

UNITED REPUBLIC OF TANZANIA



MINISTRY OF HEALTH, COMMUNITY DEVELOPMENT, GENDER, ELDERLY AND CHILDREN

Standard Operating Procedures (SOPs) for Case Management and Infection, Prevention and Control

Case Management and Infection Prevention and Control Subcommittee

March 2020



MINISTRY OF HEALTH, COMMUNITY DEVELOPMENT, GENDER, ELDERLY AND CHILDREN

SCREENING TRIAGING AND ISOLATION OF PATIENTS SUSPECTED OF COVID-19 INFECTION

Screening: An area in which an individual is evaluated and screened using the case definition; if the person becomes a suspected case, refer to COVID-19 protocol.

Isolation: If the case definition is met, the patient should immediately be given a mask and directed to a separate area (an isolation room if available). At least 1 m distance should be kept between suspected patients and other patients.

Triage: Acuity-based triage is the standard method of sorting patients in the medical setting. This is used as the basis for identifying patients who require immediate medical intervention, patients who can safely wait, or patients who may need to be transported to a specific facility based upon their condition. A standard, validated tool should be used to assess for severity of patients and designation to the appropriate part of the facility or the health care system (such as the Integrated Interagency Triage Tool).

Triage is paramount before management can carry on

1. Recognize and sort all patients with suspected COVID-19 at first point of contact with health care system (such as the emergency department/OPD).
2. Consider COVID-19 as a possible etiology of SARI

Screening and triage: Screen and isolate all patients with suspected COVID-19 at the first point of contact with the health care system (such as the emergency department or outpatient department/clinic). Consider COVID-19 as a possible etiology of patients with acute respiratory illness under certain conditions (see Table 1). Triage patients using standardized triage tools and start first-line treatments.

Remark 1: Although the majority of people with COVID-19 have uncomplicated or mild illness (81%), some will develop severe illness requiring oxygen therapy (14%) and approximately 5% will require intensive care unit treatment. Of those critically ill, most will require mechanical

ventilation (2, 10). The most common diagnosis in severe COVID-19 patients is severe pneumonia.

Remark 2: Early recognition of suspected patients allows for timely initiation of appropriate IPC measures (see Table 3). Early identification of those with severe illness, such as severe pneumonia (see Table 2), allows for optimized supportive care treatments and safe, rapid referral and admission to a designated hospital ward or intensive care unit according to institutional or national protocols.

Remark 3: Older patients and those with comorbidities, such as cardiovascular disease and diabetes mellitus, have increased risk of severe disease and mortality. They may present with mild symptoms but have high risk of deterioration and should be admitted to a designated unit for close monitoring.

Remark 4: For those with mild illness, hospitalization *may* not be required unless there is concern about rapid deterioration or an inability to promptly return to hospital, but isolation to contain/mitigate virus transmission should be prioritized. All patients cared for outside hospital (i.e. at home or non-traditional settings) should be instructed to manage themselves appropriately according to local/regional public health protocols for home isolation and return to a designated COVID-19 hospital if they get worse).

SCREENING FOR COVID IN ALL HEALTH FACILITIES

All patients entering Health facilities should be screened for COVID-19. All facilities should put in place a mechanism for screening. Identifying appropriate area and person. If the Facility is fenced, screening at the gate is more effective. National screening checklist should be used. The checklist might change depending on the evolution of the disease

Health workers and individual conducting screening should practice standard precaution, which include putting mask.

FLOW CHART FOR SCREENING

Infection, Prevention and Control



Handwashing or hand sanitizing station should be available at facility entrance



Surgical mask for screening staff



Surgical mask for all clients with cough before they enter the facility



Full protective clothing for HCW that will provide care to a Corona suspect going to isolation

Covid-19 outbreak facility screening flow chart

1. Screen ALL Clients for temperature
2. Interview, visually observe for signs of illness
3. Interview Clients history travel to/from affected countries within 14days
4. Interview Client for possible contact with the confirmed COVID-19 Patient

Screening questions to identify COVID-19 suspect

1. Have you been outside the country in the last 2 weeks?
2. Have you been in contact with somebody with a confirmed Corona virus case

Yes

No

Screen for symptoms:

- Cough
- Sore throat
- Shortness of breath
- Fever

Screen for symptoms:

- Cough
- Sore throat
- Shortness of breath
- Fever

Yes

Provide mask

No

Yes

Provide mask

No

COVID SUSPECT

- Instruct on cough and hand hygiene
- Escort to designated isolation area
- Keep a distance from client of at least 1 meter
- Inform RRT to conduct further assessment
- Provide necessary basic and supportive care

POSSIBLE COVID EXPOSED

- Provide services as requested
- Refer to Contact Tracing SOP
- Request client to self-isolate for 14 days at home
- Advise client to contact the facility if developing signs and symptoms

RESPIRATORY TRACT INFECTION

- Fast track required services
- Treat as respiratory tract infection
- Follow up for possible COVID 19 infection as per surveillance SOP if discharged
- If severe and admitted, test for possible COVID-19 infection

NO COVID EXPOSURE

- Offer services as required.
- For chronic care clients (e.g. ART, hypertension, diabetes) provide multiple month dispensing, 6 months for ART and 3 month for hypertension and diabetes

Standard Precautions

Standard Precautions recommended measures for suspects include the following:

1. Ask the patient to wear a medical mask and move them to a single room with the door closed
2. Staff entering the room should use standard, precautions – including wearing a fit- checked P2 respiratory (or a N95) mask, disposable gown, gloves and eye protection – in addition to standard precautions.
3. Ensure that the patient, potentially contaminated areas, and waste are managed appropriately.
4. Cover nose and mouth during coughing or sneezing with tissue or flexed elbow for others.
5. Perform hand hygiene after contact with respiratory secretions.
6. Rational, correct, and consistent use of available PPE helps to reduce the spread of the pathogens.

These precautions should continue if the patient is admitted and moved (maintaining infection control) to another hospital area.

Standard Precautions for Contact and Droplet precautions for suspected COVID-19 infection:

1. Place patients in adequately ventilated single rooms
2. When single rooms are not available, can put patient in one room maintain the distanced o at least 1 meter between beds. As much as possible avoid mixing together of suspected and Conformed cases.
3. Apply Infection prevention and control measures when providing health care where COVID-19 infection is suspected, the Interim Guidance in addition to Standard Precautions, all individuals, including family members, visitors and HCWs should apply Contact and Droplet precautions is to:
 - Place patient beds at least 1-m apart;
 - Use a medical mask
 - Use eye/facial protection (i.e. goggles or a face shield);
 - Use a clean, non-sterile, long-sleeved fluid resistant gown;
 - Use gloves;
 - Use either single use disposable equipment or dedicated equipment (e.g. stethoscopes, blood pressure cuffs and thermometers). If equipment needs to be shared among patients, clean and disinfect between each patient use (e.g. ethyl alcohol 70%);
 - Refrain from touching eyes, nose or mouth with potentially contaminated hands;
 - Avoid the movement and transport of patients out of the room or area unless medically necessary.

- Use mobile equipment as much as possible to minimize shifting of patients. eg portable X-ray.
- If transport is required, use pre-determined transport routes to minimize exposures to staff, other patients and visitors and apply medical mask to patient;
- Ensure that HCWs who are transporting patients wear appropriate PPE as described above and perform hand hygiene; refer to transport SOP
- Notify the receiving area of necessary precautions as soon as possible before the patient's arrival;
- Routinely clean and disinfect patient-contact surfaces;
- Limit the number of HCWs, family members and visitors in contact with a patient with suspected COVID-19 infection;
- Maintain a record of all persons entering the patient's room including all staff and visitors.



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STANDARD OPERATING PROCEDURE FOR CLINICAL MANAGEMENT OF COVID 19 CASES

If everything else is forgotten, remember “I TIT”:

I T I T

Identify - Test – Isolate – Treat

Purpose and Resources

The purpose of this document is to provide clinical guidance to clinicians working in Tanzania during the COVID-19 pandemic. This is the first edition of guidance on clinical management of adult patients with confirmed or suspected infection with SARS-CoV-2, based on current WHO and AFEM (African Federation of Emergency Medicine) guidelines, knowledge and experience with urgent management of acute respiratory distress (see below).

Before treating patients, it is critical to establish procedures within each facility to protect healthcare workers, screen patients, and isolate possibly infected patients. We do not provide detail on this, but rather a high-level overview.

Once a patient presents to a health care facility, they should be screened for symptoms, triaged to the appropriate part of the Emergency Department / OPD, and then triaged for severity. There is no specific antiviral treatment, thus management is based on symptoms and respiratory status.

This guide is targeted at facilities with no easy access to more advanced testing such as troponin or CT scans.

Resources / additional recommendations:

WHO Clinical management of severe acute respiratory infection (SARI) when COVID-19 disease is suspected: [https://www.who.int/publications-detail/clinical-management-of-severe-acute-respiratory-infection-when-novel-coronavirus-\(ncov\)-infection-is-suspected](https://www.who.int/publications-detail/clinical-management-of-severe-acute-respiratory-infection-when-novel-coronavirus-(ncov)-infection-is-suspected)

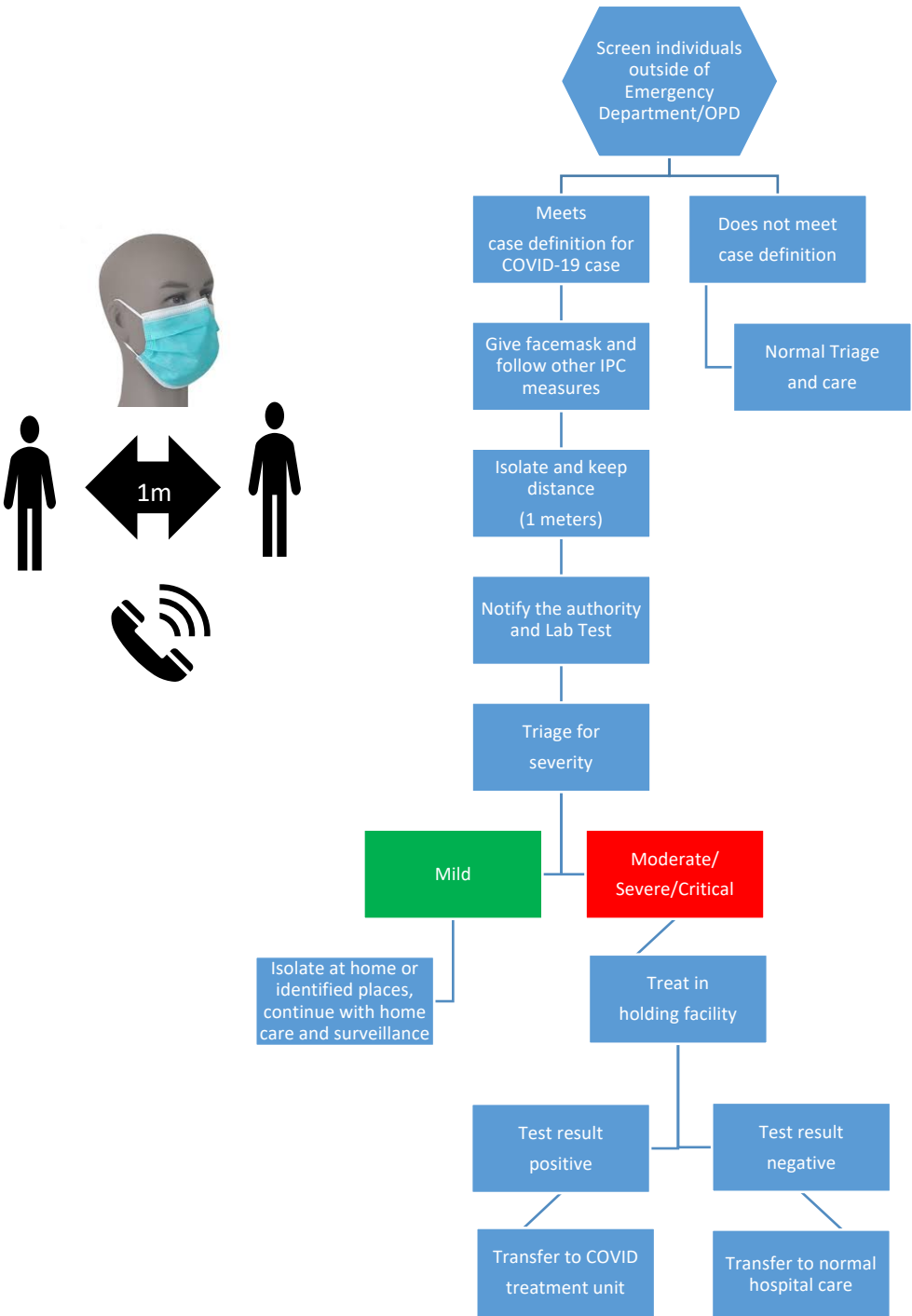
Centers for Disease Control and Prevention (Atlanta, USA, particularly good advice on IPC and PPE): <https://www.cdc.gov/coronavirus/2019-ncov/>

Emergency Care of COVID-19 In Adults in Low Resource Settings. Covid-19 Cases Management Guideline, African Federation for Emergency Medicine, March 26, 2020. <https://afem.africa/resources/>

Online training: [Clinical Care Severe Acute Respiratory Infection](https://openwho.org/courses), WHO, March 2020. <https://openwho.org/courses>

Some medications are being trailed for off label use, including hydroxychloroquine, but their use is experimental. For additional information, from public guidance to intensive clinical care recommendations, please see <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>.

PATIENT FLOW THROUGH HEALTH FACILITIES



Screening

All people presenting to the Emergency Department / OPD should be screened by applying the WHO case definition (which is updated regularly):

- 1) flu like symptoms (sore throat, fever, cough, and difficulty breathing) AND In the 14 days prior to onset of symptoms:
 - Were in close contact with a confirmed or probable case, OR
 - Had a history of travel to areas with local transmission, OR
 - Worked in, or attended a health care facility where patients with SARS-CoV-2 infections were being treated, OR
 - Admitted with severe pneumonia of unknown aetiology.

If the patient has symptoms suspicious of COVID-19, they should be treated in an isolated part of the Emergency Department / OPD for only possibly infected patients.

No visitors should accompany patients into the hospital if at all avoidable.

Triage

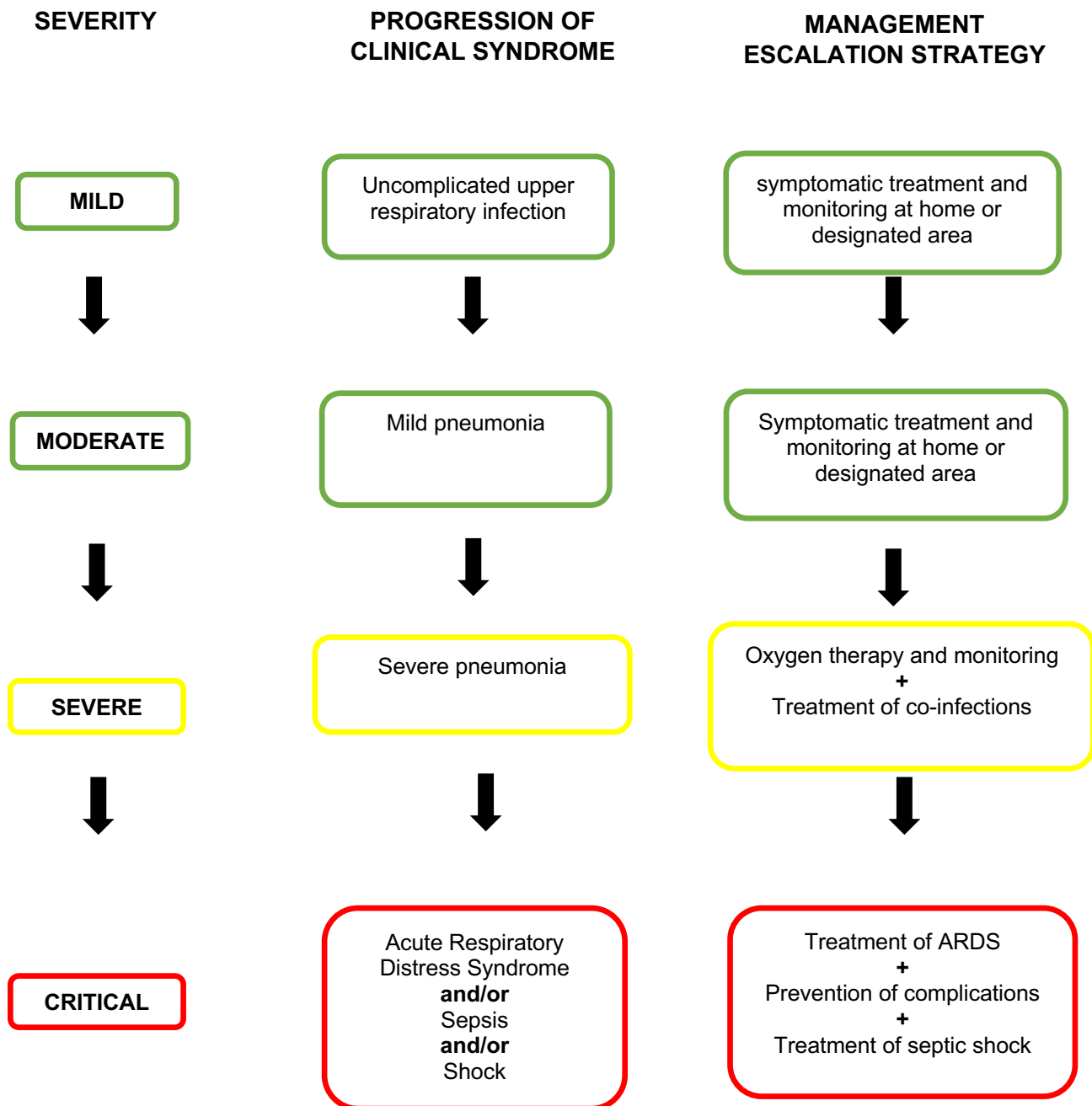
In the designated COVID area within the Emergency Department / OPD , patients should undergo triage according to local protocols, or using the Interagency Triage Tool.

Severity Assessment

WHO classifies COVID-19 into 4 severity grades, as shown in the table.

Mild	Uncomplicated upper respiratory tract infection
Moderate	Pneumonia with no need for supplemental oxygen (O2 sats >93% on air)
Severe	Fever or suspected respiratory infection, plus one of the following: respiratory rate > 30 bpm; severe respiratory distress; O2 sats ≤93% on air
Critical	Acute respiratory failure and/or shock

CLINICAL MANAGEMENT



1. MILD

Presentation:

- 1) Symptoms such as cough, fever, dyspnoea, URI symptoms, possible GI symptoms
- 2) Normal O₂ sats
- 3) Low clinical concern for pneumonia, clear breath sounds, or negative CXR if available

Management:

- 1) Symptomatic support– antipyretics for fever, hydration, rest
- 2) Self-quarantine at home for 14 days
 - a. (<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public>)
- 3) Instruct patient to return for worsening or high-risk symptoms, especially increased shortness of breath, difficulty breathing, pain/pressure in chest, confusion, inability to stay awake or cyanosis (blue skin colour, especially lips and fingertips)
- 4) Patients should follow-up with primary care provider once quarantine period is completed

2. Moderate

Presentation:

- 1) Higher clinical suspicion for pneumonia, or evidence of pneumonia on CXR (typically bilateral ground glass opacities)
- 2) O₂ sats >93% on room air

Management:

- 1) Symptomatic support
- 2) If not admitting, self-quarantine at home for 14 days
- 3) Give empiric antibiotics based on diagnosis of pneumonia, local treatment guidelines and antibiotic availability
- 4) If bronchodilator treatment is required, provide metered dose inhalers and spacers instead of nebulizers to prevent aerosolization of the virus
- 5) Systemic corticosteroids are not recommended
- 6) Instruct patients to return for worsening or high-risk symptoms

3. Severe

Presentation:

- 1) Pneumonia – typically bilateral ground glass opacities on CXR
- 2) O₂ sats <93% on room air
- 3) Patients are typically in respiratory distress with an increased respiratory rate and work of breathing, difficulty speaking in full sentences, and cyanosis (blue skin colour, especially lips and fingertips)

Management:

- 1) Admit to isolation rooms
- 2) Provide supplemental O₂ to achieve O₂ sats >93%
 - Nasal cannula
 - 20-40% oxygen
 - O₂ dose 1-5L/min
 - Simple facemask

- 40-60% oxygen
 - O₂ dose 6-10L/min
 - Non-rebreather facemask
 - 60-90% oxygen
 - O₂ dose 10-15L/min
- 1) May deteriorate rapidly: continuously monitor O₂ sat and vital signs; escalate oxygen dose and delivery device if hypoxia remains with maximal oxygen doses
 - 2) Provide basic care of severe/critical illness:
 - A: maintain an open airway. If low conscious level – nurse patient in recovery position not lying flat-on-back. Insert oro-pharyngeal airway if needed. Suction if airway secretions.
 - B: nurse in sitting up position. Provide simple chest physio.
 - C: give IV or NG fluids for shock
 - Supportive care – turn unconscious patients regularly. Provide adequate nutrition and pain relief
 - 1) Non-invasive positive pressure ventilation is NOT recommended as it can aerosolize the virus and increase spread. If additional respiratory support is required, patients should be intubated.
 - 2) Begin arranging for transfer to higher level of care as needed

4. Critical

Presentation:

- 1) Hypoxemic respiratory failure, Acute Respiratory Distress Syndrome (ARDS), and/or shock
 - Oxygenation index of SpO₂/FiO₂ ≤ 315 mmHg suggests ARDS

Management:

- 1) Endotracheal intubation and mechanical ventilation to manage ARDS
 - should be performed with airborne precautions by the most experienced clinician, with Rapid Sequence Intubation
 - Use low flow non-rebreather masks or masks with reservoir bags to oxygenate prior to intubation. Using a bag valve mask is NOT recommended as it can aerosolize the virus and increase spread.
 - Mechanical ventilation goals:
 - SpO₂ is >90%
 - Tidal volumes of 4-8 mL/kg
 - Inspiratory pressures < 30 cmH₂O
- 2) Provide basic care of severe/critical illness:
 - A: maintain an open airway. If low conscious level – nurse patient in recovery position not lying flat-on-back. Insert oro-pharyngeal airway if needed. Suction if airway secretions.
 - B: nurse in sitting up position. Provide simple chest physio.
 - C: give IV or NG fluids for shock
 - Supportive care – turn unconscious patients regularly. Provide adequate nutrition and pain relief
- 3) ECG and laboratory testing to monitor for complications including myocarditis, acute kidney injury, liver injury, and shock

- 4) Test and treat co-infections, if possible, including influenza or other viruses, malarial blood tests, and blood cultures
- 5) If shock is present, use conservative fluid management – aggressive fluid resuscitation may worsen oxygenation
 - 250-500 mL normal saline or ringers lactate as rapid bolus
 - Monitor for signs of fluid overload before giving additional bolus
 - Administer vasopressors if shock persists: goal systolic blood pressure >90 mmHg. If central lines are not available, give through peripheral IVs with monitoring for extravasation and local tissue necrosis
 - Noradrenaline is the first-choice vasopressor
 - Adrenaline is the second-choice
- 6) Ventilator triage will likely be necessary
 - If resources are limited, determine which patients have the best chance of survival with mechanical ventilation
- 7) End of life discussions should be held with patients and their families if resources are not available or appropriate, especially the elderly, terminally ill, and co-morbid with poor baseline functioning



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STANDARD OPERATING PROCEDURE FOR HOME CARE FOR A COVID- 19 CASES

The purpose of this document is to offer guidance on quarantine measures for individuals in the context of COVID-19. It is intended for those responsible for establishing local or national policy for quarantine of individuals, and adherence to infection prevention and control measures.

Introduction

As the outbreak continues to evolve, Tanzania may be considering options to prevent introduction of the disease to new areas or to reduce human-to-human transmission in areas where COVID-19 virus is already circulating. Public health measures to achieve these goals may include quarantine at home for mild cases when the need arise, which involves the restriction of movement or separation of healthy individuals who may have been exposed to the virus, from the rest of the population, with the objective of monitoring symptoms and the early detection of cases.

Quarantine will be implemented as part of a comprehensive package of public health response and containment measures and, as per Article 3 of the International Health Regulations (2005), be fully respectful of the dignity, human rights and fundamental freedoms of persons.

Stay home

- 1) Confirmed/suspect should be in a separate room/bedroom away from others including the spouse as much as possible, should not share washroom.
- 2) If it is not possible to be in a separate room, he/she should be at least 1 meters away from others and in a well-ventilated area.
- 3) Reduce the number of household members that interact with COVID-19 suspect/confirmed
- 4) No visitors unless there is an essential need to be in the home.
- 5) Family members should provide food, water, and toiletries so the suspect/confirmed does not need to leave the home. Be mindful to stay at least 1 meter apart when providing these items to the suspect/confirmed.
- 6) Wear a mask if you are coughing or sneezing and coming into contact with other household members. Maintain the distance of at least 1 meter

Protecting the household

- 1) Stay at least 1 meter away from the suspect/confirmed (no kissing, hugging, sharing of beds, no handshake etc.)
- 2) Wash hands frequently (every time you touch surfaces/objects) with soap for at least 30 seconds.
- 3) Cough into elbow or cover cough with tissue and dispose of tissue so that others do not touch; wash hands after coughing.
- 4) Avoid touching your face (mouth, nose and face).
- 5) Breastfeeding mothers should continue breastfeeding while wearing a mask and practicing proper hand hygiene.
- 6) Do not share dishes, drinking glasses, cups, eating utensils, towels, or bedding with the suspect/confirmed. After use, wash thoroughly with soap and water.
- 7) Every day, clean all 'high-touch' surfaces such as counters, tables, doorknobs, bathroom fixtures, toilets, phones, remote controls etc. using household bleach.
- 8) Have the suspect/confirmed clean and disinfect any surface that may have their blood, stool or body fluids with detergent and water.

- 9) The dirty laundry should be soaked in hot water with detergent before washing.
- 10) Daily temperature checks at home whenever possible.
- 11) Report fever, cough, breathing difficulties or pains to the nearby health facility or toll free number **199**.

- **NB: Home isolation is for all mild cases and suspects**

A suspect will be followed up by healthcare workers for lab testing for confirmation.

Healthcare worker visits to assess suitability of the home and family for home care.



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NUTRITION ADVICE FOR PATIENT WITH COVID-19



Proper nutrition and hydration are vital. People who eat a well-balanced diet tend to be healthier with stronger immune systems and lower risk of chronic illnesses and infectious diseases. So you should eat a variety of fresh and unprocessed foods every day to get the vitamins, minerals, dietary fibre, protein and antioxidants your body needs. Drink enough water. Avoid sugar, fat and salt to significantly lower your risk of overweight, obesity, heart disease, stroke, diabetes and certain types of cancer.

Eat fresh and unprocessed foods every day

Eat fruits, vegetables, legumes (e.g. lentils, beans), nuts and whole grains (e.g. unprocessed maize, millet, oats, wheat, brown rice or starchy tubers or roots such as potato, yam, taro or cassava), and foods from animal sources (e.g. meat, fish, eggs and milk).

Daily, eat: 2 cups of fruit (4 servings), 2.5 cups of vegetables (5 servings), 180 g of grains, and 160 g of meat and beans (red meat can be eaten 1–2 times per week, and poultry 2–3 times per week).

For snacks, choose raw vegetables and fresh fruit rather than foods that are high in sugar, fat or salt.

Do not overcook vegetables and fruit as this can lead to the loss of important vitamins.

When using canned or dried vegetables and fruit, choose varieties without added salt or sugar.

Drink enough water every day

Water is essential for life. It transports nutrients and compounds in blood, regulates your body temperature, gets rid of waste, and lubricates and cushions joints.

Drink 8–10 cups of water every day.

Water is the best choice, but you can also consume other drinks, fruits and vegetables that contain water, for example lemon juice (diluted in water and unsweetened), tea and coffee. But be careful not to consume too much caffeine, and avoid sweetened fruit juices, syrups, fruit juice concentrates, fizzy and still drinks as they all contain sugar.

Eat moderate amounts of fat and oil

Consume unsaturated fats (e.g. found in fish, avocado, nuts, olive oil, soy, canola, sunflower and corn oils) rather than saturated fats (e.g. found in fatty meat, butter, palm and coconut oils, cream, cheese, ghee and lard).

Choose white meat (e.g. poultry) and fish, which are generally low in fat, rather than red meat.

Avoid processed meats because they are high in fat and salt.

Where possible, opt for low-fat or reduced-fat versions of milk and dairy products.

Avoid industrially produced trans fats. These are often found in processed food, fast food, snack food, fried food, frozen pizza, pies, cookies, margarines and spreads.

Eat less salt and sugar

When cooking and preparing food, limit the amount of salt and high-sodium condiments (e.g. soy sauce and fish sauce).

Limit your daily salt intake to less than 5 g (approximately 1 teaspoon), and use iodized salt.

Avoid foods (e.g. snacks) that are high in salt and sugar.

Limit your intake of soft drinks or sodas and other drinks that are high in sugar (e.g. fruit juices, fruit juice concentrates and syrups, flavoured milks and yogurt drinks).

Choose fresh fruits instead of sweet snacks such as cookies, cakes and chocolate.

Avoid eating out

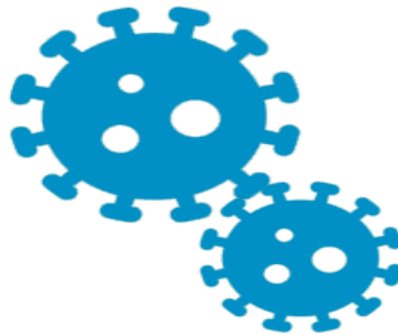
Eat at home to reduce your rate of contact with other people and lower your chance of being exposed to COVID-19. We recommend maintaining a distance of at least 1 metre between yourself and anyone who is coughing or sneezing. That is not always possible in crowded social settings like restaurants and cafes. Droplets from infected people may land on surfaces and people's hands (e.g. customers and staff), and with lots of people coming

and going, you cannot tell if hands are being washed regularly enough, and surfaces are being cleaned and disinfected fast enough.

Counselling and psychosocial support

While proper nutrition and hydration improve health and immunity, they are not magic bullets. People living with chronic illnesses who have suspected or confirmed COVID-19 may need support with their mental health and diet to ensure they keep in good health. Seek counselling and psychosocial support from appropriately trained health care professionals and also community-based lay and peer counsellors.

Breastfeeding advice during the COVID-19 outbreak



Breastfeeding protects newborns from getting sick and also helps protect them throughout their infancy and childhood. Breastfeeding is particularly effective against infectious diseases because it strengthens the immune system by directly transferring antibodies from the mother. As with all confirmed or suspected COVID-19 cases, mothers with any symptoms who are breastfeeding or practicing skin-to-skin contact should take precautions.

Actions for breastfeeding mothers

- 1) Practice respiratory hygiene, including during feeding. If you have respiratory symptoms such as being short of breath, use a medical mask when near your child.
- 2) Wash your hands thoroughly with soap or sanitizer before and after contact with your child.
- 3) Routinely clean and disinfect any surfaces you touch.
- 4) If you are severely ill with COVID-19 or suffer from other complications that prevent you from caring for your infant or continuing direct breastfeeding, express milk to safely provide breastmilk to your infant.
- 5) If you are too unwell to breastfeed or express breastmilk, you should explore the possibility of relactation (restarting breastfeeding after a gap), wet nursing (another woman breastfeeding or caring for your child), or using donor human milk. Which

approach to use will depend on cultural context, acceptability to you, and service availability.

Actions for health facilities and their staff

- 1) If you are providing maternity and newborn services, you should not promote breastmilk substitutes, feeding bottles, teats, pacifiers or dummies in any part of your facilities, or by any of your staff.
- 2) Enable mothers and infants to remain together and practice skin-to-skin contact, and rooming-in throughout the day and night, especially straight after birth during establishment of breastfeeding, whether or not the mother or child has suspected, probable, or confirmed COVID-19.
- 3) Counselling and psychosocial support
- 4) If you, your infants, or young children have suspected or confirmed COVID-19, seek breastfeeding counselling, basic psychosocial support, or practical feeding support. You may get support from appropriately trained health care professionals and also community-based lay and peer breastfeeding counsellors.

Standard infant feeding guidelines

- 1) Initiate breastfeeding within 1 hour of the birth.
- 2) Continue exclusive breastfeeding for 6 months, then introduce adequate and safe complementary foods at age 6 months.
- 3) Continue breastfeeding up to 2 years of age or beyond



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**PSYCHOSOCIAL SUPPORT FOR INDIVIDUALS, FAMILIES, COMMUNITIES AND HEALTH WORKERS AFFECTED BY
COVID -19**

Introduction

In countries where the outbreak of COVID-19 epidemic has ever been reported, there are several significant impacts on the wellbeing of those affected, their family, community members as well as health care workers. Extreme states of anxiety, stresses, social stigma and discrimination are associated with COVID hence there is need of enhancing mental and psychosocial wellbeing of people affected. Care should be taken to promote the integration of people who have been affected by COVID without over-targeting (i.e. without increasing stigma by drawing attention to them).

Psychosocial experts and social welfare officers must work with the COVID risk communication and community engagement team when conducting outreaches to community members and influential leaders (local leaders, traditional leaders and religious leaders) as well as at risk population groups including associations of people who have survived COVID. Furthermore, the other response teams such as contact tracing, burial teams and case management team must be equipped with psychosocial expert. This aims at understanding the sources of stigma or anxiety and the steps that can be taken to dispel any unnecessary fears and misconceptions. Setting out mechanisms to reach people affected with psychological conditions due to COVID outbreak areas is crucial as it contributes to cutting the rate of transmission among them and general population as well as avoiding psychiatric emergencies (suicide, homicide tendencies, violence) among contacts.

The epidemic of COVID-19 has brought a situation where patients are identified and treated far from their families, sometimes in other countries with variable socio- cultural differences.

For mild cases treated at home, the stress for self-isolation to individuals, families and community can be enormous, struggling between recovery and protection for family member and community.

The Self Quarantine can also be a major cause of stress, particularly when it happens in the foreign environment or outside home. Many countries have institutionalized mandatory quarantine for all contacts or travellers from affected countries. In most times the isolation is done in a facility such as hotel which can be very stressful.

The normal life of a contact and or traveller from the affected country is completely disrupted which can lead to severe stress and sometimes emotional breakdown.

Rationale

Due to the fact that individuals, families, communities and health care workers are prone to psychological deterioration during and after the COVID outbreak primarily due to succumbing the disease process among

individuals, loss of loved ones, burial practices and the risky working of health workers in managing of COVID cases, there is need to put steps on how to provide psychosocial support during and after the outbreak. The following SOPs have been developed in order to provide guidance on implementation of psychosocial support activities during and after COVID outbreaks.

This particular SOP will focus mainly on support to patients, contact or and persons in isolation and quarantine. The guidance will also depend on the type of isolation, whether in the treatment facility, at home or any other facility such as hotel

This SOP will complement the Psychosocial SOP in Risk communication and so will only focus on specific circumstances

The following SOPs have been developed to guide psychosocial support teams during COVID-19 outbreak situations:

The SOP will focus on of the following categorization of care targeted to individual, families, health workers and community:

- 1) Psychosocial support for Patients confirmed of COVID-19 in treatment/isolation Centres**
- 2) Psychosocial support for Patients confirmed of COVID-19 self-isolation**
- 3) Psychosocial support for Contacts in self-isolation**
- 4) Psychosocial support for individuals in mandatory self-isolation home**
- 5) Psychosocial support for individuals in mandatory Quarantine in a facility**
- 6) Support to children affected by COVID-19**

Composition and Roles of the Psychosocial Team

The psychosocial team is composed of Social Workers, Social Welfare Officers, Clinical and Community Psychologists, Risk Communication and Health Promotion experts, Charity Social care organization representatives, Community Development Officers and Psychiatric Medic such as Clinical Officer and Nurses. The following are the roles of the psychosocial team during and after COVID outbreak:

- 1) Reaching out to communities in order to identify affected people, and those who are vulnerable, address social stigma and discrimination, neglected people and provide Psychosocial support to the affected people in all social and psychological needs
- 2) Assessing affected people for psychological conditions and advise or link them to treatment interventions
- 3) Developing plan of action and ensure reporting about psychosocial activity to NTF as well as to respective subnational taskforces.
- 4) Enhancing psychosocial wellbeing of affected people and health workers on the task force
- 5) Networking with other service providers for psychosocial care of people
- 6) Participate in dissemination of health-related messages
- 7) Communicating with other institution for supporting families of affected individuals (social service needs or material support)
- 8) Engaging other social welfare structures to facilitate restoration of livelihood activities in post epidemic phase.
- 9) Training of frontline healthcare workers, community health workers and other responders in first psychological aid and risk communication

SOPs for Psychosocial Support to COVID Taskforce Health Workers Working In COVID Outbreak

In order to provide psychosocial support to COVID healthcare workers, it is recommended to follow this guidance before, during and after deployment of teams, in conjunction with the SOPs "Health Workers' Occupational Safety and Health Management in the Context of COVID-19.

Before deployment

- 1) Perform psychological evaluation of each healthcare worker, as part of the pre-deployment health check, ensure they are well informed of terms and conditions, possible occupational health and safety risks.
- 2) Provide psychosocial awareness among the taskforce members about nature of illness, signs and symptoms, mode of spread and case fatality.
- 3) Discuss with and train them on what medical and occupational health preparations they need to make/have in place and ask whether they are confident in use (PPEs, immunization, prevention of violence, fatigue, first psychological aid, buddy systems,
- 4) Inform them of the geographical location and what is expected of them to where they are going.
- 5) Ensure that health care workers are informed of the emotional issues associated with the kind of work they are going for
- 6) Orient the team on self-help mechanisms needed to manage stress and relaxation methods, stimulating health-promoting coping strategies (sufficient rest, healthy food, physical activity, stay in contact with family and friends, relax and distress, first psychosocial aid, buddy systems) and avoiding unhealthy behavioural coping strategies (substance abuse – tobacco, alcohol).¹
- 7) Explain how to deal with stigma or fear against health workers in the community, the workplace, and family, e.g. avoid wearing uniform in public, avoid bringing working clothes at home, digital connection with loved ones
- 8) While engaging with expertise in other pillars, ensure that the team is oriented to existing materials and equipment for use.
- 9) Inform health workers about their rights and responsibilities as humanitarian workers
- 10) Specific attention should be paid to repurposed health workers, i.e. medical and nursing students, volunteers, other health workers which don't have previous experience in working under public health emergencies and providing patient care to patients with infectious diseases and using PPE

During deployment

- 1) Arrange sessions (once weekly) for healthcare workers to voluntarily attend and share COVID experiences
- 2) Discuss with the healthcare workers on how to enhance coping mechanisms and to maintain a respectful working relations and encourage those with serious distress (if any) to seek medical or psychological care.
- 3) Ensure that workers are not negligent on following standard guidelines and remind them to take precautions while consulting each other in case of doubt while executing their work, using buddy system.
- 4) Work with the logistic team to ensure that health workers are availed with recreational facilities such as films and documentaries sharing COVID experiences especially for survivors
- 5) Ensure there are mechanism for deployed health workers to contact their families (loved once) while you promote team work among them and clear definitions of tasks, responsibilities and reporting lines
- 6) Always be sure that social issues for health workers are all addressed for them to improve their working environment
- 7) Raise awareness among the community about the important role of health workers in COVID19 response, and stimulate social mechanisms and social media for respect to and praise of health workers, complying with public health measures to reduce the workload of healthcare facilities, to establish zero-tolerance to

¹ See WHO. Mental health and psychosocial considerations during the COVID-19 outbreak, <https://www.who.int/docs/default-source/coronaviruse/mental-health-considerations.pdf>

violence against health workers and social support

After deployment

- 1) Psychosocial personnel must evaluate the level of distress/worries about exposure and conduct stress management session to the workers
- 2) Encourage positive self-talk, attitude and disclosure to treatment in case the health workers are suspecting contracting COVID.
- 3) Encourage compliance to treatment and disclosure to family members
- 4) For healthcare workers succumbing death while in operation, it is recommended to ensure that employer communicates with the family of the deceased about death, time, place and burial procedures and if possible, capture burial ceremony video to be sent to the family or ensure presence of available trusted family member
- 5) Ensure that fellow staff are provided with appropriate time for moment of grieving
- 6) Arrange through Clinical Psychiatrist to conduct medical evaluation using standard tools for health workers coming back from COVID mission
- 7) Engage family members' prior their beloved one (health worker) returning back home and correct any misconceptions of family members about the COVID illness. Inform them of health worker health situation and ensure that they are told that their fellows are safe and ready to return home.
- 8) Encourage a follow –up mechanism through telephone calls, emails and other means in place
- 9) Refer to mental health care, as appropriate, all cases of mental health disorders and substance abuse, caused by or aggravated by the work in emergency response

Psychosocial Support to Individuals, Families, Rejected/Neglected Persons and Community Members Affected by COVID Outbreak

When providing psychosocial support to individuals, families, rejected persons and community members follow these steps:

- 1) Interact with the client but avoid direct contact. Establish rapport/alliance.
- 2) Promote active listening to the client and show that you are willing to offer help to them while expressing empathy, using open-ended questions and understandable language.
- 3) Client must be provided with adequate information to counteract false beliefs about the disease and told that anxiety is a common reaction in the face of extreme situations like what they are going through.
- 4) Promote positive thinking among community members at risk, stress management and relaxation techniques, encourage healthy eating and drinking habits as recommended by medical experts.
- 5) During confinement, allow contact to connect with their social networks either by phone or through alternative safe approaches
- 6) In case of a psychiatric emergency (that is suicidal/homicidal intent, violence and aggression or delirium tremens) or psychiatric condition in community suspected to be relating to COVID-19 perform the following:
 - ✓ Alert security personnel to prepare to restrain the contact in question.
 - ✓ Alert ambulance to come with a psychiatric personnel and nurse
 - ✓ Refer client to health facility for a mini mental state examination (MSE) and further medical management due necessary
- 7) For COVID 19 cases with psychiatric conditions admitted at ETU, make sure that they are attended by specialist medical Psychiatrists and Psychologists as well as ensuring their psychiatric medications are included in the nursing medical trolley together with other COVID managements
- 8) For other patients at isolation facilities it is advised to ensure that they are observed for any psychiatric changes (when occurs) and managed accordingly.

- 9) When connecting COVID contacts to their social networks or spiritual support ensure that client's social network (family members and significant others) are oriented about COVID and safety precautions before linking with the client.
- 10) Encourage family members to regulate their emotions before contact with client and provide necessary support through the available safety procedures.
- 11) When preparing COVID 19 survivors before discharge, follow the following steps:
 - ✓ Provide Psychosocial support (PSS) with survivor's family, neighbourhood and community members to avoid discrimination and stigmatization for individual and family member at the community level.
 - ✓ Collaborate with risk communication and community engagement team to organize a meeting with survivor's family, neighbourhood and local leaders and inform them about the health status of the survivor. Tell them that after treatment, client is not infectious.
 - ✓ Evaluate community members' response, discuss EVD facts with them and correct stigma identified while encouraging community members to provide emotional, social and material support the survivor.
 - ✓ Talk to the survivor about anticipated stigma, and stress. Equip them with stress management skills.
- 12) When communicating death to the family members after confirmation of death from case management team, it is advised to the psychosocial team to follow the following steps:
 - ✓ Contact and invite family members of the deceased to witness the body of their relative.
 - ✓ Communicate the death of their beloved one, the time he died, the cause of death (use laboratory results) and burial arrangements
 - ✓ In case of a very ill relative to the deceased within the Treatment Unit the psychosocial team will consider their health state to or not to communicate information about the death of a beloved one.
 - ✓ In case the very sick relative is aware of the death of a close relative within the Treatment Unit , support the person in grief process.
 - ✓ Discuss with family member about alternative ritual practices and safe mourning.
 - ✓ Remind them of the nature of illness, risks and the safe burial procedures.
- 13) In case of reported cases of rejected orphans (most and vulnerable children) due to COVID, the psychosocial team will inform the community development officers (CDOs on the available system to support them in respective locality) about these children and seek their support.
- 14) Talk to available family members and community about the health status of the orphans, the rights of children, and their responsibilities as surviving family members. Encourage them to take on responsibility of these children. Liaise with Government agencies and Non-government agencies in the area to provide support to these children.

Coping with stress during the 2019-nCoV outbreak

- 1) It is normal to feel sad, stressed, confused, scared or angry during a crisis.
- 2) Talking to people you trust can help. Contact your friends and family.
- 3) If you must stay at home, maintain a healthy lifestyle - including proper diet, sleep, exercise and social contacts with loved ones at home and by email and phone with other family and friends.
- 4) Don't use smoking, alcohol or other drugs to deal with your emotions.
- 5) If you feel overwhelmed, talk to a health worker or counsellor. Have a plan, where to go to and how to seek help for physical and mental health needs if required.

- 6) Get the facts. Gather information that will help you accurately determine your risk so that you can take reasonable precautions. Find a credible source you can trust such as WHO website or, a local or state public health agency.
- 7) Limit worry and agitation by lessening the time you and your family spend watching or listening to media coverage that you perceive as upsetting.
- 8) Draw on skills you have used in the past that have helped you to manage previous life's adversities and use those skills to help you manage your emotions during the challenging time of this outbreak.

Helping children cope with stress during the 2019-nCoV outbreak

- 1) Children may respond to stress in different ways such as being more clingy, anxious, withdrawing, angry or agitated, bedwetting etc.
- 2) Respond to your child's reactions in a supportive way, listen to their concerns and give them extra love and attention.
- 3) Children need adults' love and attention during difficult times. Give them extra time and attention.
- 4) Remember to listen to your children, speak kindly and reassure them.
- 5) If possible, make opportunities for the child to play and relax.
- 6) Try and keep children close to their parents and family and avoid separating children and their caregivers to the extent possible. If separation occurs (e.g. hospitalization) ensure regular contact (e.g. via phone) and re-assurance.
- 7) Keep to regular routines and schedules as much as possible, or help create new ones in a new environment, including school/learning as well as time for safely playing and relaxing.
- 8) Provide facts about what has happened, explain what is going on now and give them clear information about how to reduce their risk of being infected by the disease in words that they can understand depending on their age.
- 9) This also includes providing information about what could happen in a re-assuring way (e.g. a family member and/or the child may start not feeling well and may have to go to the hospital for some time so doctors can help them feel better).



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MINISTRY OF HEALTH, COMMUNITY DEVELOPMENT, GENDER, ELDERLY AND CHILDREN

STANDARD OPERATING PROCEDURE FOR A SET UP AND MANAGEMENT OF TREATMENT UNIT FOR COVID- 19

Background

Acute Respiratory Infections (ARIs) have the potential for rapid spread and may cause epidemics or pandemics (or both). Some of the epidemic-prone ARIs may constitute a global public-health emergency. According to the International Health Regulations (IHR, 2005), the respiratory disease events that may constitute a public health emergency of international concern include:

- 1) Severe acute respiratory syndrome (SARS);
- 2) Human influenza caused by a new subtype, including human episodes of avian influenza;
- 3) Pneumonic plague; and
- 4) Novel ARIs that can cause large-scale outbreaks, or outbreaks with high morbidity and mortality.

The incidence of specific ARIs, their distribution and the outcome of disease varies according to several factors, including:

- 1) Environmental conditions (e.g. air pollutants, crowding, humidity, hygiene, season and temperature);
- 2) Availability and effectiveness of medical care and infection prevention and control (IPC) measures to contain spread such as vaccines, access to health-care facilities, and isolation capacity;
- 3) Host factors such as age, cigarette-smoking, host ability to transmit infection, immune status, nutritional status, prior or concurrent infection with other pathogens, and underlying medical conditions; and
- 4) Pathogenic characteristics, including modes of transmission, transmissibility, virulence factors (e.g. genes encoding toxins) and microbial load (inoculum size).

Scope

This guideline provides recommendations and other information related to IPC measures within a severe acute respiratory infections (SARIs) treatment centre.

IPC strategies to prevent or limit infection transmission

- 1) Early recognition and source control
- 2) Application of standard precautions for all patients
- 3) Implementation of empiric additional precautions (droplet and contact and whenever applicable airborne precautions) for suspected cases
- 4) Administrative controls
- 5) Environmental and engineering controls
- 6) Exhausted air treatment [UV disinfection and High-Efficiency Particulate Air filter]. The exhausted air treatment should be adapted to the context. The layout here proposes the UV germicidal light as treatment for exhausted air to minimize risk of infection with the staff and surrounding.

Early recognition and source control

Clinical triage including early recognition and immediate placement of patients in separate area from other patients (source control) is an essential measure for rapid identification and appropriate isolation and care of patients with suspected COVID-19 infection. For more information refer the SOPs on 'Screening Triaging and Isolation of Patients suspected COVID-19'

Application of Standard Precaution for all patients

Standard Precautions include hand and respiratory hygiene; use of Personal protective equipment (PPE) depending on risk; prevention of needle-stick or sharps injury; safe waste management; environmental cleaning and sterilization of patient-care equipment and linen.

Ensure the following respiratory hygiene measures are implemented:

- 1) Offer a medical mask for all suspected cases
- 2) Cover nose and mouth during coughing or sneezing with tissue or flexed elbow for others
- 3) Perform hand hygiene after contact with respiratory secretions.

Personal protective equipment (PPE)

Rational, correct, and consistent use of available PPE and appropriate hand hygiene also helps to reduce the spread of the pathogens. PPE effectiveness depends on adequate and regular supplies, adequate staff training, proper hand hygiene and specifically appropriate human behavior.

Environmental cleaning and disinfection

Ensure that environmental cleaning and disinfection procedures are followed consistently and correctly. Thorough cleaning of environmental surfaces with water and detergent and applying commonly used hospital level disinfectants (such as sodium hypochlorite) is an effective and sufficient procedure. Manage laundry, food service utensils and medical waste in accordance with safe routine procedures.

Contact and droplet precautions for suspected cases

- 1) In addition to Standard Precautions, all individuals, including family members, visitors and HCWs should apply Contact and Droplet precautions
- 2) Place patients in adequately ventilated single rooms. If single rooms are not available, cohort suspected patients together;
- 3) Place patient beds at least 1m apart; where possible, cohort HCWs to exclusively care for cases to reduce the risk of spreading transmission due to inadvertent infection control breaches;
- 4) Use a medical mask when attending patients;
- 5) Use PPEs such as eye/facial protection (i.e. goggles or a face shield) and long-sleeved fluid resistant gowns; gloves as appropriate;
- 6) If possible, use dedicated equipment (e.g. stethoscopes, blood pressure cuffs and thermometers); If equipment needs to be shared among patients, clean and disinfect between each patient use (e.g. ethyl alcohol 70%);
- 7) Refrain from touching eyes, nose or mouth with potentially contaminated hands;
- 8) Avoid the movement and transport of patients out of the room or area unless medically necessary.
- 9) Use designated portable X-ray equipment and/or other important diagnostic equipment. If transport is required, use pre-determined transport routes to minimize exposures to staff, other patients and visitors and apply medical mask to patient;
- 10) Ensure that HCWs who are transporting patients wear appropriate PPEs and perform hand hygiene;
- 11) Routinely clean and disinfect patient-contact surfaces;
- 12) Limit the number of HCWs, family members and visitors in contact with a patient with suspected COVID-19 cases;
- 13) Maintain a record of all persons entering the patient's room including all staff and visitors.

Airborne precautions for aerosol-generating procedures

Some aerosol generating procedures have been associated with increased risk of transmission of coronaviruses such as tracheal intubation, non-invasive ventilation, tracheotomy, cardiopulmonary resuscitation, manual ventilation before intubation and bronchoscopy. Ensure that HCWs performing aerosol-generating procedures:

- 1) Use a particulate respirator certified N95, EU FFP2 or equivalent;
- 2) when putting on a disposable particulate respirator, always perform the seal-check [see SOPs on PPE]. Note that if the wearer has facial hair (beard) this can prevent a proper respirator fit.
- 3) Eye protection (i.e. goggles or a face shield);
- 4) Clean, non-sterile, long-sleeved gown and gloves;
- 5) If gowns are not fluid resistant, use a waterproof apron for procedures with expected high fluid volumes that might penetrate the gown;
- 6) Perform procedures in an adequately ventilated room; i.e. at least natural ventilation with at least 160 l/s/patient air flow or negative pressure rooms with at least 12 air changes per hour (ACH) and controlled direction of air flow when using mechanical ventilation
- 7) Limit the number of persons present in the room to the absolute minimum required for the patient's care and support.

A mechanically ventilated room is equivalent to the airborne infection isolation room described by the US CDC which should have special features in air handling and airflow direction, including:

- 1) Negative pressure differential of >2.5 Pa (0.01-inch water gauge); an airflow differential >125 -cfm (56 l/s) exhaust versus supply;
- 2) Clean-to-dirty airflow;
- 3) Sealing of the room, allowing approximately 0.5 square feet (0.046 m²) leakage;
- 4) >12 ACH for a new building, and >6 ACH in existing buildings (e.g. equivalent to 40 l/s for a 4×2×3 m³ room) for an old building; and
- 5) an exhaust to the outside, or a HEPA-filter if room air is recirculated.

Natural ventilation can be used in airborne precaution rooms. The purpose of this document is to provide basic design guidance for the use of natural ventilation for infection control.

Considerations for setting up of COVID-19 treatment facilities

Site identification of site

The choice of a site will determine future problematic issues that could be encountered (infiltration, drainage, access, extension, acceptance, etc.). Take the necessary time to carefully choose the most suitable site. It is important to define the potential scale (size, duration, etc.) expected of the outbreak from the beginning.

Location Criteria

- 1) Good access for patients, visitors, and staff where security can be guaranteed;

- 2) Proximity to the outbreak epi-center;
- 3) The existing health system: non-SARIs patients may require other healthcare facilities and medical care;
- 4) Avoid all flood areas and at least >30 meters away from rivers or other bodies of water

Ground Characteristics

- 1) Flat and level;
- 2) Geologically stable and consolidated, preferably without organic or stony material;
- 3) Easy to dig, without the danger of landslides, and with the capacity for drainage;
- 4) Avoid areas with a high groundwater table;
- 5) Sufficient size of the plot of land to extend the center, if necessary.

Meteorological Characteristics

- 1) Be aware of seasonal periods affecting the construction (rain/dry periods).
- 2) Be able to adjust the design to accommodate different climatological conditions;
- 3) Take into account prevailing winds for the control of smoke and odors; and sun orientation for improved shadow zones.

Existing resources

- 1) Permanent buildings and/or existing hospital isolation or unused wards;
- 2) Evaluate water resources in the area with special focus on the analysis of capacity, quality, and availability;
- 3) If available, have the option to connect to local basic services of water, electricity, and communications;
- 4) Before arrival of main supplies, prepare/identify a storage area.

Proposed layout

The proposed layout is based on the clinical definition of patient with SARI, suspected of COVID-19 with medical conditions: mild, moderate and severe illness.

The rationales behind this layout are:

- 1) Medical care should be provided as soon as possible, even prior the laboratory confirmation, in order to avoid medical conditions worsening
- 2) Consideration for home care approach for several reasons, including situations when there are limited capacities and resources to meet demand for health care services,
- 3) The different risk presented by patients with different medical condition such as the severe patients who might need an aerosol generating procedure.

The center will therefore be divided into 2 zones: low risk area, for health care workers, and high-risk area for patients. The high-risk area will be further divided into 3 zones according to the medical conditions of the patients: mild, moderate and severe. Patient categorization will follow the definition of clinical syndromes associated with COVID-19 infection.

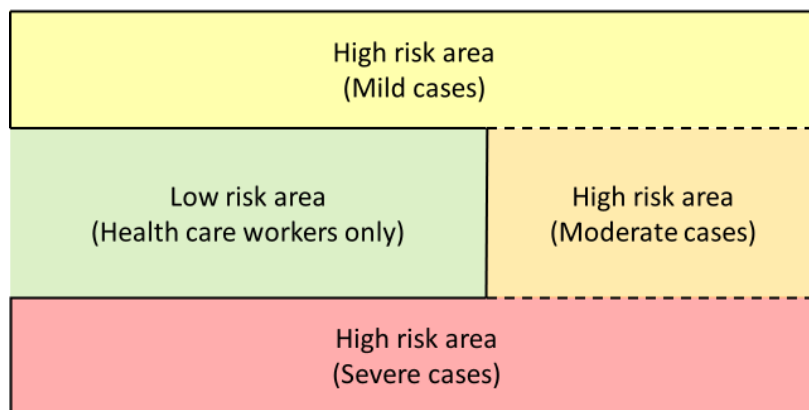


Fig. 1: Basic layout of the treatment center

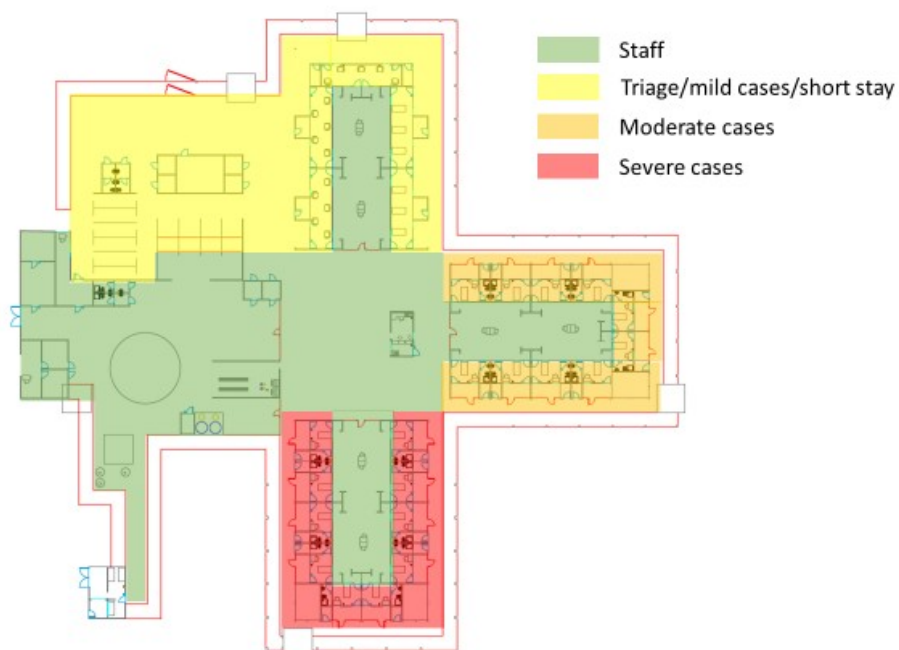


Fig. 2: Zone categorization

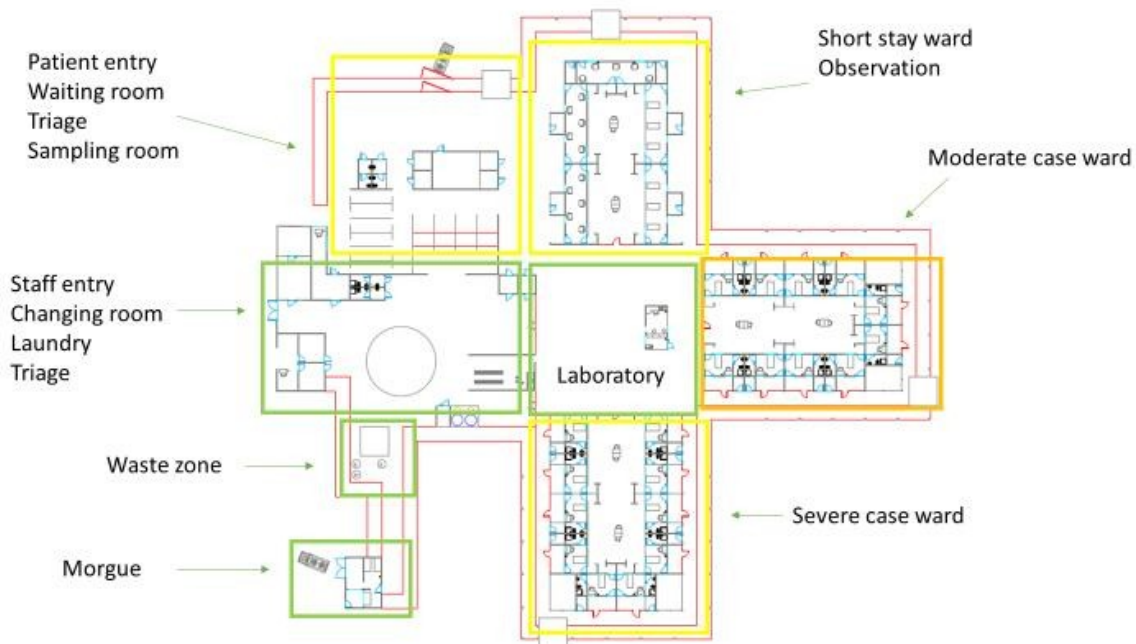


Fig. 3: Services and facilities

NOTE: STAFF ARE NOT SUPPOSED TO WEAR MASK IN THE CENTER EXCEPT WHEN ATTENDING PATIENTS!

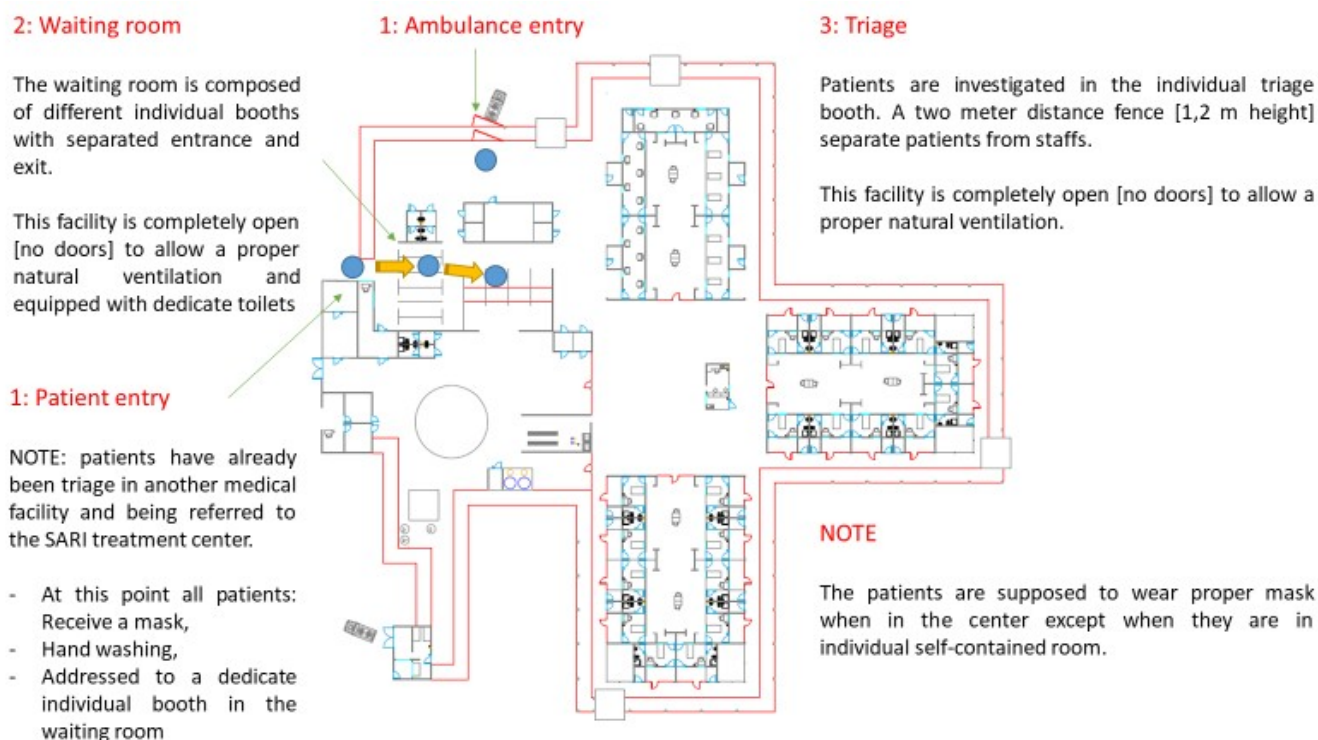


Fig. 4 Patient's flow within the treatment center

Facilities and services

Staff entrance and changing room

The staff entrance is the first IPC administrative control as allow staffs temperature screening. The receptionist should have good visibility to avoid unauthorized people from entering and ensure hand washing of all people entering. It should be spacious for potential overcrowding at certain hours (shift changes, etc.). Assure natural ventilation with wide open windows. Consider installing a shelf for staff's personal items.

Male and female changing rooms should be spacious enough to avoid overcrowding during shift changes and equipped with shelf for scrubs, boots [or closed shoes] and personal clothes. Assure ventilation with air extractors and wind tower.

Triage Area

Triage is divided in 2 distinctive zones: low risk zone for staff and high-risk zone for patients. A 2-meter distance between the staff and patient is required. Double fencing or Plexiglas barrier can be used for the separation. Separate hand washing points (soap/water) must be made available for patients and staff. A sloped board ('slide') can be placed between staff and patient zones to pass items (ORS, thermometer, etc.) from low to high risk zones.

Reception

Reception is a key service as the receptionist will have to address the patient to the correct waiting booth [empty, cleaned and disinfected]. Effective communication between receptionist and triage staff is needed to assure a proper patient's flow.

Waiting room

The waiting room must have wide windows, open to allow natural ventilation from all sides. Each booth should be clearly identified and labelled to avoid any mistake and allow a proper patient's flow. Booths should be cleaned and disinfected after each patient use to avoid nosocomial infections.

Sampling room

Where samples are taken for mild cases, individual booths should have adequate natural ventilation; and if resources permit should be equipped with hybrid ventilation and HEPA filter or UV disinfection for the exhaust air. NOTE: Decision for sampling is made based on case definition and other clinical considerations.

Discharge room

Patients who do not meet the case definition; they may be referred to other health facilities for management or be recommended for home care depending on clinical conditions. Wide windows on all sides assure adequate natural ventilation and hand washing points must be available at entrance and exit points. Patient movements should be strictly controlled to mitigate nosocomial infections.



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CONSIDERATION FOR QUARANTINE OF INDIVIDUALS IN THE CONTEXT OF CONTAINMENT OF CORONA VIRUS DISEASE (COVID-19)

The purpose of this document is to offer guidance on quarantine measures for individuals in the context of COVID-19. It is intended for those responsible for establishing local or national policy for quarantine of individuals, and adherence to infection prevention and control measures.

Introduction

As the outbreak continues to evolve, Tanzania is considering options to prevent introduction of the disease to new areas or to reduce human-to-human transmission in areas where COVID-19 virus is already circulating. Public health measures to achieve these goals may include quarantine, which involves the restriction of movement or separation of healthy individuals who may have been exposed to the virus, from the rest of the population, with the objective of monitoring symptoms and the early detection of cases.

Quarantine will be implemented as part of a comprehensive package of public health response and containment measures and, as per Article 3 of the International Health Regulations (2005), be fully respectful of the dignity, human rights and fundamental freedoms of persons.

This document is informed by current knowledge of the COVID-19 outbreak and by similar considerations for other respiratory pathogens, including SARS-CoV, MERS-CoV and influenza viruses. Tanzania will continue to update these recommendations as new information becomes available.

Quarantine of persons is the restriction of activities or separation of persons who are not ill, but who may be exposed to an infectious agent or disease, with the objective of monitoring symptoms and early detection of cases.

Quarantine is different from isolation, which is the separation of ill or infected persons from others, so as to prevent the spread of infection or contamination. Quarantine is included within the legal framework of the International Health Regulations (2005), specifically:

- 1) Article 30. Travellers under public health observation
- 2) Article 31. Health measures relating to entry of travellers
- 3) Article 32. Treatment of travellers.

United Republic of Tanzania has, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to legislate, and to implement legislation, in pursuance of their health policies, even if this involves the restriction of movement of individuals.

Before implementing quarantine, Tanzania will communicate and socialize the measures, in order to reduce panic and improve compliance:

- 1) People will be provided by authorities of clear, up-to-date, transparent and consistent guidelines, and reliable information about quarantine measures;
- 2) Constructive engagement with communities will be essential in order to ensure that quarantine measures are accepted;
- 3) Persons who are quarantined will be provided with, social and psychosocial support, and but not health care, financial support including basic needs like food, water and other essentials. The needs of vulnerable populations will be prioritised;
- 4) Cultural, geographic and economic factors affect the effectiveness of quarantine. Rapid assessment of the local context will be evaluating both the drivers of success and the potential barriers to quarantine and inform the design of the most appropriate and culturally accepted measures.

When to use quarantine measures

United Republic of Tanzania will implement quarantine in mainly two categories.

- 1) Quarantine of contacts to the confirmed Case
 - 2) Travellers coming from earmarked countries with wide spread epidemic (The list of countries will be updated on regular basis depending on the dynamics of the Pandemic
- Introducing quarantine measures early in an outbreak may delay the introduction of the disease in the whole of Tanzania or area and/or may delay the peak of an epidemic in an area where local transmission is ongoing. However, if not implemented properly, quarantine may also create additional sources of contamination and dissemination of the disease.

In the context of the current COVID-19 outbreak, the global containment strategy includes the rapid identification of laboratory-confirmed cases, and their isolation and management in either a medical facility or at home or contacts of laboratory-confirmed cases **WHO recommends that such persons be quarantined for 14 days from the last time they were exposed to a COVID-19 patient.**

For the purpose of implementing quarantine, a contact is defined as a person:

- 1) Providing direct care without proper personal protective equipment (PPE)⁶ for COVID-19 patients
- 2) Staying in the same close environment of a COVID-19 patient (including workplace, classroom, household, gatherings);

- 3) Traveling together in close proximity (within 1 meter) with a COVID-19 patient in any kind of conveyance within a 14 - day period after the onset of symptoms in the case under consideration.⁷

Recommendations for implementation of quarantine measures.

If a decision to implement quarantine is taken, the authorities, should ensure:

- 1) Appropriate quarantine setting and adequate provisions for the quarantine period;
- 2) Minimum infection prevention and control measures;
- 3) Minimum requirements for health monitoring of quarantined persons during the quarantine period. Appropriate quarantine setting and adequate provisions for quarantine period Quarantine implies the use or creation of appropriate facilities in which a person or persons are physically separated from the community while being attended to.

Appropriate quarantine arrangements include the following:

- those in quarantine be placed in adequately ventilated, spacious single rooms, with ensuite toilet (hand hygiene and toilet facilities). If single rooms are not available, beds should be placed at least 1 meter apart;

- 1) suitable environmental infection controls, such as adequate air ventilation, filtration systems and waste-management protocols;
- 2) maintenance of social distancing (more than 1 meter) of the persons quarantined;
- 3) accommodation with an appropriate level of comfort, including:
 - a. food, water and hygiene provisions;
 - b. protection for baggage and other possessions;
 - c. appropriate medical treatment for existing conditions;
- 4) communication in a language that they can understand explaining: their rights; provisions that will be made available to them; how long they will need to stay; what will happen if they get sick; contact information of their local embassy or consular support;
- 5) assistance for quarantined travellers, isolated or subject to medical examinations or other procedures for public health purposes;
- 6) assistance with communication with family members outside the quarantine facility;
- 7) if possible, access to the internet, news and entertainment;
- 8) psychosocial support; and
- 9) special considerations for older individuals and individuals with co-morbid conditions, due to their increased risk for severe COVID-19 disease.

Possible quarantine settings are hotels, dormitories, other facilities catering to groups, or the home of the contact. Regardless of the setting, an assessment must ensure that the appropriate conditions for safe and effective quarantine are being met.

When home quarantine is chosen, the person should occupy a well-ventilated single room, or if a single room is not possible, maintain a distance of at least 1 meter from other household members, minimizing the use of shared spaces and cutlery and ensuring that shared spaces (kitchen, bathroom) are well ventilated.

Minimum infection prevention and control measures

The following infection prevention and control measures should be used to ensure a safe environment for quarantined persons.

Early recognition and control

Any person in quarantine who develops febrile illness or respiratory symptoms, at any point during the quarantine period, should be treated and managed as a suspect COVID-19 case;

Apply standard precautions for all persons quarantined and quarantine personnel:

- 1) Perform hand hygiene frequently, particularly after contact with respiratory secretions, before eating and after using the toilet. Hand hygiene includes either cleaning hands with soap and water or with an alcohol-based hand rub. Alcohol-based hand rubs are preferred if hands are not visibly soiled;
- 2) wash hands with soap and water when they are visibly soiled;
- 3) Ensure that all persons quarantined are practicing respiratory hygiene, and are aware of the importance of covering their nose and mouth with a flexed elbow or paper tissue when coughing or sneezing and disposing immediately of the tissue and performing hand hygiene;
- 4) Refrain from touching mouth and nose;
- 5) A medical mask is not required for persons with no symptoms. There is no evidence that wearing a mask of any type protects people who are not sick.

Administrative controls

Administrative controls and policies for IPC within quarantine facilities include, but may not be limited to:

- 1) establishing sustainable IPC infrastructures (design of facility) and activities;
- 2) educating persons quarantined and quarantine personnel about IPC; all personnel working in the quarantine facility need to have training on standard precautions before the quarantine measures are implemented. The same advice on standard precautions should be given to all quarantined persons on arrival. Both personnel and quarantined persons should understand the importance of promptly seeking medical care if they develop symptoms;
- 3) developing policies on the early recognition and referral of a suspect COVID-19 case.
- 4) Environmental controls Environmental cleaning and disinfection procedures must be followed consistently and correctly. Cleaning personnel need to be educated and protected from COVID-19 infection and ensure that environmental surfaces are regularly and thoroughly cleaned throughout the quarantine period:
- 5) Clean and disinfect frequently touched surfaces such as bedside tables, bedframes, and other bedroom furniture daily with regular household disinfectant containing a diluted bleach solution (1-part bleach to 99 parts water).
- 6) For surfaces that do not tolerate bleach, 70% ethanol can be used;
- 7) Clean and disinfect bathroom and toilet surfaces at least once daily with regular household disinfectant containing a diluted bleach solution (1-part bleach to 99 parts water);
- 8) Clean clothes, bedclothes, bath and hand towels, etc., using regular laundry soap and warm water or machine wash at 60–90 °C with common laundry detergent and dry thoroughly;

- 9) consider measures to ensure that waste is disposed of in a sanitary landfill, and not in an unmonitored open area;
- 10) Cleaning personnel should wear disposable gloves when cleaning or handling surfaces, clothing or linen soiled with body fluids, and should perform hand hygiene before and after removing gloves.

Minimum requirements for health monitoring of quarantined persons during the quarantine period

Daily follow-up of persons quarantined should be conducted within the quarantine facility for the duration of the quarantine and should include daily body temperature and symptom screening. Groups of persons at higher risk of infection and severe disease may require additional surveillance for chronic conditions or specific medical treatments.

Consideration should be given to the resources, personnel and rest period of staff at quarantine facilities. This is particularly important in the context of an ongoing outbreak, during which

limited public health resources may be better prioritised towards health care facilities and case-detection activities.

Laboratory testing of a respiratory sample from quarantined persons, irrespective of symptoms, is advised at the end of the quarantine period.



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March 2020

UNITED REPUBLIC OF TANZANIA



MINISTRY OF HEALTH, COMMUNITY DEVELOPMENT, GENDER, ELDERLY AND CHILDREN

**GUIDANCE FOR GUESTS, MANAGERS AND STAFF AT HOTELS AND OTHER ACCOMMODATION FACILITIES HOSTING
PEOPLE IN COVID-19 QUARANTINE ISOLATION**

Background

As we prepare for the potential spread of the COVID-19 virus, there are some precautions hotel managers and staff can take to improve guest and employee health and safety. There are currently no vaccines or therapeutics to protect or cure human coronavirus infection; hence prevention is key to mitigate the spread of the outbreak.

All People are directed into quarantine isolation if they have recently arrived or returned from overseas travel, or they have been identified as a close contact of person diagnosed with COVID-19. These people are required to stay isolated except for emergencies or when seeking medical care, and to monitor themselves for symptoms.

Hotels and other accommodation facilities may host people in quarantine isolation. The following guidance is provided to support such facilities and minimize the risk to staff. Facilities should provide education to appropriate staff and seek assistance if there are concerns. All staff should be made aware of the symptoms of COVID-19 and know what to do if they develop any of these symptoms.

Key considerations

- 1) **Privacy** - Individuals in quarantine must have their rights with respect to their protection of their personal health information maintained. This means that, after discussion with the public health authorities, information about the individual's health situation should only be discussed with those staff members directly involved with assisting quarantine. In practice this may include cleaners of the guest's room and relevant laundry and catering staff.
- 2) **Food delivery services** - Hotel and other food services should be advised to only deliver food and drink orders outside the isolated person's room door to minimize direct exposure to the contact person.

- 3) **Room cleaning – daily cleaning should be done under precaution. During cleaning all the windows should be open. During cleaning the guest should be out of the room or cleaning staff may inquire if people are well and ask them to put on a surgical mask.**
- 4) The cleaner should put on mask, gum boots, apron and utility gloves
- 5) **Cleaning products** – while the virus may survive on some surfaces from hours to several days, routine cleaning products are effective at disinfecting these surfaces.
- 6) **Waste management** – all waste from the room should be considered potentially infectious.

Scope

This protocol provides information on safety precautions and recommendations for guests and hotel workers in the context of COVID-19.

Capacity building and mentorship

- 1) Train all hotel staff including housekeeping staff to use the disinfectants safely and correctly. Staff should wear mask, gum boots, apron and utility gloves when cleaning.
- 2) Many of these cleaning products need to remain on hard surfaces for several minutes in order to work. Follow the manufacturer's instructions for proper use to get the most virus killing protection.
- 3) Schedule and perform routine cleaning and disinfection of all contact surfaces in public areas, guestrooms, television remote controls, toilet flush handles, door handles, water faucet handles, and flooring.
- 4) Train hotel staff and post signage to remind guests and workers to wash hands with soap and warm water frequently, for at least 20 seconds each time.
- 5) If possible, provide alcohol- based hand sanitizer that contains at least 60% alcohol in all guest contact areas and to all staff. In addition, staff should be advised not to touch their faces and to practice "social distancing" by standing at least 1 meter away from guests and other workers.
- 6) Educate staff on the most common signs and symptoms of coronavirus infection, which are fever, dry cough, and shortness of breath. Symptoms typically occur 1-14 days after exposure, though a small proportion of people who are infected don't have symptoms.

Guests in a hotel on self-isolation

- 1) The risk of guests who may be infected staying in hotels is currently very low. However, it is important that the hotel provides guests with information about COVID-19 to prevent spread upon their arrival to the hotel.
- 2) If a hotel has guests in self-isolation, it is important that staff take all necessary precautions. The risk to staff should be low if they properly wash their hands using soap and water.
- 3) Guest should strictly adhere to physical distancing requirements (at least 1meter distance)
- 4) If a guest who is in self-isolation or has been overseas in the past 14 days develops symptoms, it should immediately be reported through calling the hotline(s) dedicated for COVID-19.

- 5) Staff should avoid contact with guests who become unwell and seek appropriate medical advice if this occurs.

Preventative actions

- 1) Monitor guests as they enter and monitor employees at least once prior to starting their shift for fever or respiratory symptoms (use hand held thermal scanners)
- 2) Restrict guests with fever or acute respiratory symptoms from entering; guests with fever or acute respiratory infection should call the hotline and seek medical advice/support
- 3) Lodging guests should remain for most of their time in their rooms and should not leave the hotel for 14 days
- 4) Ensure proper ventilation (natural ventilation) by opening wide all windows in the rooms and corridors to mitigate infection
- 5) Guests can use hotel facilities such as swimming pools and gyms. However, facilities should be disinfected regularly
- 6) Post signs throughout the facility describing ways to prevent the spread of the virus.
- 7) wash your hands frequently with soap and water and dry them well, before and after eating and after going to the toilet. Avoid touching eyes, nose, or mouth with unwashed hands or use alcohol-based hand sanitizer if you aren't able to wash and dry your hands.
- 8) avoid contact with others (shaking hands, touching, kissing, hugging and other intimate contact) and maintain physical distance of at least 1 metre
- 9) cover coughs and sneezes with clean tissues or your elbow and dispose of tissues

Guest register and documentation

Review and implement a record keeping process to maintain records of guest and staff movement. These records should be kept for a minimum of 90 days. This includes maintaining guest registration records, employee work assignments, documentation of key control procedures. This is especially important if someone in the hotel has been confirmed to have the virus.

Hand Hygiene and Waste Management

- 1) Ensure employees clean their hands according to WHO guidelines, including before and after contact with guests and colleagues, and after contact with contaminated surfaces or equipment.
- 2) Put alcohol-based hand rub in every rest room (ideally both inside and outside of the room), at each end of each row of exercise machines (in the gym), and at least one in the free waiting area.

- 3) Position germicidal spray and paper towels at each end of each row of exercise machines, and at least one set in the free waiting area. Include extra signage to ensure members are following standard self-cleaning protocol.
- 4) Make sure tissues are available and every sink is well-stocked with soap and hand drying materials for hand washing.
- 5) Position a trash can near the exit to make it easy for employees and guests to discard tissues, paper towels, etc.
- 6) Perform hand hygiene before and after cleaning workout rooms.

Guidance for cleaning

Regardless of whether cleaners wore disposable gloves while cleaning, they should wash hands regularly. They should wash their hands thoroughly with soap and water for at least 20 seconds, making sure they dry them thoroughly. They can use hand sanitizer (containing at least 60 percent alcohol) if soap and water are not available and if their hands are not visibly dirty. If using hand sanitizer, cover all surfaces of their hands and rub them together until they feel dry. Avoid touching eyes, nose and mouth with unwashed hands.

- 1) Wash items such as dishes, drinking glasses, cups and eating utensils thoroughly using soap/detergent and water.
- 2) Clean all 'high-touch' surfaces such as desks, counters, table tops, doorknobs, bathroom fixtures, toilets, phones, keyboards and bedside tables every day with antiseptic wipes or disinfectant, including bleach solutions.
- 3) Clean toilets with a separate set of equipment like disposable cleaning cloths, mops.
- 4) Clean floors with disinfectant or bleach solution 0.5%, starting from one end of the premises to another (from the exit inwards) every day.
- 5) Wash laundry items such as bedding, towels, tea towels, cushion covers and other fabrics and dry thoroughly outside. Wear utility gloves while handling items. Wash hands immediately after removing gloves or after handling these items.
- 6) Read and follow directions on the labels of laundry or clothing and detergent. In general, wash and dry laundry with the warmest temperatures recommended on the label.
- 7) Always wear utility gloves when cleaning.
- 8) Disinfectants should be applied during routine cleaning of guestrooms, public spaces, health club areas and meeting rooms. Use disinfectant products that are effective against emerging viral pathogens. These include bleach; soaps and detergents.
- 9) Linens may become contaminated with the virus, so it is also important to add disinfectant when washing laundry. Bedsheets, bed scarfs and bedspreads should be washed more frequently and ironed.
- 10) Public spaces, and the front desk, need to be cleaned frequently. If possible, provide disposable disinfectant wipes to front-of-house staff to disinfect surfaces between guests. High touch areas in public spaces include tables in the lobby area, buttons on elevators, water fountains, and vending machines. Pens at the front desk and room keys and key cards should also be cleaned with disinfectant.

Product labels contain instructions for safe and effective use of the cleaning product, including precautions you should take when applying the product, such as wearing gloves or aprons and making sure you have good ventilation (e.g., open windows) while you use it.



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March 2020



MINISTRY OF HEALTH, COMMUNITY DEVELOPMENT, GENDER, ELDERLY AND CHILDREN

STANDARD OPERATING PROCEDURES FOR HAND HYGIENE IN THE CONTEXT OF COVID-19

Background

COVID-19 spreads through direct contact and droplet from an infected symptomatic and asymptomatic person. One of the most effective ways of preventing the spread of the virus is by practicing proper hand hygiene. Hand hygiene may be performed with soap and water, alcohol-based hand sanitizer at least 60% alcohol, or, in settings where neither is locally available, a mild (0.05%) chlorine solution can be used. Recommendations and considerations for each method are described in the text.

Scope and purpose

Hand hygiene must to be done by everyone. The purpose of this SOP is to describe steps and moments for proper hand hygiene.

Critical moments for hand hygiene

Hand hygiene should be performed during the following times

- 1) After touching surfaces, shaking hands, coughing and sneezing
- 2) After contact with patient surroundings. Hands should be cleaned even if a patient has not been touched e.g. after touching inanimate objects (including medical equipment, patient files) that are in the immediate vicinity of the patient.
- 3) Before any contact with a patient.
- 4) Before performing any action or procedure. Hands should also be washed immediately after removal of gloves.
- 5) After exposure / contact with any body fluids. Body fluids include droplets, urine, faeces, mucus, wound exudates, saliva, blood, etc even if there is no noticeable contact.
- 6) After having had contact with a patient e.g. position changing, measuring vital signs, changing of clothes or linen, etc.
- 7) Below is an illustrative diagram showing the critical moments for hand hygiene.

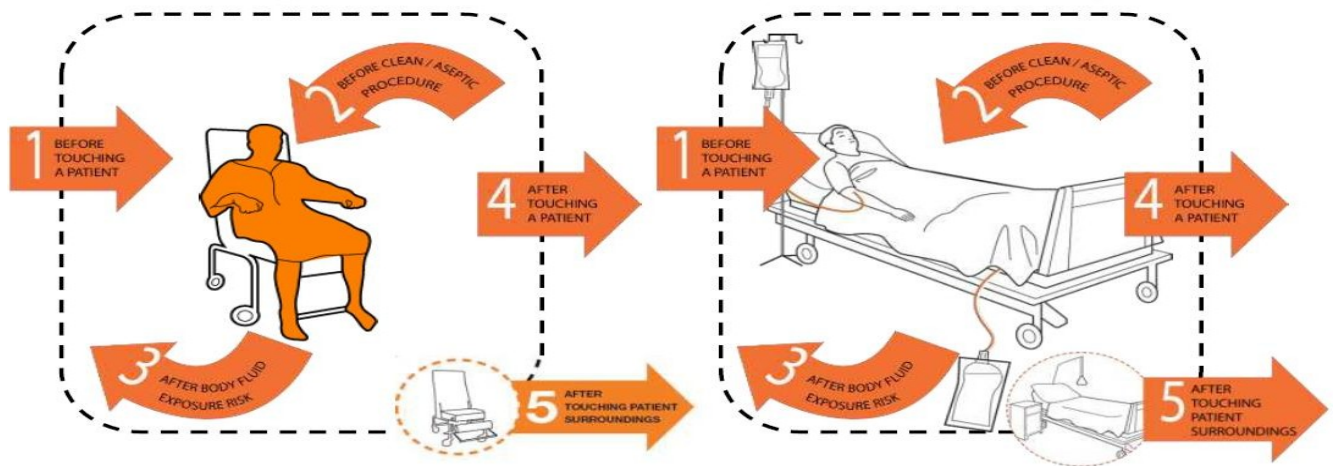


Figure 1. Key moments for hand washing

Procedures for Hand Washing with Soap and Water

It should be noted that when hands are visibly soiled with dirt, blood, or other body fluids; the most effective way of ensuring hand hygiene is through soap and water and not by use of alcohol-based hand rubs.

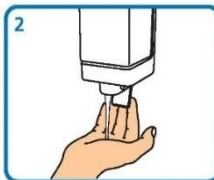
- 1) Wet hands thoroughly under running water to at least 10cm above the wrist
- 2) Soap hands adequately
- 3) Vigorously rub together all surfaces of lathered hands
- 4) Rub hands vigorously back and front, in between fingers, up to and including the wrist, followed by thorough rinsing under running water; do this for 10–15 seconds
- 5) Dry hands from tip of fingers to wrist with paper towel; if paper towels are not available, shake off excess water and allow hands to air-dry
- 6) Use the same paper towel to turn off tap if tap not elbow controlled

If hand is washed using soap and water following the above procedure, it is very effective in preventing transmission of COVID 19. Fig. 2 is a detailed illustration showing all the steps that should be followed during hand washing.

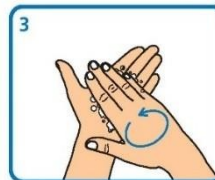
Hand-washing technique with soap and water



Wet hands with water



Apply enough soap to cover all hand surfaces



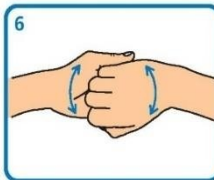
Rub hands palm to palm



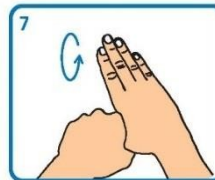
Rub back of each hand with palm of other hand with fingers interlaced



Rub palm to palm with fingers interlaced



Rub with back of fingers to opposing palms with fingers interlocked



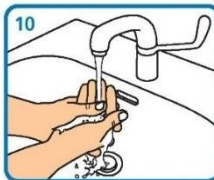
Rub each thumb clasped in opposite hand using a rotational movement



Rub tips of fingers in opposite palm in a circular motion



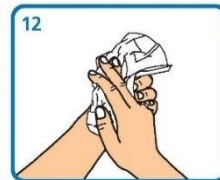
Rub each wrist with opposite hand



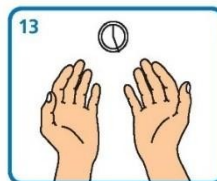
Rinse hands with water



Use elbow to turn off tap



Dry thoroughly with a single-use towel



Hand washing should take 15-30 seconds

Figure 2: Hand washing technique with soap and water

Procedures for alcohol – based hand rub

Alcohol-based hand rub solutions usually contain 60% to 95% ethanol or isopropanol and are effective at killing COVID-19 when applied appropriately. When decontaminating hands using the hand rub, use an amount that is sufficient to cover all surfaces of hands. This procedure kills or inhibits the growth of most transient and resident micro- organisms. The steps to be followed are simple:

- 1) Apply hand rub to palm of one hand
- 2) Rub hands together covering all surfaces of hands and fingers
- 3) Rub until hand rub is absorbed.

A schematic diagram describing the step wise procedure for applying alcohol-based hand rub chemicals is provided in Fig. 3 below.

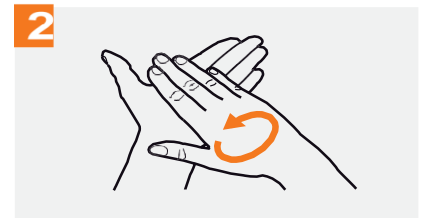
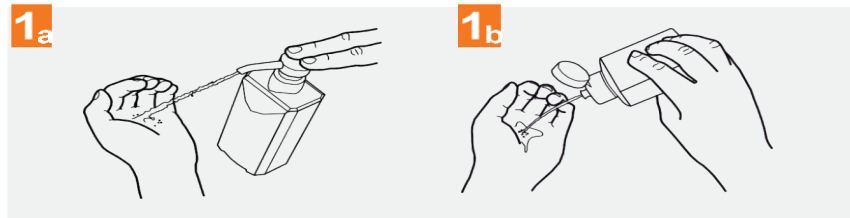
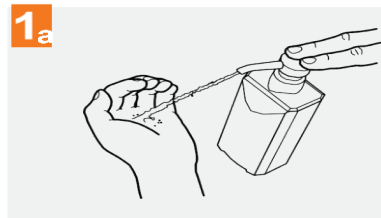
The use of alcohol-based hand rub solutions should be considered when hand washing with soap and running water is not possible, and so long as hands are not visibly soiled with dirt, blood, or other organic material.

Note: Because antiseptic hand rubs do not remove soil or organic matter, hands that are visibly soiled or contaminated with blood or bodily fluids should be washed with soap and running water first.

ILLUSTRATIVE PROCEDURE FOR USING HAND RUB SOLUTIONS. WASH HANDS WHEN VISIBLY SOILED

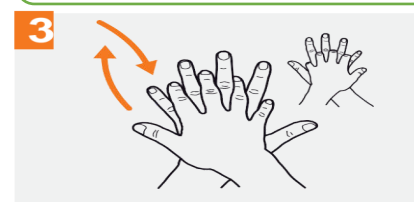


Duration of the entire procedure: **20-30 seconds**



Apply a palmful of the product in a cupped hand, covering all surfaces;

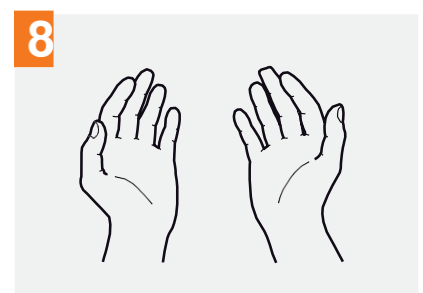
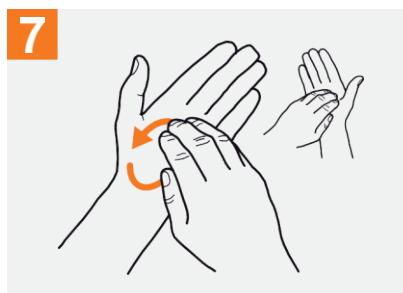
Rub hands palm to palm;



Right palm over left dorsum with interlaced fingers and vice versa;

Palm to palm with fingers
Palms interlaced;

Backs of fingers with
fingers interlock



Rotational rubbing of left thumb clasped in right palm and vice versa;

Rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa

Once dry, your hands are safe

Fig 3. Steps to be followed in hand rub

Procedures for decontaminating hands with Chlorine Solution

Mild chlorine solution (0.05%) can be used for washing bare hands in settings where other methods such as soap and running water or alcohol-based hand rubs are not available or cannot be used. When washing hands with chlorine solutions, follow the steps described in Fig. 2 (Procedures for washing hands with soap and water). Soap should never be used with chlorine solutions during hand washing.



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March 2020



MINISTRY OF HEALTH, COMMUNITY DEVELOPMENT, GENDER, ELDERLY AND CHILDREN

STANDARD OPERATING PROCEDURE FOR PREPARATION AND USE OF DISINFECTANTS AND ANTISEPTICS

PREPARATION OF DISINFECTANTS

Background

Disinfectants are chemicals that kill or inhibit all microorganisms except bacteria endospores on inanimate objects. Antiseptic chemicals that are applied to the skin or other living tissues to inhibit or kill microorganisms (both transient and resident) thereby reducing the total bacterial count. Disinfectants and antiseptics are key in the process of decontamination by using chemicals.

Scope and purpose

Disinfectants and antiseptics sanitizers can be to be used at Health facility, HIDTU, RRT, Burial Team, PoE, Holding facilities.

Procedures for diluting chlorine solutions

Preparing Dilute Chlorine Solutions from Liquid Bleach (Sodium Hypochlorite Solution)

When preparing disinfectants and antiseptics, one should:

- 1) Hand wash before and after each procedure
- 2) Read the manufacturer's guide
- 3) Have the dilution formula
- 4) Measure the required amount of water, antiseptics and disinfectant

a. Making chlorine solution from concentrated chlorine solution

- Chlorine in liquid bleach comes in different concentrations. Any concentration can be used to make a dilute chlorine solution by applying the following formula:
- Total parts (TP) of water = $\frac{(\% \text{ manufacturer concentrate})}{(\% \text{ desired dilute})} - 1$

Example1

To make a 0.5% chlorine solution from 3.5% bleach

Total Parts (TP) of water = $\frac{(\% \text{ manufacturer Concentrate})}{(\% \text{ desired dilute})} - 1$

$$\frac{(3.5\%)}{(0.5\%)} - 1 = 6.$$

This means, take 1 part concentrated solution, add 6 parts of water to make a 0.5% chlorine solution

Example 2

Make a dilute solution (0.1%) from 5% concentrated solution

Calculate TP (H₂O) = (5.0%/0.1%) - 1 = 50 - 1 = 49

Take 1 part concentrated solution and add to 49 parts boiled (filtered if necessary) water.

- Other examples find at the annex

b. Making chlorine solution from dry chlorine powder

Check concentration (% concentrate) of the powder you are using

Determine grams of bleach powder needed

Grams/Litre = $\frac{(\% \text{Desired dilute}) \times 1000}{(\% \text{Manufacturer concentrate})}$

Mix measured amount of bleach powder with 1 litre of water

Example 1

To make a 0.5% chlorine solution from calcium hypochlorite powder containing 35% active chlorine:

$\frac{(0.5\%) \times 1000}{(35\%)} = 0.0143 \times 1000 = 14.3\text{g}$

Therefore, you must dissolve 14.3 grams of calcium hypochlorite powder in one litre of water to get a 0.5% chlorine solution.

- Use plastic container to keep the content
- Store in a dry, dark and cool place
- Ensure appropriate labelling on top of the plastic containers e.g. type of chemical, date of dilution and concentration.
- Ensure the container is well covered
- Don't top-up when refilling, wash the container and dry before refilling
- Ensure that the diluted content is used within seven days for antiseptics and 24 hours for disinfectants. (depends on the manufactures guide)
- Never mix disinfectants with antiseptics
- Never use antiseptics as disinfectants and vice versa
- Display formulae for making a dilute solution from concentrated solution and formula for making chlorine solutions from dry powders and tablets
- Other examples find at the annex

c. Preparation of chlorine solutions from tablet formulations

Using chlorine-releasing tablets to get chlorine solutions:

Follow manufacturer's instructions since the percentage of active chlorines in these products varies.

Protocol on preparation of various chlorine solutions for disinfection and decontamination for COVID-19

No.	Use	Concentration	Volume of water (Litres)	2.5g NaDCC tablets (1.25g active chlorine)	HTH
1	Hand washing	0.05% (500ppm)	10	4 tablets	7.5 g (½ table spoon)
			20	8 tablets	15 g (1 table spoon)
			40	16 tablets	30 g (2 table spoons)
2	Decontamination of contaminated surfaces, boots, beds, utensils and equipment. For blood, vomit and faecal matter chlorine is applied after cleaning.	0.5% (5000ppm)	10	40	75 g (5 table spoons)
			20	80	150 g (10 table spoons)

% chlorine in liquid bleach	0.05% chlorine solution for hand washing	0.5% chlorine solution to disinfect respiratory excretions. For surfaces contaminated by blood, vomit, faeces clean before disinfection
3.5%	1 volume of bleach in 69 volumes of water (eg. 1 litre of bleach added to 69 litres of water)	1 volume of bleach in 6 volumes of water (eg. 1 litre of bleach added to 6 litres of water)
5%	1 volume of bleach in 99 volumes of water (eg. 1 litre of bleach added to 99 litres of water)	1 volume of bleach in 9 volumes of water (eg. 1 litre of bleach added to 9 litres of water)

PREPARATION OF ALCOHOL-BASED SOLUTION FOR HAND RUB/SANITIZERS

Formulation 1

To produce final concentrations of ethanol 80% v/v, glycerol 1.45% v/v, and hydrogen peroxide (H₂O₂) 0.125% v/v

Pour into a 1000-mL graduated flask:

- 1) Ethanol 96% v/v, 833.3 mL
- 2) H₂O₂ 3%, 41.7 mL
- 3) Glycerol 98%, 14.5 mL
- 4) Top up the flask to 1,000 mL with distilled water or water that has been boiled and cooled; shake the flask gently to mix the contents.

Formulation 2

To produce final concentrations of isopropyl alcohol 75% v/v, glycerol 1.45% v/v, and hydrogen peroxide 0.125% v/v: Pour into a 1,000 mL graduated flask:

- 1) Isopropyl alcohol (with a purity of 99.8%), 751.5 mL
- 2) H₂O₂ 3%, 41.7 mL
- 3) Glycerol 98%, 14.5 mL
- 4) Top up the flask to 1,000 mL with distilled water or water that has been boiled and cooled; shake the flask gently to mix the contents.

Formulation 3

Add 2mls of propylene glycol or sorbitol to 60 – 90% ethyl or isopropyl alcohol solution

Note: In all community settings, it is highly recommended that hand hygiene be performed using soap and running water. When soap and water are not accessible, the second option would be to use alcohol-based hand rubs/sanitizers provided that the hands are visibly clean. When both options are not available, use chlorine solutions 0.05% prepared from chlorine liquid (bleach) or chlorine granules (HTH or NaDCC).



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MINISTRY OF HEALTH, COMMUNITY DEVELOPMENT, GENDER, ELDERLY AND CHILDREN

**STANDARD OPERATING PROCEDURES ON USE OF PERSONAL PROTECTIVE EQUIPMENT DURING
HEALTH CARE DELIVERY FOR PATIENTS WITH SUSPECTED OR CONFIRMED COVID-19 INFECTION**

Background

Standard precautions are very important in the care of all patients including those with respiratory infections such as COVID-19 infections. The goal of standard precautions is to reduce the risk of transmission of microorganisms from both recognized and unrecognized sources of infection. They should be used every time health care is practiced. An important element of Standard Precautions that need to be strictly adhered to is appropriate use of PPE (based on risk assessment).

Scope and Purpose

Personal protective equipment (PPE) are designed to protect the wearer's skin, eyes, mucous membranes, airways and clothing from coming into contact with infectious agents. It is important to note that the use of PPE is not a substitute for proper infection prevention and control practice: for example, the use of gloves is not a substitute for hand hygiene.

All personnel who provide care of patients, suspect or confirmed COVID 19 cases should wear the required PPE. In addition, personnel who are not in direct contact with the patient but in contact with the patient's blood and body fluids should also strictly adhere to proper use of PPE.

This standard operating procedure is prepared to guide all healthcare workers (HCWs), the health facility management, and Infection Prevention and Control (IPC) teams at all levels of healthcare on effective and rational use of PPEs. It is intended to be used in planning for Personal Protective Equipment (PPE) needs in care of suspected or confirmed COVID-19 cases.

Note: The choice and combination of PPE ensemble to be worn in dealing with COVID-19 patients should be based on a careful risk assessment that considers risk of exposure and extent of contact anticipated with respiratory droplets, blood, body fluids, and/or open skin.

Table 1: PPE recommendations in the management of suspected or confirmed cases of COVID-19


In patient settings			
Area	Target personnel	Activity	Type of PPE or IPC precaution
Patient room	Healthcare workers	Providing direct care to COVID-19 patients.	Medical mask (in critical care area use Respirator N95 or FFP2 standard), Gown, Gloves, Eye protection (goggles or face shield), Boots, head cover
	Healthcare workers	Aerosol-generating procedures performed on COVID-19 patients	Respirator N95 or FFP2 standard, or equivalent. Gown, Gloves, Eye protection, Apron, Boots, head cover
	Cleaners	Entering the room of COVID-19 patients	Medical mask, Gown, Heavy duty gloves, google/face shield, Boots, Apron, head cover
	Visitors	Entering the room of a COVID-19 patient	should not be allowed
	All staff, including healthcare workers	Any activity that does not involve contact with COVID-19 patients.	Maintain physical distance of at least 1 m. practice Hand hygiene

Other areas of patient transit (eg. wards, corridors).	All staff, including healthcare workers	Any activity that does not involve contact with COVID-19 patients.	Maintain physical distance of at least 1 m. practice Hand hygiene
Triage	Healthcare workers	Preliminary screening not involving direct contact	Maintain physical distance of at least 1 m. medical mask
	Patients with respiratory symptoms	Any	Maintain physical distance of at least 1 m.; patient should wear medical mask
	Patients without respiratory symptoms	Any	Maintain physical distance of at least 1 m.; wash hands
Laboratory	Lab personnel	Manipulation of respiratory samples	Respirator N95 or FFP2 standard, Gown, Gloves, Eye protection, Boots, Apron, head cover
Administrative areas	All staff, including healthcare workers.	Administrative tasks that do not involve contact with COVID-19 patients	Maintain physical distance of at least 1 m. practice Hand hygiene
Laundry	personnel	Linen processing	Medical mask, Heavy duty gloves, face shield, Boots, heavy duty Apron,
Outpatient facilities			

Consultation room	Healthcare workers	Physical examination of patient with respiratory symptoms	Respirator N95 or FFP2 standard, Gown, Gloves, Eye protection, head protection
	Healthcare workers	Physical examination of patients without respiratory symptoms	PPE according to standard precautions and risk assessment
	Patients with respiratory symptoms	Any	Provide medical mask
	Patients without respiratory symptoms	Any	Distancing and hand hygiene
	Cleaners	After and between consultations with patients with respiratory symptoms	Medical mask, Gown, Heavy duty gloves, Eye protection, Boots or closed work shoes
Waiting room	Patients with respiratory symptoms	Any	wear medical mask. Immediately move the patient to an isolation room or separate area away from others; if this is not feasible, ensure distance of at least 1m from other patients
	Patients without	Any	Distancing, hand hygiene

	respiratory symptoms		
Administrative areas	All staff, including Healthcare workers	Administrative tasks	Distancing and hand hygiene
Triage	Healthcare workers	Preliminary screening not involving direct contact	Maintain physical distance of at least 1 m. hand washing
	Patients with respiratory symptoms	Any	Maintain spatial distance of at least 1 m. wear medical mask if tolerated
	Patients without respiratory symptoms	Any	Distancing, hand hygiene
At Morgue, at patient rooms	Handling dead body	Health care workers,	Gloves, Medical mask, Eye shield, gown, Boots, Apron, head cover, apron
At community,	During viewing and burial	Members of community	Under supervision of HCWs, distancing and hand hygiene
Waste management, decontamination	Waste handler	Waste handler	Respirator, Gown, Heavy duty gloves, google/face shield, Boots, Apron, head cover

Table 2: These are some PPEs and their characteristics

PPE	Characteristics and how to use
<p data-bbox="142 241 612 320">eye protection (goggles or face shield)</p> 	<p data-bbox="628 241 1402 472">Face shield or goggles when used are meant to adequately protect the healthcare workers conjunctival mucous membranes from sprays of droplet when in close proximity (<1m) from a patient.</p> <p data-bbox="628 577 1378 763">Normal reading glasses are not acceptable as PPE for eye protection so a face shield with anti-fog should be worn over the glasses or goggles big enough to cover the glasses</p> <p data-bbox="628 792 1358 931">Goggles must fit comfortably and securely; each person should have his/her own goggles/face shield with personal names on them.</p> <p data-bbox="683 1032 1402 1171">Condensation of the goggles can be a major problem: it impairs the user's vision and is dangerous but can be minimized by anti-fog spray.</p>
<p data-bbox="165 1205 588 1283">Mouth and nose protection (Surgical or Medical mask)</p>	<p data-bbox="628 1205 1339 1357">Patients with respiratory symptoms should be given a surgical mask to wear as part of source control.</p> <p data-bbox="628 1391 1378 1529">Healthcare workers need to cover the mouth and nose with a medical mask to avoid droplet sprays when in close proximity (<1m) from a patient.</p> <p data-bbox="628 1563 1347 1700">Medical/surgical mask should be fluid-resistant with structured design that does not collapse against the mouth</p>
<p data-bbox="159 1731 595 1821">Respiratory protection (N95, FFP2)</p>	<p data-bbox="628 1731 1323 1939">The respirator protects from the inhalation of airborne particles. A respirator should always be used when performing aerosol-generating procedures in a COVID-19 patient.</p> <p data-bbox="628 1973 1410 2051">Given that the fitting of different types of respirator will vary for each user, the respirator will</p>



require a fit test in order to find the best match of PPE for each user.

A seal check should always be performed by the healthcare worker each time an N95 is worn

Gloves



Correctly sized latex or nitrile examination gloves should be used to protect hands against both direct and indirect contact with respiratory fluids and other body fluids

A new pair of gloves should be used for each patient. Remember that for invasive procedures you need sterile gloves

DO NOT touch face especially eyes, nose or mouth areas with gloved hands

Body protection (gowns)



Long-sleeved water-resistant gowns should be used in the care of suspect or confirmed COVID-19 patients as part of droplet and contact precautions

The gown does not need to be sterile, unless used in a sterile environment (e.g. operating room)

Apron

If water-resistant gowns are not available, single-use plastic aprons can be used on top of the non- water-resistant gowns to prevent body contamination. Fluid-proof aprons provide



extra protection of the front part of the body and is easier to replace than a soiled gown.

Disposable aprons should be used

Head cover



The purpose of head covers is to protect the skin and hair from virus contamination with subsequent unrecognized transmission to the mucosa of the eyes, nose or mouth.

Heavy-duty rubber gloves/Utility gloves



Cleaners, laundry personnel, healthcare workers when handling infectious waste (i.e. solid waste or any housekeeping duties should wear heavy duty rubber gloves over nitrile gloves.

Movement of human remains or performing environmental cleaning activities also requires the use of heavy-duty rubber gloves.

The correct procedure for donning and doffing of PPE should be followed. Disposable PPE should be treated as potentially infectious material and disposed of in accordance with the relevant national rules. Non-single-use PPE should be decontaminated in accordance with the manufacturer's instructions.

Before exiting isolation area, carefully remove PPE and dispose in waste containers in a designated doffing area. If aerosol generating procedure was performed, remove the N95 mask only when outside patient's isolation room. Do not recycle any single-use PPE.

Remove PPE under supervision of a trained buddy while avoiding any contact with soiled items and areas of the face or skin. Place reusable equipment (Goggle or face shield) in bin for decontamination.

HOW TO PUT ON AND TAKE OFF

Personal Protective Equipment (PPE)



How to put on PPE (when all PPE items are needed)



Step 1

- Identify hazards & manage risk. Gather the necessary PPE.
- Plan where to put on & take off PPE.
- Do you have a buddy? Mirror?
- Do you know how you will deal with waste?



Step 2

- Put on a gown.



Step 3a

- Put on face shield.

OR

Step 3b

- Put on medical mask and eye protection (e.g. eye visor/goggles)



+



Note: If performing an aerosol-generating procedure (e.g. aspiration of respiratory tract, intubation, resuscitation, bronchoscopy, autopsy), a particulate respirator (e.g. US NIOSH-certified N95, EU FFP2, or equivalent respirator) should be used in combination with a face shield or an eye protection. Do user seal check if using a particulate respirator.



Step 4

- Put on gloves (over cuff).

How to take off PPE

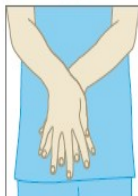


Step 1

- Avoid contamination of self, others & the environment
- Remove the most heavily contaminated items first

Remove gloves & gown

- Peel off gown & gloves and roll inside, out
- Dispose gloves and gown safely



Step 2

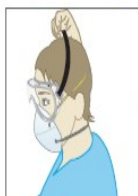
- Perform hand hygiene



Step 3a

If wearing face shield:

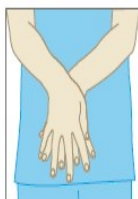
- Remove face shield from behind
- Dispose of face shield safely



Step 3b

If wearing eye protection and mask:

- Remove goggles from behind
- Put goggles in a separate container for reprocessing
- Remove mask from behind and dispose of safely



Step 4

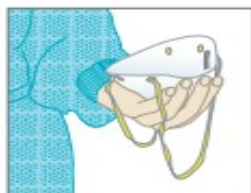
- Perform hand hygiene

HOW TO



Perform a particulate respirator seal check

WHO/CDS/EPR/2007.8b



Step 1

- Cup the respirator in your hand with the nosepiece at your fingertips allowing the headbands to hang freely below your hand.



Step 2

- Position the respirator under your chin with the nosepiece up.



Step 3

- Pull the top strap over your head resting it high at the back of your head. Pull the bottom strap over your head and position it around the neck below the ears.



Step 4

- Place fingertips of both hands at the top of the metal nosepiece. Mould the nosepiece (USING TWO FINGERS OF EACH HAND) to the shape of your nose. Pinching the nosepiece using one hand may result in less effective respirator performance.



Step 5

- Cover the front of the respirator with both hands, being careful not to disturb the position of the respirator.

Step 5a: Positive seal check

- Exhale sharply. A positive pressure inside the respirator = no leakage. If leakage, adjust the position and/or tension straps. Retest the seal. Repeat the steps until the respirator is secured properly.

Step 5b: Negative seal check

- Inhale deeply. If no leakage, negative pressure will make respirator cling to your face.
- Leakage will result in loss of negative pressure in the respirator due to air entering through gaps in the seal.

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Reproduced from "Infection prevention and control of epidemic and pandemic-prone acute respiratory diseases in health care - WHO Interim Guidelines" available at http://www.who.int/csr/resources/publications/WHO_CD_EPR_2007_6/en/index.html

Prof. Mohammad Bakari Kambi

Chief Medical Officer

March 2020

UNITED REPUBLIC OF TANZANIA



MINISTRY OF HEALTH, COMMUNITY DEVELOPMENT, GENDER, ELDERLY AND CHILDREN

STANDARD OPERATING PROCEDURE ON APPROPRIATE USE OF MASKS IN THE COMMUNITY AND IN HEALTH CARE SETTINGS

The guidance is based on the recent available evidence which will guide on the use of mask. The knowledge about COVID-19 is changing rapidly and any change in the advice will be communicated immediately.

This document provides rapid advice on the use of masks in communities, at home and at health care facilities in areas that have reported COVID-19 outbreaks. It is intended for the general public as well as community leaders, health care managers, health care workers and community health workers.

Introduction

With the current information available, it is suggested that the route of human-to-human transmission of COVID-19 is either via respiratory droplets or contact. Any person who is in close contact (within 1 meter) with someone who has respiratory symptoms (e.g., sneezing, coughing, etc.) is at risk of being exposed to potentially infective respiratory droplets.

General Advice

Wearing a mask is one of the prevention measures to limit spread of certain respiratory diseases, including COVID-19². However, the use of a mask alone is insufficient to provide the adequate level of protection and other equally relevant measures should be adopted. If masks are to be used, this measure must be combined with hand hygiene and other IPC measures to prevent the human-to-

² WHO. Advice on the use of masks in the community, during home care and in healthcare settings in the context of the novel coronavirus (COVID-19) outbreak [https://www.who.int/publications-detail/advice-on-the-use-of-masks-in-the-community-during-home-care-and-in-healthcare-settings-in-the-context-of-the-novel-coronavirus-\(2019-ncov\)-outbreak](https://www.who.int/publications-detail/advice-on-the-use-of-masks-in-the-community-during-home-care-and-in-healthcare-settings-in-the-context-of-the-novel-coronavirus-(2019-ncov)-outbreak)

human transmission of COVID-19. Wearing masks when not indicated may cause unnecessary cost, procurement burden and create a false sense of security that can lead to neglecting other essential measures such as hand hygiene practices. Furthermore, using a mask incorrectly may hamper its effectiveness to reduce the risk of transmission.

Community setting

Individuals without respiratory symptoms should:

- 1) Maintain distance of at least 1 meter from any individual with respiratory symptoms (e.g., coughing, sneezing);
- 2) Perform hand hygiene frequently, using soap and running water or alcohol-based hand rub
- 3) Cover nose and mouth with flexed elbow or paper tissue when coughing or sneezing
- 4) dispose of tissue immediately after use and perform hand hygiene;
- 5) Refrain from touching mouth and nose;

Note: A medical mask is not required, as no evidence is available on its usefulness to protect non-sick persons. wearing a mask of any type is not recommended. Wearing medical masks when they are not indicated may cause unnecessary burden to the community and can create a false sense of security that can lead to the neglect of other essential preventive measures. Irrational use of masks among the community also creates unnecessary burden in terms of waste generation and its management.

Individuals with respiratory symptoms (fever, cough and difficulty breathing) should:

- 1) Avoid going to work, school, worship places, markets, and any gatherings
- 2) Wear a medical mask and seek medical care immediately from nearest health facility;
- 3) follow the below advice regarding appropriate mask management.
 - Perform hand hygiene frequently, using soap and water or alcohol-based hand rub if hands are not visibly soiled;
 - Keep distance from well feeling individuals as much as possible (at least 1 meter);
 - To contain respiratory secretions, a medical mask should be used by the individual and worn.
 - For individuals who cannot immediately access medical masks, they should rigorously apply respiratory hygiene, i.e. cover mouth and nose when coughing or sneezing with disposable paper tissue. Dispose of the material after use.

- Clean hands immediately after contact with respiratory secretions and seek medical service immediately;
- Improve airflow in living space by opening windows and door as much as possible.

Management of masks

- 1) If medical masks are worn, appropriate use is essential to ensure they are effective. Masks should also be appropriately disposed of to avoid transmission.

The following information is on correct use of medical masks:

- 1) Place mask carefully to cover mouth and nose and tie securely to minimise any gaps between the face and the mask;
- 2) For masks that are coloured on one side, the coloured part (eg. Blue, yellow, etc) should always face outside
- 3) Fit flexible nose piece over the nose bridge
- 4) While in use, avoid touching the mask;
- 5) Remove the mask by using appropriate technique (i.e. do not touch the front but remove the lace from behind);
- 6) Medical Masks should be changed any time when they are wet; with a maximum duration of use of up to 2 hrs
- 7) Masks that are typically used by health care workers (Respirators: N95, FFP2 or equivalent standard) can be used up to 4 hours continuously while maintaining their protection.
- 8) Using one respirator for longer than 4 hours can lead to discomfort and should be avoided
- 9) Masks should only be used by one person, avoid sharing masks
- 10) After removal dispose mask safely by burning.
- 11) Avoid using mask for children below five years.
- 12) Whenever you touch a used mask, clean hands by using soap and water or an alcohol-based hand rub if hands are not visibly soiled
- 13) Cloths (e.g. cotton, gauze) and hygienic tissues should not be used as masks; as they are not recommended under any circumstance.

Message to Health care workers

- 1) Health care workers should use appropriate masks (surgical masks) when managing suspected or confirmed cases from a distance of less than 1 metre;
- 2) Health care workers are not recommended to be on masks unless they are attending to a suspected/confirmed patient;
- 3) Wear a medical mask when entering a room where patients suspected or confirmed of being infected with COVID-19 are admitted;

- 4) All masks should be safely disposed of after attending a patient;
- 5) Masks should not be touched or handled during use;
- 6) If the mask gets wet or dirty with secretions, it must be changed immediately;
- 7) Discard the mask after use and perform hand hygiene using soap and water after removal of the mask;
- 8) If hands are not visibly soiled, alcohol-based hand rub can be used;
- 9) Perform hand hygiene using soap and running water when hands are visibly soiled
- 10) When performing aerosol generating procedures, such as tracheal intubation, non-invasive ventilation, tracheotomy, cardiopulmonary resuscitation, manual ventilation before intubation, and bronchoscopy, on suspected or confirmed COVID-19 patients, use a particulate respirator at least as protective as US National Institute for Occupational Safety and Health (NIOSH)-certified N95, European Union (EU) standard FFP2, or equivalent. When HCWs put on a disposable particulate respirator, they must always perform the seal check. Note that facial hair (e.g. a beard) may prevent a proper respirator fit.³

Message to visitors (communities)

- 1) There is no reason for asymptomatic people to be on masks or covering faces with cloths while visiting health facilities for services or visiting patients even when COVID-19 suspected or confirmed cases have been attended in that facility

Health Care Facilities

Individuals with respiratory symptoms should:

- 1) Wear a medical mask while waiting in triage or waiting areas or during transportation within the facility;
- 2) Wear a medical mask when staying in cohorting areas dedicated to suspected or confirmed cases;
- 3) Do not wear a medical mask when isolated in single rooms but cover mouth and nose when coughing or sneezing with disposable paper tissues. Dispose them
- 4) appropriately and perform hand hygiene immediately afterwards.



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Chief Medical Officer

March 2020

³ See WHO. Infection prevention and control during health care when novel coronavirus (nCoV) infection is suspected, [https://www.who.int/publications-detail/infection-prevention-and-control-during-health-care-when-novel-coronavirus-\(ncov\)-infection-is-suspected-20200125](https://www.who.int/publications-detail/infection-prevention-and-control-during-health-care-when-novel-coronavirus-(ncov)-infection-is-suspected-20200125)



MINISTRY OF HEALTH, COMMUNITY DEVELOPMENT, GENDER, ELDERLY AND CHILDREN

STANDARD OPERATING PROCEDURES FOR DECONTAMINATION IN THE CONTEXT OF COVID-19

Background

Decontamination is the use of physical or chemical means to remove, inactivate, or destroy pathogens on a surface or item to the point where they are no longer capable of transmitting infectious particles and the surface of an item is rendered safe for handling, use, or dispose.

Scope and purpose

Decontamination team will be conducting decontamination at Health facility, HIDTU, community/household, Burial process and Holding facilities and port of entry.

Roles and responsibility

The decontamination team have the responsibility to make sure the disinfection of all potential areas and equipment with contamination are decontaminated by disinfectant that has been registered by Ministry of Health, Community Development, Gender and Elderly.

Equipment and supplies

Disinfectants and antiseptics commonly used

- 1) quaternary ammonium compounds
- 2) Alcohol (ethyl or isopropyl)
- 3) Chlorine releasing agents (e.g., bleach)
- 4) improved hydrogen peroxide

Other important supplies and equipment for decontamination

Surface cleaning supplies: portable containers (e.g., bottles, small buckets) for storing environmental cleaning products (or solutions) and surface cleaning cloths

Floor cleaning supplies:

mops or cleaning squeegee with floor cloths, buckets, and wet floor/caution signs and cart or trolley with **two or three buckets** should be used for the mopping process

***Procedures for decontamination process*****a. Cleaning and disinfection of reusable personal protective equipment (Laundry)****BOOTS**

- 1) Wash boots with soap and water using a scrubbing brush. NB take care not create splashes when using brush
- 2) Rinse boots with clean water.
- 3) Soak boots in 0.5% chlorine solution for 10 minutes.
- 4) Rinse boots with clean water.
- 5) Check boots for holes. Notify supervisor if any holes as boots will need to be destroyed.
- 6) Dry boots upside-down on drying tree/racks in the sun.
- 7) Once dry, bring boots to staff changing room.

SCRUB SUITS

- 1) Wash scrubs with soap and water.
- 2) Rinse scrubs with clean water.
- 3) Soak scrubs in 0.05% chlorine solution for 20 minutes.
- 4) Rinse scrubs with clean water and squeeze water out.
- 5) Hang scrubs to dry in the sun.

- 6) Once dry, fold and bring to staff changing room.

If available, washing machines and dryers can be used. If a disinfection cycle is not included in the machine's wash program, perform disinfection by hand after the wash and rinsing cycles.

UTILITY GLOVES

- 1) Wash gloves with soap and water.
- 2) Rinse gloves with clean water.
- 3) Soak gloves in 0.5% chlorine solution for 10 minutes.
- 4) Rinse gloves with clean water.
- 5) Check gloves for perforations (fill with water and squeeze gently). Discard gloves that have perforation.
- 6) Put gloves on poles for drying in the sun.
- 7) Collect and bring to the dressing area, organize by size.

APRONS

- 8) Wash aprons with soap and water
 - 1) Rinse apron with clean water.
 - 2) Soak in 0.5% chlorine solution for 10 minutes.
 - 3) Rinse with clean water.
 - 4) Hang them to dry in the sun.
 - 5) Collect and bring to the dressing area.

GOGGLES

- 1) Wash goggles with soap and water and rinse gently.
- 2) Soak in 0.5% chlorine solution for 10 minutes.
- 3) Rinse gently in clean water, preventing scratches.
- 4) Dry in the sunlight facing upwards.
- 5) Check for damage before bringing to dressing area.
- 6) Bring to the dressing area.
- 7) Staff entering high risk zone should re-check for damaged elastic or screen before donning.

STRETCHER

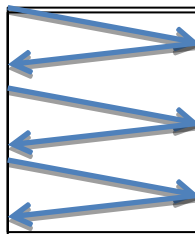
The stretcher follows the standard circuit in the HIDTU. After decontamination in the confirmed area, the stretcher can be transferred to the suspect area or the low risk zone. The decontamination team must be wearing full PPE.

- 1) Wash stretcher with soap and clean water.
- 2) Rinse stretcher.
- 3) Spray/wipe both sides of the stretcher with 0.5% chlorine solution.
- 4) Pay particular attention to the handles.
- 5) Let dry in a clean area in the sun, if possible.

Procedures for Cleaning and disinfecting environmental surfaces of room where confirmed case was placed in the house

Steps

- 1) Identify a donning/doffing zone not far from the house/latrines. If possible, in a shaded area.
- 2) Collect information:
 - Description of the inside of the house (number of rooms, where the patient was when he was sick, etc.)
 - Where the patient vomited, had diarrhoea and/or blood loss
 - Location of bathrooms/latrines used by patient
 - Location of dishes, clothes, and other items used by patient
 - Location of area where trash can be burned
 - Location of 'clean' area for dressing. If possible, in the shade and near the house
- 3) Low risk staff disinfects a 3x3 meter square of ground in front of the house



door with 0.5% chlorine solution for the donning/doffing area

- 4) Make sure the patient/dead body has been removed from the room before beginning environmental decontamination. If the patient needs assistance, dress in appropriate PPE including the patient and assist.

- 5) Before stepping on the clean donning/doffing area, all staff must have their boots sprayed with 0.5% chlorine solution.
- 6) 2 high risk health officers get dressed in full PPE (see donning SoP) and go toward the house. If the house is big, 3rd person or 2nd pair of health officers can also get dressed in full PPE to assist.

Remark: The person with the spraying machine remains 'clean' and does not touch anything. His/her spraying machine should never touch the ground. The other is responsible for moving all items and is considered 'dirty'.

- 7) Ask for a basin to place near the door half filled with 0.5% chlorine solution to collect reusable items and clothing
- 8) Spray the door of the house with 0.5% chlorine solution. Begin with the door frame and then from top to bottom in a systematic fashion. Include the door handle and lock.
- 9) 'Dirty' person opens the door.
- 10) Evaluate for any danger present in the room/house such as body fluid spills (vomit, diarrhoea, or blood) OR sharp objects (nails, etc.).
- 11) If there is a closed window in the room, decontaminate with 0.5% chlorine solution and open it. The more light the better.
- 12) If there are body fluids on the ground, first follow SoPs for spill handling below.
- 13) Start by decontaminating the least potentially contaminated items in the room. The 'dirty' health officer presents the items to the 'clean' health officer to be sprayed with 0.5% chlorine solution.
- 14) Spraying is done from the upper side to the lower, to prevent re-contamination.
- 15) Items are decontaminated and disposed of one by one.
- 16) Decontaminate the hands of the 'dirty' health officer every time he has disposed of an item.
- 17) Items that are in a closed cupboard, out of reach, or folded inside a pile do not need to be sprayed.
- 18) For dishes/reusable hard item (bucket, etc.) management: Once disinfected bring them outside and place in the basin filled with 0.5% chlorine solution.
- 19) Note: when the house is safe to enter again, the family can wash the dishes/buckets again normally with soap and water.

LINEN MANAGEMENT

- 1) Wear appropriate PPE
- 2) For non-visibly soiled clothes, once disinfected with 0.05% chlorine solution. Leave in the sun to dry.
- 3) For visibly soiled clothes pre-wash (using soap and water) and then disinfect with 0.05% chlorine for 20 min
- 4) For mattress/bedding management, the 'clean' health officer will decontaminate it by soaking the mattress with chlorine solution then the 'dirty' health officer brings mattress and bedding outside:
- 5) No visible body fluid contaminations: decontaminate both sides and leave in the sun to dry.
- 6) Furniture that cannot be moved out of the room is sprayed with 0.5% chlorine solution.
- 7) When the room is empty of material: decontaminate the bed, walls, floor and back of door with 0.5% chlorine solution from top to bottom.
- 8) Go outside, close the door, and re-decontaminate the outside of the door with 0.5% chlorine solution.
- 9) Decontaminate the latrines and bathrooms used:
- 10) Decontaminate the door (door frame and then top to bottom) with 0.5% chlorine solution.
- 11) Do not enter latrine. Spray the door, wall, hole and floor with 0.5% chlorine solution. The 'clean' person should be following the 'dirty' person.
- 12) Decontaminate any additional area walked on by the patient outside the house with 0.5% chlorine solution. Back spray until both health officers are at the undressing zone.
- 13) Low risk health officer uses low risk spraying machine to help decontaminate high risk health officer for doffing protocol. The low risk sprayer disinfects the gloved hands of the high-risk staff between steps to replace the absence of the 0.5% solution bucket.
- 14) After decontamination, explain the next steps:
 - The family can enter the room/house after at least 3 hours.
 - The clothes can be washed with soap and water after 5 minutes and brought back in the house after 3 hours.
 - The dishes should be washed with soap and water before reuse after 10 minutes of contact time with the chlorine solution.

A health communicator who continuously explains what is happening should accompany the family during this process. If the family would like, one person may dress in PPE and enter to supervise the environmental decontamination. This will assure him or her that nothing was stolen, etc.

Daily ward cleaning

The ward should be cleaned minimum 3 times or more when necessary in 24 hours.

- 1) Inform patients of cleaning. If patients are ambulatory, ask them to leave the ward during the procedure if possible.
- 2) Remove all liquid waste (buckets/bedpans) and clean (according to procedure). Replace with clean dry buckets/bedpans
- 3) Remove body fluid spills with disposable absorbent pads and place in container containing 2% chlorine
- 4) Assure sharps containers are placed in designated area near the nursing station. If 3/4 full or deterioration of container, bring to waste area and replace with a new container.
- 5) Remove trash on the ground and beds (bottles, cans, old food, etc.) and put in appropriate waste bin.
- 6) Remove waste bin liners/ bag to designated waste disposal area and replace.
- 7) Clean the beds and tables with soap and water using the 2 buckets method.
- 8) Clean the floor with soap and water while moving systematically from clean to dirty through the ward covering the whole floor with swivel mop or flat mop uses the 2 bucket method.
- 9) Remove water using a squeegee/rubbers squeezer to drainage for infiltration. Dry any remaining small pools of water on the floor with absorbent pads.
- 10) Open doors/windows, if closed, to ventilate the area.
- 11) Spray the entire floor with a fine layer of 0.5% chlorine solution.
- 12) Tidy the ward, putting the beds, tables and buckets back in their correct place.
- 13) Decontaminate mops or floor cloths in the high-risk zone using soap and water followed by 0.5% chlorine solution soaking for 5 minutes.

CLEANING MATTRESS AND BED

To be done as soon as possible when a patient leaves

If the mattress is damaged (holes, etc.) bring it to the waste zone for incineration. Be sure to replace.

- 1) Apply body fluid spill procedure if necessary before moving the mattress.
- 2) Move the mattress or canvas bed to designated cleaning area outside of the ward.
- 3) Wash entire mattress/canvas bed with soap and water. Rinse with clean water.
- 4) Spray entire mattress/canvas bed with 0.5% chlorine solution.
- 5) If possible, leave mattress/canvas bed under the sun to dry. When dry return to 'clean store'.
- 6) Replace mattress/canvas bed with clean dry material in the ward.

CLEANING AND CHANGING PATIENT BUCKETS

The healthcare staff is responsible to monitor bucket contents at bedside. Each patient should always have 2-3 buckets at the bedside (body fluids and shower).

- 1) Health care staff brings a clean bucket to replace the one needing to be changed.
- 2) Health officer pour 1 cup of 0.5% chlorine solution into the contents of all dirty buckets.
- 3) Bring dirty buckets directly to the latrine or pit. Never leave a bucket with body fluids unattended.
- 4) Immediately, empty bucket carefully to avoid splashing.
- 5) Rinse bucket with 0.5% chlorine solution and empty again into the latrine or vomit pit.
- 6) Bring rinsed bucket to dirty area for further cleaning.
- 7) Clean the bucket (inside, outside, and lid) with soap and water. A small hand
- 8) Scrubbing brush can be used.
- 9) Rinse bucket with 0.5% chlorine solution.
- 10) Place the buckets and lids in the clean area to dry under the sun, if possible.

CLEANING PATIENT DISHES

- 1) Empty remaining food in garbage bag for disposal.
- 2) Bring all patient dishes (cups, plates, bowls, cutlery, etc.) to the dirty area for cleaning.
- 3) Wash all items with water and soap using a hand scrub brush.
- 4) Rinse with clean water.
- 5) Place all cleaned dishes in 0.5% chlorine solution for at least 10 minutes.
- 6) Rinse all items with clean water and leave to dry in designated clean area.

NOTE. Use of disposal utensil is highly recommended

PATIENT CARE INSTRUMENTS AND DEVICES

Sphygmomanometer/thermometer/tourniquet (1 per patient in suspect ward/shared in confirm ward):

Monitors (dynamapp, pulse oximetry, scales):

Between each patient and after each use:

- 1) wipe with soap and water if visibly dirty, followed by disinfection with 70% alcohol or any other disinfectant recommended by the manufacturer

TROLLEY

- 1) Clean with soap and water followed by disinfection with 0.5% chlorine solution

PROCEDURES FOR MANAGING SPILLS

Blood spillage may occur because a laboratory sample breaks, bleeding, vomiting, etc.

The phlebotomy area/during transportation or due excessive bleeding during procedure.

In this situation, clean up the spillage and record the incident, using the following procedure.

- 1) Wear a pair of non-sterile gloves.
- 2) Use tongs or a pan and brush to sweep up as much of the broken glass (or container) as possible. Do not pick up pieces with your hands.
- 3) Discard the broken glass in a sharps container. If this is not possible due to the size of the broken glass, wrap the glass or container in several layers of paper and discard it carefully in a separate container. Do not place it in the regular waste container.
- 4) Use disposable paper towels to absorb as much of the body fluids as possible.
- 5) Wipe the area with water and detergent until it is visibly clean.
- 6) Saturate the area again with sodium hypochlorite 0.5% (5 000 ppm available chlorine).
- 7) Rinse off the tongs, brush and pan, under running water and place to dry.
- 8) Remove gloves and discard them.
- 9) Wash hands thoroughly with soap and water, and dry thoroughly with single-use towels.

- 10) Record the incident in the incident book if a specimen was lost, or persons were exposed to blood and body fluids

CONVEYANCES (AMBULANCE, BOATS, SHIPS, VANS, AIRCRAFT)

- 1) Two (2) people dress in appropriate PPE.
- 2) Spray back doors of ambulance with 0.5% chlorine solution. Take care to focus on the door handles, edges of the door, and any area potentially (follow manufacturer's instructions in case of right disinfectants)
- 3) Backside of conveyance is decontaminated with 0.5% chlorine solution.
- 4) Attention: Take care to focus on door handles and other places the patient may have touched.
- 5) Open back door(s) of conveyance.
- 6) conveyance is checked for body fluid spills and cleaned according to protocol
- 7) One health care worker enters the back of the ambulance and brings any waste present inside to the outside.
- 8) If there is spill, collect it and put in the container of 2% chlorine, clean the area
- 9) Remove mattress and stretcher. Follow mattress cleaning procedures
- 10) Wash the inside of the vehicle with soap and water. Rinse.
- 11) ensure windows and doors are open. Spray the inside of the conveyance with 0.5% chlorine solution or any other disinfectants and antiseptic according to manufacturer's instructions. Avoid splashes. Wait for a minimum of 10 minutes or according to manufacturer's instructions.
- 12) Rinse all metallic parts of vehicle with water (to prevent corrosion from chlorine).
- 13) Keep doors and windows of vehicle open for at least 10 minutes after spraying is finished for ventilation before collecting another patient.
- 14) Replace mattress, stretcher and any additional materials removed for decontamination

PROCEDURE FOR MANAGEMENT OF LINEN

Linen Transport to the laundry

- 1) The bags should be appropriately labelled e.g., dirty linen and soiled linen
- 2) Place in another waste bag held by person and disinfect the outside surfaces
- 3) Transport directly to the laundry room in dedicated cart – Closed container (tied bag or bucket with lid)
 - Leak proof containers
 - Do not mix with other laundry
 - Do not pre-sort
 - Launder promptly

Sorting and Laundering

- 1) Put on appropriate PPE
- 2) Check if there are sharps or any other object in linens
- 3) Follow standard precautions
- 4) Wash linen with detergent and water
- 5) Rinse
- 6) Soak in 0.05% chlorine solution for approximately 20 minutes
- 7) Wash with detergent and warm water, rinse and then dry
- 8) Disinfection and laundry of patient's linen/ clothes in low risk zones
- 9) All reusable linens should be ironed

NOTE: Use machines and follow manufacturer's instructions

Also use water of temperature of 70 °C -90°C either for machine or hand wash,

Drying, storage and transporting of cleaned linen

- 1) Completely air or machine dry before further processing
- 2) Air dry in direct sunlight is preferred, keeping the linen off the ground
- 3) Clean and dry linen should be ironed and folded
- 4) Cleaned linen should be handled as little as possible and stored in a covered container/covered area
- 5) Cleaned linen should be transported in cart/container that is covered

Handling of Staff linen

- 1) Do not mix staff linen with patient linen
- 2) Do not carry/transport staff linen in the same carts with patient linen
- 3) Staff linen should be processed in different location (low risk zones) with a different machine



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March 2020



MINISTRY OF HEALTH, COMMUNITY DEVELOPMENT, GENDER, ELDERLY AND CHILDREN

**STANDARD OPERATING PROCEDURES FOR SAFE HANDLING OF SHARPS AND WASTE GENERATED
DURING CARE OF COVID -19 PATIENT**

Background

COVID -19 spreads through direct contact and droplets to an infected person. One way of preventing the spread of the virus is by practicing proper waste management especially from respiratory excreta of the infected person. The safe handling of waste generated through the care of patients with COVID- 19 is based on three main principles:

- 1) Segregation, safe containment and packaging of waste should be performed as close as possible to the point of generation.
- 2) Limit the number of personnel handling generated waste before and after primary containment.
- 3) Always use appropriate personal protective equipment (PPE) and procedures for handling waste until final treatment and disposal

Scope and Purpose

The purpose of this SOP is to describe steps for proper Waste management during COVID-19 outbreak situation. Best practices for safely managing health care waste should be followed, including assigning responsibility and sufficient human and material resources to dispose of such waste safely.

Roles and Responsibilities

All who are involved in waste generation during COVID -19 management should safely handle waste. These include patient, all health workers as well as the RRT and burial teams.

What Needs treatment and Disposal

- 1) Respiratory excreta, used masks, paper tissues, gauze and any other materials used during cough and sneezing
- 2) Disposable needles and syringes and disposable or non-reusable protective clothing
- 3) Treatment materials and dressings
- 4) Non-reusable gloves

- 5) Laboratory supplies and biological samples
- 6) Used disinfectants

Waste management procedures

Preparing a Waste Management Plan as Part of COVID 19 Patient Care

- 1) Comply with guidelines for handling, storage, treatment, and disposal of waste.
- 2) Determine COVID 19-associated waste to be treated onsite
- 3) Identify a dedicated waste management team which will handle all waste generated based on the following principles
 - Onsite treatment: COVID 19-associated waste may be treated through incineration or by autoclaving
 - When selecting emergency department triage areas for the evaluation of patients with possible COVID 19, a designated area should be identified for waste management.
 - Waste bags should never be over-filled. Bags should be closed when two thirds full.
 - If stored within the patient room, all filled solid waste bags and sharps containers should undergo primary closure procedures
 - If stored outside the patient room, all filled solid waste bags and sharps containers should undergo both primary and secondary closure, and be removed.
- 4) Be sure healthcare personnel and environmental services staff handling waste are trained to wear appropriate PPE as per PPE SOP and follow appropriate putting on (donning) and taking off (Doffing) procedures.

At Collection points: -

- 1) Waste should be segregated at the point of generation to enable appropriate and safe handling.
- 2) Waste should not be stored more than 24 hours before being treated.
- 3) sharps (e.g. needles, syringes, glass articles) should be placed inside safety box. These should be located as close as practical to the patient care area where the items are used, similarly in laboratories.
- 4) All waste from infectious zone (Red zone) should be stored in red bins, food remains can be kept in yellow bin
- 5) Waste in green zone should be stored in black/blue bins
- 6) Waste material from red zone should not be taken to the green zone
- 7) Waste material will only be moved out through the rear door to the waste management area and laundry

Segregation of healthcare waste

In red zone all waste is considered to be highly infectious. Only red and yellow buckets are used. The red bucket is used for all waste, which can be incinerated. The yellow bucket should be used for

organic waste like food remains, etc. In green zone only black/blue bins are used for non-infectious waste.

Supplies for Hand Hygiene, Cleaning and Disinfection, and Packaging Waste

- 8) Hand washing facility with Running water and soap,
- 9) Alcohol-based hand rub (ABHR) that is at least 60% alcohol
- 10) Chlorine solution 0.05% for hand washing and 0.5% for cleaning
- 11) Leak-proof colour coded Waste container
- 12) Colour coded bin liners
- 13) Approved sharps waste container and safety box
- 14) Transport cart
- 15) Absorbent disposable towels
 - Absorbent material sufficient to absorb potential free liquid (if any) should be placed in the bottom of the rigid outer packaging or the liner of the fibreboard outer packaging.
- 16) Registered disinfectant for use against the COVID 19:
- 17) Disposable cleaning cloths
- 18) Waste should be packaged with an installed liner provided by the waste vendor.

Healthcare wastes in patient's Room

Examples of solid waste include medical equipment, sharps, linens, privacy curtains, and used healthcare products (such as soiled absorbent pads or dressings, kidney-shaped emesis pans, portable toilets, used PPE [gowns, masks, gloves, goggles, face shields, respirators, booties, etc.] or by-products of cleaning).

All placement of receptacles (including sharps containers) and primary packaging by double-bagging of waste should occur in the patient's room and be performed by the primary healthcare workers (i.e., doctors and nurses) Line appropriate-sized waste containers with a leak-proof biohazard bag.

- 1) Place non-sharps solid waste in the biohazard bag. Bags should not be filled beyond two thirds full to allow safe closure.
- 2) Carefully place sharps waste in appropriate disposable sharps container and close the container. Containers should not be filled beyond three thirds full to allow safe closure.
- 3) Prepare filled bags and sharps containers for **onsite inactivation**
- 4) Place closed sharps containers in a biohazard bag.
- 5) Close the bag with a method that will not tear or puncture the bag (e.g., tying the neck of bag with a goose-neck knot) and will ensure no leaks.
- 6) Apply disinfectant (wipe or spray) to the outside surface of the closed bag.
- 7) Place the wiped/sprayed closed bag into a second biohazard bag.
- 8) Close the bag with a method that will not tear or puncture the outer bag and will ensure no leaks (e.g., tying the neck of bag with a knot).

- 9) Apply disinfectant (wipe or spray) to the outside surface of the secondary bag.
- 10) Store the disinfected closed bags in a designated area to await removal.
- 11) Follow recommended procedures for disinfecting visibly soiled PPE and taking off PPE.
- 12) The healthcare workers wearing PPE as designated in the guidance for ETU should spray or wipe the outside surfaces of double-bagged waste with an EPA-registered hospital disinfectant immediately before removing waste from the room.
- 13) Upon removing the double-bagged waste from the patient's room, the healthcare worker should place the double-bagged waste in a designated transport cart (for onsite inactivation or a rigid outer receptacle
- 14) The designated container should be located at the periphery of the area for taking off PPE so that removal from the area is efficient and does not create a risk of recontamination of the outer container.
- 15) Environmental services personnel removing the waste from the care area should only handle the outer container/transport cart and should never open the container or handle the double-bagged waste.
- 16) For onsite treatment, environmental services personnel wearing appropriate PPE should:
 - Safely transfer waste in a transport cart to dedicated waste autoclave room or secured storage location or incineration area.

Select Site for disposing solid COVID-Contaminated Waste

- 1) Select a disposal point (incinerator/burning pit) on the health facility grounds
- 2) Disposal point should be fenced
- 3) It should be located away from the normal traffic flow and should be fenced, should have a lockable door, the site should not be in public view or in an area where it will attract a crowd.

Procedures for handling liquid waste (body fluids including blood, urine, vomit, faeces)

- 1) Primary handling of liquid waste should occur in the patient's room and be performed by the primary healthcare workers wearing recommended PPE as designated in the guidance for HITU.
- 2) Pour waste, avoiding splashing by pouring from a low level, into the toilet.
- 3) Close the lid first, and then flush toilet.
- 4) Clean and disinfect flush handles, toilet seat, and lid surfaces with chlorine
- 5) Discard cleaning cloths in biohazard bags.
- 6) Discard emesis and portable toileting containers as solid waste.
- 7) Follow recommended procedures for disinfecting visibly soiled PPE and removal of PPE.

On-site transportation

- 1) Wear an appropriate set of PPE and heavy duty/rubber gloves and goggles when handling infectious waste

- 2) Infectious solid waste should not be transported by hand due to the risk of accident or injury from infectious material or incorrectly disposed sharps.
- 3) Use a covered trolley or a wheeled bin with a lid to reduce the potential for exposure
- 4) Collect wastes including sharp containers (puncture resistant safety boxes) from all generating points at least twice a day or when containers are $\frac{3}{4}$ full or whenever necessary
- 5) For infectious waste generated in laboratories (e.g. specimens and specimen's containers, pipettes, etc.), pre-treat by autoclaving or chemical disinfection prior to transporting it for final treatment/disposal
- 6) Start with non- infectious waste followed by infectious waste
- 7) After each use, all surfaces of the trolleys or bins should be disinfected with 0.5 % chlorine solution
- 8) Wash hands properly after removing PPE

Treatment of COVID 19-contaminated waste

- 1) Wear appropriate PPE
- 2) Recommended Disposal Methods: Disinfect liquid waste (including patient reparatory excreta) with 2% chlorine solution and then dispose of in an isolated latrine or toilet set aside for COVID 19 cases. (NB: Avoid splashing when disposing of liquid infectious waste)
- 3) Burning is the recommended method for disposal of other COVID 19-contaminated waste. Using an incinerator or a pit for burning can make a safe and inexpensive disposal system.
- 4) There should be well trained staff to manage waste generated at HIDTU
- 5) Decontaminate the area in case of spillage around the incinerator/burning pit with 0.5% chlorine solution
- 6) Conduct regular cleanliness, decontamination, maintenance and repairs of the incinerator
- 7) Decontaminate any used receptacles
- 8) Remove ashes from the incinerator and put in the ash pit
- 9) Put a layer of soil on top of ashes
- 10) Wash hands after removal of PPE



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UNITED REPUBLIC OF TANZANIA



MINISTRY OF HEALTH, COMMUNITY DEVELOPMENT, GENDER, ELDERLY AND CHILDREN

**STANDARD OPERATING PROCEDURES ON WATER, SANITATION AND HYGIENE IN THE CONTEXT OF
COVID-19**

Background

Water, sanitation, and hygiene (WASH)-related COVID- 19 response is the most significant and crucial public health intervention to be taken into account in preventing the spread of COVID-19 in all settings. COVID- 19 outbreak will disrupt routine functioning of HCFs which need urgent or immediate attention. The disruption may lead to a total or partial suspension of WASH related services. An overwhelmingly surge in the number of patients or suspects resulting from COVID -19 may significantly increase the risks of infection transmission specifically if there is inadequate water supply, sanitation and hygiene facilities to cope the situation. Therefore, having clean and safe water in HIDTU and at home in meeting drinking, sanitation, and hygiene needs is essential. On other hand provision of sanitation and hygiene facilities to facilitate behaviour such as hand washing practices is vital.

Scope

This SOP provides procedures in a stepwise manner to be implemented by the HIDTU in respective Councils, regional level and other related organization such as humanitarian agencies, water supply and sewage authorities in addressing WASH issues during COVID-19 outbreaks. It sets minimum WASH standards during COVID-19 regardless the type or size of HIDTU in order to maintain their daily operations and patient care services.

WASH in HIDTU setting

Existing recommendations for WASH measures in HIDTU settings are important for providing adequate care for patients and protecting patients, staff and caregivers from infection risks. The following actions are particularly important:

- 1) Constant supply of safe water
- 2) managing excreta (faeces, urine and vomitus) safely;
- 3) engaging in frequent hand hygiene using appropriate techniques;
- 4) implementing regular cleaning and disinfection practices; and
- 5) safely managing health care waste.

Conducting rapid assessment of WASH

A thorough needs assessment is crucial for informing authorities and different actors on the requirements and for a successful emergency response. The needs assessment results will inform the responsible authorities at national, regional, council and HIDTC levels of the priorities and the magnitude of the problems/impacts as well as on the needs requiring external support. In this regard, the WASH team in collaboration with other members from other SC will be responsible to carry out the needs assessment during the outbreaks.

Water supply

Emergency water supply: In determining how much water supply (quantity and quality) will be required during the outbreak, the HIDTU should first carry out a water use audit which will involve:

- 1) Working out estimates of the quantity of water required to continue with operation of essential functions so as to meet the demands.
- 2) Water quality issues
- 3) Finding out any other available alternative water supplies,
- 4) Identifying other emergency water storage measures.

Water quantity: HCFs must ensure that sufficient quantities of water are available to meet all the minimum daily requirements such as infection control and medical activities, drinking, laundry, bathing, hand washing, and cleaning. This may require interventions to repair the water supply or power supply if the water system requires power to function. It may also involve the installation of temporary water storage facilities such as demountable steel water tanks, bladder tanks or polyethylene tanks.

The recommended minimum water quantities during this outbreak is stipulated in table 1

Table 1: Recommended minimum water quantities for HIDTU

Users/ Area	Quantity of Water Required
Green zones	40 litres/carer /day
COVID 19 in patient red zone	100 litres/patient/day
	15 litres/carer/day

Water quality: All water supplies in the HIDTU regardless of their use should meet drinking water standards. The purpose is to provide microbial safety in outbreaks. If the water is chlorinated the level of residual chlorine should not be less than 1mg/l at end points.

Sanitation services control measures

- 1) Maintain general cleanliness in and around toilets
- 2) Ensure adequate number of toilets when required.
- 3) Conduct hygiene sensitisation/educational awareness to clients on proper use of toilets

Table.1: Essential Sanitation control measures

Effect suspected	Control measures
Excreta disposal	<ul style="list-style-type: none">• Provide sufficient numbers of staff toilets for both male and female• Provide sufficient toilets for patients and carers for both male and female

Effect suspected	Control measures
	<ul style="list-style-type: none"> • Provide toilets for people with special needs for both male and female • Avoid contamination of water sources • Provide sound drainage system
Wastewater disposal	<ul style="list-style-type: none"> • Dispose properly wastewater from hand washing facilities, bathing, cleaning and laundering • Provide sound drainage system • Provide properly functioning septic tanks and soakage pit or public sewer
Storm water management	<ul style="list-style-type: none"> • Design storm water drainage to prevent carrying potentially infectious material away from the health care facility into the community • Frequently clean storm water drainage to avoid blockage

Other important and recommended measures include:

- 1) Presence of chlorine supply and containers for 0.05%, and 0.5% solution.
- 2) providing sufficient safe drinking-water to staff, caregivers and patients;
- 3) ensuring that personal hygiene can be maintained, including hand hygiene, for patients, staff and caregivers;
- 4) regularly laundering bedsheets and patients' clothing;
- 5) providing adequate and accessible toilets (including separate facilities for confirmed and suspected cases of COVID-19 infection); but also considering the special need groups (Pregnant mothers, disabled and elderly)

Hand Hygiene Facilities

Functional hand hygiene facilities should be present for all health care workers at all points of care and in areas where PPE is put on or taken off. Hygiene facilities should be made in such a way to prevent spreading of the disease e.g. A foot pedal or elbow operated hand washing facilities/automatic is highly recommended. This facility should be available for all patients, family members and visitors, and should be available within 5 meters of toilets, as well as in waiting and dining rooms and other public areas. In addition, facilities for drying hands i.e. paper towels are required to placed in paper

towel dispenser but also where the hand rub is used, it is recommended to install hand rub dispenser

Sanitation consideration for suspected COVID-19

People with suspected or confirmed COVID-19 disease should be provided with their own flush toilet or improved latrine. If it is not possible to provide separate toilets, the toilet should be cleaned and disinfected after every use by a trained cleaner wearing appropriate PPE

Standard precautions should be taken to prevent contamination of the environment by excreta. These precautions include ensuring that pit latrines are located at least 30 meters away from water sources, and for area with higher groundwater table or rock, construct a mounted pit latrine.

A two-tank system with parallel tanks would help to facilitate inactivation by maximizing retention times, as one tank could be used until full, then allowed to sit while the next tank is being filled. Particular care should be taken to avoid splashing and the release of droplets while cleaning or emptying tanks.

Bed ridden patients

If the patient is unable to use a latrine, excreta should be collected in either a diaper or a clean bedpan and immediately and carefully disposed of into a toilet.

If a bedpan is used, after disposing of excreta from it, the bedpan should be cleaned with a neutral detergent and water, disinfected with a 0.5% chlorine solution, and then rinsed with clean water; the rinse water should be disposed of in a drain or a toilet or latrine.



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MINISTRY OF HEALTH, COMMUNITY DEVELOPMENT, GENDER, ELDERLY AND CHILDREN

**STANDARD OPERATING PROCEDURES FOR SAFE AND DIGNIFIED BURIAL FOR A PERSON DIED OF
COVID 19**

Background

Being a new disease, recently, many rumours and misinformation are spreading across social media platforms about how to handle a deceased case of COVID-19. To prevent this, the Ministry of Health, Community Development, Gender and Elderly has issued these SOPs on how to deal with dead bodies from COVID -19.

The main route of transmission of COVID-19 is through droplets. There is unlikely to be an increased risk of COVID infection from a dead body to health workers or family members who follow standard precautions while handling body."

"Only the lungs of dead COVID-19 patients, if handled during an autopsy, can be infectious". Here are standard precautions to be followed while handling COVID-19 dead bodies.

Scope

This guidance is for all those, including managers of health care facilities and mortuaries, religious and public health authorities, and families, who attend to the bodies of persons who have died of suspected or confirmed COVID-19. These recommendations are subject to revision as new evidence becomes available.

Key considerations

COVID-19 is an acute respiratory illness caused by COVID-19 virus that predominantly affects the lungs. Based on current evidence, the COVID-19 virus is transmitted between people through droplets, fomites and close contact, with possible spread through faeces. It is not airborne. As this is a new virus whose source and disease progression are not yet entirely clear, more precautions may be used until further information becomes available. Except in cases of hemorrhagic fevers (such as Ebola, Marburg) and cholera, dead bodies are generally not as infectious as dead bodies of ebola. Only the lungs of patients with pandemic influenza,

if handled improperly during an autopsy, can be infectious. Otherwise, dead bodies do not transmit disease. It is a common myth that persons who have died of a communicable disease should be cremated, but this is not true. Cremation is a matter of cultural choice and available resources;

Training in infection and prevention control practices

All staff identified to handle dead bodies in the isolation area, mortuary, ambulance and those workers in the crematorium/burial ground should be trained in the infection prevention control practices

To date there is no evidence of persons having become infected from exposure to the bodies of persons who died from COVID-19. People may die of COVID-19 in the health care facilities, home or in other location. The safety and well-being of everyone who attends to bodies should be the first priority. Before attending to a body, people should ensure that the necessary hand hygiene and personal protective equipment (PPE) supplies are available;

The dignity of the dead, their cultural and religious traditions, and their families should be respected and protected throughout; Hasty disposal of a dead from COVID-19 should be avoided; Authorities should manage each situation on a case-by-case basis, balancing the rights of the family, the need to investigate the cause of death, and the risks of exposure to infection.

Preparing and packing the body for transfer from a patient room to an autopsy unit, mortuary, crematorium, or burial site

- 1) Ensure that personnel who interact with the body (health care or mortuary staff, or the burial team) apply standard precautions including hand hygiene before and after interaction with the body, and the environment.
- 2) Use appropriate PPE according to the level of interaction with the body, including a gown and gloves in needed.
- 3) If there is a risk of splashes from the body fluids or secretions, personnel should use facial protection, including the use of face shield or goggles and medical mask.
- 4) Prepare the body for transfer including removal of all lines, catheters and other tubes;
- 5) Ensure that any body fluids leaking from orifices are contained;
- 6) Keep both the movement and handling of the body to a minimum;

Wrap body in cloth and transfer it as soon as possible to the mortuary area

- 1) There is no need to disinfect the body before transfer to the mortuary area;
- 2) Body bags are not necessary, although they may be used for other reasons (e.g. excessive body fluid leakage); and

- 3) No special transport equipment or vehicle is required.

Funeral home/ mortuary care

- 1) Health care workers or mortuary staff preparing the body (e.g. washing the body, tidying hair, trimming nails, or shaving) should wear appropriate PPE according to standard precautions (gloves, impermeable disposable gown [or disposable gown with impermeable apron], medical mask, eye protection);
- 2) If the family wishes only to view the body and not touch it, they may do so, using standard precautions at all times including hand hygiene. Give the family clear instructions not to touch or kiss the body;
- 3) Embalming is not recommended to avoid excessive manipulation of the body; Adults >60 years and immunosuppressed persons should not directly interact with the body.

Autopsy, including engineering and environmental controls

- 1) Safety procedures for deceased persons infected with COVID-19 should be consistent with those used for any autopsies of people who have died from an acute respiratory illness.
- 2) If a person died during the infectious period of COVID-19, the lungs and other organs may still contain live virus, and additional respiratory protection is needed during aerosol-generating procedures (e.g. procedures that generate small-particle aerosols, such as the use of power saws or washing of intestines);
- 3) If a body with suspected or confirmed COVID-19 is selected for autopsy, health care facilities must ensure that safety measures are in place to protect those performing the autopsy;
- 4) Perform autopsies in an adequately ventilated room, i.e. at least natural ventilation with at least 160L/s/patient air flow or negative pressure rooms with at least 12 air changes per hour (ACH) and controlled direction of air flow when using mechanical ventilation;
- 5) Only a minimum number of staffs should be involved in the autopsy;
- 6) Appropriate PPE must be available, including a scrub suit, long sleeved fluid-resistant gown, gloves (either two pairs or one pair autopsy gloves), and face shield (preferably or goggles, and boots. A particulate respirator (N95 mask or FFP2 or FFP3 or its equivalent) should be used in the case of aerosol-generating procedures.

Environmental cleaning and control

- 1) Human coronaviruses can remain infectious on surfaces for up to 9 days.
- 2) COVID-19 virus has been detected after up to 72 hours in experimental conditions.
- 3) Therefore, cleaning the environment is paramount. The mortuary must be kept clean and properly ventilated at all times;
- 4) Lighting must be adequate.
- 5) Surfaces and instruments should be made of materials that can be easily disinfected and maintained between autopsies;

- 6) Instruments used during the autopsy should be cleaned and disinfected immediately after the autopsy, as part of the routine procedure;
- 7) Environmental surfaces, where the body was prepared, should first be cleaned with soap and water, or a commercially prepared detergent solution;
- 8) After cleaning, a disinfectant with a minimum concentration of 0.5% (5000 ppm) sodium hypochlorite (bleach), or 70% ethanol should be placed on a surface for at least 1 minute.
- 9) Hospital-grade disinfectants may also be used as long as they have a label claim against emerging viruses and they remain on the surface according to manufacturer's recommendations;
- 10) Personnel should use appropriate PPE, including respiratory and eye protection, when preparing and using the disinfecting solutions; and
- 11) Items classified as clinical waste must be handled and disposed of properly according to legal requirements.

Transporting the body

- 1) Transport the body to the burial site as soon as possible.
- 2) Assign a health officer or health facility staff person to accompany the body to ensure that the safety precautions remain secure during the journey to the cemetery.
- 3) COVID 19 Isolation Precautions should remain in force when the body is being transported to the burial site.
- 4) Plan to take the shortest route possible for security purposes and to limit any possibility of disease transmission through accidental contact.
- 5) The body, secured in a body bag, the exterior of which is decontaminated poses no additional risk to the staff transporting the dead body.
- 6) The personnel handling the body may follow standard precautions (surgical mask, gloves).
- 7) The vehicle, after the transfer of the body to cremation/ burial staff, will be decontaminated with 0.5% chlorine.
- 8) Take a closed container or sprayer with 0.5% and 0.05% chlorine solution in the event of any accidental contact with the body or infectious body fluids.
- 9) Also use it to clean up spills in the transport vehicle.

Burial

- 1) People who have died from COVID-19 can be buried or cremated.

- 2) Family and friends may view the body after it has been prepared for burial, in accordance with customs. They should not touch or kiss the body and should wash hands thoroughly with soap and water after the viewing;
- 3) Those tasked with placing the body in the grave, on the funeral pyre, etc., should wear gloves and wash hands with soap and water after removal of the gloves once the burial is complete.

Burial by family members or for deaths at home

- 1) In contexts where mortuary services are not standard or reliably available, or where it is usual for ill people to die at home, families and traditional burial attendants can be equipped and educated to bury people under supervision.
- 2) Any person (e.g. family member, religious leader) preparing the deceased (e.g. washing, cleaning or dressing body, tidying hair, trimming nails or shaving) in a community setting should wear gloves for any contact with the body.
- 3) For any activity that may involve splashing of bodily fluids, eye and mouth protection (face shield or goggles and medical mask) should be worn.
- 4) Clothing worn to prepare the body should be immediately removed and washed after the procedure, or an apron or gown should be worn;
- 5) The person preparing the body should not kiss the deceased. Anyone who has assisted in preparing the body should thoroughly wash their hands with soap and water when finished;
- 6) Apply principles of cultural sensitivity and ensure that family members reduce their exposure as much as possible.
- 7) Children, older people (>60 years old), and anyone with underlying illnesses (such as respiratory illness, heart disease, diabetes, or compromised immune systems) should not be involved in preparing the body.
- 8) A minimum number of people should be involved in preparations. Others may observe without touching the body at a minimum distance of 1 m;
- 9) Family and friends may view the body after it has been prepared for burial, in accordance with customs. They should not touch or kiss the body and should wash their hands thoroughly with soap and water following the viewing; physical distancing measures should be strictly applied (at least 1 m between people).
- 10) People with respiratory symptoms should not participate in the viewing or at least wear a medical mask to prevent contamination of the place and further transmission of the disease to others;
- 11) Those tasked with placing the body in the grave, on the funeral pyre, etc. should wear gloves and wash hands with soap and water once the burial is complete;
- 12) Cleaning of reusable PPE should be conducted in accordance with manufacturer's instructions for all cleaning and disinfection products (e.g. concentration, application method and contact time, etc.);

- 13) Children, adults > 60 years, and immunosuppressed persons should not directly interact with the body; Although burials should take place in a timely manner, in accordance with local practices, funeral ceremonies not involving the burial should be postponed, as much as possible, until the end of the epidemic.
- 14) If a ceremony is held, the number of participants should be limited. Participants should observe physical distancing at all times, plus respiratory etiquette and hand hygiene;
- 15) The belongings of the deceased person do not need to be burned or otherwise disposed of. However, they should be handled with gloves and cleaned with a detergent followed by disinfection with a solution of at least 70% ethanol or 0.5% (5000 ppm) bleach.
- 16) Clothing and other fabric belonging to the deceased should be machine washed with warm water at 60–90°C (140–194°F) and laundry detergent.
- 17) If machine washing is not possible, linens can be soaked in hot water and soap in a large drum using a stick to stir and being careful to avoid splashing.
- 18) The drum should then be emptied, and the linens soaked in 0.05% chlorine for approximately 30 minutes. Finally, the laundry should be rinsed with clean water and the linens allowed to dry fully in sun light

Note: The driver does not need to wear protective clothing if there is no contact with the body

Autopsies on Covid-19 dead bodies

Autopsies should be avoided. If autopsy is to be performed for special reasons, the following infection prevention control practices should be adopted.

- 1) The Team should be well trained in infection prevention control practices.
- 2) The number of forensic experts and support staff in the autopsy room should be limited.
- 3) The Team should use the full complement of PPE (coveralls, head cover, shoe cover, N 95 mask, goggles/face shield).
- 4) Round ended scissors should be used.
- 5) PM40 or any other heavy-duty blades with blunted points to be used to reduce prick injuries.
- 6) Only one body cavity at a time should be dissected.
- 7) Unfixed organs must be held firm on the table and sliced with a sponge care should be taken to protect the hand.
- 8) Negative pressure to be maintained in the mortuary. An oscillator saw with suction extraction of the bone aerosol into a removable chamber should be used for sawing skull, otherwise, a hand saw with a chain-mail glove may be used.

- 9) Needles should not be re-sheathed after fluid sampling needles and syringes should be placed in a sharps bucket.
- 10) Reduce aerosol generation during autopsy using appropriate techniques especially while handling lung tissue.
- 11) After the procedure, the body should be disinfected with 1 per cent Sodium Hypochlorite and placed in a body bag, the exterior of which will again be decontaminated with 1 per cent Sodium Hypochlorite solution.
- 12) The body thereafter can be handed over to the relatives.
- 13) Autopsy table to be disinfected as per standard protocol.

NB: Body preparation should be in well-lit room

Burial ceremony should not be done during nights

At crematorium or burial ground

- 1) The Crematorium or Burial Ground staff should be sensitized that Covid-19 does not pose additional risk.
- 2) The staff will practice standard precautions of hand hygiene, use of masks and gloves.
- 3) Viewing of the dead body by unzipping the face end of the body bag (by the staff using standard precautions) may be allowed, for the relatives to see the body for one last time.
- 4) Religious rituals such as reading from religious scripts, sprinkling holy water and any other last rites that do not require touching of the body can be allowed.
- 5) Bathing, kissing, hugging, etc. of the dead body should not be allowed.
- 6) The funeral or burial staff and family members should perform hand hygiene after cremation or burial.
- 7) The large gathering at the crematorium or burial ground should be avoided (20 people are enough) as a social distancing measure as it is possible that close family contacts may be symptomatic and/or shedding the virus.

Prepare burial site

- 1) The grave should be at least 2 meters deep in designated area.
- 2) Explain to the family that viewing the body and viewing the burial is allowed because the body after treatment is less infectious.
- 3) Burial site should not be close to sources of water

After burial and before removing the PPE check these:

- 1) The supervisor should go through the after-burial checklist to confirm if every step was completed
- 2) Decontamination of the vehicle according to the Standard Operating Procedures of vehicle decontamination should be done.

Burial team

- 1) The Burial Team is responsible for conveying and burial of the corpse. It comprises of:
 - Two Environmental health Officers
 - One communicator
 - Two Drivers
 - Community should take part during burial
- 2) The burial team should observe IPC principles during handling of the dead body.
- 3) All burial team members should be clear on their roles and responsibilities.
- 4) The team must be trained in IPC especially on PPE



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March 2020



MINISTRY OF HEALTH, COMMUNITY DEVELOPMENT, GENDER, ELDERLY AND CHILDREN

STANDARD OPERATING PROCEDURES FOR SAFE TRANSPORTATION OF COVID-19 CASES

Background

A suspected case can potentially be a source of transmission; therefore, appropriate IPC measures and PPE must be used while transporting potentially infectious or suspect patients of COVID 19. All suspected or confirmed cases to be transported should be on medical mask

- 1) Every COVID 19 suspected case must be transported to the designated HIDTU under supervision
- 2) A designated ambulance that meets standards for COVID 19 patients transport and can be easily decontaminated must be used
- 3) The escort group of relatives should be in a different car or if they use the same car should, the patient should be put on medical mask and maintain distance from the infected individuals

Ambulance specifications for transporting COVID 19 patient

- 1) Physical separation between the driver/ cockpit and the rear of the vehicle
- 2) Rear of the vehicle long enough to transport a lying patient (don't use double cabin pick-up)
- 3) Rear of the vehicle with a minimum of equipment to facilitate cleaning and disinfection.
- 4) Avoid resuscitation equipment in the ambulance
- 5) No metal surfaces unless covered and protected with washable Paint

- 6) A vehicle used to transport patient should not be used to transport staff or equipment

NOTE: Detail of ambulance decontamination is found on decontamination SOPs

Transportation staffing

- 1) The ambulance escort must compose of a driver, nurse and IPC trained personnel
- 2) 1 nurse and 1 IPC trained personnel are needed always to accompany the patient safely.
- 3) The sole responsibility of the **driver** is to drive the vehicle, ***DRIVERS SHOULD NOT ENGAGE IN PATIENT CARE ACTIVITIES***
- 4) A trained health worker with full PPE will help load the patient into the ambulance
- 5) A trained health worker in full PPE will stay with the patient at the rear of the vehicle.
- 6) If the patient cannot move alone, he will be transported in a stretcher by the stretcher-bearers in full PPE.

Arrival of Ambulance at the HIDTU

- 1) Ambulance must enter the HIDTU centre via the **AMBULANCE ONLY GATE**
- 2) The **team at the HIDTU** will assist patient evacuation from the ambulance and **admit** the patient
- 3) **The escorting team will remove the PPE** in the area dedicated to this purpose in the HIDTU

Waste management

- 1) Trash bag will be placed in the ambulance (with the patient) and transported to be processed in the HIDTU
- 2) Material/Equipment apart from PPE used will be disinfected and placed in the 2nd vehicle (RRT vehicle or the 2nd ambulance.)
- 3) All items left at the back of the ambulance will be safely discarded by incineration (safe disposal) by the decontamination team at the HIDTU.

Ambulance Decontamination

- 1) There must be designated site/area for ambulance decontamination and cleaning
- 2) Decontamination team of the HIDTU will clean and disinfect the ambulance
- 3) The driver is not responsible for decontamination of the ambulance



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UNITED REPUBLIC OF TANZANIA



MINISTRY OF HEALTH, COMMUNITY DEVELOPMENT, GENDER, ELDERLY AND CHILDREN

**HEALTH WORKERS OCCUPATIONAL SAFETY AND HEALTH MANAGEMENT IN THE CONTEXT OF COVID-19
EXPOSURE**

Background

Health workers are at the front line of the COVID-19 outbreak response and as such are exposed to hazards that put them at risk of infection. Hazards include pathogen exposure, long working hours, psychological distress, fatigue, occupational burnout, stigma, and physical and psychological violence. The protection of physical and mental health, safety and wellbeing of health workers and responders in COVID19 requires collaboration and team work across infection prevention and control, occupational health and safety, mental health and psychosocial support, and human resource, under the leadership of the managers of healthcare facilities (but public and private) and in collaboration and consultation with health workers and local authorities.

This document specifies the basic measures, roles, responsibilities and rights for protecting occupational safety and health, and wellbeing of all health workers (including clinical care providers, community health workers, cleaners, sanitation, ambulance drivers, caregivers, administrative and support staff in health facilities) in public, private and health care and emergency response facilities the context of CODID19 outbreak⁴.

⁴ See also WHO. Coronavirus Disease (COVID-19) outbreak: rights, roles and responsibilities of health workers, including key considerations for occupational safety and health https://www.who.int/docs/default-source/coronaviruse/who-rights-roles-respon-hw-covid-19.pdf?sfvrsn=bcabd401_0

This document shall be applied in conjunction with the MHCDGEC National Guidelines for workers' health and safety in healthcare facilities and emergency responders⁵

Roles and responsibilities of employers and managers of healthcare facilities

Measures for protecting occupational health and safety of staff should be included in the facility preparedness and response plan for COVID19. Such measures should be developed in close collaboration between the facility responsible officers or focal points for IPC, occupational or environmental health, safety and security, and human resources, in consultation with the representatives of workers, and in collaboration with local government authorities. Notwithstanding their role and obligations under section MHCDGEC National Guidelines for workers' health and safety in healthcare facilities and emergency responders (2019) and the Occupational Health and Safety Act (2003)⁶ employers and managers of health facilities should:

- 1) Assume overall responsibility to ensure that all necessary preventive and protective measures are taken to minimize occupational safety and health risks in
- 2) Provide information, instruction, and training on occupational safety and health, in the context of the COVID19 outbreak including;
 - Refresher training on infection prevention and control (IPC), with focus on standard precautions, hand hygiene, use, putting on, taking off and disposal of personal protective equipment (PPE) for droplets, bloodborne and contact infections, including COVID19 and respiratory infections, as well as infectious diseases, such as haemorrhagic fevers, cholera, HIV8AIDs, tuberculosis.
 - Refresher training on occupational health and safety, with particular focus on occupational hazards related to public health emergency, such as long working hours, prevention of fatigues and burnout, psychological, sexual and physical violence, safe working with chemicals (disinfectants), prevention of skin damage from PPE and chemicals, safe yse of medical ionizing radiation, safe patient handling, respiratory

⁵ MHCDGEC National Guidelines for workers' health and safety in healthcare facilities and emergency responders <https://www.moh.go.tz/en/guidelines?download=378:national-guidelines-for-workers-health-and-safety-in-health-care-facilities-and-emergency-responders&start=10>

⁶ Occupational Health and Safety Act, 2003 <http://tanzania.eregulations.org/media/OSHA%20ACT,%202003.pdf>

protection, reporting on incidental exposures and cases of violence, medical and psychological surveillance and services available to workers and food safety;

- 3) Provide adequate IPC measures, such as engineering, administrative and environmental control and PPE supplies (masks or respirators, gloves, goggles, gowns, hand sanitizer, soap and water, cleaning and disinfection supplies, according to latest WHO recommendations) in sufficient quantity to those caring for suspected or confirmed COVID-19 patients, such that workers do not incur expenses for occupational safety and health requirements;
- 4) Provide and train personal in the use appropriate tools to assess, triage, test, and treat patients in the context of compassionate care
- 5) Establish zero tolerance to any forms of psychological, sexual and physical violence healthcare facilities arising from patients and their relatives, visitors, co-workers, and the community, train workers in recognizing early signs of violence and reacting appropriately. Provide appropriate security measures as needed for personal safety;
- 6) Provide a blame-free environment in which health workers can report on incidents, such as exposures to blood or bodily fluids from the respiratory system, or cases of violence and accidents, at the workplace, while commuting to and from work, and while working outside of the healthcare facility and adopt measures for immediate follow up, including support to victims and enhancement of control measures for prevention of other cases;
- 7) Advise regularly health workers on self-assessment, symptom reporting, and staying home when ill; new or emerging risks to health and safety; and newly introduced IPC measures;
- 8) Create rules and mechanisms for prevention of fatigue – examine work demand and workload and establish healthy working hours (five 8-hour shifts or four 10-hour shifts per week, and depending on workload occasional 12-hour shifts for desk work with more frequent interspersed rest days, and short 8-hours night shifts), introduce rest-breaks (brief rest breaks every 1-2 hours in intensive clinical care, and longer breaks for meals) and plan for at least 10 consecutive hours per day of protected time-off duty to obtain 7-8 hours of sleep. Consult with health

workers on occupational safety and health aspects of their work, particularly when new risks for staff health, safety and security arise and new control measures and policies have to be introduced in the course of the emergency response.

- 9) Notify the Tanzanian Workers Compensation Fund of all confirmed COVID-19 cases of severe acute respiratory infection among healthcare workers, and other diseases and infections of suspected occupational origin, which may be eligible for workers compensation.
- 10) Allow health workers to exercise the right to remove themselves from a work situation that they have reasonable justification to believe presents an imminent and serious danger to their life or health, and protect health workers exercising this right from any undue consequences;
- 11) Not require health workers to return to a work situation where there has been a serious danger to life or health until any necessary remedial action has been taken;
- 12) Honour the right to compensation, rehabilitation, and curative services for health workers infected with COVID-19 following exposure in the workplace – considered as an occupational disease arising from occupational exposure;
- 13) Provide access to mental health, psycho-social support and counselling resources; and
- 14) Enable cooperation between management and health workers and their representatives
- 15) Collaborate with local government authorities and the communities for providing social support to health workers engaged in the response, such as safe transport to work, accommodation, food and child care.

Rights and responsibilities of health workers

Notwithstanding their rights and responsibilities under the Occupational Health and Safety Act (2003), all workers in healthcare facilities should collaborate with employers, managers, and the focal points of IPC, occupational safety and health, and security officers to protect their own health and safety, as well as the health safety and wellbeing of their co-workers and other workers under their direct responsibility to implement the minimum occupational health and safety (OHS) package for health facilities under MHCDGEC National Guidelines for workers' health and safety in healthcare facilities and emergency responders (2019):

In the context of COVID19 preparedness and response, all health workers should:

- 1) Follow established IPC and occupational safety and health procedures, avoid exposing others to health and safety risks, and participate in employer-provided refresher courses and emergency on IPC and OHS
- 2) Apply the measures for health worker protection contact tracing, triage and clinical care , while working in health care facilities, home care and community
- 3) use standard precautions, PPE, hand hygiene, social distancing and measures for protection of health and safety while providing care to suspected or confirmed cases of COVID19 while working outside of their health care facilities, such as providing first aid and home care to family members, relatives and other people.
- 4) Maintain their work environment clean, tidy and safe and promote respectful workplace practices
- 5) Swiftly follow established public health measures for hand hygiene, respiratory etiquette, social distancing at work and at home and serve as an example to their facilities and community members
- 6) Use, take off, and dispose of PPE according to the instructions provided by the managers and employers, IPC and OHS focal points
- 7) Not remove or alter the engineering controls established for infection prevention and control and for protection of occupational health and safety (e.g. screens, barriers, ventilation, panic buttons, safety cameras, fire and electrical safety devices), without consultation with their supervisor and the IPC, occupational and environmental health, and safety and security officers
- 8) Self-monitor for signs of illness and self-isolate and report illness to managers, if it occurs and
- 9) Advise management if they are experiencing signs of undue stress or mental health challenges that require supportive interventions; and
- 10) Report to their immediate supervisor any situation which they have reasonable justification to believe presents an imminent and serious danger to their health, safety and life.

Health monitoring and surveillance of health workers and responders:

The protection of physical and mental health, safety and wellbeing of health workers and responders in COVID19 requires collaboration and team work across infection

prevention and control, occupational health and safety, mental health and psychosocial support, and health workplace planning in all stages of the response – pre-deployment, deployment and post deployment phases of health workers and humanitarian staff involved in the response. This requires close collaboration between health sector, labour, security and humanitarian organizations at all levels. The management of occupational safety and health of health workers and emergency responders should be included in the emergency response plans at the national, local and facility level

All health workers, emergency responders, including national and local staff and volunteers for humanitarian operations, should undergo health monitoring and surveillance. The monitoring and surveillance should be carried out before, during and after the deployment of emergency response staff⁷

Before deployment

- 1) Perform health check (both for physical and mental health), bearing in mind the specific roles of health workers and responders and the potential occupational exposure to health and safety risks, as well as pre-existing medical conditions, mental disorders and social vulnerability that may put health workers and responders at higher risk; provide as necessary preventive immunizations, chemical prophylaxis
- 2) Provide induction training, including:
 - nature of COVID19 outbreak, mode of transmission, signs and symptoms of infection, the recommended public health measures,
 - basic measures for prevention of occupational infections in clinical and home care and first aid to patients with suspected and confirmed cases of COVID19,
 - occupational health measures for prevention of fatigue, stress and burnout, heat stress, protection from skin damage, prevention of psychological, sexual and physical violence and security in working in the field, prevention of food and vector borne diseases, road traffic and other injuries.
 - emotional issues associated with the kind of work they are going for, how they can be prepared to deal with emotional stress, long working

⁷ See for details WHO/ILO Occupational safety and health in public health emergencies: a manual for protecting health workers and responders, 2018, <https://www.who.int/publications-detail/occupational-safety-and-health-in-public-health-emergencies-a-manual-for-protecting-health-workers-and-responders>

hours, stigma, and inform about healthy coping strategies (sufficient rest, healthy food, physical activity, stay in contact with family and friends, relax and distress, first psychosocial aid, buddy systems) and warn against unhealthy coping behaviours (risk taking, substance abuse – tobacco, alcohol)⁸

- building practical skills for use of standard IPC precautions, putting on and putting of different PPEs, protection from and reaction to violence, first psychological aid, relaxation techniques, and buddy systems,
 - information about the geographical location where they will be deployed, what is expected of them, travel arrangements, security concerns and measures, specific immunizations, endemic diseases and the need for additional immunizations, chemoprophylaxis against malaria, as well as the availability first aid medical and hygiene kits, insecticide impregnated nets and repellents) and what resources and services will be available to them for medical and psycho-social support and occupational health, safety and security
 - Inform workers about their rights and responsibilities for protecting their occupational health and safety and reinforce the systems for occupational health and safety in all health care facilities according to the MHCDGEC National Guidelines for workers' health and safety in healthcare facilities and emergency responders (2019)
- 3) Specific attention in the pre-deployment stage should be should be paid to re-purposed health workers, i.e. medical and nursing students, volunteers, other health workers which don't have previous experience in providing patient care to patients with infectious diseases and using PPE

During deployment

- 8) Arrange instructor briefing by OHS focal point on specific risks for occupational health and safety and the workplace, the measures in place, resources, and services available in the facility or in the local community
- 9) Discuss with the healthcare workers the trainings and the equipment for protecting their health and safety made available to them during the pre-deployment stage
- 10) Demonstrate how to use on-site safety and security equipment, PPE, and IPC

⁸ See WHO. Mental health and psychosocial considerations during the COVID-19 outbreak, <https://www.who.int/docs/default-source/coronaviruse/mental-health-considerations.pdf>

measures, facilities for water and sanitation, personal hygiene, resting and socializing, emphasising the need for hand hygiene, respiratory etiquette, and physical distancing outside patient care areas.

- 11) Introduce the procedure for reporting of cases with psychological and sexual harassment and physical violence, as well as accidental exposure to blood and body fluids, including respiratory secretions, and emphasise that facility blame free environment for monitoring and reporting of such cases.
- 12) Inform about the measures in place for monitoring, and as appropriate, regular reporting on personal health, safety and wellbeing
- 13) Inform about the work organization – working hours and rests, shifts schedule, time-off duty and recuperation and provide advice about good sleeping
- 14) Provide security briefing, as well as information about healthy and safe food, accommodation and transportation, including basic transport safety rules, such as wearing a helmet when driving a motorcycle or bike, and life jacket on boats.
- 15) Introduce the buddy system and other measures to support from co-workers in order to stay health, safe and well during the deployment
- 16) Emphasize the zero tolerance for any forms of violence as well the policy on smoke and alcohol-free workplaces

After deployment

- 10) Debriefing to identify an physical or mental health conditions that may have appeared or worsened during the deployment as well as to get a feedback about the satisfaction with occupational health services provided during the deployment
- 11) If these are persisting medical problems or continuing psychological distress/worries arrange with physician/nurse or mental health professional to conduct medical evaluation
- 12) Refer to clinical and psychological care, as appropriate, all cases of mental health disorders and substance abuse, caused by or aggravated by the work in emergency response
- 13) Notify the Tanzanian Workers Compensation Fund of all confirmed COVID-19 cases of severe acute respiratory infection among healthcare workers and emergency responders, and other diseases, infections, and injuries of suspected occupational origin, which may be eligible for workers compensation under the Workers Compensation Fund Act (2008)

Ministry of Health continues to monitor the situation closely for any changes that may affect this interim guidance. Should any factors change, Ministry of Health will issue a further update. Otherwise, this interim guidance document will expire 2 years after the date of publication.

Infection prevention and control during healthcare when COVID-19 is suspected

This guidance is intended for health care workers (HCWs), health care managers, and IPC teams at the facility level but it is also relevant for national and district/provincial levels. Kindly refer to the other IPC SOP for further guidance

Applying standard precautions for all patients' Standard precautions include hand and respiratory hygiene, the use of appropriate personal protective equipment (PPE) according to a risk assessment, injection safety practices, safe waste management, proper linens, environmental cleaning, and sterilization of patient-care equipment.

Ensure that the following respiratory hygiene measures are used:

- 1) ensure that all patients cover their nose and mouth with a tissue or elbow when coughing or sneezing;
- 2) offer a medical mask to patients with suspected COVID-19 while they are in waiting/public areas or in cohorting rooms;
- 3) perform hand hygiene after contact with respiratory secretions.

HCWs should apply WHO's My 5 Moments for Hand Hygiene approach before touching a patient, before any clean or aseptic procedure is performed, after exposure to body fluid, after touching a patient, and after touching a patient's surroundings.

- 1) hand hygiene includes either cleansing hands with an alcohol-based hand rub or with soap and water;
- 2) alcohol-based hand rubs are preferred if hands are not visibly soiled;
- 3) wash hands with soap and water when they are visibly soiled.

The rational, correct, and consistent use of PPE also helps reduce the spread of pathogens. PPE effectiveness depends strongly on adequate and regular supplies,

adequate staff training, appropriate hand hygiene, and appropriate human behaviour.

Contact and droplet precautions

- 4) in addition to using standard precautions, all individuals, including family members, visitors and HCWs, should use contact and droplet precautions before entering the room of suspected or confirmed COVID-19 patients;
- 5) patients should be placed in adequately ventilated single rooms. For general ward rooms with natural ventilation, adequate ventilation is considered to be 60 L/s per patient;
- 6) when single rooms are not available, patients suspected of having COVID-19 should be grouped together;
- 7) all patients' beds should be placed at least 1 metre apart regardless of whether they are suspected to have COVID-19;
- 8) where possible, a team of HCWs should be designated to care exclusively for suspected or confirmed cases to reduce the risk of transmission;
- 9) HCWs should use a medical mask
- 10) HCWs should wear eye protection (goggles) or facial protection (face shield) to avoid contamination of mucous membranes;
- 11) HCWs should wear a clean, non-sterile, long-sleeved gown;
- 12) HCWs should also use gloves;
- 13) the use of boots, coverall, and apron is not required during routine care;
- 14) after patient care, appropriate doffing and disposal of all PPE and hand hygiene should be carried out.
- 15) 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 ethyl alcohol 70%.)
- 16) HCWs should refrain from touching eyes, nose, or mouth with potentially contaminated gloved or bare hands;
- 17) avoid moving and transporting patients out of their room or area unless medically necessary. Use designated portable X-ray equipment or other designated diagnostic equipment. If transport is required, use predetermined

transport routes to minimize exposure for staff, other patients and visitors, and have the patient wear a medical mask;

- 18) ensure that HCWs who are transporting patients perform hand hygiene and wear appropriate PPE as described in this section;
- 19) notify the area receiving the patient of any necessary precautions as early as possible before the patient's arrival;
- 20) routinely clean and disinfect surfaces with which the patient is in contact;
- 21) limit the number of HCWs, family members, and visitors who are in contact with suspected or confirmed COVID-19 patients;
- 22) maintain a record of all persons entering a patient's room, including all staff and visitors.

Airborne precautions for aerosol-generating procedures.

Some aerosol-generating procedures, such as tracheal intubation, non-invasive ventilation, tracheotomy, cardiopulmonary resuscitation, manual ventilation before intubation, and bronchoscopy, have been associated with an increased risk of transmission of coronaviruses.

Ensure that HCWs performing aerosol-generating procedures:

- 1) perform procedures in an adequately ventilated room – that is, natural ventilation with air flow of at least 160 L/s per patient or in negative- pressure rooms with at least 12 air changes per hour and controlled direction of air flow when using mechanical ventilation;
- 2) use a particulate respirator at least as protective as a US National Institute for Occupational Safety and Health (NIOSH)-certified N95, European Union (EU) standard FFP2, or equivalent.^{2,13} When HCWs put on a disposable particulate respirator, they must always perform the seal check.¹³ Note that facial hair (e.g. a beard) may prevent a proper respirator fit;
- 3) use eye protection (i.e. goggles or a face shield);
- 4) wear a clean, non-sterile, long-sleeved gown and gloves. If gowns are not fluid-resistant, HCWs should use a waterproof apron for procedures expected to create high volumes of fluid that might penetrate the gown;

- 5) limit the number of persons present in the room to the absolute minimum required for the patient's care and support.

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: establishing sustainable IPC infrastructures and activities; educating patients' caregivers; developing policies on the early recognition of acute respiratory infection potentially caused by COVID-19 virus; ensuring access to prompt laboratory testing for identification of the etiologic agent; preventing overcrowding, especially in emergency departments; providing dedicated waiting areas for symptomatic patients; appropriately isolating hospitalized patients; ensuring adequate supplies of PPE; and ensuring adherence to

IPC policies and procedures for all aspects of health care.

Administrative measures related to health care workers.

- 1) provision of adequate training for HCWs;
- 2) ensuring an adequate patient-to-staff ratio;
- 3) establishing a surveillance process for acute respiratory infections potentially caused by COVID-19 virus among HCWs;
- 4) ensuring that HCWs and the public understand the importance of promptly seeking medical care;
- 5) monitoring HCW compliance with standard precautions and providing mechanisms for improvement as needed.



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