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State Agency on Mandatory
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COVID-19

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INTRODUCTION

Coronaviruses (CoV) are a major virus family that causes a variety of diseases ranging from common cold symptoms to more severe pathologies, such as the Middle East Respiratory Syndrome Coronavirus - MERS-CoV and Severe Acute Respiratory Syndrome (SARS-CoV).

Coronaviruses can infect humans through animals as a zoogenous infection. More detailed studies have revealed that SARS-CoV infected through musk cats and MERS-CoV infected through single-hump camels. At present, there are many coronavirus species that do not infect people, but are found in animals.

Subtypes of coronaviruses (HCoV-229E, HCoV-OC43, HCoV-NL63, and HKU1-CoV) which infect people are usually viruses that cause cold symptoms. The first international medical emergency of the 21st century, SARS-CoV, broke out in 2003 and resulted in the death of hundreds of people, as it was a previously unknown virus. About 10 years later in September 2012, the MERS-CoV virus of the coronavirus family, which had not been identified in humans or animals before, was first detected in humans in Saudi Arabia. In fact, it was later revealed that the first case of the disease was found in April 2012 at a hospital in the city of Zarqa, Jordan.

On December 31, 2019, the World Health Organization (WHO) office in China reported the incidence of pneumonia with an unknown etiology in city Wuhan of Hubei province, China. On January 7, 2020, this was confirmed as a new coronavirus (2019 Novel Coronavirus COVID-19), which has not been seen in humans before.

The information contained in this guide has been developed for all healthcare providers operating in the Republic of Azerbaijan to provide information about COVID-19 disease, its origin, routes of infection, confirmation of the disease and diagnostic methods. It also provides guidance on the patient's followup strategies and forms for people suffering from COVID-19 or those who have been in contact with people infected with COVID-19. This guide is based on WHO recommendations. “COVID-19 Disease - Guidelines for Health Workers” will be updated based on WHO updates. Updated information will be regularly published on the internet page of the State Agency on Mandatory Insurance (www.its.gov.az).

I. GENERAL INFORMATION

Coronaviruses. Coronaviruses are single-stranded viruses that contain RNA with positive polarization and complicated structure. Although they do not have RNA polymerase enzymes due to positive polarization, they have codes for this enzyme in their genomes. They have a stick-shaped, protruded surface. These protrusions are called "corona," Latin for "crown," so the viruses are named coronavirus (Figure 1 and 2).

Figure 1. Schematic structure of a coronavirus

Figure 2. Electronic microscopic image of COVID-19 (beta-coronavirus)

Coronaviruses belong to the *Coronaviridae* family. They are classified into four main types:
Alpha, Beta, Gamma, and Delta Coronaviruses. These can be found in humans as well as domestic and wild animals like bats, pigs, cats, dogs, rodents, and birds.

In humans, the spectrum of diseases caused by coronavirus ranges from a simple cold to severe acute respiratory failure syndrome (SARS). In humans and animals, this can cause clinical manifestations causing respiratory, intestinal, liver, nephrotic, and neurological symptoms.

The first complete genome of a new type of coronavirus (COVID-19) with a combination of Sanger sequencing, illumina sequencing, and nanopore sequencing was found in bronchoalveolar lavage fluid samples. The new disease caused by the COVID-19 virus in three different combinations is called coronavirus pneumonia (NCIP).
COVID-19 has features typical of the coronavirus family and is of the beta-coronavirus 2b type.

It has been shown that the genomes of these strains and beta-coronaviruses are closely related to Bat-SL-CoVZC45, which is a Bat-SARS-like coronavirus isolate (Figure 3).

Figure 3. Phylogenetic relationship of coronavirus COVID-19

COVID-19 is included in the beta-coronavirus family, which also contains SARS-CoV and MERS-CoV. Although the lethality of the SARS epidemic was 11% and 35-50% for MERS-CoV, it is not possible to comment on the lethality of the COVID-19 virus with current data. Although it is assumed that the progress may be slight, due to the presence of asymptomatic conditions at the first impression, it is important to continue observing.

Epidemiology. Incidences of pneumonia with unknown etiology occurred on December 31, 2019 in the city of Wuhan, in China's Hubei province. It is reported that most of the people working in southern Wuhan's Southern China Seafood market—a wholesale fish and livestock market selling various animal species—were infected. These infections were associated with fever, dyspnea, and bilateral pulmonary pneumonia infiltration. The deaths reported so far have been seen in older persons.

The first case of imported infection was reported in a 61-year-old Chinese woman in Thailand on January 13, 2020. On January 14, 2020, a 30-year-old male patient was reported by the Japanese Ministry of Health to be the second case of imported infection. Although the two people in these cases reported in Thailand and Japan had a history of traveling to the Wuhan province, the first diseased group has not been to the aforementioned seafood market. Meanwhile, reports on intercontinental import cases have been developed .

The cause of the pneumonia detected on December 31, 2019 was identified on January 7, 2020 as a new coronavirus (COVID-19) that had never been detected in humans before. Thereafter, it was reported that the number of such cases increased and the incidence of the disease in medical personnel is an indication that it is transmitted from person to person.

COVID-19 virus infections worldwide
(According to WHO)

Countries with high rates of infection

Source and routes of infection of COVID-19. The source of the infection is not specified. The origin of COVID-19 is still being investigated. According to available information, however, the source of the infection is believed to be wild animals that were illegally sold in the Huanan Seafood Products Wholesale Market. There have been cases of human-to-human transmission, however, as well as infections in medical facilities. So far, it has been reported that the route of infection is airborne.

Data on the average incubation period is limited. According to epidemiological data on MERS-CoV and SARS-CoV, the incubation period can be up to 14 days. According to the available data, the proportion of severely ill patients and the lethality rate are not very high. This may change in the future, however, depending on changes in the genetic structure of the virus.

At present, the contagiousness, incubation period, and period of the virus's endurance to environmental impacts are not known.

Clinical features. The main symptoms of infection are respiratory in nature, including fever, cough, and dyspnea. In more serious cases, pneumonia, severe acute respiratory infections, renal failure, and even death can occur. Based on available data, however, it is not yet possible to speak about the severity of the disease.

Laboratory Tests - Nucleic acid amplification tests. In patients with COVID-19, respiratory samples should be studied using the Polymerase Chain Reaction (PCR) method. If necessary, the samples should also be examined in terms of other respiratory diseases. Although other respiratory pathogens may be detected in the patient, all patient samples should be screened for COVID-19 in consideration of possible co-infections.

The COVID-19 sequencing data has been newly shared and PCR tests have been compiled. Prior to the establishment of specific PCR tests, it is recommended that labs be verified with pan-coronavirus testing and sequencing analyses.

Verification is particularly important in terms of eliminating other coronaviruses that can produce positive results in pan-coronavirus tests. Four human coronaviruses (HCoV-229E, HCoV-NL63, HCoV-HKU1 and HCoV-OC43) are endemic in the world, the latter two being beta-coronaviruses. In addition, two other beta-coronaviruses that cause zoogenous infections in humans are the MERS-CoV and SARS viruses.

Serological tests. Serological tests are useful in confirming immune responses to specific virus groups. Serological tests require two serum samples (acute and recuperative period).

Sequencing. Sequencing is very important for determining the origin and spread of the virus. The WHO has emphasized the importance of sharing secant data acquired by labs on relevant platforms (GenBank, GISAID, etc.).

II. IDENTIFICATION AND MANAGEMENT OF THE DISEASE

Incidents that correspond to any of the following two conditions are regarded as suspected infections:

1. Severe Acute Respiratory Infection (SARI) - fever, cough, and the necessity for hospital inpatient treatment. Atypical progress of clinical manifestation is possible in patients with weakened immune systems. If the clinic cannot explain by any other etiology and at least one of the following has occurred:

- Travel to high-risk countries within the last 14 days of the onset of symptoms;
- Medical personnel of the units where patients infected with COVID-19 undergo treatment, regardless of place of residence and travel history;

2. A person suffering from acute respiratory illness of any severity and who has, within the last 14 days prior to the onset of symptoms, had any of the following:

- Close contact with a patient with a confirmed COVID-19 infection;
- Being in any medical facility in a country with COVID-19 infections;
- Being in countries where the disease is observed (especially the People's Republic of China, Iran, Italy, and South Korea)

Confirmed case of infection: Identification of COVID-19 by laboratory methods in people with a suspected infection.

The management of suspected/confirmed COVID-19 cases is based on the “Suspected cases Management Algorithm.”

In immunosuppressive patients, the clinical picture may be atypical.

The detection of a seasonal respiratory virus or bacterial infection in the samples taken from a suspected patient does not exclude the presence of a COVID-19 virus.

HCoV-229E, HCoV-OC43, HCoV-NL63 and HKU1-CoV - seasonal respiratory viruses which are different from COVID-19.

Inpatient treatment is carried out according to the symptoms such as hypoxemia, respiratory disorders, respiratory distress, hypotension, bilateral radiological signs, and confusion.

Suspected Cases Management Algorithm

Suspected Case: 103 Ambulance service is called when a suspected case is detected.

103 Ambulance service reports the suspected case to the Department of Infectious Diseases of the relevant City or the District Central Hospital (DCH).

MEDICAL FACILITY

- The hospital will inform the Division of Disease Control and Prevention of MTUMA as soon as possible in case of a suspected infection.
- The person with the suspected COVID-19 infection is placed in the Department of Infectious Diseases of the relevant DCH.
- Isolation measures are taken to protect personnel against contact and airborne infection and the patient is kept in a single room until the results of the analysis are released.
- **COVID-19 Suspected Case form** is filled in.
- The form is sent to the following e-mail address: ddcp@tabib.gov.az).
- A copy of the form and sample will be delivered to a diagnostic laboratory identified by MTUMA as soon as possible.
- Confirmed cases are referred to the quarantine hospital as prescribed by MTUMA by the 103 Ambulance service for observation and treatment.
- Patients with confirmed cases who need intensive care or who are intubated are taken to the intensive care unit of the hospital.
- In the case of the suspected spread of infection, the epidemiological link between infections is investigated in coordination with the DCP department of MTUMA.
- Diagnostic laboratories send the results of the analysis to MTUMA.

DIAGNOSTIC LABORATORIES ESTABLISHED BY MTUMA

These perform analyses of samples sent by medical facilities. The results will be reported to the MTUMA DCP department.

* As an example, a swab sample is taken from the respiratory tract and transmitted in the Virus Transport Medium (VTM). Materials such as tracheal aspirate, bronchoalveolar lavage, and phlegm may also be taken. To do this, you need to take 2-3 ml of samples in sterile and non-leaking containers with lids. The material should be stored in the refrigerator (2-80 degrees C) immediately after being taken and delivered to the laboratory within 72 hours.

- ***Preventive measures in air transport***

All passengers fill out the Passenger Contact Information Form provided by the flight crew.

- The flight crew will submit the completed forms along with the passenger list to the customs officer and the forms will be delivered to the airport's medical center.

- All passengers arriving in our country should be informed about how they will use health care services if they have any symptoms.

- Suspected cases identified onboard or at the airport are handled according to the following rules:

If a patient with symptoms is detected onboard:

- The pilot reports the case to the center.
- The case is reported by the center to the airport medical center/airport operating center.
- Information about passengers in the two front, two rear and two side seats are reported to MTUMA .
- The medical center evaluates the infection onboard.
- The medical center reports the case to the 103 Ambulance service.
- After assessing the disease case, the medical center, along with the "COVID-19 Suspected case Information Form" hands the patient to the 103 service representatives.
- The COVID-19 suspected patient is transported to quarantine hospitals identified by MTUMA by the 103 Ambulance service.
- The patient is administered here in accordance with the "Suspected Infection Observation Algorithm."
- The results of analyzing the sample taken from the patient will be sent to MTUMA.
- Confirmed cases are referred to the treatment and quarantine hospital identified by MTUMA by the 103 Ambulance service for observation and treatment.

If a patient with symptoms is detected at the airport:

- Thermal camera systems should be installed as close to the entrance of the international passenger terminals as possible (there should be at least 2 trained medical personnel with a medical mask, non-sterile gloves and glasses near the thermal camera).

- People with temperatures fixed on the thermal camera, as well as persons with fever and/or respiratory symptoms in the waiting zone, rest zone and etc. are provided with medical masks.

1) **In suspected infection cases**

- The person is taken to the medical center
- The medical center reports the case to the 103 Ambulance service.
- After assessing the disease case, the medical center hands the patient to 103 service representatives along with the "COVID-19 Suspected case Information Form"
- The airlines by which the person arrived are contacted and information about passengers in the two front, two rear and two side seats is reported to MTUMA.
- The COVID-19 suspected patient is transported to quarantine hospitals identified by MTUMA by the 103 Ambulance service.
- The patient is administered here in accordance with the "Suspected Infection Observation Algorithm."
- The results of the analysis of the sample taken from the patient will be sent to MTUMA.
- Confirmed cases are referred to the treatment and quarantine hospital identified by MTUMA by the 103 Ambulance service for observation and treatment.

2) In non-suspected infection cases;
• For transfer passengers, the information is provided and the flight is allowed.
• Non-transfer passengers are registered, they are informed about preventive measures, and allowed to enter the country.

THE TAKING, STORING, AND SENDING OF SAMPLES

Taking of samples (Detailed information on taking and storage of samples is given in the table).

Endotracheal aspirate or bronchoalveolar lavage samples from the lower respiratory tract are preferred. In case it is not possible to take a sample from the lower respiratory tract, or in the absence of the lower respiratory tract symptoms, a nasopharyngeal washing sample or oropharyngeal (Figure 4) and nasopharyngeal (Figure 5) swab should be submitted.

The fact that the test results were negative on the sample taken from the upper respiratory tract in people with possible infections and complicated signs of infection does not exclude COVID-19 infection. In cases of more serious doubt, a new sample should be taken (if possible, from a different area than the previous one) and the test should be repeated. It is enough to take two consecutive samples within two days. Daily samples can be sent from patients who need intensive care (max. 2 samples).

Table: Sample types which may be taken from symptomatic patients:

Sample type	Sample container	Transportation	Storage until test	Note
nasopharyngeal or oropharyngeal swab	Virus Transport Environment (VTM)	4 °C	≤5 days: 4 °C >5 days: -70°C	To increase viral load, nasopharyngeal and oropharyngeal swabs should be placed in the same test tube
bronchoalveolar lavage	Sterile non-leaking container or VTM	4 °C	≤48 hours: 4 °C >48 hours:-70°C	Although the pathogenic factor is concentrated, it is a valuable sample
endotracheal aspirate, nasopharyngeal aspirate or nasal washing sample	Sterile non-leaking container or VTM	4 °C	≤48 hours: 4 °C >48 hours:-70°C	
phlegm	Sterile non-leaking container	4 °C	≤48 hours: 4 °C >48 hours:-70°C	It should be ensured that sample was taken from lower respiratory tract
biopsy or autopsy material	Sterile non-leaking container (with FTS)	4 °C	≤24 hours: 4 °C >24 hours:-70°C	
serum (2 samples in recovery in acute phase or 2-4 weeks after acute phase)	Test tube for serum (3-5 ml)	4 °C	≤5 days: 4 °C >5 days: -70 °C	Paired sample: •During the first week of acute illness •Recovery: after 2-3 weeks

Safety rules in taking and transmitting samples:

- All samples taken should be treated as contagious and sampling procedures should be treated as dropper and aerosolization processes. Personal protective means should be used for these processes.

- In addition, those who take and send the samples must comply with infection protection and control procedures, as well as national and international procedures on the transportation of infectious agents.

- Ensure that the samples are properly labeled, request forms are correctly filled in, and that clinical information is provided.

- Close contact with the laboratory and information should be provided as needed. Communication and exchange of information is essential to ensure proper and prompt processing of samples in the labs and taking of adequate biological safety measures.

- Labs should be informed prior to sending the samples.

Registration information:

a) Patient information - name, date of birth, sex, address of residence, contact information, barcode number, and any other necessary information (e.g. hospital number, hospital name, address, doctor's name, contact information)
b) Date and time the sample was taken
c) Anatomical area and location from which the sample was taken
d) Tests required
e) Clinical symptoms and patient information (epidemiological information, risk factors, vaccination status, and antimicrobial treatment)

Figure 4: Taking of oropharyngeal swab

Figure 5: Taking of nasopharyngeal swab

OBSERVATION OF PEOPLE WHO WERE IN CONTACT

People who were in contact with an approved or suspected COVID-19 infected person without the use of appropriate protective means should be monitored at home by the appropriate medical facility of MTUMA and Hygiene and Epidemiology Center (HEC) within 14 days of the date of unprotected contact.

The Information Form of Persons who were in Contact should be sent to the MTUMA address ddcp@tabib.gov.az. Each day, information should be obtained on the presence of symptoms, such as fever, cough, shortness of breath, shivering and trembling, body aches, sore throat, headache, diarrhea, nausea/vomiting, and nasal discharge in persons who are under control at home. The Observation Form of Persons who were in Contact should be filled in and sent by the territorial medical unit to ddcp@tabib.gov.az each day.

When the test result of the person who was in contact with suspected COVID-19 infection is negative, the observation of the person is discontinued; if test result is positive, the observation is continued until the 14th day.

If hospitalization for a different reason is not necessary for people who were in contact, they will stay at home and stay away from public places for 14 days. Medical masks should be worn when you have to leave home. If symptoms of fever or respiratory failure develop, they must act in accordance with the Algorithm of Suspected Cases Management.

A) People who were in close contact

- People who work with any COVID-19 infected healthcare providers who do not use the appropriate protective equipment
- People who are in the same closed environment with anyone affected by COVID-19
- People who visit anyone with confirmed COVID-19 infection
- Individuals working in the same space as people affected by COVID-19 or teachers in the same room at preschools and classrooms, or sitting close to persons affected by COVID-19
- Individuals traveling with COVID-19 infected people
- Individuals living together with COVID-19 infected people
- Individuals working in the same office with COVID-19 infected people

B) Person who was in close contact onboard

- Passengers traveling in the same plane with a person with a confirmed or suspected COVID-19 infection and sitting in the two front, two rear, and two side seats should be observed for two weeks.
- Symptoms of a flight crew member on board an aircraft serving a person with a confirmed or suspected infection case are followed. If the results of analysis on a suspected case are positive, such person will not be allowed to fly within 14 days after contact, regardless of the development of symptoms. Also, if the symptoms occur before the result of the analysis, flight is not allowed for 14 days after contact. Flight is allowed if the analysis results are negative.

Observation of people who were in contact should be carried out in accordance with the "Algorithm of Observation of Persons who were in Contact."

Algorithm of Observation of Persons who were in Contact

Territorial medical facility of MTUMA and HEC

- All people who were in contact are identified by the territorial medical facility and HEC.
- Information Forms on Persons who were in Contact should be completed separately for each individual and sent to MTUMA at ddcp@tabib.gov.az.
- A list of the identified people is made and they are monitored by telephone from the medical facility and HEC for 14 days after the last contact.
- Those who were in contact should be observed, in particular in terms of fever and respiratory symptoms. These persons should be observed daily by telephone, taking into account other symptoms such as shivering and trembling, muscle ache, sore throat, diarrhea, nausea/vomiting, and nasal discharge. If necessary, they are examined at home. The "Observation Form of Persons who were in Contact" is filled daily by the Territorial Medical Facility and sent to MTUMA at ddcp@tabib.gov.az .
- If hospitalization for a different reason is not necessary for people who were in contact, they will stay at home and stay away from public places for 14 days. If the appropriate symptoms develop, measures are taken according to “Suspected Cases Management Algorithm.”

III. INFECTION CONTROL AND ISOLATION

Since the period of elimination and infection of the virus is not known at the time, isolation procedures should continue during the patient's stay in the hospital.

Although COVID-19 is thought to be a zoonotic, recent reports have confirmed that the virus has been transmitted from human to human. Therefore, standard and airborne isolation measures should be taken in cases where it is thought to be a COVID-19 infection.

Hospitalization: People diagnosed with COVID-19 may be monitored and treated in multidisciplinary hospitals as defined by MTUMA, which may provide mechanical respiratory support. Standard infection control and protection measures should be used in healthcare facilities. In addition, protection measures against contact and airborne infection should continue until the patient is asymptomatic.

The following protective and control measures should be taken to prevent the spread of the disease in a medical facility:

- Duration of protection measures against contact and airborne infection for COVID-19.
- Standard infection control and protection measures should be used in health care facilities. In addition, protection measures against contact and airborne infection should continue until the patient is asymptomatic.

- Personal protective equipment for personnel who are in contact with a suspected/confirmed COVID-19 infection at a distance of less than 1 meter:

  - *Glove*
  - *Apron*
  - *Medical Mask*
  - *N95 mask (just for airborne/aerosolization procedures)*[2]
  - *Face protection*
  - *Glasses*
  - *Liquid soap*
  - *Alcohol-based hand disinfectants should be adequately supplied by inpatient care facilities*

Requirements for patient rooms:

1. Patients with suspected or diagnosed COVID-19 should strictly adhere to standard, contact, and airborne protection measures to prevent infection during their stay in the hospital.

2. Patients should be kept in a single room, with a private bathroom and toilet, with a door that can be closed (if hepafilter is not used in the ventilation of the room, then the room should be aerated in such a way in order not to allow the circulation of air).

2 - A procedure that causes airborne/aerosolization; taking of aspiration, bronchoalveolar lavage, intubation, respiratory samples

3. In the absence of single rooms, patients diagnosed with COVID-19 may be placed in the same room, but preferably patients should be housed separately to avoid possible infection. In extreme cases, COVID-19-infected patients are allowed to be placed in the same room, but at least 1m away from each other.

4. The medical supplies should be supplied separately for each patient and should not be taken out of the room. Sharing medical supplies between patients should not be allowed.
If medical supplies (stethoscope, thermometer) are used with more than one patient, they must be cleaned and disinfected after each use.

5. Patients should not be allowed to be transported out of the room or to a different area unless there is a medical need. Portable X-rays or other important diagnostic devices should be used for COVID-19 infected patients. If no portable devices are available, however, and the patient needs to be transported, the transportation process must be pre-determined, minimizing contact with staff, other patients, and visitors. The patient must wear a medical mask during transfer.

6. Responsible medical personnel should be provided with appropriate protective equipment when transporting the patient. Special attention should be paid to hand hygiene.

7. The surfaces touched by a patient should be cleaned and disinfected regularly.

Access to the patient's room and communication with patients

1. Access to the patient's room should be restricted, with only staff members who are responsible for the treatment of the patient and who are required to enter being allowed access to the room. Access of visitors should be restricted and only one attendant should be allowed.

2. Personal protective equipment (gloves and non-sterile, mainly waterproof aprons with sleeves), medical masks, N95 masks, glasses, face protection, and alcohol-based hand disinfectants should be available at the entrance of patients' rooms.

3. All persons entering the patient's room must use gloves, aprons, and medical masks.

4. People who are involved in the examination and treatment of a patient, as well as attendants, must use gloves and a medical mask. The use of N95/FFP2 masks and facial protection should be taken into account when handling a patient's secretions or if aerosolization may result.

5. In wearing (apron, mask, sunglasses, face protection, and gloves) and removing personal protective equipment (gloves, aprons, glasses, face protection masks) the order of precedence must be followed.

6. When gloves are damaged or contaminated, they should be removed, hand hygiene provided, and new gloves worn.

7. During any procedure that may cause aerosolization, only essential medical personnel are allowed in the patient's room. The door should be closed during the procedure and not be opened for some time after the procedure.

8. Hand hygiene should be followed before and after contact with the patient. Soap, water, or alcohol based disinfectants may be used for this purpose. If the hands are visibly dirty, they should be washed with water and soap instead of disinfectants.

9. The patient should not be transferred from the room unless there is a medical reason. If it is important to leave the room, he or she must be transferred with a medical mask.

10. Standard cleaning procedures should be used for the patient's location and surrounding area, including the ambulance used for patient transportation.

11. Cleansing of surfaces and ambulance contaminated with secretions of the patient should be completed in accordance with appropriate guidelines.

12. After the patient's room is emptied, the room is cleaned and the surface is disinfected, a new patient may be admitted to the room after ventilation.

Thick gloves, N95 masks, glasses, and aprons should be used by people carrying out an autopsy or by morgue personnel when contacting dead body of COVID-19 patient.

There is no specific burial procedure in the death of a patient with a suspected/confirmed COVID-19 infection. Standard burial rules apply.

Transportation of patients*:*

1. Personal protective equipment should be kept in the ambulances.

2. Personal protective equipment should be used until the patient is admitted to the primary healthcare facility and the ambulance is cleaned. Special attention should be given to the use of N95/FFP2 masks and facial protection in the case of interventions that may cause the aerosolization of patients' secretions.

3. After transporting the suspect/confirmed COVID-19 patient, the ambulances should be cleaned and disinfected. Cleaning should be done using personal protective equipment.

4. Ambulance treatment should be provided in accordance with relevant regulations and guidelines.

5. Ambulances should not be used without cleaning.

Management of Patients Applying to a Medical Facility
In order to control spread of the disease:

1. In the event of suspected/confirmed cases, the patient should be informed as early as possible to apply to the hospital.

2. Patient should not wait in a line for examination.

3. If possible, service staff should be separated.

4. Symptomatic patients seeking emergency care should be taken to a separate waiting room

Suspected/proven COVID-19 disease waste should be disposed of in accordance with the rules for managing hazardous medical waste.

Special note: If a medical worker taking care of a COVID-19 patient has any symptoms within 14 days of contact with the patient, he or she must inform the doctors and necessary precautions should be taken.

Observation of asymptomatic COVID-19 cases at home

2) Monitoring of asymptomatic cases at home

If necessary, a suspected/confirmed COVID-19 patient who does not require hospitalization and does not have any chronic illness (lung, heart, renal failure, or immunodeficiency, etc.) may be monitored at home by a special

1. Patients who are controlled at home must be checked on by the medical center and HEC before they can recover.

2. Patients kept at home should sit in a well-ventilated, separate room. If this is not possible, then at least 1 meter away from other people to avoid the risk of infection at home. The patient's relatives must wear a mask, and if the mask is moisturized, they must change it.

3. No visitors are allowed.

4. Care for the patient should be provided by one healthy person.

5. The patient's movement inside the home should be limited; common areas, such as toilets and bathrooms, should be well ventilated.

6. Patients and people around him should be educated about respiratory hygiene (e.g., when coughing or sneezing, the mouth should be covered with a paper napkin, then the napkins should be put into a cellophane bag, closed and disposed in a second cellophane bag. Hands should often be washed)).

7. The patient should not share personal belongings with others or use items such as glasses, plates, and towels of other persons at home; these items should be thoroughly washed with soap and water. The clothes used by the patient should be washed at 60-90 ° C with a normal detergent.

8. A potential patient's clothes, room, etc. should be cleaned by using gloves.

9. Family members should take care of their health and seek medical advice if symptoms are present.

10. Symptoms of suspected infection should be considered, emergency medical service should be called upon when the patient's condition gets worse, and information on the patient’s condition should be provided to the medical facility.

11. If transportation is necessary, it is important to make sure that employees wear medical masks during transportation.

Those who were in close contact with a person diagnosed with COVID-19 infection or undergoing treatment should measure their temperature twice a day for 14 days following the last contact. They should watch for symptoms like: cough, respiratory distress, tremor, body ache, sore throat, headache, diarrhea, nausea/vomiting.

All surfaces that can be contaminated with respiratory secretions or bodily excretions should be cleaned with bleach at a 1:100 dilution (Sodium hypochloride Cas No: 7681-52-9) and, in the case of significant contamination, a dilution of 1:10 is used.

Bathrooms and toilets are cleaned at least once a day with bleach at a 1:100 normal dilution (Sodium hypochloride Cas No: 7681-52-9).

2) Monitoring of people who were in contact at home

Those who were in contact with the suspected/confirmed infection (close contact/contact onboard an aircraft) will be kept under observation for 14 days.

The observation of the person who was in contact with a suspected COVID-19 infection is discontinued if test results of the person who was in contact are negative. If positive, the observation is continued until the 14th day.

1. Those who came into contact with an infected person should be checked up on by the territorial medical facility and HEC.

2. The person who came into contact with an infected person is required to spend the period of observation at home.

3. If necessary, such a person will wear a medical mask when he/she is in the same environment with other people (home, street, hospital).

4. To minimize the risk of infection, patients who are kept at home should, if possible, live in a separate room. If not impossible, then in a well-ventilated room, at least 1 meter away from other people, and should wear a medical mask, replacing it with a new one if it gets moist.

5. No visitors are allowed at home.

6. The movement of the person who was in contact inside the home should be restricted; common areas such as toilets and bathrooms should be well-ventilated.

7. The person who was in contact should not share personal belongings with others or use items such as glasses, plates, or towels of other people at home; these items should be thoroughly washed with soap and water. The clothes used by such a person should be washed at 60-90° C with a normal detergent.

8. Baths and toilets should be cleaned at least once a day with a diluted bleach at 1:100 normal dilution (Sodium hypochloride Cas No: 7681-52-9).

IV. TAKING CARE OF A PATIENT AND TREATMENT

Since there is no specific antiviral treatment for COVID-19 and the pathogenesis is not known, treatment is aimed at preventing secondary infections and complications.

During treatment:

a) Additional oxygen therapy is recommended for patients with respiratory distress, hypoxemia, and shock.

b) Conservative fluid therapy is recommended in SARI patients in the absence of shock symptoms.

c) Empirical antimicrobial drugs (antibiotics, influenza neuraminidase inhibitors, antifungal drugs) are recommended for possible pathogens that cause SARI. Patients with sepsis should be given antimicrobial medication within the hour after examination.

d) Systemic corticosteroids should not be used for the treatment of pneumonia or ARDS unless otherwise indicated. Surveillance studies have reported that corticosteroids used in SARS patients are not beneficial for survival, but may have potential damage (avascular necrosis, psychosis, diabetes, and virus clearance retardation).

e) Patients with SARI should be closely monitored for respiratory failure and sepsis and should be supported if necessary.

f) It is important to follow parallel diseases in the monitoring of critical patients.

g) There is currently no vaccine for coronavirus infections.

V. WHAT SHOULD PEOPLE DO WHEN THEY'VE TRAVELED TO COUNTRIES WHERE THE DISEASE HAS SPREAD

Traveling to epidemically risky countries (China, Iran, Italy, South Korea, etc.) as described by WHO situational bulletins, should be cancelled as much as possible and, if necessary, travelers should follow the following recommendations:

- To avoid contact with people (keep at least 1m distance if possible).
- Whenever possible, do not go to medical facilities because of the high number of patients. Contacting other patients should be minimized when visiting medical facilities.
- Food safety recommendations should be taken into account (e.g. avoiding raw milk and animal products, washing vegetables and fruits well).
- Avoid contact with wild and domestic animals (live or dead).
- Hand hygiene should be considered. Hands should be washed for at least 20 seconds with soap and water. Hand and body disinfectants should be used in the absence of soap and water. It is not necessary to use antiseptic soaps; normal soap is enough.

People who travel to countries with sporadic and massive cases of COVID-19 infection may develop symptoms of severe respiratory tract infections accompanied by fever and cough during their stay in the country. This case should be promptly reported to the appropriate bodies. When coughing and sneezing, it is recommended to cover mouth and nose with a single-use napkins. If napkins are not available, then use your elbow bend to cover your mouth and nose, adhere to breathing hygiene, stay away from crowded areas as much as possible, cover mouth and face when necessary, and use a medical mask. If you observe symptoms of fever, cough, and respiratory distress developing within 14 days of travel, you should seek medical advice.

VI. CONCLUSION

After COVID-19 was identified, it was not limited to the area where it was found, with increasing numbers of infections at transcontinental level. It is necessary that individuals and medical professionals traveling to high-risk countries be careful, preventative measures are taken, patients seek medical assistance within 14 days after the trip, and a multidisciplinary approach is applied to patients.

Recommended cleaning and disinfection means for ambulances and emergency healthcare means

Means	Application	Advantages	Disadvantages
Alcohol Solutions (Ethyl / isopropyl) (at least 70%) (Ethyl alcohol, Ethanol Cas No: 64-17-5)[4]	• Stethoscopes • Pulsoximeters • Defibrillator electrodes and so on	• Not toxic • Cheap • Rapid effect • No remainder	• **Not an ideal surface disinfectant because of its rapid evaporation** • **Flammable** • **It is harmful for plastic, rubber and silicon materials** • **Deactivated by organic materials (therefore, surfaces must be cleaned before use)**
Standard bleach (1:10 normal dilution) (Na hypochloride Cas No: 7681-52-9) **	• Exterior surfaces • Blood clots	• It is cheap • Immediate effect • It is easy to get • Ready to use moisture • napkins and sprays • available • Affects spores and viruses (C.difficile and • neurovirus	• **Harmful for metal equipment** • **Deactivated by Organic Materials (Therefore, surfaces must be cleaned before use)** • **Provides irritating effect on skin and mucous membranes.** • **Must be used within 24 hours after dissolved** • **Can paint clothes**
Hydrogen Peroxide (%0,5) (Cas No: 7722- 84-1)	• External surfaces of equipment • Floors • Walls	• Safe for the environment • Not toxic • Rapid effect • Active in the presence of organic matter • Available as a wet napkin and a solution • Perfect detergent for cleansing	• **Harmful for copper, Zn, acryl and aluminum**
Quaternary ammonium compounds (Quats)	• Floors • Walls	• Not toxic • Not erosive • Perfect detergent for cleansing	• **Not used for disinfecting of medical devices** • **Due to the limited antimicrobial spectrum restricted use as a disinfectant**

Adapted from Provincial Infectious Disease Advisory Committee's "Best Practices for Environmental Cleaning for the Prevention and Control of Infections."

3 Means with biosidal properties should be used. Since these means may have different concentrations and, in some cases, combinations, the recommendations on the label should be strictly followed.

4 Cas No: Chemical registration number

5 Since the means having biosidal permits from the Ministry of Health may have different concentrations, the recommendations on the label should be strictly followed. Bleach is available at different concentrations and those with free Cl 4-8% reaction should be dissolved at 1/10 and used.