African Union

AFRICA CDC
Centres for Disease Control and Prevention
Safeguarding Africa's Health

Best Practices for COVID-19 in Primary Healthcare Facilities

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Purpose of this document

Based on WHO recommendations, countries have developed guidance documents for COVID-19 care at tertiary and referral hospitals, but there is a lack of clear guidance for maintaining essential services and preventing viral transmission at lower tiers of care. This document addresses issues specific to primary healthcare facilities (PHCs) and aims to guide triage and screening of all patients, infection prevention and control (IPC) measures that must be implemented to avoid transmission of COVID-19 in the PHC, environmental cleaning and waste management specific to COVID-19, and healthcare worker training to ensure implementation in every PHC.

Triage and Screening

Triage and screening are necessary prior to entry into primary healthcare facilities to reduce the risk of transmission of COVID-19 at PHCs where availability of COVID-19 testing may be low. It is essential for patients and healthcare workers to feel safe in order to ensure that patients can continue to obtain essential services including maternal health services; well child visits and immunization; malaria diagnostics, prevention and treatment; HIV testing and treatment; tuberculosis (TB) diagnostics and treatment; and diagnosis and management of non-communicable diseases.

The WHO recommends developing a clear referral pathway for suspected and confirmed cases, with a dedicated ambulance or other modes of transportation for patients who need to be referred from PHCs to identified treatment facilities.[1]

Before patients arrive

Health facilities should communicate with patients using traditional and social media prior to their arrival at the health facility:[2]

- Inform patients that health facilities are open to provide routine services, including antenatal and postnatal care, pediatric vaccines, and HIV, TB and malaria diagnostic tests and treatments.
- Reduce provider face-to-face encounters for the management of patients with stable chronic diseases. Adopt 'telemedicine" approaches, communicating with patients with chronic conditions by text or phone.
- For stable patients seen at a healthcare facility, dispense the longest-term prescription possible. Ensure adequate supply chains for medications.[3]
- Patients who are at high-risk of moderate-to-severe COVID-19 infection and do not otherwise require an in-person appointment should use alternate methods to pick up medications, such as having a family member or other trusted individual who is not at high-risk of severe illness to pick up medications for them.
- Inform patients that there are mechanisms to minimize risk of infection, including screening procedures, the use of personal protective equipment by healthcare workers, and infection prevention measures.

- Inform patients about preventive measures they should observe when seeking care, e.g. wearing a mask or face covering, bringing tissue to cover their cough/sneeze).[2]

- Attendance for all services should be restricted to the patient and if necessary, an asymptomatic companion of their choice. Wherever possible, children or other family members should not accompany the patient to the health facility. All visitors should wear a mask.

- Provide information to the public about the signs and symptoms of COVID-19.

When patients arrive: ensure outdoor triage, early recognition and source control

To facilitate early identification of suspected COVID-19 cases, healthcare facilities should:

- encourage healthcare workers to have a high level of clinical suspicion;

- establish a well-equipped triage station at the entrance to the facility, outdoors, supported by trained staff to triage every patient before entry into the facility (Figure 1);

- institute the use of questionnaires about symptoms according to the updated national case definition;

- post signs in public areas reminding symptomatic patients to alert healthcare workers; the signs should be easily understood by all persons;

- if possible, use physical barriers to reduce exposure to the COVID-19 virus, such as glass or plastic windows or sheets in areas where patients first present, e.g. triage areas, the registration desk at the emergency department, or at the pharmacy window where medication is collected. If this is not possible, tables or desks can be placed in patient processing areas to maintain physical distance between patients and health facility staff.

- triage and isolate all suspected COVID-19 patients outdoors at the first point of contact with the healthcare system;[4]

- Outside, prior to entry to the health facility, a healthcare worker or a community health worker who has been trained to perform triage using a standardized form, wearing a mask, and eye protection if available, should ask all patients and visitors presenting to the PHC their reason for visit, and direct patients to the appropriate area depending on reason for visit.
    - At least one waiting area should be designated for patients presenting to the PHC with respiratory symptoms or concern for COVID-19. These patients should then be evaluated by a clinician (doctor or a nurse) who will determine where the patient will be referred based on the severity of symptoms (Figure 2).
    - At least one waiting area should be designated for patients and visitors presenting for routine or other care, e.g. antenatal, vaccine, HIV testing or medications, TB symptoms or medications, malaria diagnostics or bed nets, chronic disease care, etc. who state that they do NOT have respiratory symptoms (Figure 2).

Setting up triage and screening areas

- Four posts with a roof may be used for a triage and screening area. The roof should have an overhang for protection against sun and rain. If this is not possible, create a designated space outside the clinic.
- Use bricks, tape, pen, etc. to mark spacing between patients as they queue for triage.
- Individual seating (not benches) should be used and placed 2 metres apart. If benches are used, mark seats 2 metres apart using a pen, marker or tape, etc.
- Maintain a space of 2 metres between patients and/or visitors and between patients and healthcare workers. If there are space constraints, maintain at least 1 metre space.
- Place signs with information on cough etiquette, disposal of contaminated items, and hand hygiene in strategic areas where they are visible to everyone.

Staffing of triage and screening areas

- Dedicated, trained staff performing triage must have appropriate personal protective equipment (PPE) including medical or surgical masks, eye protection, and access to alcohol-based hand rub (Table 1).

Use dedicated, trained staff (physicians, nurses) for evaluation of patients with respiratory symptoms.[2] Give a mask to the patient[4] and refer them to the appropriate facility or testing site based on the local protocol.

In the context of community transmission, depending on testing strategy and capacity, patients with mild or moderate illness should be advised to self-isolate in shared community facilities or at home.[5] Home care should be considered if inpatient care is unavailable or unsafe, e.g. due to limited capacity or resources.[6]

Options A-small facilities

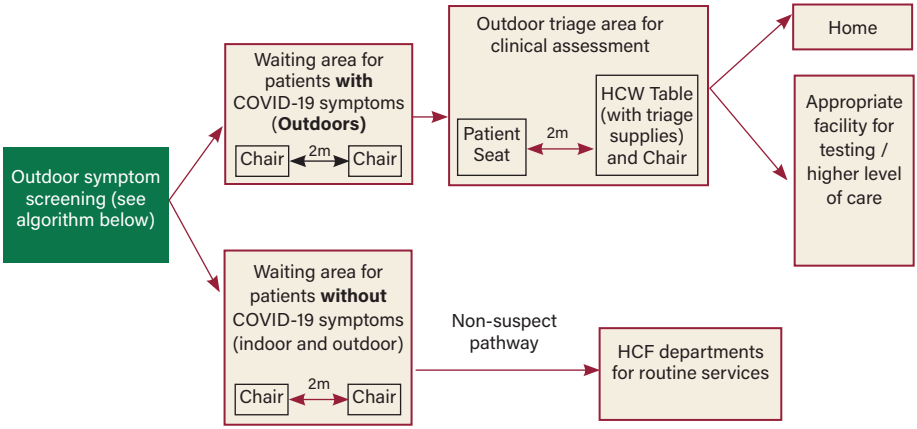
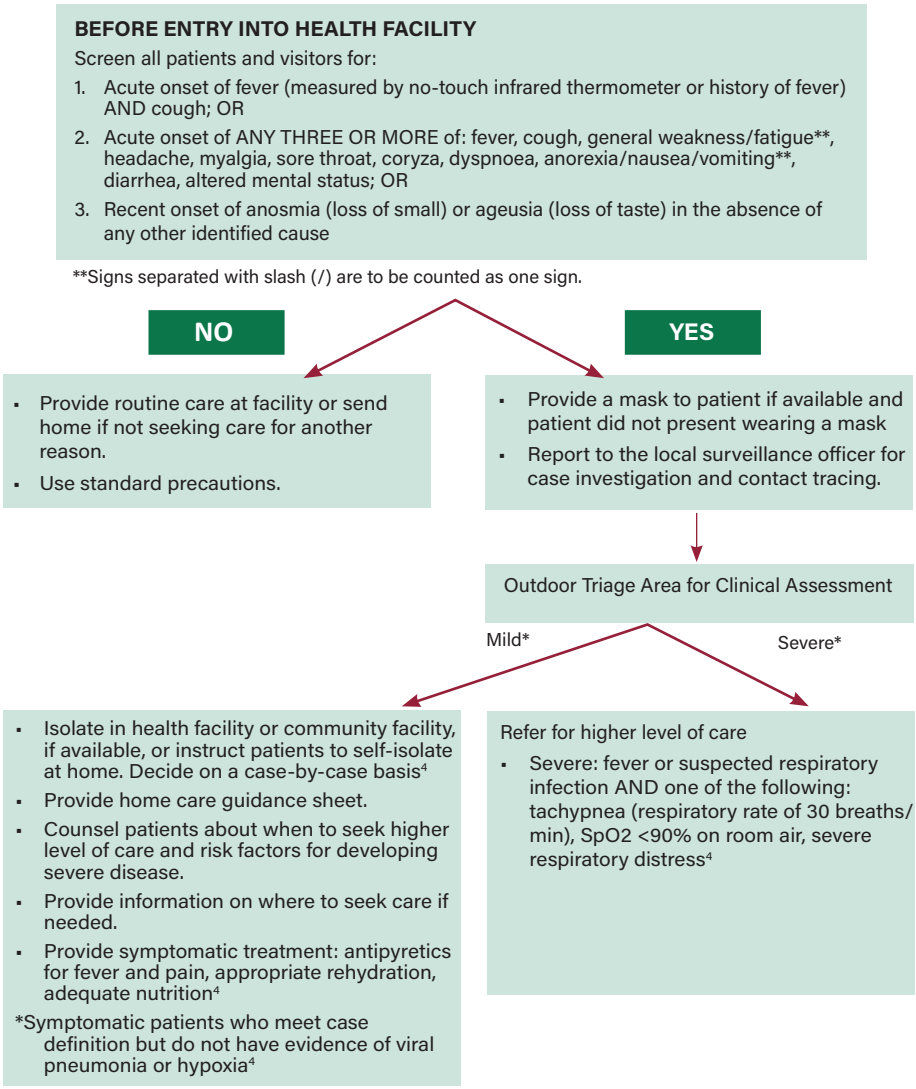


***Figure 1: Example of a triage/screening* area**

Figure 2: Triage/screening algorithm/decision tool*

** All patients and visitors presenting to a primary health centre, including those coming for antenatal care, labour and delivery, paediatric vaccine services, TB and malaria diagnostics, HIV testing and medication pickup, should be screened.*



[1] https://www.who.int/publications/i/item/WHO-2019-nCoV-Surveillance_Case_Definition-2020.1

Table 1: Roles, responsibilities and equipment

Role	Responsibility	Equipment*
Triage at entry to healthcare facility (minimum 2)	A trained community health worker to interview patients, at 1.5–2 m distance, using a form with questions about symptoms, to see if patient meets criteria for suspected COVID-19	▪ Medical/surgical mask ▪ Eye protection (e.g. face shield or goggles)^ ▪ Alcohol-based hand rub
Clinician (minimum 1)	A healthcare worker to assess the severity of symptoms, determine if there is another underlying cause for medical attention, and decide where patient should be sent	▪ Medical/surgical mask ▪ Eye protection (e.g. face shield or goggles) ▪ Alcohol-based hand rub ▪ Gown
Environmental services/cleaning staff (minimum 1)	Existing facility staff	▪ Medical/surgical mask ▪ Eye protection (e.g. face shield or goggles) ▪ Gown ▪ Impermeable apron ▪ Boots or closed toe work shoes ▪ Reusable rubber (heavy-duty) gloves

**The reuse of, eye protection, or gowns without appropriate decontamination/ sterilization is strongly discouraged. The removal, storage, re-donning and reuse of the same, potentially contaminated PPE items without adequate reprocessing is one of the principle sources of HCWs risk due to hands and face self-inoculation.*

^The use of eye protection is recommended when it is difficult to maintain physical distance or set up physical barriers for triage point

Infection prevention and control

The basic principles of infection prevention and control (IPC) and standard precautions should be applied in all health care facilities, including outpatient care and primary care. For COVID-19, the following measures should be adopted:

- Triage and early recognition
- Patient flow management
- Emphasis on hand hygiene, cough etiquette and medical mask use by patients with respiratory symptoms
- Appropriate use of contact and droplet precautions for health care workers taking care of all suspected cases
- Prioritization of care of symptomatic patients; when symptomatic patients are required to wait, ensure that they have a separate waiting area either outdoors or in a well-ventilated space.

Implementing administrative controls

Administrative controls and policies for the prevention and control of transmission of COVID-19 within the health care setting include, but may not be limited to:

a. Healthcare worker training and support

- Training of healthcare workers for COVID-19 should be conducted in each province with the provincial team cascading training to district teams and then to PHCs.
- Once trained, healthcare workers should work in facilities where they were allocated and perform tasks they have been trained to do.
- Monitoring should be established and performed bi-weekly or monthly by the district IPC team of all PHCs in the district to ensure that healthcare workers at PHCs have been trained in IPC.

- Healthcare workers who show respiratory symptoms should stay home and not perform screening/triage or any other duties at the health facility.[2]
- Healthcare workers should self-monitor for symptoms such as fever, sore throat, cough, severe aches, fatigue or diarrhoea and report any of these to the IPC focal person at their place of work before coming to work.[7,8]
- Healthcare facilities should screen all staff daily for COVID-19 symptoms and/or check temperature prior to start of shift. Documentation should be obtained and maintained by the IPC focal person or clinic staff.
- WHO has a risk stratification tool to assess risk of infection among healthcare workers, and guidance on management of those at high- and low-risk of infection.[9]

b. Patient flow management

- Reorganize patient flow to prevent overcrowding and reduce contact with other patients, especially in emergency departments and outpatient waiting areas, including waiting areas at the pharmacy. Consider using an appointment or numbered queuing system to limit crowding.
- We recommend the creation of large outdoor waiting areas with roofing at every point of entry to the PHC, including the antenatal clinic and vaccination clinics. Provide dedicated waiting areas for symptomatic patients, preferably outdoors with protective roofing. Maintain a distance of at least 2 metres between waiting patients through the use of floor markers (e.g. tape or chalk marks) for queues and/or spaced seating arrangements.
- Consider using telemedicine (e.g. call centers, WhatsApp) to evaluate suspected cases of COVID-19 disease, thus minimizing the need for these individuals to go to healthcare facilities for evaluation. When in-person appointments are required (e.g. blood

tests, physical examinations, ultrasounds, vaccines), these should be arranged alongside other in-person appointments to limit the number of health facility visits.

- To prevent infections and facilitate movement of healthcare workers, maintain a distance of 2 metres between suspected persons and other patients and healthcare workers. If 2 metres of separation is not possible, WHO recommends maintaining a distance of at least 1 metre for IPC.
- Where possible, designate a team of healthcare workers to care exclusively for suspected or confirmed COVID-19 cases to reduce the risk of transmission.
- Suspected or confirmed COVID-19 cases should be assessed for the severity of symptoms (see figure 2 with triage algorithm tool) and referred to higher levels of care when needed; while patients are waiting for transport, they should be given a medical mask and either wait in a single (isolation) room or outdoors to maximize ventilation, maintaining at least 2 m from other persons. No person with COVID symptoms should be closer than 2 meters to another patient.
- Suspected or confirmed mild cases of COVID-19 who still require services in the primary health facility should occupy single rooms; if single rooms are not available, patients suspected of having COVID-19 can be grouped together (cohorted) including in postnatal wards but there must be at least 2 metres between patients (1 m when not possible) with a separating barrier between patients.

c. Supplies and equipment

- Ensure adequate supplies of PPE and ensure adherence to IPC policies and procedures for all aspects of healthcare.
- Medical equipment should be either single-use and disposable or dedicated equipment (e.g. stethoscopes, blood pressure cuffs and thermometers). If equipment needs to be shared among patients, clean and disinfect it between use for each individual patient (e.g. by using 70% ethyl alcohol).

Applying standard precautions for all patients

Standard precautions include hand hygiene and cough etiquette, and the use of appropriate PPE according to the level of interaction with suspected COVID-19 patients:

- Ensure that all patients cover their noses and mouths with a tissue or elbow when coughing or sneezing.
- Patients presenting for care should come to the health facility with face coverings.
- If available, offer a medical mask to patients with suspected COVID-19 illness.
- Healthcare workers should refrain from touching their eyes, nose or mouth with potentially contaminated bare hands or gloved hands if gloves are not changed appropriately.

Hand hygiene

- Hand hygiene includes either cleansing hands with an alcohol-based hand rub, or with soap and water when hands are visibly dirty, or after using the toilet.[10]
- Perform hand hygiene during patient care, adhering to WHO's guidance, "My 5 Moments for Hand Hygiene": before touching a patient, before any clean or aseptic procedure is performed, after exposure to body fluid/risk, after touching a patient, and after touching a patient's surroundings.[11]
- Functional hand hygiene facilities should be available for all healthcare workers at all points of care and in areas where they put on or take off PPE.[12] Hand hygiene facilities should be as close as possible and easily accessible to healthcare workers – within arm's reach of where patient care is taking place, if possible.[10]
- Functional hand hygiene facilities should be available for all patients, family members and visitors, and should be available within 5 metres of toilets, as well as in waiting and dining rooms and other public areas.[12]

- When hands are not visibly dirty, alcohol-based hand rub is strongly recommended as a preferred method of hand hygiene as it is more convenient and time-efficient.[10] If gloves are used, hand hygiene must still be performed before and after donning and doffing gloves, and a new pair of gloves must be used for each patient. Put product on hands, cover all surfaces of hands, and rub until hands feel dry. This should take about 20 seconds.[10]
- When washing hands with soap and water, wet your hands with water, apply soap, and rub hands together vigorously for 20 to 30 seconds covering all surfaces of hands and fingers.[10] Rinse hands with water. Washed hands should be dried with disposable or clean towels. When these are not available, hands should not be dried on one's clothing which may lead to contamination.
- If piped water is not available, functional handwashing stations are an inexpensive and prompt intervention, consisting of a covered water container with a functioning tap, water, soap and a basin for waste water.[13,14] The water does not need to be chlorinated.
- If alcohol-based hand rub or soap and water for handwashing are not available, use of mild (0.05%) chlorine solution for handwashing is an effective option. This is not ideal as frequent use may lead to skin irritation, increasing the risk of infection, and because prepared dilutions may be inaccurate.[15]

Alcohol-based hand rub

- Alcohol-based hand rub can be easily manufactured, but there are gaps in ingredient availability, especially glycerol and hydrogen peroxide as well as equipment for measuring and mixing the ingredients. WHO has developed a guide for local production.[16]
- We recommend support for procurement of needed ingredients for producing alcohol-based hand rub and equipment for measuring and mixing the ingredients including a monitoring system for ingredient stores at the PHC, district and province levels. There

should also be support for the procurement of devices for dispensing alcohol-based hand rub and directions on how to clean and reuse these devices, 240 cc or less.

Contact and droplet precautions and PPE for healthcare workers

- In addition to using standard precautions, all healthcare workers should use contact and droplet precautions, including: a medical mask, gloves; eye protection (goggles) or facial protection (face shield) to avoid contamination of mucous membranes; a clean, non-sterile, long-sleeved gown where available. Remember that infectious COVID-19 patients may be pre-symptomatic or asymptomatic.
- Boots, coveralls and head coverings are NOT required during routine care.
- WHO recommends the use of long sleeve gowns. Although many countries have surgical scrubs that may be adequate in numbers, these may not conform with WHO recommendations. Long sleeve gowns are preferable, but they are often not available. Plastic aprons may be used, but instructions to clean arms will be required.[17]
- Train healthcare workers to don and doff properly and launder onsite at the health care facility.
- After patient care, appropriate removal and disposal of all PPE and performance of hand hygiene should be carried out.
- A new set of PPE is needed when care is given to a different patient.

Water, sanitation and hygiene

WASH standards in healthcare facilities remain unchanged. In the setting of a COVID-19 pandemic, frequent, high-quality hand hygiene becomes even more critical.

- If healthcare facilities can rapidly ameliorate or supplement their water supply (i.e. repair of borehole or taps, increasing water storage), this should be prioritized.
- If a healthcare facility does not have reliable water supply, enough water should be stored safely to meet the needs of the healthcare facility for two days.[14]
- Ensuring an adequate supply of alcohol-based hand rub, particularly for health care facilities that do not have a water supply, is essential.

Environmental cleaning

- Surfaces in all environments in which COVID-19 patients receive care (treatment units, community care centres) should be cleaned and disinfected at least twice a day and after every patient contact with a surface. High-touch surfaces should be cleaned and disinfected more frequently. Many disinfectants are active against enveloped viruses, such as the COVID-19 virus, including commonly used hospital disinfectants.
- It is essential to clean surfaces with detergent and water solution before applying a disinfectant in order to remove any organic material or debris which may affect the efficacy of disinfectants.

- Spraying of disinfectants is not recommended.

The following are the current recommendations[18–20] (Table 2):

- Use of medium (0.1% or 1,000 ppm) chlorine solution for disinfecting large surfaces and floors.
- Use of medium (0.1% or 1,000 ppm) chlorine solution or 70% ethyl alcohol to disinfect small surfaces such as examination tables.
- Reusable medical equipment such as blood pressure cuffs, stethoscopes and thermometers should be disinfected between patients with 70% ethyl alcohol after each use; chlorine solutions (e.g. sodium hypochlorite or bleach) may damage this kind of equipment.
- Identify high-touch surfaces and items (e.g. light switches, bed rails, tables, carts) and clean and disinfect at least twice daily but more frequent cleaning and disinfection is recommended.
- Observe proper cleaning technique (systematic, clean-to-dirty, top-to-bottom method) using standard operating procedures.
- Dispose of or reprocess cleaning materials/equipment immediately after cleaning.
- Clean all equipment purchased/obtained by the facility using the methods and products available at the facility and following the written instructions from the manufacturer included when equipment purchased.

Table 2: Environmental cleaning

Targeted areas/items	Recommendation
Blood or body fluid spills	1. Confine the spill and wipe up immediately with absorbent (disposable) towels, cloths, or absorbent granules. Dispose of all as infectious waste 2. Clean with detergent and warm water solution 3. Disinfect with strong (0.5%) chlorine solution* or another effective disinfectant. (Please note that chlorine is not effective for disinfection of large amounts of organic matter.)
Large surfaces and floors	1. Clean with detergent and water solution 2. Disinfect with medium (0.1%) chlorine solution†
Small surfaces (examination tables, counters)	1. Clean with detergent and water solution 2. Disinfect with 70% ethyl alcohol or medium (0.1%) chlorine solution†
Small reusable medical equipment (stethoscopes, blood pressure cuffs)	1. Disinfect with 70% ethyl alcohol in-between patient use. (Chlorine /sodium hypochlorite solutions may damage this kind of equipment.)
Large reusable medical equipment (wheelchairs, beds)	1. Clean with detergent and water solution 2. Disinfect with medium (0.1%) chlorine solution† 3. Rinse with clean water after disinfection
Reusable face protection (goggles, face shields)	1. Clean with detergent and water solution 2. Disinfect with 70% ethyl alcohol or medium (0.1%) chlorine solution† 3. Rinse with water if using 0.1% chlorine solution†
Reusable PPE for cleaning staff (heavy-duty gloves, impermeable aprons, boots)	1. Clean with detergent and water solution 2. Disinfect with medium (0.5%) chlorine solution† 3. Rinse with water and allow to dry completely
Linens, including re-usable gowns	1. Machine wash with the warmest water possible and laundry detergent. If machine washing is not possible, linens can be soaked in hot water and soap in a large drum, using a stick to stir, avoiding splashing. Then soak linen in mild (0.05%) chlorine solution¥ for 30 minutes. Finally, rinse with clean water and let it dry fully in the sunlight.

*0.5% chlorine solution can be made by diluting 1 part 5% bleach (sodium hypochlorite) to 9 parts water, 1 part 3.5% bleach to 6 parts water, or 1 part 2% bleach to 3 parts water.

†0.1% chlorine can be made by diluting 1 part 5% bleach (sodium hypochlorite) to 49 parts water or diluting 1 part 0.5% chlorine solution to 4 parts water.

¥0.05% chlorine can be made by further diluting 1 part 0.1% chlorine solution to 1-part water

Note: All chlorine solutions should be prepared fresh daily as they are sensitive to light and heat and will become less effective over time. Disinfection with all chlorine solutions requires 10 minutes of wet contact time, unless otherwise stated.

Sanitation

- Existing guidelines for sanitation in healthcare facilities should be followed. Risk of infection with COVID-19 from faecal material appears to be low.[12]
- People with suspected or confirmed COVID-19 should be provided their own flush toilet or latrine and the toilet should be flushed with the lid covered. If a separate toilet is not available, the toilet should be cleaned twice a day by a trained cleaner wearing PPE.[12]
- Healthcare workers/staff toilets should be separate from those for patients. Toilets should have menstrual hygiene facilities and should be accessible for those with limited mobility.[13,14]
- There should be a regular schedule for emptying latrines or holding tanks based on potential sudden increases in the number of cases and subsequent increased wastewater volumes.[12]

Waste management

Existing guidelines for healthcare waste management should be followed. Functional waste containers should be used to separate non-infectious, infectious and sharps wastes. Safe disposal and treatment by a trained staff member wearing proper PPE (boots, heavy-duty gloves, gown, mask, and face protection) should be observed always.[13,14]

Special considerations[3]

To facilitate the maintenance of essential services while minimizing risk of COVID-19 transmission, continued health-seeking behaviours should be encouraged by emphasizing key IPC principles and supporting reorganization of care and/or client flow to minimize waiting time and contact with other patients.

Maternal health services[21]

Labour and delivery

- Pregnant women, including women in labour, may show symptoms that are similar to COVID-19 symptoms including shortness of breath and fatigue.
- Women in labour experiencing moderate/severe disease may be referred/transported to a higher level of care facility.
- Receiving health facilities should be alerted prior to patient arrival, if possible, so that the facility can make appropriate IPC preparations before arrival.
- Labour and delivery staff must wear appropriate PPE including a medical/surgical mask, eye protection, cap or head covering, a long-sleeved gown (or plastic apron, if gown not available), gloves, and closed-toe shoes.
- New-borns should remain with their mothers even if their mother is a suspected COVID-19 case.
- Kangaroo care and breastfeeding should be encouraged. Mothers must wear medical masks and observe strict hand and breast hygiene before and after contact with their new-borns.
- For preterm and low birth new-borns, limit the number of caregivers providing kangaroo mother care support to one or two people trained in IPC with PPE.

Antenatal and postnatal care

- Prioritize facility-based services for women and new-borns assessed as high-risk and use targeted outreach strategies when needed.
- Maternal health care providers should be aware of the increased risk of antenatal/postnatal anxiety and depression and domestic violence due to the economic and social impact of the COVID-19 pandemic. Additional resources and referral mechanisms should be made available.

Pharmacies and dispensaries[22]

- If possible, barrier protection should be installed at the pharmacy counter (e.g. clear plastic sheet) to shield/protect pharmacy staff against droplets from coughing or sneezing. An opening should be configured at the bottom of the barrier for pharmacy items to be passed through and for people to speak through.
- Pharmacy items/medications should be placed on the counter for the patient to retrieve rather than being handed directly. Pharmacy staff should avoid touching objects that have been handled by patients. If transfer of items must occur, staff should perform hand hygiene.
- Waiting areas outside pharmacies in PHCs are often crowded. Patients should wait outside and sheltered area should be provided, with number system for queuing provided.

Vaccination sites[23]

- Consider increasing the duration of the vaccination session and/or number of vaccination sites so that physical distancing can be maintained.
- Vaccination services should be separated from curative services by using different locations or allocating different hours when possible. Immunization activities should be bundled with other essential services when possible to limit the number of visits made to health facilities. Immunization sessions exclusively for vaccination of those with higher risk of moderate to severe illness should be established when possible.

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