



FSM Department of Health & Social Affairs

COVID-19 GUIDELINES

FSM Department of Health & Social affairs
| COVID-19 WORKING GROUP

Document information:

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1				
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Acronyms

ARDS: Acute Respiratory Distress Syndrome

ARI: Acute Respiratory Infections

APO: Acute Pulmonary Oedema

BAL: Bronchoalveolar Lavage

BMW: Bio-Medical Waste

BSC: Biological Safety Cabinet

CBC: Complete Blood Count

COV-CON: Covid-19 Condition

COVID-19: Coronavirus Disease -19

CXR: Chest X-Ray

DHS: Department of Health Services

DPS: Department of Public Safety

ECLS: Extracorporeal Life Support

ECMO: Extracorporeal Membrane Oxygen

EKG: Electrocardiogram

EOC: Emergency Operations Center

EpiNet: Epidemiology Networks

FFR: Filtering Face-piece Respirators

FSM: Federated States of Micronesia

HCW: Health Care Workers

HCP: Health Care Practitioners

HCRW: Health Care Risk Waste

HFNO: High Flow Nasal Oxygen

HR: Heart Rate

LIS: Laboratory Information System

LR: Lactated Ringers

IATA: International Air Transport Association

ICU: Intensive Care Unit

IEC: Information, Education & Communication

IHR: International Heath Regulations

ILI: Influenza-like illness

IOM: International Organization for Migration

IPC: Infection Prevention and Control

SARI: Severe Acute Respiratory Infections

SARS-COV-2: Severe acute respiratory syndrome coronavirus 2

SOPs: Standard Operating Procedures

SPC: Secretariat of the Pacific Commission

TS: Throat Swab

N95: Not Oil Resistant 95

MAP: Mean Arterial Pressure

MV: Mechanical Ventilation

NIV: Non-Invasive Ventilation

NS: Norma Saline

OP: Oropharyngeal

PEEP: Positive End-Expiratory Pressure

PH: Publiv Health

PoE: Point (s) of Entry

PPE: Personal Protective Equipment

PUI: Person Under Investigation

RCCE: Risk Communication & Community Education

RT-PCR: Real Time Polymerase Chain Reaction

UNICEF: United Nations Children's Fund

US CDC: United States Centers for Disease Control and Prevention

VTM: Viral Transport Media

WHO: World Health Organization

FOREWORD

During the initial reporting, identification and confirmation of the outbreak of 2019-nCOV (COVID-19) in January 2020, WHO issued interim guidance for laboratory diagnosis, clinical management, infection prevention and control in health care settings, home care for mild patients, risk communication and community engagement, and provided recommendations to reduce risks of transmission of COVID-19 from animals to humans. Following the rapid spread of COVID-19 globally, leading national health authorities including the US CDC also issued their own guidance documents and recommendations to control and manage cases of COVID-19 and to prevent its spread beyond its borders. As the outbreak evolves and we learn more about the COVID-19, the guidance documents and recommendations for its prevention, control and management are also being constantly updated.

All countries of the world, including the Federated States of Micronesia, have benefited from the many guidance documents and recommendations for COVID-19 issued by the WHO and US CDC. However, the Federated States of Micronesia has found it necessary to adapt some of these guidance documents and recommendations from WHO and US CDC in order to address our unique island and cultural settings. In addition, there are so many guidance documents and recommendations out there today that are constantly changing and in some cases divergent, that it has become difficult to keep up with them and, therefore, called for our own National Guidelines for COVID-19.

As the Secretary of Health and Social Affairs (Chairman of the National Taskforce for COVID-19), I established a Working Group in May 2020 to identify the key areas within our preparedness and response framework for COVID-19 where national guidelines and their uniform application and implementation are needed in our four States. These national guidelines will be based on WHO, US CDC and other international accepted guidelines and recommendations, for uniform application and implementation throughout the Federated States of Micronesia. This first compendium of National Guidelines for COVID-19 will help standardize our preparedness and readiness for response to COVID-19 for our country while also recognizing and addressing the unique circumstances of each of our four States. This is a living document and will change as the COVID-19 outbreak evolves and the science changes.

I would like to acknowledge the hard work and dedication of the Working Group, the support rendered by our National and State Taskforces, Partners and every person who contributed one way or another to the development of our National Guidelines for COVID-19.



Dr. Livingston A. Taulung,
Secretary, FSM Department of Health and Social Affairs
Chairman of the National Emergency Taskforce for COVID-19

1.0 INTRODUCTION

Background

The 2019 novel coronavirus (COVID-19) is a new virus first detected in December 2019 during an investigation into an outbreak in Wuhan City, Hubei Province, China. The virus can cause respiratory illness in people and can spread from person-to-person. On December 31, 2019 WHO was informed of a cluster of pneumonia-like cases of unknown cause and subsequently SARS coronavirus-2 (SARS-CoV-2) was identified from patient samples on January 7, 2020 as the cause. A package of guidance documents was issued to countries to help manage a potential outbreak on this disease.

By early January 2020, cases were reported outside of China. The first recorded case of imported COVID-19 was lab confirmed in Thailand on January 13th, followed by Japan on 16th, USA on 21st, and three cases in France on January 24th. Since then cases had spread globally and on March 11, 2020 WHO declared the COVID-19 outbreak a Pandemic. As of July 4, 2020, more than 10,500,000 cases have been diagnosed globally with more than 512,000 fatalities.

With current evidence, SARS-CoV-2 is primarily transmitted between people through respiratory droplets and contact routes. Airborne transmission is possible in situations where procedures or support treatments generate aerosols. Human-to-human transmission is occurring extensively, therefore, precautions to prevent transmission are appropriate for both suspected and confirmed cases. Also SARS-CoV-2 has been detected in blood, faeces and urine from numerous studies.

This guide is a living document and will be kept up to date as the pandemic evolves and resources and information change.

2.0 RISK COMMUNICATION AND COMMUNITY ENGAGEMENT (RCCE) ACTION PLAN GUIDANCE

Background

This tool is designed to support the FSM Risk Communication Plan in guiding the National and State Risk Communication and Community Engagement Committees to effectively implement and monitor stated action plans in communicating with the public, engaging with communities, local partners and other stakeholders to help prepare and protect individuals, families and the public's health during early response to COVID-19. The FSM RCCE Action Plan Guidance provides a checklist for risk communication and community engagement readiness and initial responses to the COVID-19 outbreak. It provides guidance in the preparation phases of the FSM COV-CON levels 5 and 4 as well as the phases beyond the level 3 (with confirmed case).

The FSM will continue to update these recommendations as new information becomes available. This interim guidance was adapted from WHO's RCCE guidance and training material.

Terms of Reference

Risk and Crisis Communication

The WHO International Health Regulations (2005) form the international legal framework for countries and the international community to jointly address emerging biological, chemical and nuclear risks regardless of their origin. Countries, like the FSM are required to establish core capacities such as a sensitive surveillance system, appropriate diagnostic and treatment capacities as well as risk and crisis communication channels and methods in preparation of a potential event of concern to international health. While capacities such as surveillance and diagnostics of highly pathogenic agents have been prioritized in many countries, risk and crisis communication often remain an area of concern.

Risk and crisis communication are based on multi-level and multi-faceted processes that define risks, identify hazards, assess vulnerabilities and promote community resilience with the aim to protect populations against biological threats. Thereby preparing for and implementing risk communication promotes the capacity to cope with an unfolding public health emergency. A crucial part of risk and crisis communication is the early dissemination of sound information to the public about health risks and events. Key audiences are the authorities, the administration, the media and the general public as well as the expert communities. Communication also needs to use diverse channels of communication and to take into consideration perceptions and beliefs of the target audience. Communications of this kind can promote the establishment of appropriate prevention and control action through community-based interventions at individual, family and community levels. State of the art communication is crucial in preparedness for and management of crises originating from health and biological threats. A negative example is the failure of appropriate communication during the first months of the Covid-19 outbreak in China which largely contributed to the outbreak getting out of control.

Authorities need to have a sound strategy for national risk and crisis communication, identify clear and functional communication structures and mechanisms and define roles and responsibilities of all involved actors. Therefore, FSM Department of Health and Social Affairs, four state departments of Health Services with WHO, UNICEF, SPC and IOM partners have agreed to develop a national communication strategy and to promote risk communication as a vital element of COVID-19 management.

Tasks and Deliverables

1. Program Communications for advocacy and awareness

The FSM National Risk Communication Committee will work closely with the FSM Department of Health and Social Affairs and partners to ensure that relevant program materials are developed and disseminated to schools, communities and target groups through relevant media and network channels. The FSM Risk Communication Committee will assist the state Risk Communication & Community Engagement Committees in the proposal development stage to identify appropriate communication activities for the projects

2. Media Relations

Develop and maintain contact information, materials and relationships with journalists and media outlets (print, TV, radio, web etc.) within and outside the FSM to increase coverage of COVID-19 issues in the media (print, broadcast and digital). Specific activities may include: Draft and edit articles, press releases, human interest stories and other advocacy/information materials. Collaborate with the media by organizing project site-visits, facilitate photo coverage and TV footage and utilizing both web-based and traditional media as appropriate. Monitor and evaluate the use and effectiveness of media materials. Maintain a library of media coverage, clippings etc.

3. Events/Campaigns

Assist in organizing and generating public support for special events and campaigns to promote strategic conservation goals. Support organization of workshops, seminars, campaigns, events and project review meetings including agendas and meeting minutes.

4. Monitoring and Evaluation

Monitor and evaluate impact of communication materials and advocacy events/campaigns to target audiences

I. RCCE: an essential part of National Public Health Emergency response

Every public health emergency faces new communication challenges and can benefit from lessons learned previously. COVID-19 outbreak challenges public health systems and their ability to effectively communicate with their populations. Failure to communicate well leads to loss of trust and reputation, economic impacts and –in the worst case- loss of lives. This is a call to leaders to ensure that RCCE is an essential component of health emergency readiness and response activities.

One of the most important and effective interventions in a public health response to any event is to proactively communicate what is known, what is unknown and what is being done to get more information, with the objective of saving lives and minimizing adverse consequences.

RCCE helps prevent “infodemics” (an excessive amount of information about a problem that makes it difficult to identify a solution), builds trust in the response, and increases the probability that health advice will be followed. It minimizes and manages rumors and misunderstanding that undermine responses and may lead to further disease spread.

Regular and proactive communication and engagement with the public and at-risk populations can help alleviate confusion and avoid misunderstandings.

People have the right to be informed about and understand the health risks that they and their loved ones face.

The perception of risk among affected populations often differ from that of experts and authorities. Effective RCCE can bridge that gap by determining what people know, how they feel, and what they do in a response to disease outbreak, as well as what they ought to know and do to bring the outbreak under control. Effective RCCE helps transform and deliver complex scientific knowledge so that it is understood by, accessible to, and trusted by populations and communities.

Effective RCCE uses community engagement strategies to involve communities in the response and develops acceptable and beneficial interventions to stop further amplification of the outbreak and to ensure that individuals and groups take proactive measures.

RCCE is essential for surveillance, case reporting, contact tracing, caring for the sick, delivering clinical care, and gathering local support for any logistic and operational needs for the response.

Effective RCCE can minimize social disruption. Therefore, in addition to protecting health, it can protect jobs, tourism, and the economy.

RCCE Readiness checklist preparing for COVID-19 (no cases yet identified) | COV-CON 5-4

Goals:

- Communicate about preparedness measures and the public health advise
- Prepare to communicate about a first case in the FSM: what is unknown and the uncertainty of what is known
- Assess national and state communication capacity
- Identify the main actors and form partnerships with them: develop RCCE/information group
- Identify and train emergency RCCE staff and potential surge staff on plans and procedures

Action Steps:

1. Risk Communication

- Ensure that the highest levels of government include RCCE in preparedness and response activities and are ready to release information to protect the public's health in a rapid, transparent, and accessible manner.
 - Develop, review and finalize RCCE plans and consider whether adjusted for COVID-19 response
 - Agree on procedures to ensure the timely release of information, such as clearance procedures for messages and information products (ie. Information flow & clearance procedures); Keep clearance chains short
 - Prepare budget for communication (include scaling up)
 - Establish RCCE team and define member's roles
2. Internal and partner coordination
 - Identify partners – such as other sector, agencies, organizations, community planes, health care contact information to ensure a multi-sectoral RCCE response
 - Assess the communication capacity of partners: identify the typical target audience and channels of communication used by partners.
 - Plan and agree on communication roles and responsibilities using standard operating procedures (SOPs) – (ie determine which agency, National or State level will speak first on what specific topics and audience will be best addressed through which agency, partner or sector, how messaging will be aligned)
 3. Public Communication
 - Review the roster of spokespeople at all levels; list their areas of expertise in the context of a COVID-19 outbreak; and, if necessary train them
 - Produce and pre-test message templates to announce first case, action taken, public health advice, and follow up communications
 - Identify key media and provide regular information on the evolution of the outbreak and the National and/or state preparedness
 - Identify media and communication channels and influencers and assess their potential to reach target audience; be mindful of the channels and influencers that are trusted, preferred and regularly used by audiences. It is critical that health care workers are aware of public concerns and trained to provide public health advice to people.
 4. Community engagement
 - Establish methods for understanding the concerns, attitudes and beliefs of key audiences
 - Identify target audiences and gather information about their knowledge and behavior; (whom they trust, how they are likely to receive information, their daily habits, their concerns)
 - Engage through social media; proactively inform audience and collect and answer all questions

- Engage through radio programs so that people can all in and ask questions
 - Identify community influencers (ie. Community leaders, religious leaders, traditional leaders, health workers, traditional healers) and networks (ie. Women's groups, youth groups, religious groups, social mobilizers, CSOs) that can help with community engagement.
 - Anticipate special information and engagement needs for high-risk and vulnerable populations (Older adults and individuals with pre-existing conditions), disabled or illiterate
5. Addressing uncertainty and perception and managing information
- Be prepared to communicate about the first COVID-19 case before the full picture is known by ensuring leaders agree to communicate with affected populations by addressing their concerns and questions while offering actions that can be taken to protect their health
 - Establish a system for listening to public perceptions as well as for finding out about rumors and misinformation (ie. monitoring social media and gathering feedback from health care workers and hotlines). If necessary, establish a system for responding to rumors, misinformation and answering questions.
 - Keep in mind to establish dialogue in any activity implemented to systematically collect and provide answers to questions coming from the public.
6. Capacity building
- Consider what training will be needed for RCCE responders about what is known and unknown about COVID-19, and current plans and procedures, as well as what State preparation is needed for an RCCE response

RCCE readiness checklist where 1 or more COVID-19 cases have been identified | COV-CON 3-2

Goals:

- Adapt and apply action steps from the readiness checklist above if this has not been completed
- Establish, build, and maintain trust with population through ongoing 2-way communication and engagement that regularly addresses misunderstandings, misinformation, rumors, and frequently asked questions
- Encourage people to adopt protective behaviors
- Manage expectations and communicate uncertainties
- Coordinate and encourage collaboration among response partners
- Assess initial perception of risk among affected and at-risk populations
- Provide information and guidance

Action Steps:

1. Risk Communication systems

- Adapt the existing RCCE plan to the response and activate the RCCE response team and plan
- Activate the spokespersons identified for the emergency
- Create timelines for communication activities and products
- Monitor the RCCE response by identifying processes that delay the release of information and create confusion among affected population

2. Internal and partner coordination

- Activate SOPs for coordinating RCCE activities with other response agencies and partners
- Link National, States, and regional RCCE operations
- Assign responsibilities for internal communications (within and between each response agency) and external communication (to the public)
- Coordinate message preparation, consistency, dissemination

3. Public communication

- Announce the first COVID-19 case early, and update information after a risk assessment and an analysis of risk perception have been undertaken
- Provide information as soon as it is received, even if it is not complete, and openly explain to degree to which information is uncertain (manage uncertainty); provide the public with regular channels of updated information (ie. Hotlines, website)
- Produce and test messages, including messages about public health advise
- Make sure messages are consistent across sectors and levels
- Use trusted and effective communication channels that the target audience regularly use
- Engage, train and activate trusted influencers for the audience, particularly including health care workers

4. Community engagement

- Conduct a rapid risk perception analysis based on existing formal and informal information
- Monitor possible barriers to the uptake of protective behaviors
- Segment the audiences for the communication response (ie. Affected people, health care workers, political leaders, donors)
- Translate materials into relevant languages and adapt them to appropriate literacy levels
- Develop short multimedia pieces that present key information (ie. Explain disease etiology, symptoms, transmission, how to protect oneself, and what to do if someone gets sick) and that can be shared online and transmitted on multimedia

5. Addressing uncertainty and perception and managing misinformation

- Communicate what is known and what is not known; explain the degree to which uncertainty exists
 - Activate rumor monitoring and response mechanism and try to determine the issues that might be causing rumors
 - Monitor mass media and social media, hotlines, health care worker feedback from patients, and community concerns and continually apply feedback into adapted RCCE strategy
6. Capacity building
- Plan to provide regular, updated guidance to all RCCE responders
 - Train surge staff
 - Consider training leaders, responders and spokespeople on RCCE guidance as needed

RCCE crisis and control checklist with ongoing COVID-19 transmission | COV-CON 1

Goals:

- Adapt and apply action steps from readiness and initial response checklists above if it has not been already completed
- Maintain trust by listening to the population and modifying your plan for risk communications depending on people's perception and questions.
- Empower and foster resilience individuals, groups, and committees
- Ensure that ongoing and nimble support is provided for the response so that it can be adapted to the needs of the affected population
- Monitor the process so that it can be evaluated

Action Steps:

1. Risk Communication
 - Strengthen the surge capacity of communicators and community engagement experts
 - Develop, continually update, and share RCCE strategies according to response needs. System and staff, such as risk communication, health education/promotion and social science experts, should be activated at all levels of the health departments, in health care settings and hospitals, at transit points (POE) and at other community gathering points
 - Monitor RCCE campaigns
2. Internal and partner coordination
 - Strengthen engagement with partners to:
 - Share information in a timely manner to avoid inconsistent and potentially conflicting guidance;
 - Diversify relevant channels to disseminate important health messages;

- Gain new audience by cross-linking communication materials;
- Benefit from others' financial and human resources;
- Publish materials jointly as appropriate (ie. Press releases, sit-reps, health advisories); and
- Broaden the reach of the community engagement activities by using partners' strengths and outreach capacities

3. Public Communication

- Identify spokespersons based on the trust they have with the population, type of message that needs to be conveyed (i.e. About political commitment, technical expertise, health protection) and the severity of the situation
- Make sure messages are consistent across sectors and levels
- Share information regularly
- Share leadership and response decision-making in messages to the public so that the reasoning behind difficult decisions is clear
- Share stories, photos, and videos that illustrate key messages
- Ensure that the public knows where to obtain up-to-date information regularly (ie. Website, sit-reps, press briefings, hotlines)
- Provide regular transparent communication through the channels that the target audience use
- Use traditional media, the internet and social media, hotlines, and text messages as appropriate

4. Community engagement

- Maintain 2-way communication with affected audiences to understand and respond to their concerns, attitudes, beliefs and barriers to following health guidance through mechanisms such as:
 - Hotlines operated by medical/public health students, who can answer calls and engage on social media; and
 - Call-in radio programs where information is provided and the public can ask questions
- Monitor those who are affected to ensure that they follow health guidance and identify barriers to engaging in protective behaviors
- Engage with trusted influencers, particularly health care workers, to communicate with affected populations, especially those who are hard to reach
- Establish consistent feedback between communities and the emergency response team, and provide actionable guidance for emergency responders to better meet the health protection needs of communities

5. Addressing uncertainty and perception and managing misinformation

- Establish regular feedback and capture common questions, misunderstandings and misinformation through health hotlines, health care workers and communities

- Ensure that the results of monitoring traditional and social media are assessed rapidly through the team set up for this purpose
 - Engage with influencers to capture people's perception through their feedback
 - Prepare guidance according to people's perception and concerns, and repeat guidance through a numbers of information channels
6. Capacity building
- Ensure that a lexicon of terminology and cleared guidance message are shared with responders
 - Update skills training among RCCE responders as new methodologies and campaigns are rolled out
 - Consider training leaders, responders, and spokespeople on RCCE guidance as needed

The FSM Risk Communication Committee, in partnership with WHO, will continue to closely monitor the situation for any changes that may affect this interim guidance.

The above FSM RCCE Action Plan Guidance checklist is adapted from the WHO RCCE manuals and materials (WHO reference number: WHO/2019-nCov/RCCE/2020.2)

Supporting references

- FSM – National Department Of Health And Social Affairs Covid-19 Risk Communication Subcommittee Plan (May 2020)
- Chuuk – Chuuk State Covid-19 Risk Communication And Community Outreach Plan (Mar 2020)
- Pohnpei – Pohnpei State Task Force Risk Communication & Community Engagement Committee Plan (May 2020)
- Yap – Yap State Covid-19 Risk Communication & Community Engagement Plan (May 2020)
- Kosrae - Kosrae State Covid-19 Risk Communication Subcommittee Plan (April 2020)
- FSM Social And Physical Distancing Guidelines (May 2020)

3.0 SOCIAL DISTANCING

FSM Preparedness and Readiness for Covid-19

On March 12, 2020, the World Health Organization (WHO) declared COVID-19 as a global pandemic. In response, and prior to the declaration, the Federated States of Micronesia (FSM) has been scaling up its preparedness and operational readiness for COVID-19 and applying public health measures to ensure the early detection and rapid response to potential cases of COVID-19. This includes strengthening surveillance systems to rapidly detect cases at points of entry, ensuring that rapid response teams are ready to respond if cases are identified, that laboratory systems are in place to rapidly test suspected cases, appropriate quarantine and isolation facilities are available, and other public health responses are in place to contain the spread of the virus. Thankfully to date, we have had no confirmed cases of COVID-19 in any of the FSM States. However, it is important to remember that we are susceptible, and globally we are still learning a lot about this new virus. What we do know though is that a whole of community response is needed to address the risk of COVID-19.

Rationale for Public Health and Social/Physical Distancing

The method of social/physical distancing is to increase the physical space between people so as to avoid spread of diseases including COVID-19. Staying at least six (6) feet perimeter away from other people may reduce the chances of catching COVID-19, especially in crowded places and in mass gatherings.

COVID-19 is a highly infectious disease. It has spread to nearly every country on the planet and we must remain on high alert. Until there's an effective and accessible vaccine or effective treatment, everyone, everywhere, remains at risk. Until such a time when we do have a vaccine or effective treatment, the FSM needs to adopt or adapt to new life-styles and ways of thinking, living, working and socializing. We must all accept responsibility for protecting ourselves and work collectively to protect our families and our communities.

Countries like India, Vietnam and China implemented social distancing measures to help flatten the curve of the spread of the virus within their respective countries. Similarly within our Pacific region, French Polynesia, New Zealand, Guam and Commonwealth of the Northern Marianas attribute their control of local transmission due to implementation of social distancing measures.

Essential Vs Non-Essential Services

In response to the COVID-19 threat, and the need to adapt our ways of living, working and socializing so as to meet these social/physical distancing measures, the FSM is proposing that

measures be put in place on essential and non-essential services. These measures will aim to reduce the settings and places where COVID-19 could be transmitted.

Essential or non-essential services and gatherings have been identified and public health measures recommended for each service or gathering based upon a risk assessment using the following criteria:

- 1) determination of whether a service or gathering is essential to individual and communities basic needs;
- 2) assessment of what is the transmission/exposure risk of the service or gathering if it occurs;
- 3) whether prevention measures, for instance hand washing, limiting staff, can be applied easily, practically and sustainably, to minimize the risk of transmission/exposure

As such the following public health measures are recommended for essential and non-essential services.

In general, socio-cultural events such as parties, picnics, traditional meetings and gatherings, funerals, church, Sakau market, barhopping, drinking sessions, gambling, wedding party, movie watching, are considered as non-essential services or gatherings not to be pursued in the era of pandemic.

Legal Aspects Of Public Health And Social/Physical Distancing

Under the FSM Health Code, the national government aims to support the states with relevant guidance, resources and assistance during times such as this emergency; and implement measures under Presidential Orders (*FSM Health Code, Chapter 7, Disaster Relief Assistance Act of 1989, s705*).

The purpose of such proposed measures are not to undermine civil rights, but to address the very real and potential threat to our communities, if COVID-19 was introduced to the country.

Recommendation of Uniform Approach to Public Health and Social/Physical Measures, Per Service Provider, Setting or Gathering

At this time, States are supported in their respective authority to implement public health measures, however to help ensure that our communities stand united, understand fully and are not confused by varying public health measures across States; we call upon State Governments to have a unified approach to adopting these measures.

The following public health measures have been considered based upon 5 scenarios of COVID-19 for the FSM; which form the five conditions of the FSM COVID-19 Response Framework.

Practical guidance on how to implement these measures has been drafted, tailored to each service type, and will be translated into local vernacular.

The FSM Social and Distancing Guidelines will be provided to States to support them in their communication and guidance to the relevant service providers and communities.

Table 1: Recommended public health measure for public service provider or setting

COVID-19 Condition	5 (zero threat)	4 (threat exists no cases confirmed)	3 (1 to 10 confirmed cases)	2 (10 - 100 confirmed cases)	1 (state-wide transmission)
Health* (Hospitals, CHCs, Dispensaries)	OPEN	OPEN	OPEN (enforce physical distancing in waiting areas; staggered schedules)	OPEN (enforce physical distancing in waiting areas; staggered schedules)	OPEN (enforce physical distancing in waiting areas; staggered schedules)
Public safety (Police Station, Courts, 911, Customs)	OPEN	OPEN	OPEN (enforce physical distancing in waiting areas; staggered schedules)	OPEN (enforce physical distancing in waiting areas; staggered schedules)	OPEN (enforce physical distancing in waiting areas; staggered schedules)
Public Information (Governor's Office, PIO)	OPEN	OPEN	OPEN (enforce physical distancing; staggered schedules; prohibit non-essential visitations)	OPEN (enforce physical distancing; staggered schedules; prohibit non-essential visitations)	OPEN (enforce physical distancing; staggered schedules; prohibit non-essential visitations)
TC&I (Utilities, Shipping, Telecom, Airport, Seaport)	OPEN	OPEN	OPEN (enforce physical distancing; staggered schedules; prohibit non-essential	OPEN (enforce physical distancing; staggered schedules; prohibit non-essential	OPEN (enforce physical distancing; staggered schedules; prohibit non-essential

			visitations)	visitations)	visitations)
Agriculture / food related trade and commerce (Agricultural Office)	OPEN	OPEN	OPEN (enforce physical distancing; staggered schedules; prohibit non-essential visitations)	OPEN (enforce physical distancing; staggered schedules; prohibit non-essential visitations)	OPEN (enforce physical distancing; staggered schedules; prohibit non-essential visitations)
Education** (Schools& University, Dormitories)	OPEN	OPEN**	CLOSED SCHOOL SITE (Alternative of Continued Learning/ Distanced Learning)	CLOSED SCHOOL SITE (Alternative of Continued Learning/ Distanced Learning)	CLOSED SCHOOL SITE (Alternative of Continued Learning/ Distanced Learning)
Weather Service	OPEN	OPEN	OPEN (staggered schedules)	OPEN (staggered schedules)	OPEN (staggered schedules)
Postal Service	OPEN	OPEN	OPEN (physical distancing; staggered schedules)	OPEN (physical distancing; staggered schedules)	OPEN (physical distancing; staggered schedules)
Public Parks	OPEN	OPEN	SUSPENDED (exceptions apply if, under strict conditions that address staggering/ limiting visitations; monitoring and enforcement by local	SUSPENDED (exceptions apply if, under strict conditions that address staggering/ limiting visitations; monitoring and enforcement by local	SUSPENDED (exceptions apply if, under strict conditions that address staggering/ limiting visitations; monitoring and enforcement by local

			governments)	governments)	governments)
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*Health: DHSA is now developing an ‘Essential Health Service Strategy’ in discussion with state DHS. The essential health service items are defined in the strategy and will continue to be delivered through primary care facilities and outreach service.

**Education: DOE staff and school teachers have been repurposed for risk-communication activities in Pohnpei State.

Table 2: Recommended public health measure, for private service provider or setting

COVID-19 Condition	5 (zero threat)	4 (threat exists no cases confirmed)	3 (1 to 10 confirmed cases)	2 (10 - 100 confirmed cases)	1 (state-wide transmission)
Banking (other money lenders)	OPEN	OPEN	OPEN (limit opening hours and customers)	OPEN (limit opening hours and customers)	OPEN (limit opening hours and customers)
Grocery stores (Food Markets)	OPEN	OPEN	OPEN (limit opening hours and customers)	OPEN (limit opening hours and customers)	OPEN (limit opening hours and customers)
Restaurants	OPEN	OPEN	OPEN (limit only to take outs and hotel residents)	OPEN (limit only to take outs and hotel residents)	OPEN (limit only take outs and hotel residents)
Bars	OPEN	OPEN	SUSPENDE D	SUSPENDE D	SUSPENDE D
Food outlets (take-out)	OPEN	OPEN	SUSPENDE D	SUSPENDE D	SUSPENDE D

stands)***			(exception if implement physical distancing measures)	(exception if implement physical distancing measures)	(exception if implement physical distancing measures)
Taxi services	OPEN	OPEN	OPEN (limit opening hours and passenger capacity; appropriate cloth facial covering)	OPEN (limit opening hours and passenger capacity; appropriate cloth facial covering)	OPEN (limit opening hours and passenger capacity; appropriate cloth facial covering)
Hardware store (Fashion, Electronic stores)	OPEN	OPEN	OPEN (limit opening hours and customers)	OPEN (limit opening hours and customers)	OPEN (limit opening hours and customers)
Exercise & Sports facilities	OPEN	OPEN	SUSPENDED (explore online fitness programs)	SUSPENDED (explore online fitness programs)	SUSPENDED (explore online fitness programs)
Religion (Churches, Temples, Mosques, etc)	OPEN	OPEN (apply physical distancing)	SUSPENDED (remote/ online services/ private home services)	SUSPENDED (remote/ online services/ private home services)	SUSPENDED (remote/ online services/ private home services)
Cinema	OPEN	OPEN (apply physical distancing)	SUSPENDED	SUSPENDED	SUSPENDED
Barbershop & Salons	OPEN	OPEN	SUSPENDED	SUSPENDED	SUSPENDED

Manufacture (Handicraft, Oil Production)	OPEN	OPEN	SUSPENDED	SUSPENDED	SUSPENDED
Water bottling companies	OPEN	OPEN	OPEN (limit to delivery)	OPEN (limit to delivery)	OPEN (limit to delivery)

Food Outlets*:** Food outlets may remain open provided that the food outlets follow local food safety requirements, implement adequate physical distancing measures (ie. Mark waiting lines with tape), provide hand-washing stations, installing barriers to minimize customers from touching food and requiring food handlers to use gloves. Outlets that serve buffet style shall be advised to discontinue.

Table 3: Recommended public health measure, for Cultural/Traditional Gatherings

COVID-19 Condition	5 (zero threat)	4 (threat exists no cases confirmed)	3 (1 to 10 confirmed cases)	2 (10 - 100 confirmed cases)	1 (state-wide transmission)
Funeral****	OPEN	OPEN (apply physical distancing to attendants; limit number of attendants; practice handwash & respiratory etiquette)			
Traditional & Cultural activities (Wedding, Parties, Sakau ceremonies)	OPEN	OPEN	SUSPENDED	SUSPENDED	SUSPENDED

****Funeral: implement physical distancing to the congregating attendants; propose staggering visitations.

It is very critical to the control and spread of COVID-19 that the community takes step to limit the size of the gathering (such as funerals) in accordance with local and state advisories should the State or National Government escalate the COV-CON 3 and beyond. Below are recommended modifications^{1,2} to the events to lessen the risk:

- Advising people to observe physical distancing, respiratory/cough etiquette, and hand hygiene practices.
- Advising people with higher risk of developing severe illness from COVID-19 (e.g. 60 years old and older or with pre-existing medical conditions), and individuals with higher-risk patients (e.g. residents in same household), that they should not attend or make special arrangements for them.
- Keep the duration of the funeral to a minimum to limit contact among participants.
- Consider holding service and gatherings in a large, well-ventilated area or outdoors
- Provide physical guides to ensure participants remain 6 feet apart (or creating “one-way routes”)
- Cloth face coverings are recommended in public places where it is difficult implementing social distancing; individuals that are sick or have flu-like symptoms are required to wear masks.

During this period of time when we have no cases; but knowing the very immediate threat COVID-19 poses to our communities and country, we strongly recommend that the States consider the adoption of the following public health measures.

Enforcement of these measures is critical to the introduction and control of COVID-19 in our communities and must be stressed upon all who play a role in its implementation.

These measures have been identified as appropriate given the immediate threat of COVID-19 and noting that to date we know that 80% of cases are mild and asymptomatic.

Recommendations For Social/Physical Distancing In Public, Private And Home Settings

In addition to the public health measures recommended for the various service providers and settings, below are the set of minimum recommended actions for members of the public, private and homes to undertake, to minimize their risk of acquiring or transmitting COVID-19 while in public and private settings, including at home and work places. It is recommended that each State adopts the following standard protocols as part of its guidance to its general population on social and physical distancing.

Social and Physical Distancing Measures in Public include the following:

- Practice safe distancing by keeping at least six (6) feet perimeter distance from others.
- Practice frequent hand-washing and cough/sneeze etiquette (regular hand-washing with soap and water; cover nose and mouth when coughing/sneezing or with bend elbow).
- Avoid physical greetings such as handshaking, hugging and kissing.

- Avoid unnecessarily going to crowded places (stores, markets, banks, etc.).

Social and Physical Distancing Measures at Home include the following:

- Minimize visitors at home
- Limit trip to groceries, stores, markets, utilities, banks, health clinics, and other crowded places as much as possible.
- If possible, send individuals that are not at high risk for severe illness to gather essentials for the home.

Social and Physical Distancing Measures at the Workplace include the following:

- Avoid physically greeting (handshake, hugs, etc.) coworkers and others and practice safe greetings (waving, nodding or bowing).
- Large meetings of 10 people or more are prohibited (WHO & CDC)
- Seating must be at least 6 feet away from the next individual (gatherings, meeting and workspaces).
- Virtual and distanced/remote meetings are encouraged.
- Employees 60 years old and older or individuals with children under 5 years old are encouraged to work from home.
- Ensure meetings are held in well-ventilated areas.
- Avoid non-essential travel

Complementary Hygiene and Sanitary Measures to Support Social and Physical Distancing Measures in Public, Private and Home Settings:

- Practice frequent hand-washing with soap and water or use of hand sanitizers with at least 70% ethyl alcohol.
- Provide alcohol-based hand sanitizer for all staff to use.
- Practice cough and sneeze etiquettes at all times by covering nose and mouth with tissue, shirt and dress or bend elbow when coughing or sneezing
- Avoid drinking from the same cup and sharing utensils.
- Disinfect frequently touched surfaces (doorknobs, table tops, toilet covers, etc) regularly.
- Ensure good ventilation at home and work by keeping windows and doors open.
- Clean air-conditioning and fan filters and propellers regularly.
- If you have flu-like or COVID-19 related symptoms, stay at home, contact Supervisor. Cloth facial masks are recommended for individuals who are sick.
- Ensure the elderly and people with chronic conditions are treated with special care and respect.

Resources.

1. WHO: Key planning recommendations for mass gatherings in the context of COVID-19 (IG- May 29,2020)
2. Get your mass gathering or large community ready – CDC (IG- March 15, 2020).

4.0 POINTS OF ENTRY SCREENING AND QUARANTINE PROTOCOL FOR INTERSTATE AND INTERNATIONAL TRAVELERS

On January 31, 2020, one day after the World Health Organization (WHO) declared the outbreak of the new Coronavirus (COVID-19) to be a public health emergency of international concern, the President of the Federated States of Micronesia (FSM) issued a National Public Health Emergency Declaration banning any traveler from China to the FSM including travel of FSM citizens to China. Since then COVID-19 had rapidly spread globally and on March 11, 2020 WHO declared the COVID-19 outbreak a pandemic. Subsequent amendments to the National Public Health Emergency Declaration instituted mandatory 14-day quarantine on Guam and in Hawaii and finally on April 17, 2020 prohibited any travelers from any COVID-19 affected country, territory or area from entering FSM for as long as the COVID-19 pandemic persists. Due to the travel ban, an estimated 300 returning FSM citizens and residents (medical patients and their attendants, students, government employees, diplomats, and other travelers) are now stranded in Guam, Hawaii, US mainland, Fiji, Vanuatu, Australia, China and other countries, areas and territories.

FSM is fortunate to be one of few remaining countries, areas and territories that has not detected or confirmed any case of COVID-19. Nevertheless, FSM cannot remain locked down for long knowing that many of our citizens and residents are stranded overseas, some are medical patients and require proper medical attention, others are experiencing financial hardships, and a few already deceased and their bodies remained to be repatriated home for burial. Repatriation of our stranded citizens and residents presents some level of risk of introducing COVID-19 into FSM. Therefore, it is critical that prior to reopening of our borders for our stranded citizens and residents FSM must have the minimum set of capabilities and readiness to screen, quarantine, test, isolate, manage and care for a traveler who enters FSM with or later develops symptoms of, or tested positive for COVID-19. Minimum capabilities and readiness include, but not limited to, the following:

- sufficient and trained human resources;
- appropriate and equipped quarantine and isolation facilities;
- sufficient quantity of equipment, test-kits, PPEs and supplies;
- basic knowledge and understanding of COVID-19 by the general public and its mode of transmission;
- good understanding of hygienic and social distancing measures by the general public to prevent or minimize spread of COVID-19; and,
- sufficient standard operating procedures and protocols are in place;

This Point of Entry Screening and Quarantine Protocol for Interstate and International Travelers sets out the specific minimum requirements and standard operating procedures to be used for medical screening and clearance of any person traveling between the FSM States (interstate travel) or from any country, territory or area outside of the FSM (international travel).

A. Steps for travel originating within FSM States on domestic carriers (ships and aircraft) when no SARS- CoV-2 is present in FSM

1. Medical clearance from a designated physician indicating no respiratory symptoms (fever, cough, sore throat, rhinorrhea [Running nose], difficulty breathing, and non-traumatic anosmia [Loss of the sense of smell]) within 3 days prior to departure
2. Depart to another FSM State
3. Health screening upon arrival using the FSM PoE screening guideline.
4. Provide health advice for self-monitoring for 14 days, no mandatory quarantine required.
5. If there is a COVID-19 case in any of the 4 States, refer to Step C.

B. Steps for Arrival into FSM: Returning Resident from “COVID FREE AREA” (All aircraft originate internationally with connection to COVID-19 affected area)

1. Medical clearance from physician indicating no respiratory symptoms (fever, cough, sore throat, rhinorrhea [Running nose], and non-traumatic anosmia [Loss of the sense of smell], and difficulty breathing) within 3 days prior to departure, COVID-19 testing is not required.
2. Depart for FSM
3. Upon arrival, undergo health screening using the FSM POE screening guideline.
4. Confined to designated government-run quarantine site for 14 days after arrival.
5. Day 15 after arrival: Undergo a medical assessment by the local physician and will get tested or not based on the result of the assessment.

C. Steps for Arrival into FSM: Returning Resident from “COVID AFFECTED AREA”

1. The National Taskforce (in consultation with States Task Force) is to receive the list of individuals to be repatriated based on priority and availability of quarantine facilities.
2. National Taskforce transmits the list to DoFA which is then forwarded to Consulate General’s office
3. The CG office is to contact identified citizens on the list and advise them the following documents are required prior to travel:
 - a. Copy of the bio data passport page (already with individual);
 - b. Customs and quarantine arrival form (will be provided at the CG office);
 - c. Mandatory quarantine agreement form (will be provided at the CG office);
 - d. Testing clearance certificate indicating no SARS-COV2 within 3 days prior to departure.

Testing Clearance Certificate - In Hawaii:

- i. Patient on priority list will go to Queens Urgent Care Clinic and request COVID test for repatriation with a letter from FSM Task Force authorizing test.
- ii. Queen’s clinician will order test and collect swab.
- iii. Courier from Diagnostic Laboratory Services will collect swab and take to lab.

- iv. Results are released within 24-48 hours from collection.
- v. All test results will be forwarded to FSMDHSA.
- vi. If the test is POSITIVE, Queen's clinician will notify the patient directly to advise of the next steps.

Testing Clearance Certificate - Guam:

- i. Patient on priority list goes to Guam Regional Medical City and requests test for repatriation.
- ii. GRMC clinician will request test and send to their lab for testing.
- iii. Results are released within 24-48 hours from collection.
- iv. All test results will be forwarded to FSMDHSA.
- v. If the test is POSITIVE, GRMC clinician will notify the patient directly to advise of the next steps.

Testing Clearance Certificate – Outside Guam or Hawaii

- Travelers shall be responsible for organizing their own Testing Clearance Certificate
6. CG Office is to scan the documents (a, b, c, & d) and e-transmit all to the FSM DHSA.
 7. The documents are reviewed by the FSM DHSA and Customs, Immigration and Quarantine and if satisfactory the CG office and Airline is notified that repatriation is allowed.
 8. The passenger departs for FSM. If a transit stop is required, passengers are advised to remain in their hotels and maintain social distancing.
 9. Traveler is advised to wear a face mask when social distancing not possible.
 10. Upon arrival, traveler shall undergo health screening using the FSM PoE screening guideline.
 11. Traveler shall be confined to a designated government-run quarantine site of 14 days.
 12. On Day 5 of quarantine: traveler shall undergo a medical assessment by the local physician and may undergo testing depending on the assessment.
 13. On day 15 of quarantine, the traveler shall undergo a test for SARS-CoV-2 and, if the result is negative, the traveler shall be released from quarantine.
 14. Traveler shall be required to self-monitor for COVID -relate symptoms for a further 14 days. Travelers are encouraged to wear a mask where appropriate, practice respiratory etiquette, physical distancing, and perform frequent hand hygiene.
 15. If test result is positive the individual shall be isolated as per isolation protocol.

D. Steps for Arrival into FSM: Diplomats (include family members holding diplomatic passports) from “COVID AFFECTED AREA”

1. Medical clearance from physician indicating no respiratory symptoms (fever, cough, sore throat, rhinorrhea [running nose], and non-traumatic anosmia [Loss of the sense of smell], and difficulty breathing) and a COVID-19 test negative within 3 days prior to departure.

- The overseas' embassy will receive testing clearance from incoming diplomat(s) and forward result to FSMDHSA
2. Depart for FSM.
 3. While in Transit: If layover, strongly advise not to leave hotel.
 4. Upon arrival, undergo Health screening using the FSM POE screening.
 5. Home quarantine* with daily symptom monitoring for 14 days. A State public health official will follow up via telephone to confirm. In case the diplomat develops symptoms, the embassy physician is required to report to PH.
 6. Day 15: Medical re-assessment from a local physician and will be tested. Can start work if assessment is good and test result is negative.
 7. Additional 14 days: Self-monitor symptoms daily; wear mask where appropriate, practice respiratory etiquette, physical distancing, and frequent hand hygiene when around other people.
 8. If the result of the COVID-19 testing is positive, appropriate measures should be taken in accordance with the agreement between FSM and the sending country.

*Per the Vienna Convention, special considerations are given to incoming diplomats regarding quarantine and case management

E. Steps for Arrival into FSM: Humanitarian Assistance from “COVID AFFECTED AREA”

1. Medical clearance from physician indicating no respiratory symptoms (fever, cough, sore throat, rhinorrhea [running nose], and non-traumatic anosmia [Loss of the sense of smell], and difficulty breathing) and a COVID-19 test negative within 3 days prior to departure.
 - The test result has to be conveyed to the FSMDHSA along with passport bio-data, custom, and mandatory quarantine agreement form.
2. Depart for FSM.
3. While in Transit: If layover, strongly advise not to leave hotel.
4. Upon arrival, undergo health screening using the FSM PoE screening guideline.
5. Undergo mandatory quarantine for 14 days.
6. Day 15: Medical re-assessment from a local physician and will be tested. Can start work if assessment is good and test result is negative.
7. Additional 14 days: Self-monitor symptoms daily; wear mask where appropriate, practice respiratory etiquette, physical distancing, and frequent hand hygiene when around other people.

Screening Procedure for Travelers Arriving at FSM Airport

1. Upon arriving at the any of the FSM International Airport, all travelers will proceed through the health screening area.

2. At the health screening, a health staff will immediately spray travelers' hands with 70% rubbing alcohol and instruct traveler to sanitize their hands.
3. Health staff will provide a mask to traveler and instruct him or her to place mask appropriately.
4. After sanitizing and putting on mask, traveler will submit his/her completed health declaration form to the health staff.
5. Health staff will review health declaration form to make sure form is complete. After form is collected, health worker will check temperature of traveler.
6. If temperature is normal and traveler has no other symptoms, he or she will proceed to customs, immigration and biosecurity screening.
7. After completing these screenings, traveler will proceed to baggage area to claim his/her luggage and then to the designated holding area in the arrival area.
8. Once all travelers have completed screening and have gathered at the holding area, airport police will escort passengers through the designated exit to the vehicles for transport to quarantine sites.
9. Airport Police and National Police will be responsible for securing and monitoring the airport during the arrival process.
10. After airport operation is completed, a team of trained airport personnel in proper protective equipment (PPE) will decontaminate airport

Arrival at the Quarantine Sites

11. Upon arrival at the quarantine site, passengers will be directed to a designated area for briefing and will be provided with the following:
 - a. Information packet
 - b. Medical supplies if needed
 - c. Basic hygiene kit
 - d. Form to fill for dietary restrictions and other medical conditions
12. Each quarantined individual will read and sign a quarantine order detailing rules to abide while in quarantine.
13. The HAZMAT Team will decontaminate vehicles used to transport passengers to quarantine sites.
14. Passengers will be escorted to their rooms to begin the quarantine period.

Procedure to refer symptomatic travelers from PoE to Isolation facility

A. At the Port of Entry

1. Call Emergency Department to inform team on duty so that they can activate alternate triage processes, isolation, and patient transport.
2. Designated health worker to ensure patient has PPE and is kept away from others.
3. Inform airline so that passengers' belongings can be handled to avoid security alerts or loss.

B. Process for PUI Transport

1. Ambulance/Medical Transport Crew pre-identified for PUI transfer and mobilized on receiving call from POE
2. Ambulance/Medical Transport crew will don PPE using appropriate technique before dispatch
3. Ambulance/Medical Transport Crew will transport PUI from POE triage area to transport
4. Ambulance/Medical Transport Crew will take PUI to alternate triage area identified in the hospital only and nowhere else; if necessary PUI to wait in the transport until triage area is ready.
5. If PUI is on a plane, unwell and not able to disembark, ambulance/medical transport crew will board plane to attend and transfer PUI
6. Ambulance/Medical transport crew will disinfect transport used
7. Ambulance/medical transport crew will doff PPE using appropriate techniques and ensure proper disposal.

C. At the hospital

1. Ambulance/Medical Transport Crew will call nurse supervisor on arrival at the hospital from POE
2. Nurse supervisor will ensure that triage nursing staff is available at the alternate triage area
3. Designated doctor on duty will be called by nurse supervisor to assess patient and determine management plan
4. All health workers working in the area will wear full PPE
5. Clinical guideline for SARI will be used to manage patients
6. Arrangement for laboratory specimen collection using existing protocols will be made by the attending doctor
7. Attending doctor will inform EOC and also ensure IHR notification is completed

Resources

1. Management of ill travelers at points of entry – international airports, seaports and ground crossings – in the context of COVID -19 outbreak. Accessed 6/5/2020. <https://www.who.int/publications/i/item/management-of-ill-travellers-at-points-of-entry-international-airports-seaports-and-ground-crossings-in-the-context-of-covid--19-outbreak>

5.0 QUARANTINE PROTOCOL FOR INBOUND TRAVELLERS

1. AIM OF THE GUIDELINE

To provide guidelines on the management of persons requiring quarantine during the COVID-19 pandemic, as well as the management and quality assurance of quarantine facilities.

2. OBJECTIVES

The objectives of this document are to provide:

- Guidance on how quarantine should be conducted.
- Guidance on the management of the quarantine facilities.
- A framework for standard operating procedures for the daily work and interaction of Department of Health and other staff with occupants/patients.
- Guidelines to ports of entry on the management of inbound travelers from high risk countries

WORKING DEFINITIONS

Quarantine

Quarantine is for people or groups who are asymptomatic, but who may be infected with COVID-19. Quarantine keeps these people away from others so they do not unknowingly infect anyone. Because some quarantined people might be COVID-19 positive, individuals in quarantine must be monitored for symptoms. Those who develop symptoms (meet the person-under- investigation (PUI) criteria) should be tested and managed appropriately.

Currently quarantine is applied to:

- Persons at high risk of having been exposed during international travel; and
- An individual or group of persons who were in close contact with a person infected with coronavirus;
- Symptomatic persons who have been identified as requiring testing or who have tested, but are awaiting test results. These persons can be discharged if they test negative.

In the case for FSM, while there is still no COVID cases, quarantine will be administered from designated facilities. The condition may change over time depending on the COVID-19 situation and availability of quarantine facilities.

Categories of people and quarantine recommendations

Category	Quarantine
People entering FSM from COVID affected countries	Quarantine should last 14 days. This will be provided in a designated facility. Travelers may complete part of the quarantine period at

	home after clinical assessment and testing at a designated quarantine facility. (see travel screening quarantine requirements)
Symptomatic person who meets testing criteria: awaiting test or test results	Admit to quarantine facility (can be released from quarantine if test result is negative)
Aircraft crew (in transit)	Mandatory quarantine in designated hotel for duration of stay (provided and monitored by airline)
Close contacts (asymptomatic)	Admit to quarantine facility, may do self-quarantine if facility is limited

Period of quarantine

The recommended duration of quarantine for COVID-19 exposure is 14 days from the time of exposure (close contact or entering the country). If the patient remains well during the period of quarantine, they can be discharged from quarantine after 14 days and should self-monitor for a further 14 days (making a total of 28 days), and report development of any symptoms to their general practitioner, to the COVID hotline or to their local health facility.

Alternatives may be considered on a case-by-case basis where travelers may complete part of their quarantine at home after clinical assessment and testing.

Persons in quarantine must be monitored regularly (self-monitoring is recommended where possible). Those who develop symptoms should be tested, and managed according to clinical guidelines. People who test positive should no longer be managed at a quarantine facility, and should be transferred to an appropriate facility (i.e. hospital or isolation facility).

IDENTIFICATION AND ESTABLISHMENT OF FACILITIES

Suitability Characteristics

In order for a facility to be suitable as a quarantine facility, it needs to align to the characteristics as indicated below:

Location

Facilities must be:

- Ideally located on the outskirts of the urban/city area (can be hotels or resorts/, unused health facilities, university/college facility, military field hospital tents in hospital grounds etc.). Stand-alone houses are not suitable.
- Easily isolated to prevent public access.

- Protected and secured with a perimeter fence (preferably by security personnel).
- Security should be provided to ensure authorized access control in or out and safeguard the persons.
- If possible, the facility should have a fenced perimeter to prevent access from the public.
- Outside of known natural hazard risk zones (consult local/district disaster risk management plan).
- Have the ability to deal with natural disasters and have a disaster management plan in place.

Access considerations

- Perimeter fencing.
- 24-hour security and access control points (preferably supported by DPS).
- Preferably one primary entrance in and out. If there are multiple entrances, the recommendation is for the non-primary entrances to be closed. Emergency or fire exits must be closed and administered accordingly.
- Parking space including access by ambulances.
- Disability access.
- Ease of access for delivery of food/medical/other supplies separated from normal access points.

Ventilation requirements

- Well ventilated natural ventilation is preferred.
- Room type air conditioning units are not the recommended form of ventilation. The main reason is that the units cannot be disinfected properly and the main requirement is to prevent the distribution of microorganisms.
- Central ventilation systems are not feasible.

Basic infrastructure/functional requirements

- Rooms with bed (and linen). Beds should have frames that can be cleaned and disinfected.
- For quarantine facilities, occupants must be able to be self-isolated in single occupancy bedrooms (with toilet facilities wherever possible).
- If communal bathrooms are used, strict cleaning procedures must be in place.
- For isolation facilities, if shared bedrooms are used the distance between the edges of the two beds must be at least 1.5m.
- Laundry services.
- Sanitation services.
- Waste disposal services including appropriate disposal of healthcare waste.
- Uninterrupted potable water.
- Electricity supply.
- Cleaning and housekeeping services.
- Functional system for providing communications/internet access.

- Support services – extra food, snacks and television – should, if possible, be provided. Food and snacks should not be provided through vending machines.

Space requirements for the facility

- Logistics area.
- An adequately ventilated room that can be easily used as a temporary clinical examination room, nursing station and/or pathology sampling area.
- Catering facilities either on -site or off-site (preferred).
- Outside temporary holding area for contaminated waste.
- Safe working areas for staff working at the facility, e.g. administration, kitchen, ablution facilities etc.

OPERATIONALIZATION OF FACILITIES

Quarantine facilities is to be operationalized by the DHS. This includes the management of the PUI's, facility and medical teams and attending to daily queries raised and ensuring the implementation of appropriate actions where required. This also entails the provisioning of the following:

Facility management

The DHS must assign a person to manage the operations of the facility. This may be the person who routinely manages the facility (e.g. if the facility is a hotel or student residence) and does not need to be a healthcare worker, but should have experience in managing operations at a health or hospitality facility.

Healthcare staff

The Department will ensure that residents are properly screened before they are admitted at the quarantine sites. The medical team will conduct regular checks at the site to monitor the health status of the residents. The management of the sites will have direct access to medical attention as and when it becomes necessary.

The medical team composition will vary given the needs of the facility, but will require the minimum of a primary health care nurse to be stationed at the facility at least 8 hours a day in facilities with more than 20 persons to ensure that infection prevention and control guidelines are correctly implemented, carry out symptom screening and daily temperature checks, to assess and manage minor ailments and existing health conditions, to identify patients who require referral to hospital and to ensure that these referrals are conducted smoothly. Access to after-hours medical care and emergency transport to health facilities.

Access to the following categories of health professionals should ideally be available. These services do not have to be on-site, but should be available on referral.

- Infection Prevention and Control (IPC) practitioner

- Environmental Health Practitioner to advise on environmental health issues including waste disposal.
- Medical doctor and specialists
- Pediatrician (in the case that children are hosted in the facility).
- Emergency Medical Services.
- Pharmacist or pharmacy assistant.
- Psychiatrists and psychologists.

Support staff

At a minimum each facility should also have the following personnel:

- Administration
- Housekeeping, catering, cleaning and sanitation
- Security to ensure access control over 24 hours per day

Minimum facility equipment requirement

Minimum Equipment
Clinical gloves (latex, single-use gloves for clinical care)
N95 respirators – only for aerosol generating procedures (taking of specimens) Medical/Surgical masks
Aprons - disposable
Sharps containers
Red health risk waste bags to be in health care risk waste box with biohazard sign
Alcohol-based hand sanitizer
Liquid hand wash
Clean single-use paper towels to dry hands (e.g. paper towels)
Cleaning gloves (reusable vinyl or rubber gloves for environmental cleaning)
Appropriate detergent for environmental cleaning and disinfectant for disinfection of surfaces, (1:000 parts per million (ppm) chlorine OR 70% alcohol) Disinfection of medical devices and equipment
Large plastic bag for general waste (black or transparent)
Linen bags
Collection container for used equipment

The amount of facility equipment must be assessed on a case by case basis and depends on the number of persons in the quarantined facility:

Security

The facility should have appropriate 24-hour security measures including perimeter security fencing around the entire premises with entry and exit boom access control for the required type of vehicles.

Zoning of facility

Each facility must be geographically separated in the specified zones for safety, security and containment. A floor plan with clearly demarcated areas indicating the zones. The facility must be zoned and clearly marked according to the guidelines below:

Red Zone

Rooms, toilet and bathroom areas, areas of bio-waste collections, segregation and disposal and triage/treatment area.

Yellow Zone

Sections at the entrance to the rooms. Will be used as a safe transfer corridor for additional medical supplies, food etc. to be taken into the red zone. Items taken out of the Red Zone for disposal will follow strict biohazard management processes. The yellow zone should also include the corridors to the rooms, a demarcated area at the entrance of all rooms and garden/outside areas.

Green Zone

All areas within the facility not designated as red or yellow zones will be deemed green zones. Any non-essential medical, allied health personnel and general support personnel will remain in the Green Zone. Additional medical and non-perishable supplies will be held in the Green Zone.

Periodic screening of cleaners/catering staff accessing the red and yellow zones must be undertaken.

Consideration related to Room allocation

After a welcome briefing, residents will be allocated rooms and given Information, Education and Communication (IEC) materials. The following need to be considered when allocating rooms:

- Families (should be accommodated together);
- Elderly persons;
- People with disabilities;
- Persons with pre-existing medical conditions;

To minimize contact with on-site domestic support, all cleaning material, liquid soap only (no bar soaps), towels, linen, beverages, alcohol-based hand sanitizers, gloves and face masks will be replenished as required at the door of each room by the cleaning staff i.e. in the yellow zone.

Furniture

- All furniture in the room must be washable or able to be sanitized;
- Only single beds should be procured or sourced for all communal facilities to maximize use of space as there needs to be a minimum of 1.5 m between side ends of each bed
- Every bed must have a washable mattress protector;
- All rooms should be equipped with appropriate cleaning equipment and products; and
- Every room should have a health care risk waste bin lined with red plastic bag and a normal waste bin with black/transparent plastic bag lining

Catering, cleaning and sanitizing service

A clear plan must be in place for provision of these services (see management of facilities for details).

Triage area/treatment room

A nurse with IPC knowledge and training should be allocated by the Department of Health to provide primary healthcare service during the day.

Each facility must establish a roster for daily COVID-19 symptom screening including twice daily temperature monitoring. Where residents are in quarantine, this should ideally be done in the resident's room. The triage area should be used to provide treatment.

Training

Training is the most important and critical part to ensure that all activities take place as per recently published National Infection Prevention and Control Manual. Training should be conducted by a team from department of health ideally before any residents are admitted to the facility. Training should specifically focus on:

- Training of healthcare professional on SOPs that needs to be followed at the quarantine centers for daily examination, movements in the facility, infection prevention control measures and use of PPE.
- All staff need to be trained on SOPs to be followed at quarantine centers and use of PPE.
- Support staff (housekeepers/cleaners, caterers, security staff, drivers and general duty staff) need to be trained on the use of masks, gloves, cleaning and disinfection procedures and use of PPE.
- Training should include the provision and format of mandatory statistics and data required by the Department of Health.
- It should also include the protocols to be followed for complaints being lodged and escalations channels to be followed.
- When a new staff member is assigned to a quarantine site, it needs to be ensured that he/she has received proper training before undertaking the work.
- All training should emphasize that all activities/procedures must be done under the strict monitoring and observation of trained specialists.

MANAGEMENT OF FACILITIES

The management of the quarantine facility should be done under the strict instructions of the appointed Medical Officer and should adhere to the sections below. It is important to note that the dignity and rights of the residents must be respected at all times. The facility manager must aim to communicate to all residents on a regular basis. Such communication must include aspects such as:

- Number of people in the facility, positive cases and management decisions.
- Daily/weekly arrangements of care.
- Possible schedule for activities in the facility (recreation and other).
- Actions required by residents, and under which circumstances

Standard Operating Procedures (SOPs) for Non-Medical Team

To ensure smooth operation in the quarantine facility, Standard Operating Procedures (SOPs) need to be formulated by the management of the facility for the following activities/persons:

- Non-medical personnel roles and responsibilities
- Staff and resident briefings
- Allocation of rooms
- Working roster for non-medical staff
- Access to open areas
- Emergency Evacuation Plan
- Public information/communication with the media

Standard Operating Procedures (SOPs) for Clinical Team

To ensure smooth operation in the quarantine facility, Standard Operating Procedures (SOPs) need to be formulated by the DHS and needs to be communicated to the clinical team on site. This includes the following activities/persons:

- Medical personnel roles and responsibilities
- Working roster for medical staff
- Daily monitoring surveillance of patients
- Triage/isolation procedure
- Case and contact monitoring and response
- Transfers of people with symptoms or whose condition deteriorates to designated hospital (through ambulances)
- Complaints and escalation protocols

Personal protective equipment (PPE)

IPC procedures as outlined in the National IPC Manual as well as COVID-19 IPC guidelines must be followed in quarantine facilities.

Provisions for IPC and PPE includes hand hygiene, gloves, aprons, face masks and disinfectant to be used only by designated staff.

It is not necessary for residents to wear PPE except for a face mask (when opening the door).

The used PPE is to be disposed of in designated health care risk waste bins, to be supplied by the Department of Health.

A disposal process must be in place, under the supervision of the Environmental Health Practitioners.

The following PPE rules apply in all quarantine facilities:

- Wash hands before and after putting on PPE.
- Change the surgical mask for a new one when it becomes damp or is visibly dirty.
- Place used PPE directly into a bag/waste container with a lid. Never leave it on a surface such as a chair or a table.

Establishment of Infection Prevention Control (IPC) measures

The possibility exists that a quarantined person might develop COVID-19 infection and infect other residents or staff members. As such basic Infection Prevention Control (IPC) measures should be put in place. These include:

- The creation of a map of the facility, demarcating the red, yellow and green zones to outline the details of movement of healthcare and other personnel around the quarantine area and in the building.
 - The map can be used to regulate the movement of staff so as to limit interactions with high risk areas and to prevent and control infections.
 - Well informed and trained security personnel need to be deployed all around the building on a 24/7 rotation basis to monitor the facility and to avoid entry of unauthorized persons. Training of all personnel in the use PPE as per guidelines by a designated health care worker; should ideally be an IPC practitioner.
 - Earmarking separate areas for PPE donning and doffing (assigning a compliance officer to the area to ensure PPE is correctly donned and doffed).
 - Stationing a trained person at the building to regulate the movement of the staff entering the facility. He/she should be assigned the duty that every person entering the facility should register all of their personal details, designation, and time of entry and exit.
 - Having separate entrances and exits within the building for healthcare/support staff and quarantined persons to minimize infection risks.
 - The daily cleaning of the entire quarantine facility with disinfectants as specified in the IPC Manual including surface mopping of all the floor, bathrooms, toilet facilities, undersides of beds and other related items placed in the rooms of quarantined people.
- Residents should wherever possible be responsible for cleaning their own rooms.**

Transmission based precautions for COVID-19

Patient placement	See engineering controls	Shared toilet facilities to be cleaned regularly (1-2 hr)
Hand Hygiene	Before and after each patient contact (5 Moments of Hand Hygiene) Before wearing PPE After removing PPE	Before wearing PPE After removing PPE Use ABHR between patients if hands not visibly soiled
PPE for contact and droplet precautions: Gloves - non-sterile, face mask, apron		
Environmental cleaning	Frequent cleaning 2- 3 times/day. Water, detergent. Wipe over with disinfectant such as 1:1000 ppm available chlorine or 70% alcohol	Use universal wipes which is a combination of detergent and disinfectant.
Terminal cleaning	Remove all linen, healthcare waste and medical equipment and send for disinfection or discard. Clean with water and detergent. Wipe with disinfectant	Use universal wipes which is a combination of detergent and disinfectant
Clinical & Patient care equipment	Dedicated equipment. Disposable where possible Shared equipment to be heat or chemical disinfected after cleaning	none

Daily clinical examination and referral

All quarantined persons should be clinically assessed twice a day (morning & evening) for the presence of symptoms and have their temperature taken. Where symptoms are identified, appropriate action must be taken.

Those in quarantine who develop symptoms of coronavirus (fever, cough, sore throat, breathlessness etc.) or any other reason need to be referred to a designated hospital with due precautions as per referral SOP.

Isolated persons must be assessed clinically at least twice a day (morning and evening) according to the guideline on Clinical management of suspected or confirmed COVID-19 disease. Any person who develops disease which no longer meets the criteria for mild disease (as defined in the

guideline and shown in table 4) must be managed appropriately and referred. Particular attention should be paid to older residents (> 65 years) and those with underlying medical conditions.

Arrangements must be in place for assessment, management and referral of persons who develop worsening illness after hours.

Table 4: Criteria for mild disease

Age >12 years
Respiratory rate <25 breaths/minutes
Heart rate <120 beats/min
Temp 36-39°C
Mental status normal
For age 5-12
Respiratory rate <30 breaths/minutes
Heart rate <130 beats/min
For younger ages, use age-appropriate normal values

Recording and reporting mechanisms

- Records of all residents need to be maintained.
- The following data elements need to be forwarded on a daily basis to the DEOC and State Task Force.

Quarantine facilities
Number of quarantine beds for COVID-19
Number of admissions into quarantine facility
Number of inpatients in quarantine facility
Number of persons discharged from quarantine facility
Number of persons in quarantine tested for COVID-19
Number of persons in quarantine confirmed positive for COVID-19
Number of inpatients transferred from quarantine into isolation facility once confirmed positive for COVID-19

- Information needs to be forwarded on a daily basis to the DEOC.

Monitoring and supervision

- Daily monitoring visits need to be conducted by public health and in-charge officers and gaps to be noted.
- Necessary corrective actions and preventive actions to be taken by the Public Health officer

Housekeeping

The following is to be noted related to housekeeping at the facility:

Accommodation

- All quarantined persons should be assigned to separate beds in separate rooms (family groups may be housed together). Where this is impossible, beds must be spaced at least 2 meters apart (the beds must not be set up facing each other directly).
- Personal toiletries should be brought in by each resident. Facilities should have a small supply of toiletries and other essential supplies e.g. sanitary pads, tooth paste and brush, for instances where residents are unable to provide their own supplies.
- Linen including towels, blankets, bedsheets, pillows with covers will be provided to each person
- Residents' own clothes may be laundered at own cost or they need to bring enough clothes for the quarantine period.
- All laundry and linen items should be sent to laundry in bags marked infectious and washed in temperatures of 65-70°C cycle.

Catering

- All residents should receive three healthy meals per day with adequate fruit and vegetables.
- Meals should be delivered outside accommodation door every day (yellow zone), three times a day.
- All meals should ideally be prepacked and served in disposable containers with disposable utensils. If utensils are not disposable, these should be placed in collection containers outside the room door for washing in hot water using gloves.
- Adequate drinking water should be supplied daily/ accessibility to safe drinking water
- Follow waste management protocol for safe disposal of all waste (disposable plates, cutlery and food)

Health care risk waste (HCRW) management

- Waste generated during quarantine should be packed in strong black bags and closed completely before disposal and eventual collection by municipal waste services. Tissues or other materials used when sneezing or coughing should immediately be thrown in a waste bin. After such disposal, correct hand hygiene should be performed
- Collection of health care waste (normal waste) should occur daily by normal municipal services
- All medical and support staff need to be well oriented to requirements of handling and management of general and clinical waste generated at the facility. Steps in the management of HCRW include generation, accumulation, handling, storage, treatment, transport and disposal as mentioned in the SOP need to be followed.
- Daily monitoring & supervision to ensure compliance with HCRW protocol.

Complaints and Escalations

All quarantined persons, family of these, staff and facility managers have the right to lodge a complaint. These complaints are to be addressed as per the SOP for complaints and escalations as defined by the DEOC and duly communicated to persons in quarantine. Complaints can be escalated in writing to the State Task Force if there is no resolution provided at DEOC level.

Discharge of persons in quarantine from quarantine facilities

- Quarantined persons need to be discharged at the end of the minimum quarantine period of 14 days;
- Upon discharge from quarantine, a letter will be issued to the person confirming that they have concluded the quarantine period;
- The quarantined persons are expected to make their own arrangements for transportation from the facility to their respective homes;
- Where a person who has concluded quarantine period can prove that individual arrangements for transportation to their respective destination cannot be made, the Department of Health will make such arrangements; and
- Instructions should be provided to discharged patients to continue to self-monitor their health at their home for the next 14 days. If they develop symptoms, they should contact their General Practitioner, the Covid-19 hotline or their local health facility.

Disinfection and decontamination procedures (See section on Terminal cleaning in National IPC Manual)

- Once the building ceases to serve as a quarantine facility a terminal disinfection procedure should be implemented;
- Cleaning and decontamination to be performed using the proper personal protective equipment (PPE) and adopting a cleaning system as prescribed by a formulated SOP;
- Cleaning of all surfaces with a neutral detergent;
- Surfaces will be disinfected using 0.5% chlorine (bleach/Chlorox), or 70% alcohol wipes or universal wipes with water and peracetic acid;
- While cleaning, windows need to be opened in order to protect the health of cleaning personnel;
- All frequently touched areas, such as all accessible surfaces of walls and windows, doorknobs and handles, the toilet bowl and bathroom surfaces need to be carefully and frequently cleaned and disinfected (see recommended disinfectants above);
- All textiles (e.g. pillow linens, curtains, etc.) should be packed and sent to get washed in laundry using a hot-water cycle (80°C) and adding laundry detergent; and
- Mattresses/pillows should be wiped over with an appropriate disinfectant

Biomedical waste (BMW) management

"Bio-medical waste" means any waste, which is generated during the surveillance, monitoring, diagnosis, treatment or immunization of quarantined personnel in health Quarantine facility. The

Bio-medical Waste Management rules are applicable to all persons who generate, collect, receive, store, transport, treat, dispose, or handle bio medical waste in any form at the Quarantine facility.

To ensure that biomedical waste management in the facility takes place as per standard guidelines, separate yellow, red /black bags, foot operating dustbins needs to be kept at each floor and outside the facility.

It is to strictly ensure that Doffing takes place in the designated area with all the PPE kit including mask, gloves is properly placed in yellow bags. All the health care workers collecting the possible infectious material such as food items, PPE kits from yellow bags should also wear PPE and following the IPC measures.

Designated place to be earmarked outside the building for collection of yellow and black bags. It should be collected at least twice daily by biomedical waste management vehicle/any other local established practice. Site of collection of biomedical waste should be regularly disinfected with freshly prepared 1% hypochlorite solution (bleach/chlorox).

All officials concerned with the administration and all other health care workers including medical, paramedical, nursing officers, other paramedical staff and waste handlers such as waste management officer, attendants & Sanitation attendants needs to be well oriented to requirements of handling and management of general and biomedical waste generated at the facility.

Duties of the Quarantine facility Authorities:

1. Provide training to all its health care workers and others involved in handling of bio medical waste.
2. To provide a safe, ventilated and secured location for storage of segregated BMW within premises of the quarantine facility.
3. Provide legal authorization and access to Waste collecting van/vehicle.

Duties of the Bio-medical waste management company:

1. Ensure timely collection (at least twice daily morning & evening) of BMW from Quarantine facility
2. Assist health care facilities in training of workers.
3. Provide PPE kits and other safety measures to their vehicle driver, and janitor
4. Issue authorized Identity card to all the persons coming to the Quarantine facilities.

Treatment and Disposal:

1. Quarantine facility does not have an onsite setup for BMW treatment facilities there it should be taken to their designated BMW facility and treatment/disposal must be done as per BMW regulations approved in their contract.
2. No untreated bio-medical waste shall be kept stored beyond a period of 48 hours.
3. All the waste (even the general waste) generated from the Quarantine facility must be treated as Biomedical waste.

Maintenance of Records:

Records in relation to generation, collection, reception, storage, transportation, treatment and disposal shall be maintained as per rules for 5 years.

Accident Reporting:

In case of major accident-intimate immediately and submit a report within 24 hours to the Quarantine facility manager.

Implementation:

Efficient implementation of the bio-medical waste management pivots on orientation, training and involvement of all the staff in the Quarantine facility. Ensuring proper disposal and segregation at source is the most important step as this is the limiting factor for most health care settings. Continuous training, monitoring & supervision to monitor the implementation must be done on daily basis.

Generation to Disposal process:

1. BMW is collected from various sites in the quarantine facility.
2. All Collected Bags are loaded on to special Bio Medical Waste Trucks/Van and are transported to BMW management facility for treatment and disposal thereafter.

Annex 1: Standard Operative Producers for medical personnel

There are shift duties of the doctors may be as under

Morning: 800AM to 200 PM Afternoon: 200PM to 800 PM Night: 800PM to 800 AM (next day)

General instructions for medical doctors from designated hospital (s) for performing their duty at Quarantine facility may be as under:

- a. The name of the duty officers and duty roster for to be displayed at the control room.
- b. Each team to follow the procedure mentioned below:
- c. The resident doctors on duty will report to the centre at the reporting time and mark attendance in the register.
- d. After that, they will go to clinical area to examine the quarantined people in the centre.
- e. The doctors on working duty will team up with medical officers from Quarantine facility to form a paired team (one from hospital and another from the Quarantine facility) to examine the cases.
- f. They will examine and assess the patients and report to the In-charge of the Quarantine facility.
- g. They will take care of the infection control/protective measures while examining the persons and follow guidelines placed at the door for safety/infection control measures.

- h. If any symptomatic case/ additional symptoms are observed/ reported, it should be discussed with the In-charge of the Quarantine facility for referral to the designated hospital, if required.
- i. They will complete examination of all patients and report before 12 noon on the same day and handover the report to the Office In-charge for onward transmission to the PSDHS.
- j. They will not leave till the next relieving team arrived.
- k. They will hand over this information to the next relieving team.
- l. They will leave the Quarantine facility with due permission of In-charge of the Quarantine facility.
- m. If any doctor has not reported due to unavoidable circumstances, present available team will inform to the concerned authority of designated hospital for substitute.
- n. In case any patient needs to be transferred due to any eventuality to the referral center, senior most doctor will accompany the ALS Ambulance to take care of the patient till he/she reaches and handed over to the center.
- o. The medical team may take help of psychiatric/ counsellor team if required, for psychosocial support
- p. Team to work in harmony with the Quarantine facility medical team.
- q. The senior most doctor on duty from the designated hospital will take decision of the clinical management.

Annex 2: Standard Operative Producers for Nursing Officer (supervisor)

- a. Maintain log of medical professionals/staffs entering/exiting in the quarantine facility, where the quarantine people are housed.
- b. A designated nursing officer (infection prevention & control nurse) has to ensure that the incoming officers/ staff to the quarantine building that are wearing appropriate PPE, and they are aware of universal infection control precautions {hand washing (alcohol/ sanitizers or soap & water; mask, gloves, PPE).
- c. After this he/she will allow the person to enter.
- d. The PPE doffed off by the outgoing medical professionals needs to be disposed in the yellow bag and hand sanitization should be ensured after disposing the PPE. (PPE- donning On / doffing Off enclosed).
- e. Yellow bags containing the infected materials placed in the nearby gate should be disposed off daily as per the Biomedical Waste Management Rules.
- f. The dustbins should be covered at all times. This should be ensured by Nursing officer. If required, disinfection has to be done as advised.
- g. Black bags (municipal wastes) - to be disposed after proper packaging daily as per the Biomedical Waste Management Rules.
- h. Supervise IPC in the facility in coordination with Microbiologist/Clinician.

Annex 3: Standard Operative Producers for Movement of Health Professionals and Support Staff Inside the Quarantine facility

The movements of health professionals are to be monitored at three vital points considering the control of infection for the prevailing disease

Control Room:

- Health professionals and support staff need to be made aware and trained in correct procedure of wearing mask and gloves.
- They need to be trained to follow the infection control measures as instructed including
 - i. hand washing with soap and water and sanitizing with alcohol-based sanitizers,
 - ii. cough etiquettes,
 - iii. donning and doffing of PPE etc.
 - iv. before entering the quarantine facility.

Main Gate Security post:

To monitor entry of persons/visitors to the facility and ensure that the personnel should comply with instructions / including wear the mask correctly.

Nursing Station at Quarantine building (ground floor):

1. Registration of name with time and purpose for entering the building
2. PPE should be donned here.
3. Nursing officer will check and ensure strict and correct wearing of PPE before entering the main quarantine area.
4. After coming out from the main quarantine area, PPE to be doffed properly and placed in the designated bin for infective material (Yellow bag).
5. The hands should be sanitized before exiting the quarantine area.
6. Mobile phones are not allowed to be used inside the building.
7. Name of doctors to be written on the PPE with permanent marker for identification.

Annex 4: Standard Operative Producers for Security Personnel at Quarantine facility

1. For security purpose, ensure 24 hours manning of the post of the quarantine facility.
2. The person manning the area must be trained and instructed to wear mask and gloves during the duty period.
3. Instructions for infection control measures like hand washing etc. should be properly briefed.
4. Doctors/Nursing staff/supporting staffs/other entering the quarantine area should wear appropriate PPE before entering the quarantine centers.
5. Log of those entering/exiting the Quarantine facility should be maintained. Only those having specific purpose inside the Quarantine facility should be allowed to enter.
6. The log should be put up daily to the controlling authority.

7. Security guard should have a whistle to give signals to people to not come near the quarantine facility if they do not have any purpose to visit the Quarantine facility.
8. He should report immediately to the officer In-charge controlling the security of the quarantine facility, if anybody does not follow the instructions as directed.
9. The security personnel should not leave after completing his shift till his reliever reports for duty.
10. The officer In-charge controlling the security of the quarantine facility will supervise the duty roster and roles and responsibilities of all the personnel deployed at the quarantine area for smooth functioning

6.0 FSM COVID-19 SURVEILLANCE PLAN

Condition 4	Zero cases, threat identified		
Surveillance System	Reporting	Triggers	Testing
Existing systems - ILI	Weekly syndromic reporting	Threshold exceeded – further investigate and commence testing using rapid test and send to GPHL for testing	<i>Assuming limited testing availability</i> IF EpiNet investigation indicates suspicion of potential COVID19 cases Unusual ILI clusters – test ONE case in cluster
POE screening - daily	Numbers/percentage screened Numbers/percentage secondary screening PUI		Meets PUI definition
SARI surveillance to be implemented at hospital			All SARI cases with no other etiology explaining presentation
Condition 3	1-10 suspected or confirmed cases		
Surveillance System	Reporting	Triggers	Testing
Existing systems – ILI	Weekly reporting	Commencing:	<i>Assuming limited testing availability</i> Unusual ILI clusters – test ONE case in cluster
POE screening	Daily reporting - percentage screened - percentage secondary screening PUI	Any PUI or Condition 3 (First Few initial cases)	Meets PUI definition
Contact tracing	Daily: Numbers in quarantine Numbers in home isolation Numbers in isolation Numbers contact tracing – daily Numbers admitted	Cease contact tracing if >10 cases in State	
SARI screening			SARI cases with no other etiology explaining presentation (post-exclusion respiratory panel testing)
<i>Case definitions updated</i>	Daily situation report		
Condition 2	>10-100 cases		
Surveillance System	Reporting	Triggers	Testing
COVID-19 daily case reporting	-Suspected cases -Lab confirmed cases -Numbers hospitalized -deaths -recovered -COVID-19 deaths in the community (verbal autopsy) -Mild cases in the home (self-isolation)	Commencing: First suspected case – PUI using current case definition	<i>Assuming limited testing availability</i> Testing of PUIs Testing all SARI cases
SARI surveillance			
Existing systems – ILI – normal reporting schedule <i>Case definitions updated</i>	Daily situation report		
Condition 1	>10-100 cases		

Surveillance System	Reporting	Triggers	Testing
COVID-19 surveillance	<ul style="list-style-type: none"> - suspected cases - lab confirmed cases - numbers hospitalized - deaths -recovered - mild cases in the home (self-isolation) -HCW cases -COVID-19 deaths in the community (verbal autopsy) Clinical suspicion (syndromic) 	<p>Continuing</p> <p>Ceasing: No reported cases for 28 days (2 incubation periods)</p>	<p><i>Depends on availability of testing kits and laboratory capacity</i></p> <p>If available:</p> <ul style="list-style-type: none"> -test all suspected cases -test all SARI cases <p>until capacity is no longer available</p>
Existing systems – ILI normal reporting schedule			
SARI screening	Proportion positive % (epi curve)	Lab capacity exceeded and widespread community transmission	
COVID-19 sentinel testing and diagnosis by clinical suspicion	Daily and then weekly situation reporting		<p>THEN move to sentinel testing</p> <p>First five cases of ILI presenting to Outpatients on a Monday morning are swabbed (should be scheduled with flights)</p>

7.0 CONTACT TRACING PROTOCOL

1. Case definitions for COVID-19 surveillance

The case definitions for COVID-19 are based on information currently available and may be revised as new information is confirmed.

Suspect case (PUI)	Patient with <u>acute respiratory illness (ARI)</u> or <u>influenza-like illness (ILI)</u> with symptoms that are described as fever that is measured or reported to be (≥ 38 Celsius), a cough and/or sore throat OR a patient with <u>severe acute respiratory infection (SARI)</u> described as fever, cough and require admission to hospital AND <ol style="list-style-type: none"> A history of travel to or residence in China during the 14 days prior to symptom onset OR Contact with a confirmed or probable case of COVID-19 OR Worked in or attended a health care facility where patients with confirmed or probable COVID-19 acute respiratory disease patients were being treated.
Probable case	A suspect case for whom testing for COVID-19 is inconclusive or is tested positive using a pan-coronavirus assay and without laboratory evidence of other respiratory pathogens.
Confirmed case	A person with laboratory confirmation of COVID-19 infection, irrespective of clinical signs and symptoms.

When a suspect case (PUI) is identified, their details are uploaded on Go.Data by the clinician. Contact tracing procedure is triggered (see below).

2. Identifying contacts

Definition of a contact:

A person who has had contact with the case since TWO DAYS BEFORE the suspected or confirmed CASE SHOWED FIRST SYMPTOMS.

Who is a contact?

A contact is a person involved in any of the following:

- Providing unprotected (without required Personal Protective Equipment) direct care for COVID-19 patients.
- Working with health care workers infected with COVID-19, without appropriate PPE.
- Visiting patients or staying in the same hospital environment as a COVID-19 patient.
- Working together, in close proximity, or sharing the same environment with a COVID-19 patient.
- Traveling with a COVID-19 patient in any kind of vehicle (taxi, car, plane, boat).
- Living in the same household as a COVID-19 patient.
- Attending a social gathering (e.g. church, funeral, birthday celebration, market) with the COVID-19 patient.

Identifying contacts: key information

- Contacts information should be collected from the patient or the clinician.
- Contacts information should be uploaded in Go.Data and Team Leaders should be notified.
- Contacts should be monitored by Contact Tracing Teams for 14 days from the day of the last exposure between the patient and the contact.
- Monitoring should be done on a daily basis through a household visit or by telephone to check for symptoms.
- Contacts should be instructed to self-limit travel and movements, and arrangements be made to support self-quarantined individuals.
- Any contact who becomes ill and meets the case definition becomes a suspect case (PUI). Clinician should be notified. The clinician converts the contact to a case on Go.Data. Patient sample is sent for testing.
- Contact tracing procedure is triggered.

3. Contact tracing: safety

The safety of the contact tracing teams is the first priority: any risk of exposure to COVID-19 should be mitigated by adhering to the guidelines below. If the safety of the contact tracers cannot be assured, the visit is to be discontinued.

- Do not enter the home. Stay outside and maintain a comfortable distance (more than 1 meter) from the contact being interviewed.
- Do not make direct physical contact like shaking hands or hugging.
- Do not sit on chairs offered to you. Politely explain that you will not be staying long.
- Do not accept any food or drink.
- Do not touch or lean against potentially contaminated objects.
- Always carry hand sanitizer. Clean your hands frequently and after every household visit.
- Temperature may be taken with a no-touch thermometer.
- As part of the overall safety of the response team, all members of the contact tracing team should monitor their own temperature every morning.
- Contact tracers should wear a medical mask.

4. Contact follow-up

- If it is the **first interview with the contact**:
 - Inform the contacts of their status with care and compassion, since being a contact can be associated with serious health outcomes.

- Explain the purpose of the interview to the contact and head of the household. Carefully explain that you will ask several questions regarding the health of the person(s) who had close contact with any COVID-19 case.
 - Explain you will be visiting or phoning daily, till 14 days after the last contact with the COVID-19 case.
 - Pass risk communication messages to the contact and other members of the household (give the information leaflet).
 - Instruct the contacts to:
 - Remain at home as much as possible and restrict close contact with other people.
 - Avoid crowded places, social gatherings, and the use of taxis.
 - Report any suspicious signs and symptoms such as fever, headache, and weakness immediately by calling **COVID-19 Hotline** or telephoning the tracer or Team Leader. (You may need to leave your telephone number and that of your Team Leader with them).
 - Thank the contact for his or her time.
- If one or more contacts **decline to be interviewed**:
 - Remain calm and civil. Always treat the contact with respect.
 - Explain that your visit is to ensure the health of the community and to help ill persons to receive medical treatment on time.
 - If the contact still refuses to be interviewed, thank them for their time and leave immediately. Note that the contact refused interview on Go.Data and notify the Team Leader immediately. Team Leader should inform contact tracing supervisors.
 - If the contact **cannot be found at home**:
 - Notify the Team Leader immediately.
 - If family members of the contact are available, inquire about the contact's whereabouts.
 - If possible, arrange a time to interview the contact later in the day.
 - Interview each contact in the following sequence:
 - Ask the contact if they are feeling ill or if health has worsened since last interview. Record any symptoms in Go.Data.
 - Observe contact for any signs of illness.
 - Inquire if there are any persons in the house who are not on the contact list who are ill. If there are other ill persons in the house, notify your Team Leader immediately.

- **If the contact has a fever or is ill:** The contact tracer should notify the Team Leader **immediately** with the contact's name and location. Provide reassurance to the contact and ask them to remain in the home until further assessment can be performed. Keep a safe distance from the contact but remain in the area until you receive instructions from the supervisor.
- Immediately after leaving the contact, perform hand hygiene: Clean hands by washing with soap and water. If soap and water are not available, use an alcohol hand sanitizer.
- Complete follow up and interview of all of the contacts assigned to you.
- Come back to State Hospital / Public Health, connect to the network and sync your Go.Data application.

5. Contact discharge

When the complete follow-up time of 14 days has been reached or when the case is confirmed as COVID-19 test negative, contacts can be discharged from the tracing. The Team Leader will ensure that the contact is removed from the contact tracing list on Go.Data.

Contacts completing the 14-day follow-up period should be assessed on the last day. In the absence of any symptoms, the contacts should be informed that they have been discharged from follow-up and can resume normal activities and social interactions. The team should spend time with the contacts' neighbors to assure them that the discharged contacts are not at risk of having COVID-19 from previous contacts. The contacts should be counselled to ensure that they are not re-exposed to symptomatic contacts or probable/confirmed cases of COVID-19.

8.0 HOSPITAL PREPAREDNESS

Introduction

This guideline helps hospitals to ensure established infrastructure, equipment, processes and procedures as well as trained human resources are prepared for the possible arrival of patients with COVID-19 illness. If all minimum recommended guidelines are compiled, the facility should be ready to handle potential COVID-19 suspected and confirmed cases. All hospitals should ensure their staff are trained, equipped and capable to:

- Prevent the spread of respiratory diseases including COVID-19 within the facility.
- Promptly identify and isolate patients with possible COVID-19 and inform the correct facility staff and public health authorities, including safe transfer of such patients to the COVID-19 Management centers.
- Care for a limited number of patients with confirmed or suspected COVID-19 as part of routine operations (If the facility is a designated COVID-19 management center).
- Potentially care for a larger number of patients in the context of an escalating outbreak (once the facility is equipped and designated as a COVID-19 management center).
- Monitor and manage any healthcare personnel that might be exposed to COVID-19.
- Communicate effectively within the facility and plan for appropriate external communication related to COVID-19.

Important elements for the hospital to review in preparation for potential arrivals of patients.

1. Infection Prevention and Control policies and training for healthcare personnel (HCP)

The Facility leadership should review the COVID-19 control and prevention guidelines and provide education and on the job-specific training to HCP regarding COVID-19 on the following topics:

- Signs and symptoms of infection
- How to safely collect a specimen from the COVID-19 suspected patients.
- Correct infection control practices and personal protective equipment (PPE) use
- HCP sick leave policies and recommended actions for unprotected exposures (e.g., not using recommended PPE, an unrecognized infectious patient contact)
- How to report the COVID-19 suspected and confirmed cases.

2. Process for rapidly identifying and isolating patients with confirmed or suspected COVID-19- Triage

There should be a prescreening area in all the facilities that is close to the entrance equipped with all the necessary equipment and manned by trained staff. The role of this station is to screen all the patients brought into health facilities and ensuring that all those who present with any of the signs and symptoms of the COVID-19 are directed to a separate isolation area where they will further be screened.

At the triaging area, all suspected cases should:

- Immediately put on a mask and keep it on during their assessment, cover their mouth/nose when coughing or sneezing, use and dispose of tissues, and perform hand hygiene after contact with respiratory secretions.

All the service points and entry points within the facilities should have;

- Posters with information on COVID-19 should be displayed at service points and entry points advising patients and the public with fever or symptoms of respiratory infection to immediately notify triage personnel so appropriate precautions can be taken.
- Running water and soap or Alcohol based hand sanitizer for hand hygiene is available at each entrance and at all service points across the facility.
- Provision for tissues and no-touch bins for disposal of tissues in waiting rooms and at all service points.
- Facility should provide a separate well-ventilated space that allows waiting not to crowd, with easy access to respiratory hygiene and cough etiquette supplies. The facilities could use the open spaces within the facility as waiting bays incase patient numbers are high.

Alternative option: Patients that cannot be immediately placed in a room for further evaluation, a system is provided that allows them to wait in a personal vehicle or outside the facility (if medically appropriate) and be notified by phone or other remote methods when it is their turn to be evaluated.

All facilities should also ensure that.

- Triage personnel are trained on appropriate processes (e.g., questions to ask and actions to take) to rapidly identify and isolate suspect cases.
- Facility has a process that occurs after a suspect case is identified to include immediate notification of facility leadership/infection control.
- Facility has a process to notify local or state health department of a suspect case soon after arrival.
- Facility has a process for receiving suspect cases arriving by ambulance

3. Patient Placement- Isolation ward

It is recommended that;

- All the healthcare facilities should confirm the number and location of their isolation areas/rooms.
- All the Isolation areas/rooms should ideally be away from other medical activities and areas, be well ventilated and lit, and have proper control of access.
- The rooms should have a good connection to the sewerage system to facilitate disposal of the body secretions.

- The isolation room should have clear administration registers that track all those coming in and out.
- A waste management plan should also be in place that clearly states how the waste shall be segregated, collected, transported and disposed.
- Guidelines on how the room shall be decontaminated should also be provided and in line with national/international directives. • All the activities at the Isolation area/room should also be clearly documented.

Verification of each of the Isolation area/room should be done and should meet the following criteria.

- Well ventilated and lit.
- Air from these rooms should be exhausted directly to the outside if suction of air is provided.
- Room doors should be kept closed except when entering or leaving the room, and entry and exit should be minimized.
- The facility should have plans to minimize the number of HCP who enter the room. Only essential personnel should enter the Isolation room/area. Facilities should consider caring for these patients with dedicated HCP to minimize risk of transmission and exposure to other patients and HCP.
- The facility should have a process (e.g., a log, electronic tracking) for documenting HCP entering and exiting the patient room.
- The facility should have a policies for dedicating noncritical patient-care equipment to the patient.
- Referral protocol other Isolation rooms/areas should also be in place in case this is required.

4. Handling COVID-19 confirmed cases

Procedures and practices important once a case of COVID-19 is confirmed at a Facility;

- Personal Protective Equipment (PPE) and other infection prevention and control supplies (e.g., hand hygiene supplies) that would be used for both healthcare personnel (HCP) protection and source control for infected patients (e.g., facemask on the patient) should be available and in sufficient supply at patient arrival, triage, and assessment locations.
- To be ready for possible complications from COVID-19, the facility, if identified as a COVID-19 case management center, should have a respiratory protection program where all the selected staff have been trained appropriately to handle severe cases. The appropriate HCP should have been medically cleared, fit-tested, and trained for respirator use.
- Due to the magnitude of the operations, the supplies for day to day running at facilities that may be at the center of an infection may really affected. It's therefore recommended that a dedicated team be trained, on key supply chain concepts to ensure that all the required supplies are available.

- All the staff should be trained on the selection and proper use of (including putting on and removing) PPE, with a required demonstration of competency. The outcome of this should be documented.
- All the facilities should also have a process for auditing adherence to recommended PPE use by HCP. Outcomes for all such audits should be documented and records kept. This should be done at least twice a week if resources allow

5. Movement of patients with confirmed or suspected COVID-19 within the facility

For all patients who have been confirmed to have the COVID-19 virus:

- Their movement outside of the Isolation room/area will be limited to medically essential purposes.
- In case, a patient is transported outside the isolation area/room there should be a protocol in place to ensure that the HCP in the receiving area are notified in advance.
- Patients transported outside of the isolation room/area should wear a facemask and be covered with a clean sheet during transport

6. Hand hygiene (HH)

- All facilities should provide hand hygiene supplies, including alcohol-based hand sanitizer/soap water and paper towels at all service points, including areas where HCP remove PPE.
- The facility should have a process for auditing adherence to recommended hand hygiene practices by HCP. The findings should be documented and filed.

7. Environmental Cleaning

For proper control of infections, the environment should be cleaned as properly and regularly. It is recommended that:

- The facility develops a plan to ensure proper cleaning and disinfection of environmental surfaces and equipment across the facility. Special attention should be paid to the contact points where many people always touch like doorknobs, the equipment, toilets, working surfaces etc.
- In case the cleaning is outsourced the environmental services personnel/cleaners should be appropriately trained and fit-tested.
- All HCP with cleaning responsibilities should understand the contact time for selected products used for cleaning. The cleaning products should be approved by the Ministry of Health in the respective country.
- The facility should have a process to ensure shared or non-dedicated equipment is cleaned and disinfected after use according to manufacturer's recommendations.

8. Monitoring and managing Health care personnel

The HCP are at the center of operations who identify, diagnose and treat the confirmed cases of COVID-19 should also be protected and taken care of for the sacrifices that they make. The following measures are recommended for the HCP.

- Each facility should follow the national and county public health authority's policies and procedures for monitoring and managing HCP with potential for exposure to COVID-19, including ensuring that HCP have access, also through telephone, to medical consultation. A clear guide on how they can access the necessary help should be available.
- All facilities should have a process to track exposures and conduct active monitoring of HCP if required by public health. It is preferred to have dedicated staff.
- The facility should set up a process to conduct symptom and temperature checks prior to the start of any shift of asymptomatic, exposed HCP that are not work restricted.
- To take care of mental health issues for the HCP the facilities either on their own or with other organized groups should set up counselling centers to allow the HCP to get counselling

9. Visitor access and movement within the facility

To reduce the spread of infections by those visiting the healthcare facilities, it is recommended that the facilities;

- Plan for visitor access and movement within the facility.
- Screen all the visitors for symptoms of acute respiratory illness before entering the hospital.
- Have a plan to restrict visitation to rooms of patients with confirmed or suspected COVID-19.

If visitors can enter the room of a confirmed or suspected COVID-19 patient, the facility should:

- Enact a policy defining what PPE should be used by visitors.
- Provide instructions to visitors before they enter a patient room, on hand hygiene, limiting surfaces touched, and use of PPE according to current facility policy.
- Maintain a record (e.g. a log with contact information) of all visitors who enter and exit the room.
- Ensure that visitors limit their movement within facility (e.g. avoid the cafeteria).

10. Facility regularly monitors the situation on COVID-19

- websites, weekly sitreps, regional updates- SPC, WHO etc

11. Mortuary management of COVI-19 bodies

- A protocol onsite to handle dead bodies related to COVID-19?
- Infection prevention and control guideline in place (Hand hygiene, PPE & waste management and environmental cleaning). Packing and transport of the body, Mortuary care, Autopsy, and no embalming policy.
- Appropriate PPE is available
- Dedicated hand wash sink and soap on site
- Appropriate disinfectant available
- Appropriate cleaning items onsite and not shared for other purposes
- Waste holding containers available (including biohazard bags) onsite
- Body bags provided
- Ante room on site

9.0 INFECTION PREVENTION AND CONTROL

Background:

Interim guidance on currently available information about COVID-19 and the current situation, which includes community transmission, infections identified in healthcare personnel (HCP), and shortages of facemasks, N95 filtering face piece respirators (FFRs) (commonly known as N95 respirators), eye protection, gloves, and gowns.

NOTE: This guidance is not intended for non-healthcare settings (e.g., schools) OR for persons outside of healthcare settings.

Mode of transmission

Current data suggest person-to-person transmission most commonly happens during close exposure to a person infected with the virus that causes COVID-19, primarily via respiratory droplets produced when the infected person speaks, coughs, or sneezes. Droplets can land in the mouths, noses, or eyes of people who are nearby or possibly be inhaled into the lungs of those within close proximity. Transmission also might occur through contact with contaminated surfaces followed by self-delivery to the eyes, nose, or mouth. The contribution of small respirable particles, sometimes called aerosols or droplet nuclei, to close proximity transmission is currently uncertain. However, airborne transmission from person-to-person over long distances is unlikely. People with COVID-19 frequently do not report typical symptoms such as fever or respiratory symptoms; some may not report any symptoms. Unrecognized asymptomatic and pre-symptomatic infections likely contribute to transmission in these and other healthcare settings. Source control, which involves having the infected person wear a cloth face covering or facemask over their mouth and nose to contain their respiratory secretions, might help reduce the risk of transmission of SARS CoV-2 from both symptomatic and asymptomatic people. This guidance is only intended for Health Care settings.

Shortage of personal protective equipment

Controlling exposures to sources of occupational infections is a fundamental method of protecting HCP. Traditionally, a hierarchy of controls has been used as a means of determining how to implement feasible and effective control solutions. The hierarchy ranks controls according to their reliability and effectiveness and includes **engineering controls**, **administrative controls**, and **personal protective equipment (PPE)**. PPE is the least effective control because it involves a high level of worker involvement and is highly dependent on proper fit and correct, consistent use.

Due to shortages of PPE, including N95 respirators, facemasks, eye protection, gowns, and gloves. Healthcare facilities are responsible for protecting their HCP from exposure to pathogens, including by providing appropriate PPE.

Capacity across the healthcare continuum: Use of N95 or higher-level respirators are recommended for HCP who have been medically cleared, trained, and fit tested, in the context of a facility. However, the majority of outpatient clinics, including hemodialysis facilities, do not

have respiratory protection programs nor have they fit tested HCP, making use of respirators currently unachievable. Without an alternative, this can lead to transfer of patients with known or suspected COVID-19 to another facility (e.g., acute care hospital) for evaluation and care. In areas with community transmission, acute care facilities could be quickly overwhelmed by transfers of patients who have only mild illness and do not require hospitalization.

Many of the recommendations described in this guidance (e.g., triage procedures, source control) should already be part of an infection control program designed to prevent transmission of seasonal respiratory infections. As it might be challenging to distinguish COVID-19 from other respiratory infections, interventions will need to be applied broadly and not limited to patients with confirmed COVID-19.

Definitions:

Healthcare Personnel (HCP): HCP include, but are not limited to, emergency medical service personnel, nurses, nursing assistants, physicians, technicians, therapists, phlebotomists, pharmacists, students and trainees, contractual staff not employed by the healthcare facility, and persons not directly involved in patient care, but who could be exposed to infectious agents that can be transmitted in the healthcare setting (e.g., clerical, dietary, environmental services, laundry, security, engineering and facilities management, administrative, billing, and volunteer personnel).

Cloth face covering: *Textile (cloth) covers that are intended to keep the person wearing one from spreading respiratory secretions when talking, sneezing, or coughing. They are not PPE and it is uncertain whether cloth face coverings protect the wearer. Guidance on design, use, and maintenance of cloth face coverings is available.*

Facemask: Facemasks are PPE and are often referred to as surgical masks or procedure masks. Use facemasks according to product labeling and local, state, and federal requirements. FDA-cleared surgical masks are designed to protect against splashes and sprays and are prioritized for use when such exposures are anticipated, including surgical procedures. Facemasks that are not regulated by FDA, such as some procedure masks, which are typically used for isolation purposes, may not provide protection against splashes and sprays.

Respirator: A respirator is a personal protective device that is worn on the face, covers at least the nose and mouth, and is used to reduce the wearer's risk of inhaling hazardous airborne particles (including dust particles and infectious agents), gases, or vapors. Respirators are certified by the CDC/NIOSH, including those intended for use in healthcare. Refer to the Appendix for a summary of different types of respirators.

Recommendations

1. Minimize Chance for Exposures

Ensure facility policies and practices are in place to minimize exposures to respiratory pathogens including SARS-CoV-2, the virus that causes COVID-19. Measures should be implemented before patient arrival, upon arrival, throughout the duration of the patient's visit, and until the patient's

room is cleaned and disinfected. It is particularly important to protect individuals at increased risk for adverse outcomes from COVID-19 (e.g., older individuals with comorbid conditions), including HCP who are in a recognized risk category.

a. Universal Source Control

Continued community transmission has increased the number of individuals potentially exposed to and infectious with SARS-CoV-2. Fever and symptom screening have proven to be relatively ineffective in identifying all infected individuals, including HCP. Symptom screening also will not identify individuals who are infected but otherwise asymptomatic or pre-symptomatic; additional interventions are needed to limit the unrecognized introduction of SARS-CoV-2 into healthcare settings by these individuals. As part of aggressive source control measures, healthcare facilities should consider implementing policies requiring everyone entering the facility to wear a cloth face covering (if tolerated) while in the building, regardless of symptoms. This approach is consistent with a recommendation to the general public advising them to wear a cloth face covering whenever they must leave their home.

b. Patient and Visitors

Patients and visitors should, ideally, be wearing their own cloth face covering upon arrival to the facility. If not, they should be offered a facemask or cloth face covering as supplies allow, which should be worn while they are in the facility (if tolerated). They should also be instructed that if they must touch or adjust their cloth face covering, they should perform hand hygiene immediately before and after. Facemasks and cloth face coverings should not be placed on young children under age 2, anyone who has trouble breathing, or anyone who is unconscious, incapacitated or otherwise unable to remove the mask without assistance. Patients may remove their cloth face covering when in their rooms but should put them back on when leaving their room or when others (e.g., HCP, visitors) enter the room. Screening for symptoms and appropriate triage, evaluation, and isolation of individuals who report symptoms should still occur.

c. Healthcare Personnel

As part of source control efforts, HCP should wear a facemask at all times while they are in the healthcare facility. When available, facemasks are generally preferred over cloth face coverings for HCP as facemasks offer both source control and protection for the wearer against exposure to splashes and sprays of infectious material from others.

If there are anticipated shortages of facemasks, facemasks should be prioritized for HCP and then for patients with symptoms of COVID-19 (as supply allows). Cloth face coverings should NOT be worn instead of a respirator or facemask if more than source control is required.

Some HCP whose job duties do not require PPE (e.g., clerical personnel) might continue to wear their cloth face covering for source control while in the healthcare facility. Other HCP (e.g., nurses, physicians) might wear their cloth face covering for part of the day when not engaged in direct patient care activities, only switching to a respirator or facemask when PPE is required. To avoid risking self-contamination, HCP should consider continuing to wear their respirator or facemask

(extended use) instead of intermittently switching back to their cloth face covering. Of note, N95s with an exhaust valve might not provide source control. HCP should remove their respirator or facemask and put on their cloth face covering when leaving the facility at the end of their shift. They should also be instructed that if they must touch or adjust their facemask or cloth face covering, they should perform hand hygiene immediately before and after.

HCP should have received job-specific training on PPE and demonstrated competency with selection and proper use (e.g., putting on {donning} and removing {Doffing} without self-contamination).

Because cloth face coverings can become saturated with respiratory secretions, care should be taken to prevent self-contamination. They should be changed if they become soiled, damp, or hard to breathe through, laundered regularly (e.g., daily and when soiled), and, hand hygiene should be performed immediately before and after any contact with the cloth face covering. Facilities should also provide training about when, how, and where cloth face coverings can be used (e.g., frequency of laundering, guidance on when to replace, circumstances when they can be worn in the facility, importance of hand hygiene to prevent contamination).

d. Before Arrival

When scheduling appointments for routine medical care (e.g., annual physical, elective surgery), instruct patients to call ahead and discuss the need to reschedule their appointment if they develop fever or symptoms of COVID-19 on the day they are scheduled to be seen. Advise them that they should put on their own cloth face covering, regardless of symptoms, before entering the facility.

When scheduling appointments for patients requesting evaluation for possible COVID-19, use nurse-directed triage protocols to determine if an appointment is necessary or if the patient can be managed from home.

- a) If the patient must come in for an appointment, instruct them to call beforehand to inform triage personnel that they have symptoms of COVID-19 and to take appropriate preventive actions (e.g., follow triage procedures, put on their own cloth face covering prior to entry and throughout their visit or, if a cloth face covering cannot be tolerated, hold a tissue against their mouth and nose to contain respiratory secretions).

If a patient is arriving via transport by emergency medical services (EMS), EMS personnel should contact the receiving emergency department (ED) or healthcare facility and follow previously agreed upon local or regional transport protocols. This will allow the healthcare facility to prepare for receipt of the patient.

e. Upon Arrival and During the Visit

- i. Limit and monitor points of entry to the facility.
- ii. Advise patients and visitors entering the facility, regardless of symptoms, to put on a cloth face covering or facemask before entering the building and await screening for fever and symptoms of COVID-19.

- iii. Take steps to ensure everyone adheres to respiratory hygiene and cough etiquette, hand hygiene, and all patients follow triage procedures throughout the duration of the visit.
 - Post alert visuals (e.g., signs, posters) at the entrance and in strategic places (e.g., waiting areas, elevators, cafeterias) to provide instructions (in appropriate languages) about hand hygiene and respiratory hygiene and cough etiquette. Instructions should include wearing a cloth face covering or facemask for source control, and how and when to perform hand hygiene.
 - Provide supplies for respiratory hygiene and cough etiquette, including alcohol-based hand rub (ABHR) with 60-95% alcohol, tissues, and no-touch receptacles for disposal, at healthcare facility entrances, waiting rooms, and patient check-ins.
 - Install physical barriers (e.g., glass or plastic windows) at reception areas to limit close contact between triage personnel and potentially infectious patients.
 - Consider establishing triage stations outside the facility to screen individuals before they enter.
- iv. Ensure rapid, safe triage and isolation of patients with symptoms of suspected COVID-19 or other respiratory infection (e.g., fever, cough).
 - Ensure triage personnel who will be taking vitals and assessing patients wear a respirator (or facemask if respirators are not available), eye protection, and gloves for the primary evaluation of all patients presenting for care until COVID-19 is deemed unlikely.
 - Prioritize triage of patients with symptoms of suspected COVID-19.
 - Triage personnel should have a supply of facemasks or cloth face coverings; these should be provided to all patients who are not wearing their own cloth face covering at check-in, assuming a sufficient supply exists.
 - Ensure that, at the time of patient check-in, all patients are asked about the presence of fever, symptoms of COVID-19, or contact with patients with possible COVID-19.
 - Isolate patients with symptoms of COVID-19 in an examination room with the door closed. If an examination room is not readily available ensure the patient is not allowed to wait among other patients seeking care.
 - Identify a separate, well-ventilated space that allows waiting patients to be separated by 6 or more feet, with easy access to respiratory hygiene supplies.
 - In some settings, patients might opt to wait in a personal vehicle or outside the healthcare facility where they can be contacted by mobile phone when it is their turn to be evaluated.
- v. Incorporate questions about new onset of COVID-19 symptoms into daily assessments of all admitted patients. Monitor for and evaluate all new fevers and symptoms consistent with COVID-19 among patients. Place any patient with unexplained fever or symptoms of COVID-19 on appropriate Transmission-Based Precautions and evaluate.
- vi. Prioritize patients with suspected COVID-19 who require admission to a hospital for testing.

Additional Strategies to Minimize Chances for Exposure: The need for additional strategies will be dependent on factors including the level of SARS-CoV-2 transmission in the community, the number of patients with COVID-19 being cared for at the facility and

if healthcare-associated transmission is occurring, and any current or anticipated PPE or staffing shortages. Factors may change over time and will vary by practice type, setting, and the potential for patient harm if care is deferred. Examples of strategies might include:

- Implementing alternatives to face-to-face triage and visits, such as telehealth (telephone).
- Designating an area at the facility (e.g., an ancillary building or temporary structure) or identifying a location in the area to be a “respiratory virus evaluation center” where patients with fever or symptoms of COVID-19 can seek evaluation and care.
- Cancelling or modifying in-person group healthcare activities (e.g., group therapy, recreational activities) by implementing virtual methods (e.g., video format for group therapy) or scheduling smaller in-person group sessions while having patients sit at least 6 feet apart and wear a cloth face covering.
- Postponing elective procedures, surgeries, and non-urgent outpatient visits.
 - In addition to the factors above (e.g., level of community transmission), facilities should consider the potential for patient harm if care is deferred when making decisions about providing elective procedures, surgeries, and non-urgent outpatient visits. Refer to the Framework for Healthcare Systems Providing Non-COVID-19 Clinical Care During the COVID-19 Pandemic for additional guidance.

2. Adhere to Standard and Transmission-Based Precautions

Standard Precautions assume that every person is potentially infected or colonized with a pathogen that could be transmitted in the healthcare setting. Elements of Standard Precautions that apply to patients with respiratory infections, including COVID-19, are summarized below. Attention should be paid to training and proper donning (putting on), doffing (taking off), and disposal of any PPE. This document does not emphasize all aspects of Standard Precautions (e.g., injection safety) that are required for all patient care; the full description is provided in the FSM IPC Manual.

HCP -Refer to Specific State Hospital policy on non-healthcare providers/ visitation policy.

a. Hand Hygiene

- HCP should perform hand hygiene before and after all patient contact, contact with potentially infectious material, and before putting on and after removing PPE, including gloves. Hand hygiene after removing PPE is particularly important to remove any pathogens that might have been transferred to bare hands during the removal process.
- HCP should perform hand hygiene by using ABHR with 60-95% alcohol or washing hands with soap and water for at least 20 seconds. If hands are visibly soiled, use soap and water before returning to ABHR.
- Healthcare facilities should ensure that hand hygiene supplies are readily available to all personnel in every care location.

b. Personal Protective Equipment

Any reusable PPE must be properly cleaned, decontaminated, and maintained after and between uses (i.e., Goggles). Facilities should have policies and procedures describing a recommended sequence for safely donning and doffing PPE. The PPE recommended when caring for a patient with known or suspected COVID-19 includes:

i. Respirator or Facemask

(Cloth face coverings are NOT PPE and should not be worn for the care of patients with known or suspected COVID-19 or other situations where a respirator or facemask is warranted)

- Put on an N95 respirator (or higher-level respirator) or facemask (if a respirator is not available) before entry into the patient room or care area. No reuse of masks.
- Higher level respirators include other disposable filtering face-piece respirators and elastomeric respirators.
- N95 respirators or respirators that offer a higher level of protection should be used instead of a facemask when performing or present for an aerosol generating procedure. Disposable respirators and facemasks should be removed and discarded after exiting the patient's room or care area and closing the door unless implementing extended use or reuse. Perform hand hygiene after removing the respirator or facemask.
 - If reusable respirators (e.g., powered air-purifying respirators [PAPRs]) are used, they must be cleaned and disinfected according to manufacturer's reprocessing instructions prior to re-use.
- When the supply chain is restored, facilities with a respiratory protection program should return to use of respirators for patients with known or suspected COVID-19. Those that do not currently have a respiratory protection program, but care for patients with pathogens for which a respirator is recommended, should implement a respiratory protection program.

ii. Eye Protection

- Put on eye protection (i.e., goggles or a disposable face shield that covers the front and sides of the face) upon entry to the patient room or care area, if not already wearing as part of extended use. No reuse. Personal eyeglasses and contact lenses are NOT considered adequate eye protection.
- Remove eye protection before leaving the patient room or care area.
- Reusable eye protection (e.g., goggles) must be cleaned and disinfected according to manufacturer's reprocessing instructions prior to re-use. Disposable eye protection should be discarded after use unless following protocols for extended use or reuse.

iii. Gloves

- Put on clean, non-sterile gloves upon entry into the patient room or care area.
 - Change gloves if they become torn or heavily contaminated.

- Remove and discard gloves when leaving the patient room or care area, and immediately perform hand hygiene.

iv. Gowns

- Put on a clean isolation gown upon entry into the patient room or area.
 - Change the gown if it becomes soiled.
- Remove and discard the gown in a dedicated container for waste or linen before leaving the patient room or care area. Disposable gowns should be discarded after use. Cloth gowns should be laundered after each use.
- If there are shortages of gowns, they should be prioritized for:
 - Aerosol generating procedures
 - Care activities where splashes and sprays are anticipated
 - High-contact patient care activities that provide opportunities for transfer of pathogens to the hands and clothing of HCP. Examples include:
 - dressing
 - bathing/showering
 - transferring
 - providing hygiene
 - changing linens
 - changing briefs or assisting with toileting
 - device care or use
 - wound care

Use Personal Protective Equipment (PPE) When Caring for Patients with Confirmed or Suspected COVID-19

Before caring for patients with confirmed or suspected COVID-19, healthcare personnel (HCP) must:

- **Receive comprehensive training** on when and what PPE is necessary, how to don (put on) and doff (take off) PPE, limitations of PPE, and proper care, maintenance, and disposal of PPE.
- **Demonstrate competency** in performing appropriate infection control practices and procedures.

Remember:

- PPE must be donned correctly before entering the patient area (e.g., isolation room, unit if cohorting).
- PPE must remain in place and be worn correctly for the duration of work in potentially contaminated areas. PPE should not be adjusted (e.g., retying gown, adjusting respirator/facemask) during patient care.
- PPE must be removed slowly and deliberately in a sequence that prevents self-contamination. A step-by-step process should be developed and used during training and patient care.

Preferred PPE – Use N95 or Higher Respirator



Acceptable Alternative PPE – Use Facemask



Donning (putting on the gear):

More than one donning method may be acceptable. Training and practice using your healthcare facility's procedure is critical. Below is one example of donning.

1. **Identify and gather the proper PPE to don.** Ensure choice of gown size is correct (based on training).
2. **Perform hand hygiene using hand sanitizer.**
3. **Put on isolation gown.** Tie all of the ties on the gown. Assistance may be needed by another HCP.
4. **Put on NIOSH-approved N95 filtering facepiece respirator or higher (use a facemask if a respirator is not available).**
If the respirator has a nosepiece, it should be fitted to the nose with both hands, not bent or tented. Do not pinch the nosepiece with one hand. Respirator/facemask should be extended under chin. Both your mouth and nose should be protected. Do not wear respirator/facemask under your chin or store in scrubs pocket between patients.*
 - » **Respirator:** Respirator straps should be placed on crown of head (top strap) and base of neck (bottom strap). Perform a user seal check each time you put on the respirator.
 - » **Facemask:** Mask ties should be secured on crown of head (top tie) and base of neck (bottom tie). If mask has loops, hook them appropriately around your ears.
5. **Put on face shield or goggles.** When wearing an N95 respirator or half facepiece elastomeric respirator, select the proper eye protection to ensure that the respirator does not interfere with the correct positioning of the eye protection, and the eye protection does not affect the fit or seal of the respirator. Face shields provide full face coverage. Goggles also provide excellent protection for eyes, but fogging is common.
6. **Put on gloves.** Gloves should cover the cuff (wrist) of gown.
7. **HCP may now enter patient room.**

Doffing (taking off the gear):

More than one doffing method may be acceptable. Training and practice using your healthcare facility's procedure is critical. Below is one example of doffing.

1. **Remove gloves.** Ensure glove removal does not cause additional contamination of hands. Gloves can be removed using more than one technique (e.g., glove-in-glove or bird beak).
2. **Remove gown.** Untie all ties (or unsnap all buttons). Some gown ties can be broken rather than untied. Do so in gentle manner, avoiding a forceful movement. Reach up to the shoulders and carefully pull gown down and away from the body. Rolling the gown down is an acceptable approach. Dispose in trash receptacle.*
3. **HCP may now exit patient room.**
4. **Perform hand hygiene.**
5. **Remove face shield or goggles.** Carefully remove face shield or goggles by grabbing the strap and pulling upwards and away from head. Do not touch the front of face shield or goggles.
6. **Remove and discard respirator (or facemask if used instead of respirator).*** Do not touch the front of the respirator or facemask.
 - » **Respirator:** Remove the bottom strap by touching only the strap and bring it carefully over the head. Grasp the top strap and bring it carefully over the head, and then pull the respirator away from the face without touching the front of the respirator.
 - » **Facemask:** Carefully untie (or unhook from the ears) and pull away from face without touching the front.
7. **Perform hand hygiene after removing the respirator/facemask** and before putting it on again if your workplace is practicing reuse.

3. Patient Placement

- For patients with COVID-19 or other respiratory infections, evaluate need for hospitalization. Home isolation is recommended if the state hospital exceed surge capacity.
- If admitted, place a patient with known or suspected COVID-19 in a single-person room with the door closed. The patient should have a dedicated bathroom.
 - Airborne Infection Isolation Rooms (AIIRs) should be reserved for patients who will be undergoing aerosol generating procedures (See Aerosol Generating Procedures Section)
- As a measure to limit HCP exposure and conserve PPE, facilities could consider designating entire units within the facility, with dedicated HCP, to care for patients with known or suspected COVID-19. Dedicated means that HCP are assigned to care only for these patients during their shift.
 - Determine how staffing needs will be met as the number of patients with known or suspected COVID-19 increases and HCP become ill and are excluded from work.
 - It might not be possible to distinguish patients who have COVID-19 from patients with other respiratory viruses. As such, patients with different respiratory pathogens might be housed on the same unit. However, only patients with the same respiratory pathogen may be housed in the same room. For example, a patient with COVID-19 should ideally not be housed in the same room as a patient with an undiagnosed respiratory infection.

- Limit transport and movement of the patient outside of the room to medically essential purposes.
 - Consider providing portable x-ray equipment in patient cohort areas to reduce the need for patient transport.
- To the extent possible, patients with known or suspected COVID-19 should be housed in the same room for the duration of their stay in the facility (e.g., minimize room transfers).
- Patients should wear a facemask or cloth face covering to contain secretions during transport. If patients cannot tolerate a facemask or cloth face covering or one is not available, they should use tissues to cover their mouth and nose while out of their room.
- Personnel entering the room should use PPE as described above.
- Whenever possible, perform procedures/tests in the patient's room.
- Once the patient has been discharged or transferred, HCP, including environmental services personnel, should refrain from entering the vacated room until sufficient time has elapsed for enough air changes to remove potentially infectious particles dependent on type of ventilation of the isolation ward. After this time has elapsed, the room should undergo appropriate cleaning and surface disinfection before it is returned to routine use.

4. Take Precautions When Performing Aerosol Generating Procedures

- Some procedures performed on patients with known or suspected COVID-19 could generate infectious aerosols. Procedures that pose such risk should be performed cautiously and avoided if possible.
- If performed, the following should occur:
 - HCP in the room should wear an N95 or higher-level respirator such as disposable filtering face piece respirators, PAPRs, and elastomeric respirators, eye protection, gloves, and a gown.
 - The number of HCP present during the procedure should be limited to only those essential for patient care and procedure support. Visitors should not be present for the procedure.
 - Clean and disinfect procedure room surfaces promptly as described in the section on environmental infection control below.

5. Collection of Diagnostic Respiratory Specimens

- When collecting specimens for testing (e.g., nasopharyngeal swab) from a patient with possible COVID-19, the following should occur:
 - Specimen collection should be performed in a normal examination room with the door closed.
 - HCP in the room should wear an N95 or higher-level respirator (or facemask if a respirator is not available), eye protection, gloves, and a gown.
 - If respirators are not readily available, they should be prioritized for other procedures at higher risk for producing infectious aerosols (e.g., intubation), instead of for collecting nasopharyngeal swabs.
 - The number of HCP present during the procedure should be limited to only those essential for patient care and procedure support. Visitors should not be present for specimen collection.

- Clean and disinfect procedure room surfaces promptly as described in the section on environmental infection control below.

6. Manage Visitor Access and Movement within the Facility

- Limit visitors to the facility to only those essential for the patient's physical or emotional well-being and care (e.g., care partners).
- Encourage use of alternative mechanisms for patient and visitor interactions such as video-call applications on cell phones or tablets.
- Limit points of entry to the facility and visitation hours to allow screening of all potential visitors.
- Actively assess all visitors for fever and COVID-19 symptoms upon entry to the facility. If fever or COVID-19 symptoms are present, the visitor should not be allowed entry into the facility.
- Establish procedures for monitoring, managing, and training all visitors, which should include:
 - All visitors should be instructed to wear a facemask or cloth face covering at all times while in the facility, perform frequent hand hygiene, and restrict their visit to the patient's room or other area designated by the facility.
 - Informing visitors about appropriate PPE use according to current facility visitor policy.
- If visitation to patients with COVID-19 occurs, visits should be scheduled and controlled to allow for the following:
 - Facilities should evaluate risk to the health of the visitor (e.g., visitor might have underlying illness putting them at higher risk for COVID-19) and ability to comply with precautions.
 - Facilities should provide instruction, before visitors enter patients' rooms, on hand hygiene, limiting surfaces touched, and use of PPE according to current facility policy while in the patient's room.
 - Visitors should not be present during AGPs or other procedures.
 - Visitors should be instructed to only visit the patient room. They should not go to other locations in the facility.

7. Implement Engineering Controls

- Design and install engineering controls to reduce or eliminate exposures by shielding HCP and other patients from infected individuals. Examples of engineering controls include:
 - physical barriers or partitions to guide patients through triage areas
 - curtains between patients in shared areas
 - air-handling systems (with appropriate directionality, filtration, exchange rate, etc.) that are properly installed and maintained

8. Monitor and Manage Healthcare Personnel

- Facilities and organizations providing healthcare should implement sick leave policies for HCP that are non-punitive, flexible, and consistent with public health guidance.

- As part of routine practice, HCP should be asked to regularly monitor themselves for fever and symptoms of COVID-19.
 - HCP should be reminded to stay home when they are ill.
 - If HCP develop fever ($T \geq 100.0^{\circ}\text{F}$) or symptoms consistent with COVID-19* while at work they should keep their cloth face covering or facemask on, inform their supervisor, and leave the workplace.
- Screen all HCP at the beginning of their shift for fever and symptoms consistent with COVID-19*
 - Actively take their temperature and document absence of symptoms consistent with COVID-19*. If they are ill, have them keep their cloth face covering or facemask on and leave the workplace.
 - *Fever is either measured temperature $\geq 100.0^{\circ}\text{F}$ or subjective fever. Note that fever may be intermittent or may not be present in some individuals, such as those who are elderly, immunosuppressed, or taking certain medications (e.g., NSAIDs). Clinical judgement should be used to guide testing of patients in such situations. Respiratory symptoms consistent with COVID-19 include cough, shortness of breath, and sore throat. Medical evaluation may be recommended for lower temperatures ($<100.0^{\circ}\text{F}$) or other symptoms consistent with COVID-19 based on assessment by occupational health. Additional information about clinical presentation of patients with COVID-19 is available.
- HCP with suspected COVID-19 should be prioritized for testing.
 - High Priority: Hospitalized patients with symptoms
 - Health workers and first responders with symptoms
 - Other Priority: Persons with COVID-19 symptoms
 - Persons without symptoms prioritized by health departments or clinicians for any reason but not limited to public health monitoring and sentinel surveillance

Symptomatic HCP with suspected or confirmed COVID-19 (Either strategy is acceptable depending on local circumstances):

- *Symptom-based strategy.* Exclude from work until:
 - At least 3 days (72 hours) have passed *since recovery* defined as resolution of fever without the use of fever-reducing medications **and** improvement in respiratory symptoms (e.g., cough, shortness of breath); **and**,
 - At least 10 days have passed *since symptoms first appeared*
- *Test-based strategy.* Exclude from work until:
 - Resolution of fever without the use of fever-reducing medications **and**
 - Improvement in respiratory symptoms (e.g., cough, shortness of breath), **and**
 - Negative results of an FDA Emergency Use Authorized COVID-19 molecular assay for detection of SARS-CoV-2 RNA from at least two consecutive respiratory specimens collected ≥ 24 hours apart (total of two negative specimens) Of note,

there have been reports of prolonged detection of RNA without direct correlation to viral culture.

Interim Guidance on Criteria for Return to Work for Healthcare Personnel with Confirmed or Suspected COVID-19.

- As community transmission intensifies within a region, benefits of formal contact tracing for exposures in healthcare settings might be limited unless residing in a community that is not yet affected by COVID-19. Healthcare facilities should consider foregoing contact tracing in favor of universal source control for HCP and screening for fever and symptoms before every shift.
- As the COVID-19 pandemic progresses, staffing shortages will likely occur due to HCP exposures, illness, or need to care for family members at home. Healthcare facilities must be prepared for potential staffing shortages and have plans and processes in place to mitigate these, including providing resources to assist HCP with anxiety and stress. Strategies to mitigate staffing shortages are available.

9. Train and Educate Healthcare Personnel

- Provide HCP with job- or task-specific education and training on preventing transmission of infectious agents, including refresher training.
- Ensure that HCP are educated, trained, and have practiced the appropriate use of PPE prior to caring for a patient, including attention to correct use of PPE and prevention of contamination of clothing, skin, and the environment during the process of removing such equipment.

10. Implement Environmental Infection Control

- Dedicated medical equipment should be used when caring for patients with known or suspected COVID-19.
 - All non-dedicated, non-disposable medical equipment used for patient care should be cleaned and disinfected according to manufacturer's instructions and facility policies.
- Ensure that environmental cleaning and disinfection procedures are followed consistently and correctly.
- Routine cleaning and disinfection procedures (e.g., using cleaners and water to pre-clean surfaces prior to applying an EPA-registered, hospital-grade disinfectant to frequently touched surfaces or objects for appropriate contact times as indicated on the product's label) are appropriate for SARS-CoV-2 in healthcare settings, including those patient-care areas in which aerosol generating procedures are performed.
 - Refer to the list on the EPA website for EPA-registered disinfectants that have qualified under EPA's emerging viral pathogens program for use against SARS-CoV-2.
- Management of laundry, food service utensils, and medical waste should also be performed in accordance with routine procedures.

- Additional information about recommended practices for terminal cleaning of rooms and PPE to be worn by environmental services personnel is available in the Healthcare Infection Prevention and Control FAQs for COVID-19

11. Establish Reporting within and between Healthcare Facilities and to Public Health Authorities

- Implement mechanisms and policies that promote situational awareness for facility staff including infection control, healthcare epidemiology, facility leadership, occupational health, clinical laboratory, and frontline staff about patients with known or suspected COVID-19 and facility plans for response.
- Communicate and collaborate with public health authorities.
 - Facilities should designate specific persons within the healthcare facility who are responsible for communication with public health officials and dissemination of information to HCP.
 - Communicate information about patients with known or suspected COVID-19 to appropriate personnel before transferring them to other departments in the facility (e.g., radiology) and to other healthcare facilities.

12. Appendix: Additional Information about Airborne Infection Isolation Rooms, Respirators and Facemasks

Information about Airborne Infection Isolation Rooms (AIIRs):

- AIIRs are single-patient rooms at negative pressure relative to the surrounding areas, and with a minimum of 6 air changes per hour (12 air changes per hour are recommended for new construction or renovation).
- Air from these rooms should be exhausted directly to the outside or be filtered through a high-efficiency particulate air (HEPA) filter directly before recirculation.
- Room doors should be kept closed except when entering or leaving the room, and entry and exit should be minimized.
- Facilities should monitor and document the proper negative-pressure function of these rooms.

Information about Respirators:

- A respirator is a personal protective device that is worn on the face, covers at least the nose and mouth, and is used to reduce the wearer's risk of inhaling hazardous airborne particles (including dust particles and infectious agents), gases, or vapors. Respirators are certified by the CDC/NIOSH, including those intended for use in healthcare.
- Respirator use must be in the context of a complete respiratory protection program in accordance with OSHA Respiratory Protection standard (29 CFR 1910.134external icon). HCP should be medically cleared and fit tested if using respirators with tight-fitting face pieces (e.g., a NIOSH-approved N95 respirator) and trained in the proper use of respirators, safe removal and disposal, and medical contraindications to respirator use.

Information about Facemasks:

- If worn properly, a facemask helps block respiratory secretions produced by the wearer from contaminating other persons and surfaces (often called source control).
- Surgical facemasks are cleared by the U.S. Food and Drug Administration (FDA) for use as medical devices. Facemasks should be used once and then thrown away in the trash.

Resources

1. Infection Control Guidance for Healthcare Professionals about Coronavirus (COVID-19).<https://www.cdc.gov/coronavirus/2019-nCoV/hcp/clinical-criteria.html>

10.0 MEDICAL MANAGEMENT OF COVID-19 PATIENTS

Introduction

The COVID-19 viral pandemic is representing an unprecedented challenge to intensive care services throughout our four (4) hospitals at the State Department of Health Services. We are less fortunate to have critical challenges with our capacity and capability in the critical areas of intensive care services, with lacking capacity and minimally trained and professional workforce who are not ready and able to serve their communities at this time. This document aims to provide a series of recommendations and suggestions to ensure continued high-quality clinical care in the setting of a pandemic. High-quality evidence to guide medical decision making is currently lacking in many areas. However, we have drawn on previous pandemic experience and contemporary infection control literature in the Intensive Care Unit (ICU). We have developed a ‘living document’, which will be revised in an iterative process that will incorporate local and international knowledge as this disease progresses through the community.

As of today (28 May, 2020), the four FSM state hospital do not have a burden of patients with suspected or proven COVID-19. The current major challenge centers around preparing our units and staff for the expected surge in caseload, which may be complicated by supply chain issues and workforce challenges. The National and States medical community strongly supports all robust public health measures aiming to reduce community transmission, hence ‘flattening the pandemic curve’ to prevent intensive care services becoming overwhelmed. This is supported by high quality evidence and is essential to minimize load on limited ICU capacity for all patients, not just those with COVID-19, as well as to maintain the health, wellbeing, and sustainability of the intensive care workforce.

This document is an Identification and Treatment of Patients with COVID-19 Infection guidance to clinicians in the four State hospitals. It could be modified and updated as new treatment information become available.

We are acutely aware of the potential emotional and physical fatigue facing the critical care workforce and ask that we support one and other, as we stand together to serve our communities in these demanding times.

COVID-19 Patient In-Hospital Management Guidelines

COVID-19 is an infectious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV2. Definitive diagnosis requires a positive RT-PCR test.

Epidemiology

As of 28 May 2020, the number of cases of confirmed COVID-19 globally is over 5 million affecting virtually every territory, other than the isolated Pacific Island nations (including FSM) and Antarctica.

The basic reproduction number of SARS-CoV2 has been estimated between 2.2 and 3.8 in a non-lockdown population that each infected individual on average, causes between 2-3 new infections.

Incubation Period

- 1-14 days
- The median incubation period from infection with SARS-CoV2 to onset of symptoms is approximately 5 days
- 97.5% of infected individuals will exhibit symptoms by 11.5 days
- Monitoring or quarantine of people exposed to SARS-CoV2 for 14 days for development of symptoms should be sufficient to identify 99% of cases or more.

Common Symptoms	Less Common (WHO source)
<ul style="list-style-type: none"> • Cough • shortness of breath or difficulty breathing • fever or chills • muscle or body aches • sore throat • loss of sense of smell (anosmia) or taste (ageusia) 	<ul style="list-style-type: none"> • diarrhoea • headache • a skin rash • discoloration of the fingers or toes

Transmission

Primary spread – close person to person contact via Air Droplets. Anyone within 6 feet (2 meters) of someone who has the virus is close enough to potentially contract it. When someone who has the infection coughs or sneeze, tiny droplets containing the virus spray into the air from their nose and mouth and contaminate people within the 6 feet.

At Risk Groups

- 65 years old and older
- Individuals with underlying medical concerns (chronic lung disease, heart problems and diabetes)
- Obesity

Classification of Patients

Asymptomatic – COVID nucleic acid test positive without any clinical symptoms and signs with CXR normal.

Mild – Symptoms of acute upper respiratory tract infection (fever, fatigue, myalgia, cough, sore throat, runny nose, sneezing) or digestive symptoms (nausea, vomiting, abdominal pain, diarrhea)

Moderate – Pneumonia (frequent fever and cough) with no obvious hypoxemia, CXR with lesions

Severe – Pneumonia with hypoxemia ($\text{SpO}_2 < 92\%$)

Critical – Acute respiratory distress syndrome (ARDS), may have shock, encephalopathy, myocardial injury, heart failure, coagulation dysfunction and acute kidney injury.

Testing for COVID-19

Local case definitions should be referred to when assessing the need to test for COVID-19, although a high index of suspicion for COVID-19 disease should be maintained at all times. It is vital that hospitals have a system to identify at risk patients at their point of contact with the health care system, such as the emergency department (ER). COVID-19 has presented with mild, moderate or severe illness. Severe illness can include pneumonia, ARDS, sepsis and septic shock requiring organ support.

Results of testing for COVID-19 patients should be prioritized and made available as quickly as possible to enable appropriate care of patients and to reduce the burden on PPE utilization. If possible, testing for staff assigned to care of COVID-19 cases should be prioritized to maintain workforce, reassure potentially exposed staff and prevent nosocomial infection.

Investigations: (based on what is available at the hospital)

- CBC - lymphopenia is most common (63%), leukocytosis (24-30%)
- LFT (AST/ALT mildly increased 37%)
- BUN/CR /electrolytes
- Blood cultures (for septic patients and based on severity of illness)
- EKG (for underlying cardiac, tachycardia patient, or critically ill patients, based on clinical judgement)
- PCR for corona virus 2019 Nasopharyngeal and Oropharyngeal swab
- CXR (irregular, patchy, hazy, reticular, and widespread ground glass opacities)
- Bronchoscopy – diagnostic bronchoscopy is NOT RECOMMENDED!

Management:

Transmission Prevention

Patient Instruction

- Cover nose and mouth during coughing or sneezing with tissue or flexed elbow and perform hand hygiene after contact with respiratory secretions
- Suspect patients should be given a mask and directed to separate area (isolation ward). Keep at least 1 m distance between suspected patients and another patient.

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

- Use PPE (medical mask, eye protection, gloves and gown) when entering room and remove PPE when leaving and practice hand hygiene following PPE removal.

- If equipment needs to be shared among patients (e.g. stethoscopes, blood pressure cuffs, pulse oximeters and thermometers), clean and disinfect between each patient use.
- Ensure that health care workers refrain from touching their eyes, nose and mouth with potentially contaminated gloved or ungloved hands.
- Avoid contaminating environmental surfaces that are not directly related to patient care (e.g. door handles and light switches).
- Avoid medically unnecessary movement of patients or transport.
- Perform hand hygiene with soap and water (or >60% Alcohol hand cleanser)
- Disinfect surfaces

Droplet Precautions:

- Use a medical mask if working within 6feet of the patient.
- Place patients in single rooms, or group together those with the same etiological diagnosis.
- If an etiological diagnosis is not possible, group patients with similar clinical diagnosis and based on epidemiological risk factors, with a spatial separation.
- When providing care in close contact with a patient with respiratory symptoms (e.g. coughing or sneezing), use eye protection (face mask or goggles), because sprays of secretions may occur.
- Limit patient movement within the institution and ensure that patients wear medical masks when outside their rooms.

Supportive Management

Level of Consciousness

Respiratory Management

Early recognition and referral of patients with worsening respiratory function while on conventional oxygen therapies such as simple face masks, or masks with reservoir bags is important to ensure timely and safe escalation of respiratory support. Early optimization of care and involvement of ICU is strongly recommended. The following therapies can be considered in caring for COVID-19 patients:

Nebulization: Use of nebulizers is not recommended and use of metered dose inhalers are preferred where possible.

High Flow Nasal Oxygen (HFNO) therapy in ICU: HFNO is a recommended therapy for hypoxia associated with COVID-19 disease, as long as staff are wearing optimal airborne PPE.

1. The risk of airborne transmission to staff is low with well fitted newer HFNO systems when optimal PPE and other infection control precautions are being used. Negative pressure rooms are preferable for patients receiving HFNO therapy.
2. Patients with worsening hypercapnia, academia, respiratory fatigue, hemodynamic instability or those with altered mental status should be considered for early invasive mechanical ventilation if appropriate.

Non-invasive ventilation: Routine use of non-invasive (NIV) is not recommended.

3. Current experience suggests that NIV for COVID-19 hypoxic respiratory failure is associated with a high failure rate, delayed intubation, and possibly increased risk of aerosalisation with poor mask fit. Deteriorating patients should be considered for early endotracheal intubation and invasive mechanical ventilation.
4. If NIV is appropriate for an alternate clinical presentation of COVID-19 (e.g. concomitant COPD, APO), this should be provided using similar precautions as for HFNO. Negative pressure single rooms are preferable for patients receiving NIV. For all patients receiving NIV determine a clear plan for treatment failure.

Mechanical ventilation: Lung protective mechanical ventilation (MV) is recommended for management for acute respiratory failure. Mechanical ventilation should be employed with the use of a low tidal volume strategy (4-8ml/kg predicted body weight) and limiting plateau pressures to less than 30 cmH₂O. Permissive hypercapnia is usually well tolerated and may reduce volutrauma. Higher levels of PEEP (greater than 15 cmH₂O) are recommended. Alternate modes of ventilation such as APRV may be considered based on clinician preference and local experience. Viral (rather than HME) filters should be utilized, and circuits should maintained for as long as allowable (as opposed to routine changes).

Suctioning: Closed inline suction catheters are recommended. Any disconnection of the patient from the ventilator should be avoided to prevent lung de-recruitment and aerosalisation. If necessary, the endotracheal tube should be clamped and the ventilator disabled (to prevent aerosalisation).

Neuromuscular blockade (NMB): NMB may be considered in the setting of worsening hypoxia or hypercapnia and in situations where the patient's respiratory drive cannot be managed with sedation alone resulting in ventilator dys-synchrony and lung de-recruitment.

Prone positioning: Current reports suggest prone ventilation is effective in improving hypoxia associated with COVID-19). This should be done in the context of a hospital guideline that includes suitable PPE for staff, and that minimize the risk of adverse events, e.g. accidental extubation.

Liberation from mechanical ventilation: Standard weaning protocols should be followed. HFNO and/or NIV (well fitted facemask with separate inspiratory and expiratory limbs) can be considered as bridging therapy post-extubation but must be provided with strict airborne PPE.

Tracheostomy: This represents an aerosolizing procedure and must be considered in clinical decision making. Optimal PPE should be utilized at all times.

Bronchoscopy: Diagnostic bronchoscopy is not recommended. It is not necessary for the diagnosis of viral pneumonia and should be avoided to minimize risk of aerosalisation. Tracheal aspirate samples for diagnosis of COVID-19 are sufficient and BAL is not usually necessary.

Recruitment manoeuvres: Although current evidence does not support the routine use of recruitment manoeuvres in non-COVID-19 ARDS, they could be considered in COVID-19 patients on a case by case basis. International experience suggests COVID-19 patients may

respond well to these interventions and their application may be appropriate where the patient has not responded to other interventions. They should only be provided by clinicians experienced in undertaking these manoeuvres, dealing with their potential complications and using a closed system.

Rescue Therapies: Inhaled nitric oxide and prostacyclin: There is no evidence for routine use of inhaled nitric oxide, prostacyclin or other selective pulmonary vasodilators in acute respiratory failure. However, during emerging infectious disease outbreaks when resources are exhausted, inhaled nitric oxide and prostacyclin may be considered as a temporizing measure when patients develop refractory hypoxemia despite prone ventilation, or in the presence of contraindications to prone ventilation or ECMO.

Extracorporeal life support (ECLS): Early VV-ECMO is not recommended. Current reports suggest that COVID-19 patients respond well to the ventilator strategies listed above. Established patient selection criteria for use of VV-ECMO in severe respiratory failure should be applied, with delivery of ECLS in expert centers with sufficient expertise and experience. Discuss with an ECMO specialist early.

Cardiovascular Support

Fluid management: A restrictive fluid management strategy is recommended. The aim is to reduce extravascular lung water. Where possible avoid 'maintenance' intravenous fluids, high volume enteral nutrition, and fluid bolus for hypotension.

- Crystalloids mostly preferable for resuscitations – 0.9% NS / LR, Do not use hypotonic crystalloids, starches or gelatins for resuscitation.
- In resuscitation for septic shock in adults, give at 250–500 mL crystalloid fluid as rapid bolus in first 15–30 minutes and reassess for signs of fluid overload after each bolus.
- In resuscitation from septic shock in children, give 10–20 mL/kg crystalloid fluid as a bolus in the first 30–60 minutes and reassess for signs of fluid overload after each bolus.
- Determine need for additional fluid boluses (250–500 mL in adults or 10–20 mL/kg in children) based on clinical response and improvement of perfusion targets. Perfusion targets include MAP (> 65 mmHg or age-appropriate targets in children), urine output (> 0.5 mL/kg/hr in adults, 1 mL/kg/hr in children), and improvement of skin mottling and extremity perfusion, capillary refill, heart rate, and level of consciousness.
- In pregnant women, compression of the inferior vena cava can cause a decrease in venous return and cardiac preload and may result in hypotension. For this reason, pregnant women with sepsis and or septic shock may need to be placed in a lateral decubitus position to off-load the IVC.

Vasopressor: persistent of shock in face of during and after fluid resuscitation. (Alert: Norepinephrine 1:10,000 is the first-choice vasopressor and preferred preparation for infusion. 150microgram/kg[1.5ml/kg] of 1:10,000 and add 0.9%NS to make a final volume of 50ml with a concentration of 3micrograms/kg/ml with infusion rate at 1ml/hour = 0.05micrograms/kg/min.

- In adults, the initial blood pressure target is MAP \geq 65 mmHg in adults and improvement of markers of perfusion.
- In children administer vasopressors if:
 1. signs of shock such as altered mental state; tachycardia or bradycardia (HR < 90 bpm or > 160 bpm in infants and HR < 70 bpm or > 150 bpm in children); prolonged capillary refill (> 2 seconds) or feeble pulses; tachypnea; mottled or cool skin or petechial or purpuric rash; oliguria persists after two repeat boluses; or
 2. age-appropriate blood pressure targets are not achieved; or
 3. Signs of fluid overload are apparent.

Infusion Mixture: see Epinephrine Infusion attachment.

Bacterial-associated Infections

Antibiotics: Although a patient may be suspected of having COVID-19, appropriate empirical antibiotics should still be administered within one hour of the identification of sepsis or septic shock. Some patients with COVID-19 infection will present with secondary bacterial lower respiratory infection.

11.0 LABORATORY TESTING

1.0 Background

The outbreak of the novel coronavirus now called SARS-CoV-2 that causes COVID-19 occurred in Wuhan, China in December 2019, is transmitted through droplets from respiratory tract and can induce pneumonia-like illness. It became a pandemic by March 12th 2020, announced by the WHO. This disease can be spread internationally through travelers and also within communities. Public health testing is a priority and very much is part of the prevention of transmission among the country's population.

The preferred laboratory screening and diagnosis is by molecular testing of samples collected from the nasopharyngeal tract. Two molecular testing platforms are to be utilized in the FSM states hospital laboratories: Abbott ID NOW covid-19 which is based on RdRp gene assay and Cepheid's Xpert Xpress SARS-CoV-2 test that targets E and N genes.

The Epidemiology Laboratory Capacity funding under FSM DHSA is working closely with the FSM state hospital laboratories on the testing algorithm, testing capacity and laboratory biosafety standards required.

2.0 Aims and Objectives

This document provides guidance and the standard operating procedure for COVID-19 testing for the FSM hospital laboratories. It provides the patients testing criteria, sample choice and collection and further outlines the communication routes and information flow that supports the management of patients' results.

Taking into consideration the aim to roll out testing and ensuring that validation and verification protocols with positive control material as part of the laboratory quality assurance.

This document and SOP is developed concerted with the National Public Health Emergency framework and working partnership with WHO.

3.0 Scope

This guidance is for COVID-testing in the FSM States hospital laboratories. This SOP also covers respiratory infections likely to be caused by Influenza to rule out acute respiratory infections or severe acute respiratory infections and Influenza like illness that may cause symptoms similar to COVID-19.

4.0 Overview

This guidance outlines the minimum requirements for State Hospital laboratories to deliver COVID-19 diagnostic service using their preferred testing protocols and processes. It also specifies the types of specimens needed to be tested, criteria of patients to be tested and other regulatory requirements to ensure safe working environment.

Laboratories providing these services to consider COVID-19 testing as urgent, provided 7 days a week and identify potential bottlenecks in their testing pathways that may restrict processing capacity. Taking into consideration availability of staff, other molecular diagnostic that uses

GeneXpert (TB, CT & GC) that may restrict testing capacity, biosafety practices and containment facilities and any logistics and supply chain issues.

It is also required that the laboratories demonstrate assay performance using accepted verification and validation processes and acceptance criteria before testing of patients samples. Validation and verification are both integral requirements for the accreditation of laboratories according to ISO 15189. All examination procedures should be validated or verified (as appropriate) for their intended use prior to adoption, the methods and the results obtained which are recorded.

All laboratories undertaking COVID-19 testing need to complete their own Risk Assessments to establish the appropriate level of containment for sample handling and testing.

This document will be reviewed and amended as when there is need.

5.0 Patient Testing Criteria for COVID-19

Diagnostics can play an important role in the containment of COVID-19, enabling the rapid implementation of control measures that limit the spread through case identification, isolation, and contact tracing (i.e., identifying people that may have come in contact with an infected patient).

Table 1. Patient testing criteria

Criteria	Description
1	A patient with acute respiratory illness (fever and at least one sign/symptom of respiratory disease, e.g., cough, shortness of breath, and non-traumatic anosmia), AND a history of travel to or residence in a location reporting community transmission of COVID-19 disease during the 14 days prior to symptom onset; OR
2	A patient with any acute respiratory illness AND having been in contact with a confirmed or probable COVID-19 case (see definition of contact) in the last 14 days prior to symptom onset; OR
3	A patient with severe acute respiratory illness (SARI)- fever and at least one sign/symptom of respiratory disease, e.g., cough, shortness of breath; AND requiring hospitalization) AND in the absence of an alternative diagnosis that fully explains the clinical presentation; OR

Probable case: A suspect case for whom testing for the COVID-19 virus is inconclusive.

- (A) Inconclusive being the result of the test reported by the laboratory; OR
- (B) A suspect for whom testing could not be performed for any reason.

Confirmed case: A person with laboratory confirmation of COVID-19 infection irrespective of clinical signs and symptoms.

Definition of Contact

A contact if a person who experience any of the following exposures during the 2 days before and the 14 days after the onset of symptoms of a probable or confirmed case:

1. Face to face contact with a probable or confirmed case within 1 meter and for more than 15 minutes;
2. Direct physical contact with a provable or confirmed case;
3. Direct care for a person with probable or confirmed COVID-19 disease without using proper personal protective equipment; OR
4. Other situations as indicated any local risk assessments.

Note: For confirmed asymptomatic cases, the period of contact is measured as the 2 days before through the 14 days after the date on which the sample was taken which led to confirmation.

6.0 Sample collection, safe specimen handling, transportation and storage of specimens

While inadequate sample collection will affect test results, proper specimen collection, storage and transportation is critical.

All testing for SARS-CoV-2 should be directed in consultation with a healthcare provider. Specimens should be collected as soon as possible once a decision has been made to pursue testing, regardless of the time of symptom onset. For initial diagnostic testing for SARS-CoV-2, upper respiratory specimens to be collected for testing. The following are acceptable specimens:

- A nasopharyngeal (NP); or
- An oropharyngeal (OP); or
- A nasal mid-turbinate swab collected using a flocked tapered swab; or
- An anterior nares (nasal swab using a flocked or spun polyester swab; or
- Nasopharyngeal wash/aspirate or nasal wash/aspirate (NW) specimen.

For patients who develop a productive cough, sputum should be collected and tested for SARS-CoV-2 as an option.

6.1 Collection of respiratory specimens

Samples must be collected correctly to ensure reliability of test results. Only trained health care providers (clinicians/physicians or health assistants) to perform the specimen collection.

Nasal swab test for COVID-19

Determines whether a person has SARS-CoV-2 at the point when the test is carried out

Long cotton bud is inserted far into the nose

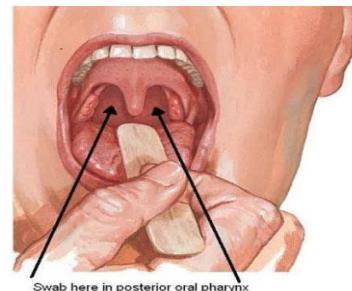
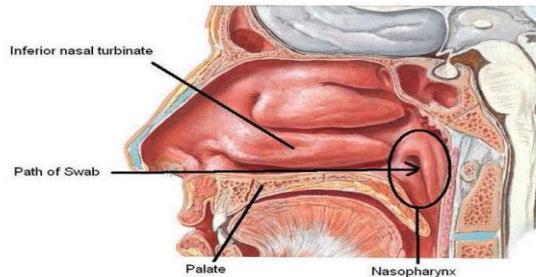
May cause momentary discomfort

Sample sent to laboratory for genetic analysis

Result available within a few hours

How to collect samples for a COVID-19 test?

Source: Amboss © AFP



Nasopharyngeal Swabs

- Blow the nose first! Then slightly tilt the head back.
- Insert the flexible wire shaft swab through the nostrils parallel to the palate (not upwards) until resistance is encountered or the distance is equivalent to that from the ear to the nostril, indicating contact with the nasopharynx.
- Gently rub and roll the swab.
- Leave the swab in place for several seconds to absorb secretions before removing it.

Oropharyngeal Swabs

- Say "AHH"!
- Insert swab into the posterior pharynx and tonsillar areas.
- Rub swab over both tonsillar pillars and posterior oropharynx
- Avoid touching the tongue, teeth, and gums.

Image from www.aphl.org

6.2 Handling specimens safely

Recommended personal protective equipment must be worn while collecting specimens. These include face mask if N95 or higher level respirator not available, eye protection, gowns and gloves.

After specimen collection, place the swab in its respective vial then put into a zipped locked biohazard bag. Specimens transported to the laboratory must be placed in a leak proof carrier box. Make sure the vials are labelled with patient's information, date and time of collection. The

requisition forms must be signed by the physician and include patients information and clinical prognosis.

Note the following:

- Sampling kits for Abbott ID NOW testing platform: the specimen must not be placed in transport vial with VTM, because the transport media may dilute the viral load and can yield false negative test results. Use the specific vials provided.
- Specimens collected using sampling kits for GeneXpert; place the swab in VTM vials. Specimens can be stored at 2-8 °C for up to 72 hours until testing is performed.

6.3 Sample specific types for the testing platforms

The samples required for influenza A & B and COVID-19 testing will depend on the testing platform used.

Table 2. Testing platforms and recommended sample types

Testing platform	Sample type recommended	Storage
Abbott ID NOW	Nasopharyngeal swab, Nasal swab or Throat swab	Room temperature (15-30 °C) for up to 2 hours prior to testing. Refrigerate at 2-8°C and test within 24 hours.
GeneXpert	Nasopharyngeal swab, Oropharyngeal swab, nasal swab, mid-turbinate swab, nasal wash/aspirate.	Room temperature 15-30°C for up to 8 hr. Refrigerated at 2-8 °C up to 7 days until testing is done.
Influenza RDT	Nasopharyngeal swab, oropharyngeal swab, or nasal wash.	Refrigerate at 2-8 °C no longer than 3 days prior to testing.
COVID-19 serology	Blood (finger prick or whole blood, plasma or serum)	Refrigerate at 2-8 °C no longer than 3 days prior to testing (plasma or serum)

6.4 Samples required for monitoring confirmed COVID-19 acute disease

Sequential sampling maybe required to monitor the progress of confirmed covid-19 acute respiratory diseases and is decided on a case-by-case basis.

7.0 Testing Protocol for COVID-19

This testing protocol describes two testing platforms available in-country for detection of SARS-CoV-2, the causative agent for COVID-19.

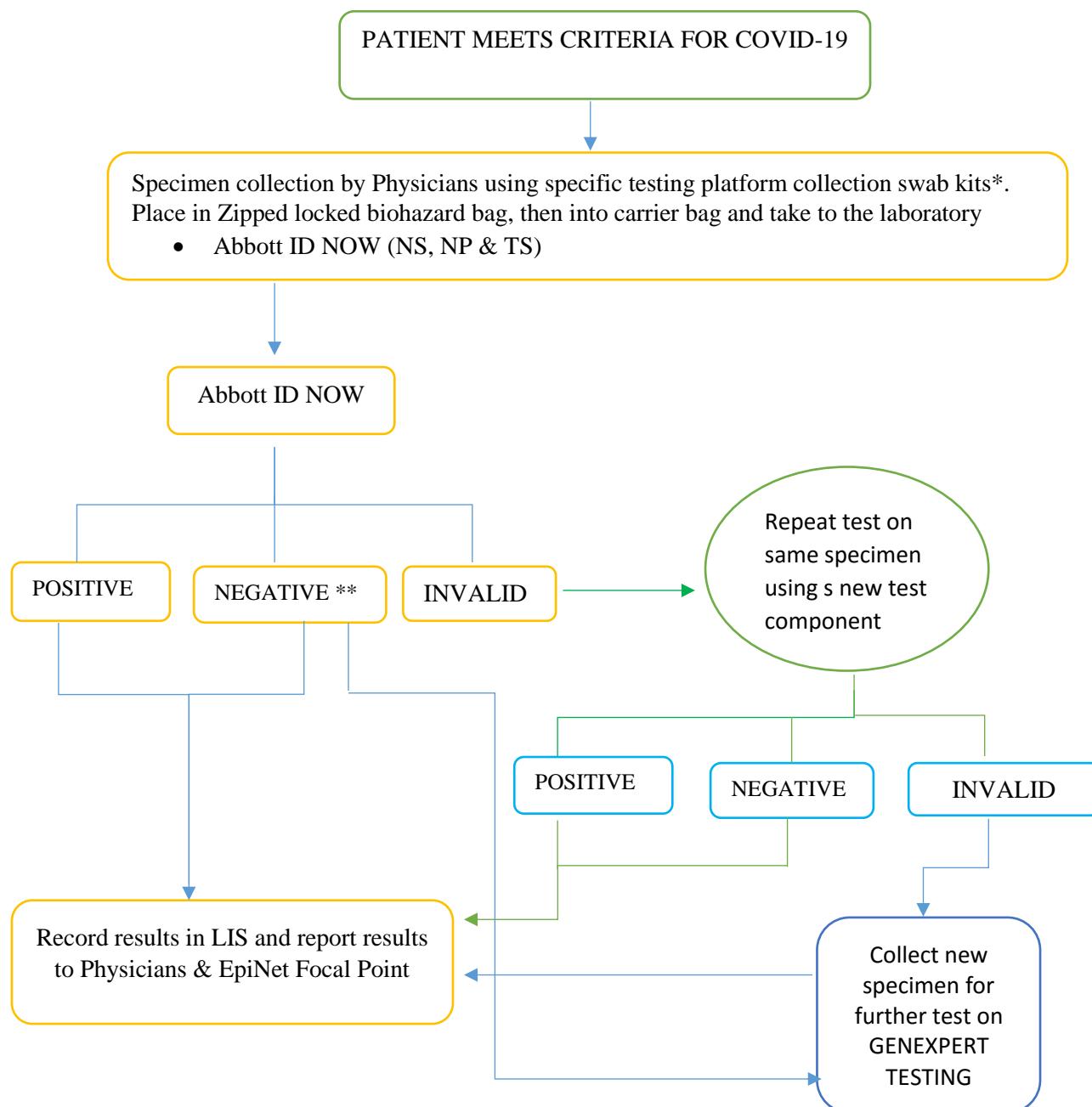
- Each testing method platform to have the standard operating procedures written and endorsed.
- A Risk Assessment must be completed and any containment procedures or adjustment to facility must be performed.
- Verification and validation procedures to demonstrate acceptance criteria of the assays (which must include internal and external QA) before patient testing begins.
- Training of key staff to look after testing of covid-19 samples to take place.
Offer testing service to patients: testing must be prioritized and be regarded as URGENT including return of results.
- Check that specific COVID-19 laboratory requisition form accompany all samples received in the laboratory. Ensure that all necessary demographic information is provided.
- Samples that are tested as presumptive positives to be run on the second testing platform and referred to reference laboratory if presumptive positive persisted from any sample tested.
- Any presumptive positives that are referred to a reference laboratory for confirmation will be considered a presumptive positives until confirmed.
- Results are to be entered in the LIS and reported to the Physicians/clinicians and to the EpiNet Focal point.
- Positive results to be relayed in a timely manner to enable contact tracing to begin as soon as possible.

8.0 Testing algorithm platforms recommended

Two COVID-19 antigen testing platforms (Cepheid's Xpert Xpress SARS-CoV-2 and Abbott ID NOW COVID-19) and one rapid detection testing for antibodies (Chembio DPP COVID-19 IgM/IgG system) outlined in this guide.

Note: Abbott ID NOW testing platform was advised by the WHO & CDC to put on hold for now until further information gathered. However, with patients showing highly suspicious symptoms, their samples can be tested using this platform.

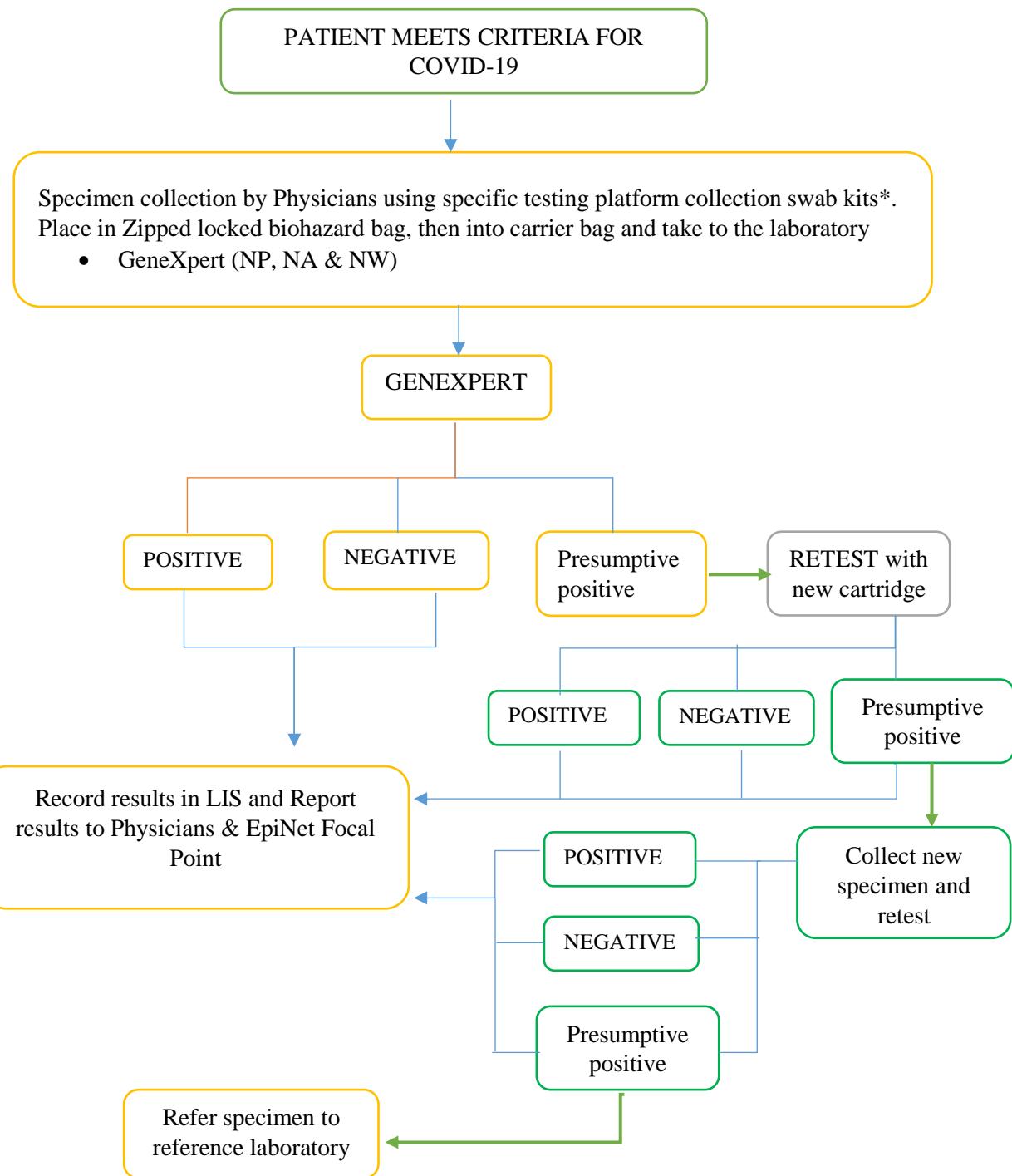
8.1 Testing algorithm for COVID-19- ABBOTT ID NOW



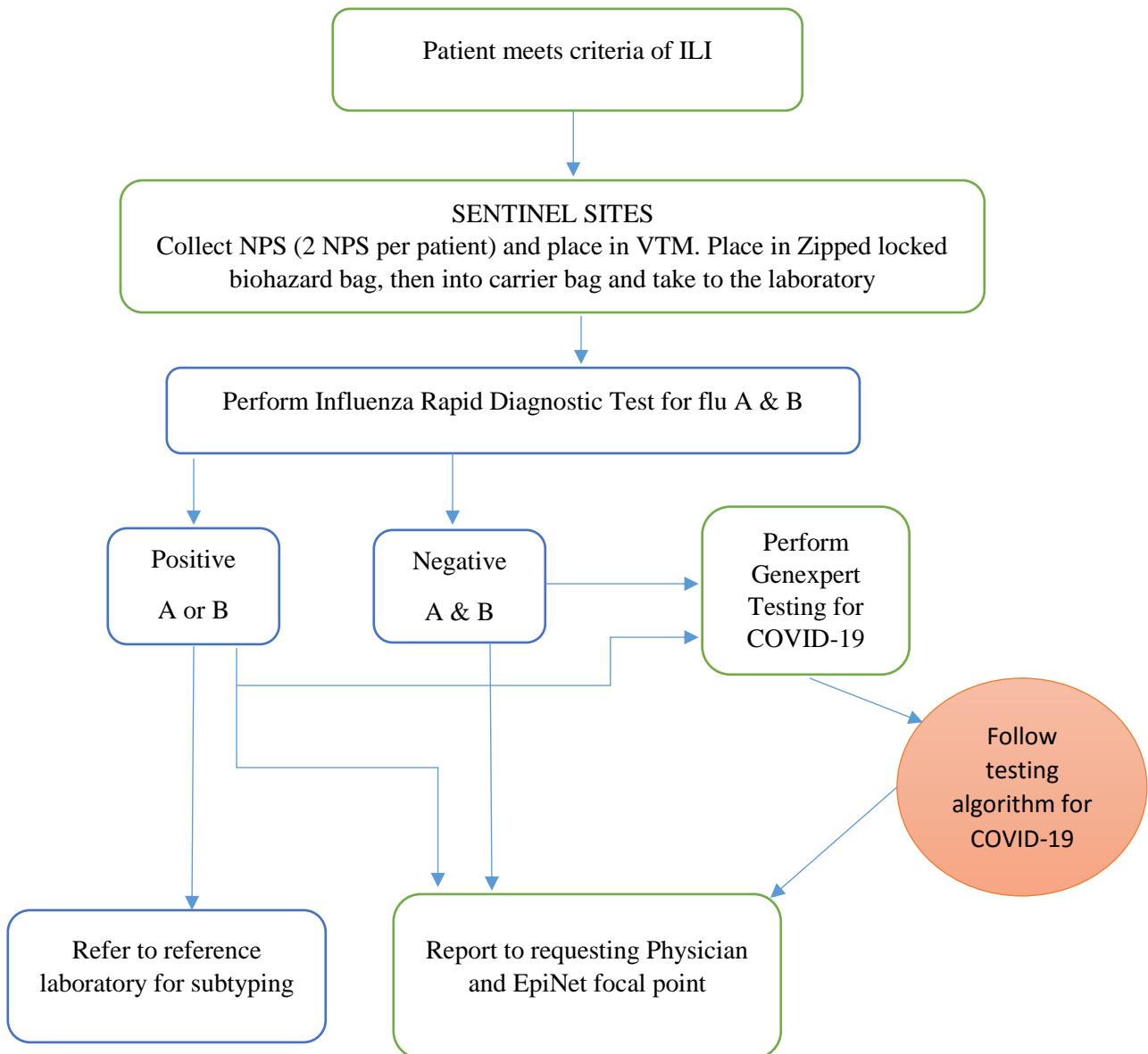
*Collection swab kit: NP- Nasopharyngeal; NA- Nasal Aspirate; NW- Nasal Washing; NS- Nasal swab; TS- Throat swab.

** IF negative on samples from patients highly likely to have clinical symptoms of COVID-19, perform test on GeneXpert.

8.2 Testing algorithm for COVID-19- GENEXPERT

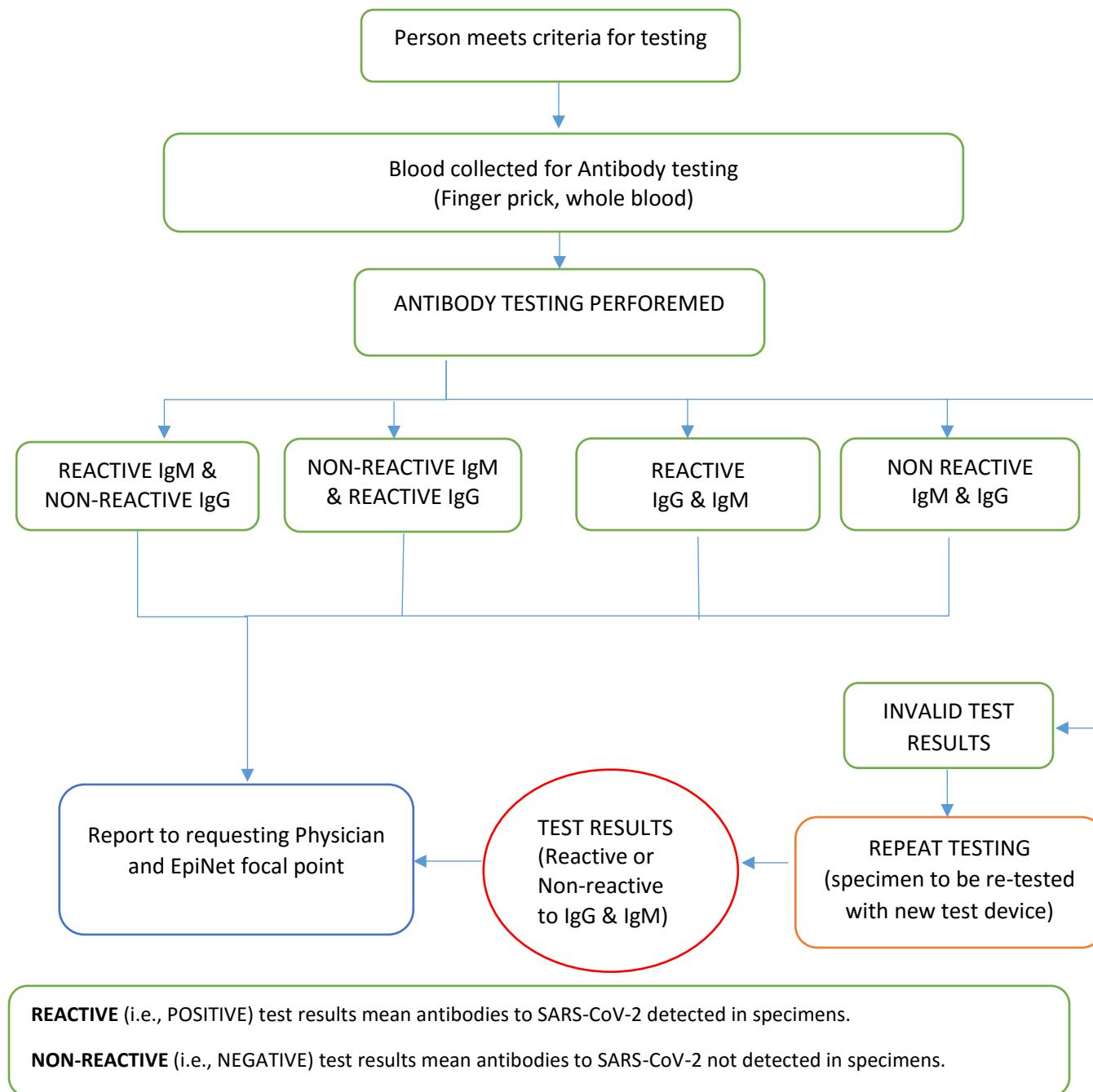


8.3 Testing algorithm for Influenza A & B: Sentinel Surveillance



Note: Surveillance testing on Genexpert will be put on hold for now.

8.4 Serology testing algorithm for SARS-CoV-2 Antibodies: Chembio DPP COVID-19 IgM/IgG system



Note: Antibody surveillance for covid-19 can be done when there is active community transmission.

8.5 Interpretation of test results

Summarized in the three tables are interpretations of test results for COVID-19 antigens and antibody testing.

Table 3. Interpretation of COVID-19 test results for PUI meeting testing criteria (Antigen testing)

Possible test results	Abbott ID NOW	GeneXpert Xpress	RT-PCR (Reference Lab)	Final interpretation
1	Negative	Negative	Negative	Negative
2	Positive	Negative	Negative	Negative
3	Positive	Negative	Positive	Positive
4	Negative	Negative	Positive	Positive
5	Undetermined (+ve or -ve)	Presumptive Positive	Negative	Negative
6	Undetermined (+ve or -ve)	Presumptive Positive	Positive	Positive
7	Negative	Positive	NA	Positive
8	Positive	Positive	NA	Positive

Table 4. Interpretation of COVID-19 test results for PUI meeting testing criteria (Antibody testing)

Possible test results	Abbott ID NOW	GeneXpert Xpress	Serology	Final interpretation
1	Negative	Negative	IgM-ve, IgG-ve	Negative for COVID-19
2	Positive	Positive	IgM+ve, IgG-ve	Positive for COVID-19; current infection
3	Positive	Positive	IgM+ve, IgG+ve	Positive for COVID-19; Re-infection- current or recent infection
4	Positive	Positive	IgM-ve, IgG+ve	Positive for COVID-19; previous infection, recent infection, maybe undergoing treatment

Table 5. Interpretation of COVID-19 antibody test results on non PUI

Possible test results	Serology	Final interpretation
1	IgM-ve, IgG-ve	Not exposed to covid-19
2	IgM-ve, IgG+ve	Recent or previous infection
3	IgM+ve, IgG-ve	Current infection
4	IgM+ve, IgG+ve	Current or recent infection

9.0 Laboratory Biosafety

Treat all primary specimens (swabs, nasal aspirates, nasal washings, and sputum) received for testing as infectious. Standard precautions at minimum and good microbiological laboratory practices be followed in work areas where primary specimens are handled.

Table 6. Recommended biosafety practices when handling samples for COVID-19 testing.

Activities	Minimum recommendation
Transporting/transferring specimens within Healthcare facility <ul style="list-style-type: none"> - From collection site (isolation ward) to laboratory - From BSC to analyzer or vice versa. - From one section to another (intra-lab transfer) 	Good Microbiological Practice and Procedures: placed in a secondary container, to minimize the potential for breakage or a spill
Non-propagative diagnostic activities that may inadvertently concentrate or extract SARS-CoV-2. (Molecular analysis procedures) Examples of these activities include, but are not limited to: <ul style="list-style-type: none"> - Concentration of samples prior to inactivation (e.g., centrifugation of a bronchoalveolar lavage sample); and - Sample preparation for nucleic acid extraction, molecular testing of nucleic acids, and antigen and antibody assays. 	Routine Safe Laboratory Practices and Standard Precautions in Biosafety Containment Level 2 with additional biosafety recommendations* <ul style="list-style-type: none"> - Use the BSC for extraction step (GeneXpert/Biofire) - Full face protection and splash guards (Abbott ID NOW)

*ADDITIONAL BIOSAFETY RECOMMENDATIONS

Recommended precautions for diagnostic activities involving primary specimens from patients under investigation for COVID-19.

- A lab coat, gloves, and eye protection are worn when handling primary specimens.
- Centrifugation of primary specimens is carried out in sealed safety cups, or rotors, that are loaded/unloaded in a biological safety cabinet (BSC) or other primary containment device.

- A certified BSC, or other primary containment device, is used for procedures that may produce infectious aerosols (e.g., pipetting [e.g., adding lysis buffer], preparing aliquots, diluting specimens, vortexing).
- Respiratory protection (that provides a level of filtration of 95% or greater e.g., N95) is worn where aerosol generating activities cannot be contained within a BSC or other primary containment device.
- Samples that are handled within a BSC or other primary containment device are moved to an analytic equipment (e.g., PCR equipment) within a secondary closed container (e.g., gasketed, plates sealed with tape or flexible film).
- Use of splash guards with full face protection

9.1 Biosafety Risk Assessment

Based on situational requirements in your laboratories for example high testing volumes, and the likelihood to generate infectious droplets and aerosols, it is recommended to perform site and activity-specific biosafety risk assessments to determine the need for additional biosafety precautions.

10.0 Chemical Disinfectants Effective against SARS-CoV-2

Based on currently available scientific evidence, chemical disinfectants that are effective against enveloped viruses are suitable for decontamination of SARS-CoV-2 (i.e., when they are used according to manufacturer's recommendations such as dilution, contact time, and safe handling and expiry date after the working solution is prepared)⁴. Frequent decontamination of work surfaces and equipment is recommended. Some examples of appropriate disinfectants are listed below;

- Sodium Hypochlorite (Bleach or Chlorox): e.g. 1,000 ppm (0.1%) for general surface disinfection and 10,000 ppm (1%) for disinfection of blood spills),
- 70% isopropanol ethanol,
- 0.5% Hydrogen Peroxide,
- Quaternary ammonium compounds such as Lysol.

11.0 Bio-waste management

Bio-waste from testing suspected or confirmed COVID-19 patient specimens must be handled as all other biohazardous waste in the laboratory. Used cartridges which may contain amplified material must be disposed of properly according to Institution and EPA disposal regulations. All bio-waste must undergo complete incineration.

12.0 Specimen packing and shipping

Specimens suspected and confirmed of SARS-CoV-2 are to be packed and shipped as UN 3373 Biological Substance, Category B, in accordance with the current edition of the International Air Transport Association (IATA) Dangerous Goods Regulations. Laboratory personnel must be certified IATA shipper (with current certificate).

If there is likely delay in testing and shipping, store specimens at -70 °C or below.

13.0 Information Flow

The accepted standard for reporting of patients' results is the laboratory information system after the results relayed to doctors by telephone and written result forms.

14.0 Resources

1. World Health Organization. (2020). Laboratory biosafety guidance related to the novel coronavirus (2019-nCoV). Retrieved 04/06/2020, from https://www.who.int/docs/default-source/coronavirus/laboratory-biosafety-novel-coronavirus-version-1-1.pdf?sfvrsn=912a9847_2.
2. Interim Guidelines for Collecting, Handling, and Testing Clinical Specimens for COVID-19. Retrieved 05/21/2020 from <https://www.cdc.gov/coronavirus/2019-ncov/lab/guidelines-clinical-specimens.html>.
3. Society for General Microbiology. (2014). Good microbiological laboratory practice. Retrieved 04/06/2020 from <http://www.microbiologyonline.org.uk/teachers/safety-information/good-microbiological-laboratory-practice>
4. Interim Laboratory Biosafety Guidelines for Handling and Processing Specimens Associated with Coronavirus Disease 2019 (COVID-19). Retrieved 04/06/2020, from <https://www.cdc.gov/coronavirus/2019-ncov/lab/lab-biosafety-guidelines.html>
5. EPA List of Disinfectants for Use against SARS-CoV2. Retrieved 04/06/2020, from <https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2>
6. CDC Schematic for packaging, UN 3373 Category B. Retrieved 04/06/2020, from <https://www.cdc.gov/coronavirus/mers/downloads/lab/UN3373-packaging-schema.pdf>
7. Abbott ID NOW COVID-19 testing manual. Retrieved 06/05/2020, from <https://www.fda.gov/media/136525/download>
8. Xpert Xpress SARS-CoV-2 testing manual. Retrieved 06/05/2020, from <https://www.fda.gov/media/136314/download>
9. DPP® COVID-19 IgM/IgG System testing manual. Retrieved 06/05/2020, from <https://www.fda.gov/media/136963/download>

15.0 Annexes

Annex 1: Risk Assessment Worksheet

Biological Risk Assessment Worksheet for Biological Agents- FSM Health Laboratories

Tracking #: _____ Building/lab room #: _____ Assessor: _____

Laboratory protocols comprised of one or more procedures. Each procedure in the protocol needs an agent-specific biological risk assessment. Once an agent-specific biological risk assessment is completed for the procedure, it can be used for multiple protocols by referencing its track number. The procedure may be performed with additional precautions, but must not be less stringent than what is indicated below in section II. A copy of this worksheet is to be kept in the laboratory biosafety manual. Refer to the Biosafety in Microbiological and Biological Laboratories [BMBL] 5th Ed. for additional guidance on facilities, work place practices, PPE and medical surveillance.

Section I: Complete all data entry in this section

1. Agent used: _____
 2. Is a vaccine available? Yes No
 3. Risk group of agent [check www.absa.org] 1 2 3 4 [inactivated agents= Risk group 1]
 4. Procedure _____
 5. For risk group 2-3, is there a splash potential? Yes No
 6. For risk group 2-3, does the procedure generate aerosols or large concentration? [e.g., cell culture vortex, centrifuge, aerosol chamber, sonicate] Yes No
-

Section II: Data will be calculated in this section according to answers entered above in section I

1. Facility and work Practices Biological Safety Levels [BSLs]
Facility BSL: 1 2 3 4 Work Practices BSL: 1 2 3 4
2. Biological Safety Cabinet: Class I/II Class III
3. Personal Protective Equipment Needed for Procedure [left to right= increased protection]
 - a. Gloves: latex/nitrite required [Circle when used]
 - b. Eye: safety glasses goggles & face shield
 - c. Lab coat: white blue smock/coveralls space suit
 - d. Respirator: N-95/PAR space suit
4. Medical protection and surveillance
 - a. Medical monitoring required
 - b. Hearing Conservation Program
 - c. Vaccine recommended *
 - d. Respiratory Protection Program
5. Comments:

*Note: * Vaccines and respirators need separate risk assessments*

Biosafety Officer's signature: _____

Annex 2: Laboratory Biosafety Audit checklist- COVID-19 preparedness

Laboratory Biosafety Level 2

Biosafety Level 2 is appropriate for work involving agents that pose moderate hazards to personnel and the environment. It is characterized by laboratory personnel have specific training in handling pathogenic agents and are supervised by competent scientists in handling infectious agents and associated procedures; 2) access to the laboratory is restricted when work is being conducted; and 3) all procedures in which infectious aerosols or splashes may be created are conducted in BSCs or other physical containment equipment.

Laboratory information

Name	Laboratory supervisor
State	Laboratory Biosafety officer
Address	Contact person email address

Auditors' information

Auditor (1): Auditor (2):

Signature (1): Signature (2):

Job title (1): Job title (2):

Date:

Laboratory biosafety elements to assess

Laboratory biosafety elements	Yes	No	Comments
1. Administrative Practices			
A. Is there a biosafety officer appointed to oversee laboratory safety issues?			
B. Do employees receive biosafety training at the time of hire and annually thereafter?			
i. When was the last biosafety training?			
C. Are there safety posters displayed where all employees are likely to see?			
D. Are all persons entering the laboratory advised of entry/exit requirements?			
E. Is there an occupational health and medical surveillance program which includes offering appropriate immunizations for the agents handled?			
F. Is a baseline serum sample stored for laboratory employees?			
G. Is there a biosafety manual available that is laboratory specific?			
H. Does the laboratory supervisor ensure that all personnel working with BSL-2 agents have the appropriate knowledge and can demonstrate proficiency in standard and special laboratory practices?			
I. Is there a Biowaste management plan?			
Standard Microbiological Practices			
A. Are institutional policies in place and enforced for the following:			
i. Controlled access to the laboratory;			
ii. Hand washing;			
iii. No eating, drinking, smoking, handling contact lenses, applying cosmetics, and storing food or beverages for consumption;			

iv.	Mouth pipetting is prohibited;			
v.	Polices for the safe handling of sharps; and			
vi.	Procedures for minimization of splashes and aerosols?			
B.	Are decontamination procedures in place and enforced for the following:			
i.	Work surfaces;			
ii.	Spills involving potentially hazardous material; and			
iii.	Waste generated that may contain potentially hazardous material?			
C.	Are signs posted to notify workers and others entering the laboratory of potential hazards and who is responsible for the laboratory?			
D.	Is there an effective pest management program in place?			
E.	Are laboratory personnel trained prior to assuming their duties and on an annual basis or when policies change on the hazards associated with the material they are manipulating and the precautions to prevent exposures, and exposure evaluation procedures?			
2.	Safety equipment (Primary barriers and personal protective equipment)			
A.	Is the laboratory equipped with Biosafety Cabinets?			
i.	Please indicate the type of BSC (make and model)			
ii.	What is the certification schedule			
B.	What PPE is required by your laboratory for handling of infectious materials?			
3.	Laboratory Facilities (Secondary Barriers)			
A.	Are doors present for access control to laboratory areas?			
B.	Is there a dedicated sink available for handwashing?			
C.	Is an eyewash station or portable eyewash readily available?			
i.	Is there a sign indicating the location of the eyewash above the station?			
ii.	Is the eyewash in good working condition?			
iii.	Are the eyewash stations checked weekly and the eye covers disinfected with 10% bleach?			
iv.	Are eyewash preventive maintenance and routine checks documented?			
D.	Is the laboratory designed for easy cleaning?			
E.	Is furniture provided that is suitable for the laboratory work performed?			
F.	Are work benches provided that are impervious to water, resistant to heat, organic solvents, acids, alkalies, and other chemicals?			
G.	Are chairs and other laboratory equipment be easily decontaminated with the appropriate disinfectant?			
H.	Does your laboratory have windows that open to the outside? If 'yes', are they fitted with screens?			
I.	Is there an autoclave onsite?			
J.	Is there an incinerator onsite?			
K.	Outline how the biowaste is disposed			
L.	Are there any additional safety features about your facility that you can provide?			

Additional Comments:

12.0 HANDLING OF HUMAN REMAINS KNOWN OR SUSPECTED OF COVID-19

Background

SARS-CoV2 virus, the causative agent for COVID-19, is a virus belonging to the family of *Coronaviridae* (genus: Betacoronavirus), a large family of enveloped, positive-sense single-stranded RNA viruses. SARS-CoV2 has been detected in respiratory, fecal and blood specimens.

Routes of Transmission

The main route of transmission is through large respiratory droplets by inhalation or disposition on mucosal surfaces.

Known Risks Associated with Dead Bodies

So far there is no evidence that bodies of deceased persons due to SARS-CoV2 are infectious. The risk of transmission of COVID-19 related to the handling of bodies of deceased persons is considered relatively low and can be related to:

- Direct contact with human remains or body fluid where the virus is present.
- Direct contact with contaminated fomites

Universal Precaution

However, as SARS-CoV2 can persist on surfaces, it is possible that the virus can persist on deceased bodies. Therefore, unnecessary contact with bodies should be avoided by those not wearing PPEs. Those in direct contact with dead bodies of COVID-19 should be protected from exposure to body fluids and contaminated objects. The strict adherence to universal precaution and the use of personal protective equipment (PPE) must be maintained despite the associated low risk transmission of the SARS-CoV2 virus with deceased bodies.

Purpose

The purpose of this document is to guide actions needed in the handling of dead bodies suspected or confirmed of COVID-19 as stipulated in FSM Congressional Resolution No.21-149. This document further provides recommended actions for handling and transporting of human remains, including cremated, known or suspected of COVID-19 into and within the FSM.

Below are three scenarios where the recommended actions in this document apply.

I. Transporting of dead bodies with confirmed COVID-19 into the FSM

Recommendations:

1. All bodies of deceased persons with confirmed COVID-19 must meet the following criteria before entering any of the FSM States (Kosrae, Pohnpei, Chuuk and Yap)

- Clearance Certificate from shipper (Funeral Home/Medical Examiner) that the body of the deceased person is not infectious and does not pose a risk to the population
 - The human remains are properly embalmed and placed in a sealed leak-proof container / coffin and complies with International Air transport Association (IATA) and carrier requirements for transport of human remains.
 - The sealed, leak-proof coffin is placed in a transport crate.
 - Signed agreement from the Family of the deceased that they will not open the coffin
2. Coffin must be disinfected per FSM Custom protocol prior to release
 3. Human remains should be transported directly to family residence upon arrival by State Public Safety Officers
 4. All persons in contact with coffin should avoid touching eyes and should wash hands with soap and water immediately after contact with appropriate personal hygiene
 5. Burial should be conducted as early as possible upon receipt of remains

II. Transporting of dead bodies with confirmed or suspected of COVID-19 Between the FSM States

In order to preserve a body of deceased person from decaying too rapidly, the body has to undergo a procedure referred to as EMBALMING. However, this procedure can lead to splashes of body fluids or can generate aerosols which increase the risk of infection to personnel. With the on-going COVID-19 pandemic, the World Health Organization (WHO) is recommending against EMBALMING of bodies of deceased persons suspected or confirmed of COVID-19.

Recommendations:

1. NO EMBALMING of Bodies of deceased persons suspected/confirmed with COVID-19
2. Interstate transportation of confirmed COVID-19 bodies of deceased persons is PROHIBITED.

III. Transporting of Cremated Human Remains

Recommendations:

1. Cremated human remains are allowed to be transported to the FSM

2. The cremated remains should be placed in a polyurethane bag and then enclosed in a funeral urn
3. The urn must be efficiently protected against breakage by cushioning package
4. The urn can be transported in checked baggage
5. Must adhere to standard airline regulations in transporting human ashes.

IV. Non Covid-19 human remains

The declaration allows NON-COVID-19 human remains to be repatriated to the FSM, however, will still have to follow State protocols and guidelines and standard airlines requirements.

References

1. World Health Organization (WHO) and European Center for Disease Prevention and Control (ECDC) (<https://www.ecdc.europa.eu/sites/default/files/documents/COVID-19-safe-handling-of-bodies-or-persons-dying-from-COVID19.pdf>)
2. Center for Disease Control and Prevention (CDC): <https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-postmortem-specimens.html>
3. BMJ Journals: <https://jcp.bmjjournals.com/content/early/2020/04/01/jclinpath-2020-206522>.
4. <https://www.iata.org/tact> or <https://www.tact-online.org>.

Annex 1. Standard Operating Procedure to Transfer to Morgue (from Hospital wards or PoE)

1. All handling of the dead will be performed only by those personnel who have been trained as part of specialty care for patients with COVID-19
2. The primary personnel for body removal and transfer to the morgue are trained sanitation & hygiene workers (hereinafter “cleaners”) who have been trained in IPC practices for COVID-19
3. However, doctors and nurses and other clinical personnel (e.g. assistant nurses) should also be familiar with this protocol and be able and willing to perform these duties when cleaners are either not present (e.g., after hours) or unavailable (e.g., surge periods)
4. PPE required for transfer to morgue is the same as standard PPE for cleaners (**medical mask, eye protection (if risk of splash from organic materials or chemicals), gown, boots or closed work shoes, and heavy-duty gloves**)
5. Prepare the body for transfer including removal of all lines, catheters and other tubes;
6. Ensure that any body fluids leaking from orifices are contained;

7. Deceased patients should be placed in a body bag at the site and transferred to the morgue
8. A separate morgue is not required, although a dedicated area should be created in the morgue, with COVID-19 victims clearly marked (separated off by rope or clear marking on body bag to indicate COVID-19 status)
9. Deceased patients suspected of COVID-19 infection who die prior to results returning should be regarded as COVID-19 positive for transfer to Morgue and thereafter, unless a negative result returns; **a postmortem sample (nasal swab) can be obtained for epidemiologic/surveillance purposes following same protocol for patients**
10. Bodies do not require cremation, and can be given to families **with training in contact precautions**. If no provision for PPE can be obtained, the body should remain in the morgue until such provision can be made.
11. Funerals should **not** be open casket, and no touching of the body should take place. Family members, Church leadership, tribal leadership, and any other relevant parties should be informed.

Annex 2. Standard Operating Procedure for Cleaning and Waste Disposal Recommendations

This SOP outlines cleaning and waste disposal following an autopsy of a decedent with confirmed or suspected COVID-19. While autopsies are not anticipated, potential cleaning issues related to the transfer of bodies with confirmed or suspected COVID-19 virus infection to be considered.

The surface persistence of SARS-CoV-2 is uncertain at this time. Other coronaviruses such as those that cause MERS and SARS can persist on nonporous surfaces for 24 hours or more.

Routine cleaning and disinfection procedures (per existing Sanitation & Hygiene protocols for hospitals and disposal of bodies in FSM) are appropriate for COVID-19 in these settings.

After death of a person with confirmed or suspected COVID-19, the following recommendations apply:

1. Wear disposable gloves recommended by the manufacturer of the cleaner or disinfectant while cleaning and when handling cleaning or disinfecting solutions.
 - Dispose of gloves if they become damaged or soiled and when cleaning is completed, as described below. Never wash or reuse gloves.
2. Use eye protection, such as a face-shield or goggles, if splashing of water, cleaner/disinfectant, or other fluids, is expected.
3. Use respiratory protection if required on cleaner or disinfectant label. (Note: the respiratory protection is intended to protect against the chemicals/disinfectants, *not* for COVID-19 as part of routine handling of decedents.)
4. Wear a clean, long-sleeved fluid-resistant gown to protect skin and clothing.
5. Use disinfectants with EPA-approved products with label claims against human coronaviruses. All products should be used according to label instructions.

- Clean the surface first, and then apply the disinfectant as instructed on the disinfectant manufacturer's label. Ensure adequate contact time for effective disinfection.
 - Adhere to any safety precautions or other label recommendations as directed (e.g., allowing adequate ventilation in confined areas and proper disposal of unused product or used containers).
 - Avoid using product application methods that cause splashing or generate aerosols.
 - Cleaning activities should be supervised and inspected periodically to ensure correct procedures are followed.
6. Do not use compressed air and/or water under pressure for cleaning, or any other methods that can cause splashing or might re-aerosolize infectious material.
 7. Gross contamination and liquids should be collected with absorbent materials, such as towels, by staff conducting the autopsy wearing designated PPE. Gross contamination and liquids should then be disposed of as described below:
 - Use of tongs and other utensils can minimize the need for personal contact with soiled absorbent materials.
 - Large areas contaminated with body fluids should be treated with disinfectant following removal of the fluid with absorbent material. The area should then be cleaned and given a final disinfection.
 - Small amounts of liquid waste (e.g., body fluids) can be flushed or washed down ordinary sanitary drains without special procedures.
 - Hard, nonporous surfaces may then be cleaned and disinfected as described above.
 8. Follow standard operating procedures for the containment and disposal of used PPE and regulated medical waste. SARS-CoV-2 is not considered a Category A infectious substance. State and local governments should be consulted for appropriate disposal decisions.
 9. Dispose of human tissues according to routine procedures for pathological waste.
 10. Clean and disinfect or autoclave non-disposable instruments using routine procedures, taking appropriate precautions with sharp objects.
 11. Materials or clothing that will be laundered can be removed from the autopsy suite (or anteroom, if applicable) in a sturdy, leak-proof biohazard bag that is tied shut and not reopened. These materials should then be sent for laundering according to routine procedures.
 12. Wash reusable, non-launderable items (e.g., aprons) with detergent solution, decontaminate using disinfectant, rinse with water, and allow items to dry before next use.
 13. Keep camera, telephones, computer keyboards, and other items that remain in the autopsy suite (or anteroom, if applicable) as clean as possible, but treat as if they are contaminated and handle with gloves. Wipe the items with appropriate disinfectant after use. If being

removed from the autopsy suite, ensure complete decontamination with appropriate disinfectant according to the manufacturer's recommendations prior to removal and reuse.

14. When cleaning is complete and PPE has been removed, wash hands immediately with soap and water for 40-60 seconds. If hands are not visibly dirty and soap and water are not available, an alcohol-based hand sanitizer that contains 60%-95% alcohol may be used. However, if hands are visibly dirty, always wash hands with soap and water before using alcohol-based hand sanitizer. Avoid touching the face with gloved or unwashed hands. Ensure that hand hygiene facilities are readily available at the point of use (e.g., at or adjacent to the PPE doffing area).

References

1. CDC, Guidance on Postmortem Specimens: <https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-postmortem-specimens.html>
2. Cleaning and waste disposal recommendation. CDC Guidelines (<https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-postmortem-specimens.html>)

13.0 ESSENTIAL SERVICES DURING COVID-19

Program	Essential services
Immunization	<ul style="list-style-type: none"> • Diphtheria, tetanus, & acellular pertussis (4DTaP) • Hepatitis B (3HepB) • Measles, mumps, rubella (2MMR) • Inactivated poliovirus (3IPV) • Haemophilus influenzae B (Hib) • Seasonal influenza • Human papillomavirus (HPV)
TB	<ul style="list-style-type: none"> • Treatment (including latent TB) • Active contact investigation for infectious cases • Follow up appointments • Rehabilitation for people with long-term impacts of TB (e.g. vision impairment due to medication)
Leprosy	<ul style="list-style-type: none"> • Treatment • Contact investigation for MB cases • Psychosocial support to address stigma
Surveillance	<ul style="list-style-type: none"> • Routine disease surveillance
HIV/STI	<ul style="list-style-type: none"> • Testing for HIV, Gonorrhea, Chlamydia, Syphilis, Trichonomas, Hepatitis B • Treatment for HIV, Gonorrhea, Chlamydia, Syphilis, Trichonomas • Testing and treatment of pregnant women (ideally by week 12 of gestation, but no later than by week 20), including treatment of their partners • HIV Post Exposure Prophylaxis (PEP) • Prevention of mother-to-child transmission of HIV, including with antiretrovirals
MCH	<ul style="list-style-type: none"> • Information, counselling and services for comprehensive sexual and reproductive health and family planning, including contraception • Pre-pregnancy detection and management of risk factors (nutrition, obesity, tobacco, alcohol, mental health, environmental toxins) and genetic conditions • Early and appropriate antenatal care services (minimum of four face-to-face visits) • Prospective mothers provided with adequate stocks of iron, folate, calcium, deworming pills

	<ul style="list-style-type: none"> • Delivery in the presence of a skilled birth attendant • Early initiation of breastfeeding (within the first hour) • Kangaroo mother care for small babies • Postnatal contact with an appropriately skilled health-care provider, at home or in the health facility, around day 3, day 7 and at 6 weeks after birth services (minimum of 3 visits) • Postnatal care of the sick neonate • Promotion, protection and support of exclusive breastfeeding for 6 months • Nutrition and lifestyle counselling for mothers • Detection and treatment of severe acute malnutrition in infants • Micronutrient supplementation (vitamin A, Albendazole, Iron-Folic Acid (IFA), zinc, F 75, F 100, Resomal, Ready-to-Use Therapeutic Food) • Prevention and management of childhood illnesses including malaria, pneumonia, meningitis and diarrhea • Rheumatic heart disease treatment (benzathine penicillin)
NCD	<ul style="list-style-type: none"> • Ongoing management of diabetes, hypertension, heart disease, chronic respiratory disease and mental health conditions • Routine monitoring services: blood pressure and blood glucose measurements, foot inspection, wound care, rehabilitation services and provision of assistive technology (e.g prosthetics, crutches, wheelchairs). • Provision of medication and supplies • Cancer therapy, rehabilitation and palliative care • Cancer screening • Renal dialysis
BHW	<ul style="list-style-type: none"> • Screening and evaluation of clients • Counseling Services • Treatment for mentally ill patients • Treatment for substance abuse patients • Provide meal to the clients in jail • Outreach services/home visit • Administrative Services
Hospital services	<ul style="list-style-type: none"> • Emergency department • Emergency surgery • Blood bank services • Laboratory testing
Gender-based Violence (GBV)	<ul style="list-style-type: none"> • Psychological First Aid (PFA) • Mental health and psychosocial support (MHPSS) • GBV case identification and referral • Sexual assault examination and clinical management

	<ul style="list-style-type: none"> • Provision of emergency contraception within 5 days of sexual violence (as appropriate) • Referral pathways for psychosocial and legal support • Availability of dignity kits and RH Kit 3
Child protection	<ul style="list-style-type: none"> • Prevention and response to child maltreatment, including identification and referral, medical treatment, PFA and MHPSS. • Parent and caregiver support services or interventions, including psychosocial support/counselling. • Parent skill training, as appropriate, to help children cope with stress and to prevent child maltreatment, and for managing behavioural disorders in adolescents.
Other	<ul style="list-style-type: none"> • Maintain support for people living with disability, including access to required routine care