Interim Guidelines for Home-Based Isolation and Care of COVID-19 cases

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Background

The Coronavirus Disease (COVID-19) global pandemic continues to spread around the world exerting unprecedented pressure on the health system of countries. By October 2020, over 37 million infections, including more than 1 million deaths, have been recorded globally. However, Liberia had experienced a downhill trend in the number of confirmed COVID-19 cases since July 2020. Additionally, there is dwindling donors’ funding support to the country. The fight against COVID-19 is faced with mammoth challenges ranging from scarce resources to inadequate logistics and supplies to implement the current response plan that will avert the spread of the virus. Over 200-days of COVID-19 response in Liberia, amidst growing challenges, there is a need to review the current strategy and adapt a cost-effective and sustainable approach that will halt this pandemic.

The government of Liberia has embarked on a transition COVID-19 recovery plan to integrate response activities into routine health system surveillance and service delivery architecture. Home-based care of persons tested positive for COVID-19 is one of the strategies to promote the integration of COVID into primary health care. This interim guidance is intended to inform clinicians, IPC professionals, community health workers and health facility managers involved in the provision of home-based isolation and care (HBIC) for suspected and confirmed cases of COVID-19.
**Definition of terms**

**Facility-based care:** This refers to the isolation and management of COVID-19 positive cases in a health facility (hospitals or designated health centers).

**Community-based care:** The isolation and care for COVID-19 patients in Non-traditional facilities, for example, repurposed hotels, stadiums, gymnasiums, community facilities, town halls etc.

**Home-based isolation and care (HBIC):** Refers to clinical management of people with COVID-19 infection in their own homes

**Overview Home Care COVID-19**

The decision to place a patient under HBIC begins after a COVID-19 test result is confirmed to be positive either from voluntary or community testing.

In cases in which care is to be provided at home, if and where feasible, a physician or skilled clinician on the case management team should review the clinical history and conduct a clinical examination on the patient to certify them for HBIC. Then a skilled Physician Assistant/nurse, assisted by a trained Community Health Service Assistant, should conduct an assessment of the home of the individual to ascertain the suitability of the home setting for HBIC. In addition to a suitable home setting, the patient should be able to acquire essential equipment (such as thermometer, pulse Oximetry, cell phone) to monitor and report his/her vital parameters. The Case Management team must assess whether the patient and the family are capable of adhering to the precautions that will be recommended as part of home care isolation (e.g. hand hygiene, respiratory hygiene, environmental cleaning, restrict movements out of the home) and can address safety concerns (e.g. accidental ingestion of and fire hazards associated with using alcohol-based hand rubs). The home assessment and follow up of the patient will be carried out by an Infection Prevention focal person and Community Health Service Supervisors in the team, respectively. However, the physician will carry out periodic rounds in the homes of patients under HBIC.

The country is adopting home base isolation and care (HBIC) approach as the next best alternative to facility-based isolation and care of COVID-19 cases in the wake of daunting challenges emanating from the management of cases, their families, and the fragile health care delivery system.

https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports/

WHO guidance for home care of COVID-19 cases and management of their contacts
Factors to consider in HBIC

The decision to home-manage a suspected or confirmed COVID-19 patient depends on three key factors:

- **Clinical evaluation of the COVID-19 patient:**
  The following category of patients can be enrolled for HBIC:
  Patients who are asymptomatic or presenting with mild-moderate symptoms of COVID-19
  Patients who do not need supportive care or therapy (like Oxygen)
  Patients who do not have underlying risk factors for severe disease (such as; age > 60 years, smoking, obesity and Non-Communicable Diseases - cardiovascular disease, diabetes mellitus, chronic lung disease, chronic kidney disease, immunosuppression and cancer)
  Contacts of COVID-19 patients
  Discharged patients from health facility

- **Findings from the evaluation of home setting**
  The home should be suitable for home isolation and care (Annex III). The home will be assessed by a trained health professional (IPC Focal Person from the County Health Team) to confirm if it meets the criteria for home-based care of a COVID-19 patient. Besides a suitable infrastructure, the household should be able to designate a caregiver for the patient. The home should have basic equipment for monitoring of vital parameters (temperature, Oxygen saturation), supplies for IPC (masks, hand sanitizer, soap & water) and waste collection. The assessment will be guided by questions outlined in Annex II and applying the customized checklist for COVID-19 home care (Annex III).

- **Ability to monitor the evolution of the patient**
  The patient will be responsible to monitor and report his/her vital to the case management team on a daily base for at least 14 days.
  Designated healthcare workers (Physicians, Physician Assistants, Nurses) will make periodic visits to the household to assess the clinical status of the patient and re-evaluate the vital parameters.
Practical modalities for home-based care

**Prerequisite**

- Patient should have a positive RT-PCR result for COVID-19
- Patient’s CT Values should be provided (where applicable)
- Clinical evaluation of patient should be carried out and patient classified (mild, moderate, severe, critical)
- The home should be assessed and certified for home-care

**Process**

![Diagram of the process flow for home-based isolation and care](image)

Figure 1: Process Flow for Home-based Isolation and Care

Individuals are screened by the county/district Rapid Response Teams through voluntary testing or mandatory testing (for travelers), Results of the COVID-19 test are released to the individual after counselling is completed. The lab team also communicates the positive results to the county case management team, The county case manager carries out clinical assessment and classifies the patient, If patient is clinically fit for HBIC, trained county IPC focal persons (nurses and Physician Assistants) evaluate the home-setting for suitability, Patient is put under home-based care once all conditions are fulfilled and monitored for at least 14 days, Discharge criteria will be the same as outlined in the Interim Clinical guideline for Case management (see Annex V for summary).
The building blocks are the essential elements of the health system which are necessary for the successful implementation of the home-based isolation and care strategy. These components will include, but not limited to, the following:

**Coordination:** A strong coordination between the different response pillars at the county level and between the county and the national IMS is very important for the success of the HBIC approach.

1. **Referral system:** The HBIC will require an up-and-down referral of patients from homes to hospital Treatment Units, and vice-versa. A functional Emergency Service Unit will be required to transport patients who deteriorate from their homes to referral health facilities for better clinical care in a timely manner.

2. **Medical team:** The county case management team will be responsible to run the HBIC programme. This team
1. **Treatment protocols**: The national Case Management pillar, with support from the county teams, has developed technical documents among which this interim guideline, brochure and checklist to guide the case management teams in the implementation of HBIC. The content of this material is informed by the existing National Interim Guideline for the Clinical Management of COVID-19 Cases in Liberia and the WHO technical guidance on HBIC.

2. **Essential supplies**: Essential medicines and equipment are necessary for the management of patients in home care (asymptomatic or mild) and health facilities (severe or critical). Also, basic IPC and waste management supplies are important in both settings to limit the spread of SARS-CoV-2 virus.

**Communication**: The patients in home isolation need to be in constant communication with the county case management team. Therefore, the patients should be able to possess a mobile phone and have adequate access to mobile telephone network and call airtime.

**Household**: The home should be suitable for HBIC. The household members should be provided adequate information about HBIC and they should be ready to respect the guidelines (see messages in Annex VI).
Physicians
County Case Managers
Carry out clinical evaluation and classification of COVID-19 patients
Conduct periodic (weekly) rounds to the homes of home-isolating patients
Maintain the link between the case management team and the other relevant pillars
Creates the link between the home-based care team and the clinical team in the hospital

Physician Assistants & Nurses (IPC FP, CHSS)
Conduct evaluation of the home setting for patients requesting home isolation,
Provide basic information on IPC and waste management to the care giver and the entire household,
Maintains the link between the household and the health facility,
Carry out routine visits to the household to evaluate the clinical presentation of the patient,
Provides counselling and psychosocial support to patients and their families,
Collects and transmits patient vital parameters to the Case manager,
Notifies the CHT in case the patient violates the obligations for HBIC

Laboratory technician
Collect patient specimens and provide results to guide clinical decision making as follows:
- On admission
- Day 10 of home isolation
- Day 13 of home isolation

Patient
- Provide requirements for home-isolation
- Adheres to preventive health measures
- Records and communicates vital parameters to the CHSS

Home preventive measures
Hand hygiene
Hand hygiene is mandatory after any type of contact with patients or their immediate environment.
Frequent hand washing with soap (bar or liquid) and water for at least 40-60 seconds and allow hands to air dry
Frequent hand rubbing with alcohol-based (70% +) sanitizer for at least 20-30 seconds
Hand hygiene should also be performed before and after preparing food, before eating, after using the toilet, and whenever hands look dirty.
When washing hands with soap and water, it is preferable to use disposable paper towels to dry hands. If these are not available, use clean cloth towels and replace them frequently.
Respiratory Hygiene and Cough Etiquette

Medical mask should be provided to the patient, worn at all times and changed daily. If a medical mask is not available, the mouth and nose should be covered with a disposable paper tissue when coughing or sneezing. Otherwise, cough or sneeze into a flexed elbow or sleeve.

Materials used to cover the mouth and nose should be discarded or cleaned appropriately after use; Wash handkerchiefs using regular soap or detergent and water. Properly dispose used mask or tissues into designated waste bag and burn daily (see waste management)

Caregivers should wear a medical mask and face shield that covers their eyes, mouth and nose when in the same room as the patient. Masks should not be touched or handled during use. If the mask gets wet or dirty from secretions, it must be replaced immediately with a new clean, dry mask.

Remove the mask using the appropriate technique do not touch the front, but instead untie it. Discard the mask immediately after use into the appropriate bin and perform hand hygiene.

Disinfection of surfaces

Daily clean and disinfect surfaces that are frequently touched in the room where the patient is being cared for such as bedside tables, bed frames, and other bedroom furniture.

Clean and disinfect bathroom and toilet surfaces at least once daily. Regular household soap or powder soap should be used first for cleaning, and then, after rinsing, regular household disinfectant containing 0.1% Sodium hypochlorite should be applied.

Clean the patient’s clothes, bed linen, and bath and hand towels using regular laundry soap and water or machine wash at 60–90 °C (140–194 °F) with common household detergent, and dry thoroughly. Place contaminated linen into a laundry bag.
Home Care Waste Management

Avoid direct contact with body fluids, particularly oral or respiratory secretions, and stool. Use disposable gloves, face shield and a mask when providing oral or respiratory care and when handling stool, urine, and other waste. Gloves, masks, and other waste generated during home care should be placed into a waste bin with a lid in the patient’s room before disposing of it as infectious waste.

Have two separate bins for wastes:

- **Wet:** left-over food, food residues (dirt from eating e.g. Bone), vomitus, drinking cups etc
- **Dry:** used gloves, face shield, mask, soiled bed sheets and pillows

Use dedicated bed sheets and eating utensils for patients. These items should be; Cleaned with soap and water after use and may be re-used instead of being discarded.

Regular household soap or detergent should be used first for cleaning, and then, after rinsing, regular household disinfectant containing 0.1% Sodium hypochlorite (i.e. equivalent to 1000 ppm) should be applied.

Use of PPE

Utility gloves should be cleaned with soap and water and decontaminated with 0.1% Sodium hypochlorite solution.

Perform hand hygiene before putting on and after removing gloves and masks.

A clinician will conduct a risk assessment to certify the suitability of the home for home-isolation and to know the appropriate PPE needed.

Place the patient in a well-ventilated single room (i.e. with open windows and an open door).

Limit the movement of the patient in the house and minimize shared space. Ensure that shared spaces (e.g. kitchen, bathroom) are well ventilated (keep windows open).

Household members should stay in a different room or, if that is not possible, maintain a distance of at least 1 metre (3 feet) from the ill person (e.g. sleep in a separate bed) and always way a medical mask.
Annex

Annex I: Management and care of contacts (Low, Medium and High-risk)

Persons (including, caregivers and HCWs) who have been exposed to individuals with suspected COVID-19 are considered contacts and should be advised to monitor their health for at least 14 days from the last day of possible contact.

A contact: Person who is involved in any of the following; from 2 days before and up to 14 days after the onset of symptoms in a confirmed COVID-19 patient:

- Having face-to-face contact with a COVID-19 patient within 1 meter and for >15 minutes;
- Providing direct care for patients with COVID-19 disease without using proper personal protective equipment (PPE)
- Staying in the same close environment as a COVID-19 patient (including sharing a workplace, classroom or household or being at the same gathering) for any amount of time;
- Travelling in close proximity with (that is, within 6 feet separation from) a COVID-19 patient in any kind of transport (boat, car, Keke, Pempem, Motobike)

Monitoring

Use Thermoscan /digital thermometer to monitor body temperature.
Monitor body temperature twice daily
Record and report daily temperature readings

Communication

If a contact develops symptoms, the following actions should be taken:

Call a health care provider who has been monitoring or following up the contact during the period of the observation.

Also, health care personnel should follow up on the contacts health status regularly through phone calls and, ideally and if feasible, through daily in-person visits so that specific diagnostic tests can be performed as necessary.

The health care provider should give instructions to contacts in advance about when and where to seek care if they become ill, the most appropriate mode of transportation to use, when and where to enter the designated health care facility, and which IPC precautions should be followed.
**Transfer**

This is for patients who develop signs and symptoms of severe disease (e.g. shortness of breath), especially those with underlying co-morbidities like Diabetes Mellitus.

Complete the contact notification form.

Notify the receiving facility (hospital or Treatment Unit) that a symptomatic contact (suspected case) will be arriving.

While traveling, the contact should wear a medical mask and appropriate IPC precautions should be observed.

The contact should avoid taking public transportation to the facility. If possible, call 4455 or the County case management team focal person to arrange for the ambulance to pick up the case, or the ill contact can be transported in a private vehicle with all windows open, if possible.

The symptomatic contact should be advised to perform respiratory hygiene and hand hygiene and to stand or sit.

**Discharged patients**

Patients discharged from the Treatment Unit or Isolation centres may require home-care depending on their clinical state. The clinical algorithm for triage and the criteria for the discharge of COVID-19 patients should be strictly followed as outlined in the Interim Guidance on the Clinical Care of patients with suspected and confirmed SARS-Cov-2 infection in Liberia. Patients can be referred from home to health facility and counter-referred according to set national protocols.
Annex II: Factors to consider when assessing households

Is the person with COVID-19 living alone? If so, what support network do they have? If not, who is living in the household with them?

How is the person with COVID-19 and their family living? How feasible and practical would it be to implement recommendations? What alternative options are available?

What are the needs related to disability, caring responsibilities for adults, older adults or children? What are the needs of other household members?

How feasible is it for one caregiver to be identified to support the person with COVID-19 at home?

What do household members know about COVID-19 and preventing transmission in the home? What are their information needs about COVID-19 and transmission prevention? Does the household know where to seek additional support or information related to care for the person with COVID-19 if needed?

What does the person with COVID-19 and/or their household members think they need to be able to cope at home?

Does the family understand when to call for medical assistance? Do they have the means to call for medical assistance?

What are the psychosocial needs of the person with COVID-19 and household members? What support is available to them related to coping with the emotional impact or fear of stigma?

What is the economic impact on the household? Who is the primary provider financially? What is the impact if that person needs to be isolated and/or to carry additional household or care responsibilities?

Which health facility and, if possible, named professional is responsible for following up the care of the person with COVID-19? How will follow up of this care be maintained?
Annex III: Checklist for COVID-19 home care in Liberia

**Home setting**
- Separate bedroom for patient
- Room well-ventilated
- Availability of a caregiver (relative)
- Availability of a thermoflash and fingertip pulse Oximeter
- Home is close to a satellite health facility or TU
- Mobile communication network coverage in community

**Hand hygiene commodities**
- Hand washing station (bucket + faucet, soap, hand sanitizer)
- Procedure for hand hygiene posted in home

**Respiratory hygiene**
- Sufficient quantity of face mask (at least 14 pieces of cloth or surgical mask)
- Appropriate waste bins for infectious waste like used masks

**Cleaning**
- Liquid Chlorine (Chlorax) available
- Utility gloves and apron for cleaning

Annex IV. Requirements for IPC focal person/CHW for home-based care
- Trained on vital signs monitoring and the use of COVID-19 case reporting/monitoring tools
- Thermo-flash available and functional
- Case reporting forms available
- Blood pressure monitoring machine (automated) and batteries
- Pulse Oximeter (fingertip)
- Glucose monitoring machine (including strips)
- Communication scratch cards
- Risk appropriate PPE

- First sample to be collected 10 to 12 days following first confirmation test
- Laboratory team is informed by IPC focal person or case management
- Sample collection is done by laboratory team at patients home /where feasible patient shall drive at sample collection site to provide sample
- Laboratory result is communicated to IPC focal person / case management team
- IPC focal person / case management is to inform patient about result immediately or within 3 to 6 hours.
- If first result is negative, a second specimen is obtained within 24 to 48 hours
- Result is communicated as above
- Second negative warrant discharged from Home-based care.
- Patient is counseled by psychosocial, return to normal activities and maintained safety rules
- If test result is positive, second specimen is collected 3 to 5 days later.
- If test is again positive, other discharge criteria shall be considered as outline in clinical guide
- Information for all patients successfully completing home-based care shall be sent to case management team to be incorporated into data base as recovered.
- Meanwhile, patient presenting with severe disease are to be referred to nearest treatment facility
- CHW/IPC focal person shall alert the case management team about patient’s condition
- Case management shall alert EMS for referral to nearest health facility or patient advise to self-transport where feasible
Annex VI: Messages to patients, caregivers and household members

Home care for people with suspected or confirmed COVID-19
Take care of yourself and your family

For caregivers

- Ensure the ill person rests, drinks plenty of fluids and eats nutritious food.
- Wear a medical mask when in the same room with an ill person. Do not touch the mask or face during use and discard it afterward.
- Frequently clean hands with soap and water or alcohol-based rub, especially:
  - after any type of contact with the ill person or their surroundings
  - before, during and after preparing food
  - before eating
  - after using the toilet
- Use dedicated dishes, cups, eating utensils, towels and bedlinens for the ill person. Wash dishes, cups, eating utensils, towels, or bedlinens used by the ill person with soap and water.
- Identify frequently touched surfaces by the ill person and clean and disinfect them daily.
- Call your health care facility immediately if the ill person worsens or experiences difficulty breathing.

www.who.int/covid-19
Home care for people with suspected or confirmed COVID-19
Take care of yourself and your family

For ill people

If you are ill with fever and cough

Clean hands frequently with soap and water or with alcohol-based hand rub.

Stay at home; do not attend work, school or public places. Rest, drink plenty of fluids and eat nutritious food.

Stay in a separate room from other family members, but if not possible wear a medical mask and keep a distance of at least 1 meter (3 feet) from other people. Keep the room well-ventilated and if possible use a dedicated bathroom.

When coughing or sneezing, cover mouth and nose with flexed elbow or use disposable tissue and discard after use. If you experience difficulty breathing, call your health care facility immediately.

www.who.int/covid-19
Home care for people with suspected or confirmed COVID-19
Take care of yourself and your family

All members of the household

Wash hands with soap and water regularly, especially:
- after coughing or sneezing
- before, during and after you prepare food
- before eating
- after using the toilet
- before and after caring for the ill person
- when hands are visibly dirty

Avoid unnecessary exposure to the ill person and avoid sharing items, such as eating utensils, dishes, drinks and towels.

When coughing or sneezing, cover mouth and nose with flexed elbow or use a disposable tissue and discard immediately after use.

Monitor everyone’s health for symptoms such as fever, cough and if difficult breathing appear, call your health care facility immediately.