services as appropriate for the level of care (primary, secondary, and tertiary).

GENERAL ADVICE AND PATIENT FLOW

- Must perform rapid initial assessment and include COVID-19 signs and symptoms (Routine: airway, breathing, circulation, vaginal bleeding, level of consciousness, convulsions, fever, abdominal pain. COVID-19: Fever≥38°C, cough, difficulty breathing, shortness of breath, muscle aches, diarrhoea, and/or vomiting).

1 Refer to the joint WHO-UNICEF guidelines on community-based healthcare April 2020 for further details. To improve access to health care, WHO also provides guidance on telehealth as a mechanism for the delivery of services to communities. Refer to the WHO publication on National eHealth Strategy Toolkit 2012 for details on use of telehealth.
• Considering that asymptomatic transmission of COVID-19 is possible in pregnant women, carefully assess the exposure history.
• Women should be advised to use private transport for commuting to the health facility where possible or call HELP LINE 1166.
• If an ambulance is required, the call handler should be informed that the woman is currently in self-isolation for possible COVID-19 and pregnant.
• Women should be asked to alert a member of maternity staff to their attendance when on the hospital premises, but prior to entering the hospital.
• Staff providing care must use personal protective equipment (PPE).
• Woman should be asked to remove all ornaments etc. by herself and put them in a bag to be disinfected before placing in safe place by staff.
• Women should be met at the maternity unit entrance by staff wearing appropriate PPE and should be provided with a surgical face mask (not FFP3 /N95 mask). The face mask should not be removed until the woman is isolated in a suitable room.
• Women should immediately be escorted to an isolation room, suitable for the majority of care during their hospital visit or stay.
• Isolation rooms should ideally have an antechamber for putting on and removing staff PPE and adjacent bathrooms.
• Only essential staff should enter the isolation room and visitors should be kept to a minimum.
• Remove non-essential items from the clinic/scan room prior to consultation
• In the isolation room, follow the same routine of pregnancy and labour care.
• one attendant or companion of woman’s choice with appropriate IPC should be allowed with restriction to move within specified areas of health facility in order to provide comfort to the pregnant woman and as a stress management support.
• Special considerations should be taken into account for pain relief.
• All clinical areas used will need to be cleaned and disinfected after use as per local guidance and IPC protocols.

Antenatal Clinics

1st trimester:
Care of women should follow infection prevention/ investigation/ diagnostic guidance, as for non-pregnant adults.

2nd and 3rd trimesters:
Follow the below guidelines for ANC, delivery, and PNC services.

A. Attendance of scheduled routine antenatal care:
• WHO recommendations are that pregnant women with symptoms of COVID-19 should be prioritized for testing.
• Routine appointments for women with suspected or confirmed COVID-19 (growth scans, OGTT, antenatal community or secondary care appointments) should be delayed until after the
recommended period of isolation. A helpline for advice on SRH may be established for counselling and follow-ups.

- Advice to attend more urgent pre-arranged appointments (foetal medicine surveillance, high risk maternal secondary care) will require a senior decision on urgency and potential risks/benefits.
- If it is deemed that obstetric or midwifery care cannot be delayed until after the recommended period of isolation, infection prevention and control measures should be arranged locally to facilitate care.
- Pregnant women in isolation who need to attend should be contacted by a local care coordinator to re-book urgent appointments / scans, preferably at the end of the working day.
- Provide mental health and psychosocial support.
- Disinfection of rooms and equipment must be done immediately after examination/procedure as per IPC protocols of COVID 19.
- It is important to consider the disproportionate impacts on various populations during this time (e.g. adolescents, individuals with disabilities, homeless, migrants and other displaced individuals), as well as the rates of increasing gender-based violence.

B. Attendance for unscheduled/urgent antenatal care:

- Where possible, early pregnancy (1st trimester) or maternity triage units should provide advice over the phone.
- If this requires discussion with a senior member of staff who is not immediately available, a return telephone call should be arranged.
- In case, any intervention or facility-based care deemed necessary, proceed as per instruction given in “General advice”.

LABOUR ROOMS

- All hospitals need to maintain the facilities for childbirth as usual with extra cautions.
- Screen all patients before entering the labour room for cough and fever. Provide a face mask to all clients with cough and investigate and manage them in a separate area as appropriate.
- Health workers who attend home deliveries also need to screen all the women in labour for cough and fever. Provide a face mask to all clients with cough.
- Carefully assess the exposure history. If positive follow the national guidelines for COVID 19 exposures.
- Follow guidelines for safe and clean delivery as usual.
- WHO advice is that caesarean sections should only be performed when medically justified.
- The mode of birth should be individualized and based on a woman’s preferences and obstetric indications
- Emergency obstetric care should be provided as needed.
POSTNATAL CLINICS-MATERNAL AND NEW-BORN

- Need to follow all the prescribed personal protective equipment (PPEs) and infection prevention and control (IPC) for health workers and patients with COVID-19.
- Routine postnatal care for mothers and new-borns who delivered at health institutions should be provided at healthcare facilities according to the national guidelines until they are discharged.
- Post-partum women and neonates with complications who need to be managed at a health institution can be followed for PNC in the health institutions as appropriate.
- All post-partum women and new-borns without complications, need to be well educated on danger signs/warning signs to seek appropriate care accordingly from a community health worker via phone, telehealth etc.
- They need to be provided PNC services including postpartum family planning services at household level by community health workers. The frequency of PNC visits needs to be adjusted for avoiding unnecessary exposure.

FAMILY PLANNING AND POST ABORTION CARE CLINICS

- Family planning counselling and service provision should be continued as essential service for new and follow up clients at both health facility and community levels and should be integrated with ANC and PNC services. A helpline or telehealth facility for advice on SRH should be established for counselling and follow-ups.
- Ensure commodity security at all levels and include Emergency Contraceptive Pills -ECP and all contraceptive methods in regular supplies and medicines.
- Integrate COVID-19 safety messages within FP communication.
- Support referrals by LHWs and CHWs to FP and PAC clinics.
- PPEs and IPC measures must be considered for health facility, procedure room at the time of consultation and service provision.
- Women who are seeking comprehensive abortion care /post abortion care should be provided all the necessary services including post abortion family planning.
- Care for complications of unsafe abortion is an emergency service and must be maintained as part of emergency obstetric care. Some complications –for e.g. incomplete abortion may be able to be managed using misoprostol tablets and without needing surgical intervention.
- Role of telemedicine must be utilized as appropriate.

BREASTFEEDING AND NEW-BORN CARE

Enable, encourage, and support breast feeding for all new-borns with special care for hand hygiene and face masks. Skin to skin contact for all new-borns and Kangaroo mother care practice for preterm/low birth weight new-borns should be maintained with protective measures as for breastfeeding.

For initiating/continuing breastfeeding, precautions should be taken to limit viral spread to the baby:
- Hand washing before touching the baby, breast pump or bottles.
- Wear a face mask while breastfeeding.
- Avoid coughing or sneezing on your baby while feeding at the breast.
If there is need to express breastmilk:
- Wash/clean breast with soap/detergent or sanitizer before expressing milk
- Consider asking someone who is well to feed expressed milk to the baby
- Follow the recommended cleaning of breast pump after each use
- Wash hands before expressing milk and wear a face mask

If there is indication for bottle feeding:
- For women who are bottle feeding with formula or expressed milk, strict adherence to sterilization guidelines is recommended.
- Where mothers are expressing breastmilk in hospital, a dedicated breast pump should be used.
- Regularly clean and disinfect surfaces which the symptomatic mother has been in contact with as per IPC guidelines especially when soiling or spills occur, and when a patient is discharged from the facility.


Refer to the Ministry of NHSR&C letter about continuity of breastfeeding and complementary feeding issued on 1 April 2020.

OTHER AUXILIARY SERVICES
- Auxiliary services, such as basic diagnostic imaging, laboratory services, and blood bank services that would be key in diagnosis and management of reproductive health related conditions should be continued. However, it is advisable to avoid unnecessary sonological examination and blood/urine tests for pregnant women to reduce exposure.
- Strengthening supply chains and develop innovative strategies to ensure continuity of contraceptive information and services to avoid unplanned pregnancies. Contraceptive services are time-sensitive because incorrect use or use at the wrong time greatly reduces their efficacy.

Refer to the recently published technical briefs on COVID-19 and antenatal, maternity and postnatal care by UNFPA.

**General Infection Prevention Measures**

The Ministry of NHSR&C recommends general measures to avoid crowded facilities, to reduce client time at the facility and to suspend non-essential services. This will contribute to minimizing the spread of COVID-19 and free up health worker capacity for screening and management of potential COVID-19 patients. Refer to the detailed guidance on infection prevention and control as well as cleaning and disinfecting environmental surfaces in healthcare facility issued by the Ministry of NHSR&C (National IPC guidelines 2020).

General measures are effective to protect the vulnerable and to limit the spread of COVID-19 in the community.
SERVICE ARRANGEMENTS AT HEALTH FACILITY

- Provide a hand-washing facility at the entrance to health facility or clinic. Enforce thorough hand washing with soap for at least 20 seconds for anyone before entering the facility. Hand sanitizers can be provided at the entry where women can have easy access.
- Display the instructions for hand washing, removing shoes/sleepers and seating arrangements in the clinic at the entrance in local language and with pictures.
- Keep the doors open whenever possible to prevent too many people handling it.
- Wipe all objects and surfaces that are touched by many people such as doors, desks, chairs, etc. with disinfectant on a regular schedule several times per day.
- Introduce an appointment system to minimize the overcrowding through mobile phones or through volunteers and limit number of consultations per day to avoid overcrowding in the clinics.
- Arrange the seating facilities keeping minimum distance of 6 feet/2 meter. Mark the queuing areas to maintain 2m distance.
- Instead of allowing women to open the doors to examination areas, appoint a volunteer or health worker to open the doors for women. Patients
- Display the messages regarding general infection prevention measures such as hand washing, suppress or cover up sneezing and cough into upper sleeve or elbow, not into your hands (cough etiquette), avoid touching your eyes, nose and mouth.
- Arrange a health talk on general infection prevention measures (can use TV or multimedia if available) on COVID-19.

FOR THE HEALTHCARE STAFF

- Screen all patients before entering the facility for cough and fever.
- Provide a face mask to all clients with cough and investigate and manage them in a separate area as appropriate.
- Use hand sanitizer or wash hands with soap and water between patients/clients.
- Staff providing care should take personal protective equipment (PPE) precautions (see table below).
- Adhere to the standard practices of IPC for disinfecting surfaces, equipment, and linen in clinic/hospital settings. Alcohol based and chlorine-based disinfectants are acceptable chemical disinfectants for healthcare settings if used appropriately. As with any other disinfectant, soiled surfaces need to be cleaned with water and detergent first.
- Ensure delivery of integrated RMNCAH&N services as appropriate for the level of care (primary, secondary, and tertiary)
- Where possible, serve the suspected/infected patients immediately.

APPLYING DROPLET PRECAUTIONS

Droplet precautions prevent large droplet transmission of respiratory viruses.

- Use a medical mask if working within 1 m of the patient.
- Place patients in single rooms, or group together those with the same etiological diagnosis. If an etiological diagnosis is not possible, group patients with similar clinical diagnosis and based on epidemiological risk factors, with a spatial separation.
- When providing care in close contact with a patient with respiratory symptoms (e.g. coughing or sneezing), use eye protection (face mask or goggles), because sprays of secretions may occur.
- Limit patient movement within the institution and ensure that patients wear medical masks when outside their rooms.

**APPLYING CONTACT PRECAUTIONS**

Contact precautions prevent direct or indirect transmission from contact with contaminated surfaces or equipment (i.e. contact with contaminated oxygen tubing/interfaces).

- Use PPE (medical mask, eye protection, gloves, and gown) when entering room and remove PPE when leaving and practice hand hygiene after PPE removal.
- If possible, use either disposable or dedicated equipment (e.g. stethoscopes, blood pressure cuffs, pulse oximeters, and thermometers).
- If equipment needs to be shared among patients, clean and disinfect between each patient use. Ensure that health care workers refrain from touching their eyes, nose, and mouth with potentially contaminated gloved or un-gloved hands.
- Avoid contaminating environmental surfaces that are not related to patient care (e.g. door handles and light switches).
- Avoid medically unnecessary movement of patients or transport. Perform hand hygiene.

**COVID-19 and SRH in Humanitarian Settings**

As the health system tackles COVID-19 pandemic, it is important to ensure that essential health services and operations continue to address the sexual and reproductive health (SRH) needs and rights of people living in humanitarian and fragile settings and other vulnerable groups including adolescents and people living with disabilities. The availability of all critical services and supplies as defined by the Minimum Initial Services Package (MISP) for SRH must continue. This includes intrapartum care for all births, emergency obstetric and new-born care, post-abortion care, safe abortion care to the full extent of the law, contraception, clinical care for rape survivors, and prevention and treatment for HIV and other sexually transmitted infections.

*Note: The above recommendations are being regularly reviewed by the Ministry of National Health Services, Regulations & Coordination and will be updated based on the international & national recommendations and best practices.*

*The Ministry acknowledges the contribution of Society of Obstetricians and Gynaecologists of Pakistan (SOGP), WHO and HSA/HPSIU/NIH team to compile these guidelines.*

**References:**

2. WHO Interim Guidelines: Rational Use of Personal Protective Equipment 27 Feb 2020

4. WHO guidance documents published on COVID-19

5. FAQ page on COVID, pregnancy, childbirth and breastfeeding


https://documentcloud.adobe.com/link/track?uri=urn%3Aaid%3Ascds%3AUS%3Aa446afee-150e-4a03-99d4-009391d9d44a

8. Safe abortion: technical and policy guidance for health systems - https://apps.who.int/iris/bitstream/handle/10665/70914/9789241548434_eng.pdf?sequence=1


10. Sexual and reproductive health and rights in emergencies - https://apps.who.int/iris/handle/10665/271906

11. UNFPA Technical Briefs available at - https://www.unfpa.org/covid19


14. Health worker roles in providing safe abortion care and post-abortion contraception

15. WHO recommendations: optimizing health worker roles to improve access to key maternal and new-born

16. Health interventions through task shifting - http://www.who.int/iris/handle/10665/77764


18. https://doi.org/10.1016/j.ajogmf.2020.100107; this is a recently published systematic review and meta analyses


https://apps.who.int/iris/bitstream/handle/10665/75211/9789241548465_eng.pdf?sequence=1


23. UNFPA COVID-19 Technical Brief ANC (This has the checklists in it that you can print out as discussed for the patient consultation and documentation) https://asiapacific.unfpa.org/en/publications/covid-19-technical-brief-antenatal-care-services

24. UNFPA COVID 19 Technical Brief for Post-natal care services - April 2020


For more information, please contact:

HSA/ HPSIU/ NIH, PM National Health Complex, Islamabad
http://covid.gov.pk/
http://www.hsa.edu.pk/ https://twitter.com/nhsrcofficial
https://www.nih.org.pk/ https://www.youtube.com/channel/UCdYuzeSP4Ug1f__ZZ
**CASE RECORD FORM – COVID-19 IN PREGNANCY - PAKISTAN**
Adapted from WHO PREGNANCY MODULE FOR COVID-19 CASE RECORD FORM RAPID version 23MAR2020

PARTICIPANT ID/ MR NO I____| I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I____ | I._
### Q4. SMOKING, DRUGS— RISK FACTORS

<table>
<thead>
<tr>
<th>Smoking/sheesha during this/last pregnancy</th>
<th>□ YES □ NO □ UNKNOWN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illicit and recreational drug use during this/last</td>
<td>□ YES □ NO □ UNKNOWN</td>
</tr>
</tbody>
</table>

### Q5. MEDICATIONS DURING THIS PREGNANCY (Prior to onset of current illness episode)

<table>
<thead>
<tr>
<th>Fever or pain treatment</th>
<th>Acetaminophen/paracetamol □ YES □ NO □ UNKNOWN</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NSAID/s □ YES □ NO □ UNKNOWN</td>
</tr>
<tr>
<td>Other/s (specify): [ ]</td>
<td></td>
</tr>
<tr>
<td>Anticonvulsants</td>
<td>□ YES □ NO □ UNKNOWN</td>
</tr>
<tr>
<td>If yes, specify generic name: [ ]</td>
<td></td>
</tr>
<tr>
<td>Anti-emetics</td>
<td>□ YES □ NO □ UNKNOWN</td>
</tr>
<tr>
<td>If yes, specify generic name: [ ]</td>
<td></td>
</tr>
<tr>
<td>Prenatal vitamins and micronutrients</td>
<td>□ YES □ NO □ UNKNOWN</td>
</tr>
<tr>
<td>If yes, specify (e.g. folic acid): [ ]</td>
<td></td>
</tr>
<tr>
<td>Antivirals</td>
<td>□ YES □ NO □ UNKNOWN</td>
</tr>
<tr>
<td>If yes, specify generic name: [ ]</td>
<td></td>
</tr>
<tr>
<td>Antibiotics</td>
<td>□ YES □ NO □ UNKNOWN</td>
</tr>
<tr>
<td>If yes, specify generic name: [ ]</td>
<td></td>
</tr>
<tr>
<td>Any other medicine</td>
<td>□ YES □ NO □ UNKNOWN</td>
</tr>
<tr>
<td>If yes, specify generic name: [ ]</td>
<td></td>
</tr>
</tbody>
</table>

### Q6. SIGNS AND SYMPTOMS ON ADMISSION

<table>
<thead>
<tr>
<th>Vaginal watery discharge</th>
<th>□ YES □ NO □ UNKNOWN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vaginal bleeding</td>
<td>□ YES □ NO □ UNKNOWN</td>
</tr>
<tr>
<td>Headaches</td>
<td>□ YES □ NO □ UNKNOWN</td>
</tr>
<tr>
<td>Vision changes</td>
<td>□ YES □ NO □ UNKNOWN</td>
</tr>
<tr>
<td>Right upper quadrant (abdominal) pain</td>
<td>□ YES □ NO □ UNKNOWN</td>
</tr>
<tr>
<td>Decreased or no fetal movement</td>
<td>□ YES □ NO □ UNKNOWN</td>
</tr>
<tr>
<td>Uterine contractions</td>
<td>□ YES □ NO □ UNKNOWN</td>
</tr>
<tr>
<td>Seizures</td>
<td>□ YES □ NO □ UNKNOWN</td>
</tr>
</tbody>
</table>

### Q7. FETAL HEART RATE (first available data at presentation/admission)

<table>
<thead>
<tr>
<th>Fetal heart rate</th>
<th>(FHR): [ _ ][ _ ][ _ ] beats/min</th>
</tr>
</thead>
</table>
PREGNANCY MODULE (Form 2): follow-up

(For Daily Assessment, frequency of completion determined by available resources)

Date of follow up [D][D]/[M][M]/[Y][Y]

Q1. FETAL HEART RATE (Follow up)

Fetal heart rate (record most abnormal value between 00:00 to 24:00) (FHR): [__][__][__] beats/min

Q2. TREATMENT DURING HOSPITALISATION

At ANY time during hospitalisation, did the patient receive/undergo:

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Yes</th>
<th>No</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tocolysis</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Induction of labour</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Blood transfusion</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Surgical/Medical management of abortion/post abortion care</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Management of PROM (corticiosteroids)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Management for COVID-19</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>If yes, what treatment was given:</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Symptomatic treatment</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Oxygen therapy</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>ICU care</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>On ventilator</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

PREGNANCY MODULE (Form 3): complete at discharge/death

Q1. DELIVERY, PREGNANCY AND MATERNAL OUTCOMES

<table>
<thead>
<tr>
<th>Date &amp; Time of delivery (during admission or not)</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>If yes, date: [D][D]/[M][M]/[Y][Y] Time: [__ __ : __ __]</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>☐ AM ☐ PM</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If delivered during admission, specify mode of birth:

- ☐ Spontaneous vaginal delivery
- ☐ Assisted vaginal delivery
- ☐ Caesarean section

Onset of labour:

- ☐ Spontaneous
- ☐ Induced
- ☐ Cesarean section before labour
- ☐ Unknown
<table>
<thead>
<tr>
<th>Amniotic fluid at delivery</th>
<th>Clear</th>
<th>Meconium stained</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other maternal outcomes/pregnancy complications</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gestational diabetes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gestational hypertension</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anemia (Hb &lt; 11 g/dL)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hyperemesis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intrauterine growth restriction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Placenta previa</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If yes, which type:
- increta
- accreta
- percreta

- Bacterial infection prior to hospital visit
- Pre-eclampsia/eclampsia
- Placental abruption
- Preterm contractions
- Preterm labor
- Preterm rupture of membranes
- Early or mid term miscarriage
- Haemorrhage

If haemorrhage, which type:
- Antepartum/intrapartum
- Postpartum haemorrhage
- Abortion-related

- Retained placenta/POC
- Thromboembolic disease
- Anaesthetic complication
- Postpartum depression

Q2. POSTPARTUM/POST ABORTION CONTRACEPTION

Counselling on postpartum/post-abortion contraception | YES | NO | UNKNOWN |

Postpartum/post-abortion contraception accepted | YES | NO | UNKNOWN |

If yes, which contraceptive method chosen:
- Oral Pills
- Injectable
- ECP
- IUCD
- Implant
- Surgical method
If “no” (refusal), what advice given to the woman on contraception? Plz specify __________________

### Q3. PREGNANCY STATUS AT DISCHARGE

<table>
<thead>
<tr>
<th>Pregnancy status/outcome</th>
<th>☐ Undelivered</th>
<th>☐ Threatened abortion</th>
<th>☐ Spontaneous abortion</th>
<th>☐ Incomplete abortion</th>
<th>☐ Induced abortion</th>
<th>☐ Missed abortion</th>
<th>☐ Macerated stillbirth</th>
<th>☐ Fresh stillbirth</th>
<th>☐ Livebirth</th>
</tr>
</thead>
</table>

**Maternal death**

If yes, what was the primary cause of death?

<table>
<thead>
<tr>
<th>☐ Yes</th>
<th>☐ No</th>
<th>☐ Abortion/ectopic pregnancy</th>
<th>☐ Hypertensive disorder</th>
<th>☐ Obstetric haemorrhage</th>
<th>☐ Obstetric related infection</th>
<th>☐ Other direct cause (other obstetric complications)</th>
<th>☐ Unanticipated complication of management (medical/surgical)</th>
<th>☐ Indirect cause</th>
<th>☐ Severe acute respiratory infection</th>
<th>☐ COVID-19 infection</th>
<th>☐ Unknown</th>
</tr>
</thead>
</table>

### Q4. Sample Collection (Note: for each test which is conducted write the test description, date of collection and result)

<table>
<thead>
<tr>
<th>Any sampling conducted?</th>
<th>If so, please describe the test and the results</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Amniotic fluid</td>
<td>[test description] [test date] [test result]</td>
</tr>
<tr>
<td>☐ Placenta</td>
<td>[test description] [test date] [test result]</td>
</tr>
<tr>
<td>☐ Cord blood</td>
<td>[test description] [test date] [test result]</td>
</tr>
<tr>
<td>☐ Vaginal swab</td>
<td>[test description] [test date] [test result]</td>
</tr>
<tr>
<td>☐ Faeces/rectal</td>
<td>[test description] [test date] [test result]</td>
</tr>
<tr>
<td>☐ Pregnancy tissue in the case of fetal demise / induced abortion</td>
<td>[test description] [test date] [test result]</td>
</tr>
<tr>
<td>☐ Breastmilk</td>
<td>[test description] [test date] [test result]</td>
</tr>
</tbody>
</table>
Q5. NEONATAL OUTCOMES

<table>
<thead>
<tr>
<th>Date of birth [DD/MM/YYYY]</th>
<th>[<em><strong>][</strong></em>]/[<em><strong>][</strong></em>]/[<em><strong>][</strong></em>]/[___]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time of birth [e.g. 14:21]</td>
<td>[<em><strong>]:[</strong></em>]</td>
</tr>
<tr>
<td>Participant ID/MR No of the mother:</td>
<td>[<em><strong>][</strong></em>]–[<em><strong>][</strong></em>]</td>
</tr>
<tr>
<td>COVID-19 lab test of foetus or neonate</td>
<td>☐ Performed ☐ Not performed ☐ Unknown</td>
</tr>
<tr>
<td>Score: [<em><strong>][</strong></em>]</td>
<td>☐ Not available</td>
</tr>
<tr>
<td>Gestational age</td>
<td>Weeks: [<em><strong>][</strong></em>] Days: [___]</td>
</tr>
<tr>
<td>Birth weight</td>
<td>Grams: [<em><strong>][</strong></em>][<em><strong>][</strong></em>]</td>
</tr>
<tr>
<td>Vaccinations at birth</td>
<td>☐ YES ☐ NO ☐ UNKNOWN</td>
</tr>
<tr>
<td>Respiratory distress syndrome</td>
<td>☐ YES ☐ NO ☐ UNKNOWN</td>
</tr>
<tr>
<td>Neonatal outcome</td>
<td>☐ Discharged healthy</td>
</tr>
<tr>
<td>Details: [___]</td>
<td></td>
</tr>
<tr>
<td>☐ Clinical referral to specialist ward/other hospital</td>
<td></td>
</tr>
<tr>
<td>Details: [___]</td>
<td></td>
</tr>
<tr>
<td>☐ Death Date of death: [<em><strong>][</strong></em>]/[<em><strong>][</strong></em>]/[<em><strong>][</strong></em>]/[___]</td>
<td></td>
</tr>
<tr>
<td>☐ Unknown</td>
<td></td>
</tr>
<tr>
<td>If neonate died, primary cause of death</td>
<td>☐ Preterm/low birth weight</td>
</tr>
<tr>
<td>☐ Birth asphyxia</td>
<td></td>
</tr>
<tr>
<td>☐ Infection</td>
<td></td>
</tr>
<tr>
<td>☐ Birth trauma</td>
<td></td>
</tr>
<tr>
<td>☐ Congenital/birth defects</td>
<td></td>
</tr>
<tr>
<td>☐ Other - Specify [___]</td>
<td></td>
</tr>
<tr>
<td>☐ Unknown</td>
<td></td>
</tr>
<tr>
<td>Any congenital anomalies</td>
<td>☐ Neural tube defects</td>
</tr>
<tr>
<td>☐ Microcephaly</td>
<td></td>
</tr>
<tr>
<td>☐ Congenital malformations of ear</td>
<td></td>
</tr>
<tr>
<td>☐ Congenital heart defects</td>
<td></td>
</tr>
<tr>
<td>☐ Orofacial clefts</td>
<td></td>
</tr>
<tr>
<td>☐ Congenital malformations of digestive system</td>
<td></td>
</tr>
<tr>
<td>☐ Congenital malformations of genital organs</td>
<td></td>
</tr>
<tr>
<td>☐ Abdominal wall defects</td>
<td></td>
</tr>
<tr>
<td>☐ Chromosomal abnormalities</td>
<td></td>
</tr>
<tr>
<td>☐ Reduction defects of upper and lower limbs</td>
<td></td>
</tr>
<tr>
<td>☐ Talipes equinovarus/clubfoot</td>
<td></td>
</tr>
</tbody>
</table>