

Guide on Working in Healthcare Institutions during the Normalization Period in COVID-19 Pandemic

Study by Scientific Advisory Board

1 June 2020







GUIDE ON WORKING IN HEALTHCARE INSTITUTIONS DURING THE NORMALIZATION PERIOD IN COVID-19 PANDEMIC

Study by Scientific Advisory Board



CONTENTS

	LAN FOR RETURNING TO NORMAL IN HOSPITALS DURING T GATION PROCESS OF COVID-19 PANDEMIC	
1.1.	Education	
1.2.	General Provisions	
1.3.	Precautions to be Taken in Hospital Common Areas	
1	3.1. Social distance	
1	3.2. Ventilation and Air Conditioning Systems	9
1	3.3. Hospital Cleaning, Disinfection and Wastes	9
1.4.	Health Control of the Healthcare Professional and Other Personnel	10
1.5.	Outpatient Clinics	10
1.6.	Clinics / Intensive Care	11
1.7. Endo	Special Units Such As Operating Room, Radiology, Bronchoscopy, oscopy, Nuclear Medicine, Hemodialysis etc.	12
1.8.	Transportation/Service use	13
1.9.	Refectory/Cafeteria	13
1.10	Organizing Meeting / Training Activities	13
AND I	LAN FOR RETURNING TO NORMAL IN SURGICAL OPERATION OF A SURGICAL OPERATION PROCES DURING THE MITIGATION PROCES D-19 PANDEMIC	SS OF
2.1.	Things To Do Before Starting Planned Surgery At the Hospital	14
2.2.	What To Do For Patients Before Surgical Procedures	17
2.3.	Operating Room Cleaning	19
	EASURES ON THE PROCEDURES EMITTING AEROSOL IN TI D-19 PANDEMIC MITIGATION PROCESS	
3.1.	Precautions to be Taken in Bronchoscopy Units	20
	1.1. General measures to be taken in the patient who is scheduled for onchoscopy	
3.	1.2. General measures to be taken in the bronchoscopy room	20
3. 19	1.3. Bronchoscopic procedures in patients with a low probability of CO 21	OVID-
3.	1.4. Possible/Definitive bronchoscopic procedures in COVID-19 patie	nts21
3.2.	Precautions to be taken in Respiratory Function Test (RFT) Laboratory	<i>.</i> 22
3.2	2.1. General principles of RFT application in COVID-19 pandemic	22
3.	2.2. Measures to be taken by the personnel who will perform the test	23
3	2.3. Evaluation of the patient at the entrance to the laboratory	23
3.	2.4. Use of spirometry during testing	24
3.3.	Bronchodilator Drug Applications with Nebulizer	25

3.4.	Precautions to be Taken in the Endoscopy Unit	25
4. PL	AN FOR RETURNING TO NORMAL IN DENTAL PROCEDURI	ES
DURIN	IG THE MITIGATION PROCESS OF COVID-19 PANDEMIC	29
4.1.	Education	29
4.2.	General Provisions	29
4.3.	Precautions to be Taken in Healthcare Institution Common Areas	31
4.3	3.1. Social distance	32
4.3	3.2. Ventilation and Air Conditioning Systems	33
4.3	3.3. Healthcare Institution Cleaning, Disinfection and Wastes	33
4.4.	Health Control of the Healthcare Professional and Other Personnel	34
4.5.	Clinics	34
4.6.	Private Departments	37
4.6	5.1. Operating Room and Inpatient Services	37
4.6	5.2. Radiology	40
4.6	5.3. Dental Laboratories	41
4.7.	Transportation/Service Usage	42
4.8.	Refectory/Cafeteria	42
4.9.	Organizing Meeting / Training Activities	43

1. MITIGATION PROCESS OF COVID-19 PANDEMIC

Since the COVID-19 pandemic is not fully terminated, the risk remains until an effective virus-specific treatment and / or vaccine is found. In this period when the pandemic has been taken under control, the need for other health services increased gradually. However, levelling of the pandemic curve does not reduce the total number of cases, but spreads the burden of disease over a longer period of time. Therefore, it is inevitable for other health services to start considering the fact that the pandemic continues. This situation reveals the need to serve patients with and without COVID-19 within the same system.

Points to be paid attention to during the mitigation process;

- »To ensure that the COVID-19 related measures and health care services continue,
- »Keeping hospitals safe for patients with and without COVID-19 diagnosis,
- »Ensuring the safety of health workers,
- »To ensure that all patients are approached equally in terms of access and safety, and
- »To organize the personnel and health services as gradually as possible.

In this process, personal protection measures should be considered in all patients and accompanying persons. All institutions and organizations, units, sub-units and persons should get prepared to fulfill their roles and responsibilities in the gradual return to normal in the COVID-19 pandemic process.

1.1. Education

- » The trainings given during the COVID-19 pandemic should be updated and continued. Training should be done online, if possible, recorded and should be in accordance with the materials of the Ministry of Health of the Republic of Turkey https://covidi9bilgi.saglik.gov.tr.
- »Visuals about COVID-19 and precautions to be taken should be placed in visible areas within the hospital.

1.2. General Provisions

»Hospitals should plan their services by following the decisions of the Provincial Pandemic Board and/or Provincial Health Directorate. In order to start the healthcare service that will be given to elective patients, especially at the provincial level, a steady decrease in the incidence of COVID-19 should be considered for at least 14 days.

- »It is recommended to establish a multi-disciplinary board [infection, chest diseases, emergency, intensive care, anesthesia, psychiatry, blood bank, apheresis unit, internal medicine (oncology, hematology, etc.) surgery, radiology or other disciplines which are required according to the need of the hospital] including the administrative managers at the hospitals to manage the new normalization process.
- »Risk assessment and emergency plans should be prepared taking into account the current status of the pandemic. Plans should be renewed and shared according to the documents updated by the Ministry of Health for COVID-19.
- »It is recommended to inform patients and healthcare professionals on time, accurately and clearly, and to establish a communication system and review it if it already exists.
- »As long as the pandemic continues, COVID-19 should be included in the differential diagnosis in every patient coming to the hospital.
- » If possible, patients and patient relatives should be questioned in terms of COVID-19 findings in the outpatient clinic, if not possible at the point of entry to the hospital.
 https://covid19bilgi.saglik.gov.tr/depo/formlar/COVID19-VAKA-SORGULAMA-KILAVUZU-A4_1.pdf
- »Consultation for exclusion of COVID-19 from emergency departments or related clinics should not be requested for hospitalization of patients who do not fall within the definition of the COVID-19 possible case.
- » Patients who could not receive service during the pandemic period in the new normalization process may apply to the hospital at an increased rate. Considering the increase in the hospital capacity and the number of services, studies regarding the expected demand should be carried out.
 - »Before entering the new normalization process, the physical capacity of the hospital (eg beds, intensive care units, emergency room, ventilators, operation rooms, perioperative anesthesia care units, laboratories, etc.) should be reviewed and planned.
 - »Before entering the new normalization process, the personnel capacity of the hospital should be reviewed.
 - »Workforce planning should be done by considering the possibility of healthcare workers to get sick.

- » Necessary support should be provided by considering the stress and fatigue levels of healthcare professionals.
- » Before re-activating elective surgeries and interventional procedures (angio, etc.), surgical equipment, catheters, implants and equipment, etc. needs and support procedures (eg anesthesia sedation drugs, minimally invasive surgery, trocar desuflation filters, etc.) should be reviewed and planned.
- »As long as the pandemic continues, the polyclinic and clinic areas allocated for COVID-19 should be planned according to the current number of COVID-19 patients (such as the incidence of new cases, hospitalization) of the country, the province and hospital. Regarding the acceptance of patients other than COVID-19, each unit should have priority cases in addition to emergency internal / surgical cases. It is recommended that each surgical discipline should decide together with the relevant anesthesia department in determining the priority cases in surgical units. Taking elective cases for treatment and procedure should be done gradually according to the number of current COVID-19 patient data (incidence of new cases, hospitalization, etc.) and with the necessary personnel arrangement. In case of possible increases while these arrangements are made, the necessary additional arrangements should be implemented immediately and the hospital's plan for this scenario should be ready.
- »Each unit in the hospital should prepare the necessary measures in accordance with the service feature under the management of the Hospital Infection Control Committee (HICC).
- »Common use of paper-file and stationery materials in the hospital should be avoided.
- »Methods and ways of working and the number of patients to be admitted should be reviewed by paying attention to the social distance rule; and necessary arrangements should be made. Office areas, waiting areas, dining halls and elevators should be reorganized according to social distance rules. https://covidi9bilgi.saglik.gov.tr/depo/toplumda-salgin-yonetimi/COVIDi9-KapaliIsYeriOfisle rdeAlinacakOnlemler-09042020.pdf
- » Arrangements should be made to maintain the necessary social distance as at least 1 meter during meetings, rest and meal breaks. https://covid19bilgi.saglik.gov.tr/depo/enfeksiyon-kontorl-onlemleri/COVID19-SaglikKurumlarindaSosyalOrtamlardaAlinacakOnlemler.pdf
- »Healthcare workers' work uniforms / uniforms should be left at work and should be changed daily.

- » Necessary Personal Protective Equipment (PPE) should be provided to the employees, they should be located in easy-to-reach places and should be used correctly. https://covidi9bilgi.saglik.gov.tr/depo/afisler/Saglik Personeli/ COVID-19 KKE
 UYGUN KULLANIMI AFIS A4.pdf. PPE stocks should be monitored regularly. Before entering the new normalization processes, considering the numbers that will increase over time, PPE stocks should be available at a level to provide at least 30 days of surgical activity. https://www.cdc.gov/vhf/eboLa/heaLthcare-us/ppe/caLcuLator.html
- » The COVID-19 test policy for healthcare professionals and patients will be determined according to the TR Ministry of Health_COVID-19 Guidelines.

1.3. Precautions to be Taken in Hospital Common Areas

- » A controlled entrance to hospitals should be provided.
- » If possible, no companion should be accepted. If the patient needs to be accompanied, it should be limited to one person at most.
- » The restrictions on medical promotion staff and visitors should continue.
- » Everyone in the hospital (such as employee, student, patient, companion) should wear a mask during their stay.
- » The services provided in the hospital should be based on appointment except for emergencies, the appointments should be arranged in a way to prevent the accumulation in the units, and arrangements should be made in a way to minimize the waiting times of the patients.
 - » The arrival of patients with chronic diseases should be minimized and a system to regulate their arrival in the hospital should be established.
 - » Any patient without an appointment should not be taken to the polyclinics.
- » If the case of patients without an appointment are not urgent, they should be directed to the appointment system, and non-urgent patients should <u>not</u> be directed to the emergency room for examination or x-ray.
- » Alcohol-based hand antiseptic should be placed in appropriate areas within the hospital, including common areas.
- » The instructions should be placed or given in order to prevent unnecessary walking of patients in the hospital. All diagnostic units (such as imaging, laboratory) where the crowd can be the most should work based on digital appointment and appointments must be provided within the polyclinic and the patient must be prevented from going to that unit separately for appointment.

1.3.1. Social distance

- » In the general areas, elevators, service and outpatient clinics within the hospital, the transition markings in accordance with the social distance rule should be maintained to keep the social distance and crowding should be prevented.
- » The distance between the seats in the general areas should be adjusted / marked to be at least one meter. If necessary, the number of seats should be reduced.
- » The capacity of the elevators should be determined in accordance with the social distance rule and marked accordingly.
- » Warning signs must be placed in front of the normal or escalators at least 3 steps away from the person in front.

1.3.2. Ventilation and Air Conditioning Systems

- » Ventilation systems of all working areas, including general areas in the hospital, should be reviewed and periodic maintenance should be carried out. If there is a section / unit whose ventilation is closed during the pandemic process, maintenance should be performed when it is operated again and its effectiveness should be measured.
- » Free-standing air conditioners and ventilators should not be operated in common areas. Air conditioning systems other than central ventilation systems should not be used.
- » In central ventilation systems, fresh air should be taken from outside. Controls and replacements of the filters of the ventilation system should be done regularly. Since filter change is considered as a procedure which will emit aerosol, the personnel should wear N95 / FFP2 mask, use gloves and face shield, and the removed filter should be thrown into the medical waste bin.
- » In places with windows, ventilation should be done by opening the windows frequently.

1.3.3. Hospital Cleaning, Disinfection and Wastes

» Cleaning / disinfection procedures should be performed by using appropriate cleaning materials in accordance with the characteristics of the areas in the hospital, and especially the areas that are frequently touched should be paid attention (table, desk, corners, elevators, stair arms, door handles, chair arms, electrical switch points, washing rooms, keyboard, telephone, diaphone, patient call bells etc.). A checklist should be created by identifying frequently touched locations for each region in advance. From clean area to dirty area;

- » In floor and surface disinfection, at the rate of 1/100,
- » Areas contaminated with patient excreta are cleaned with 1/10 diluted bleach or chlorine tablet (according to product recommendation).
- » Liquid soap and paper towels should be kept in toilets in general areas; it should be cleaned and disinfected frequently. Hand dryers should not be operated.
- » Elevators should be cleaned at least 3 times a day and areas with hand contact should be disinfected
- » Waste boxes with lids and not requiring hand contact should be used and kept closed.

1.4. Health Control of the Healthcare Professional and Other Personnel

- » Daily fever, cough, colds, body aches, diarrhea, weakness and a history of traveling anywhere in the past two weeks and COVID-19 patient contact without using PPE should be questioned and should be managed according to T.R. COVID-19 Guidelines. https://covid19bilgi.saglik.gov.tr/depo/tedavi/COVID19-Te masiOlanSaglikCalisanlarDegerendirmesi.pdf
- » The healthcare professional should be questioned for COVID-19 findings and a history of travel anywhere in the past two weeks.
- » COVID-19 Contact / Case Follow-up Form for Healthcare Professional must be filled.
- » Health professionals should not travel to high-risk areas unless it is mandatory during the pandemic period.

1.5. Outpatient Clinics

- » If possible, patients and patient relatives should be questioned in terms of COVID-19 findings at the entry point to the hospital and if not possible at outpatient clinic. https://covid19bilgi.saglik.gov.tr/depo/formlar/COVID19 VAKA-SORGULAMA-KILAVUZU-A4_1.pdf
- » If testing is required for COVID-19, a respiratory sample should be taken by the unit to which the patient applies. The patient should be informed about isolation at home until the test result is available. https://covid19bilgi.saglik.gov.tr/depo/afisler/Halk/COVID-i9_i4_GUN_KURALI_AFIS_A4.pdf

- » The ventilation of outpatient clinic waiting area and the examination room should be sufficient. If any, the windows and doors should be opened to provide fresh air intake.
- » The distance between the secretary of the outpatient clinic and the patient should be at least 1 meter, if necessary, this distance should be indicated by signs. If there is no barrier between the patient and the secretary, outpatient secretaries are recommended to use a face shield in addition to the medical mask.
- » Patients and their relatives should sit at least one meter apart from others in the waiting area. The seating arrangement should be provided by marking or reducing the seats.
- » If possible, patient traffic should be kept under control by looking at appointment patients. Patient appointments should be directed towards preventing unnecessary piling of crowd in the outpatient clinic. Appointment times should be determined in a way that allows sufficient time for cleaning and ventilation between two patients.
- » Antiseptic should be accessible in outpatient clinic areas.
- » Outpatient clinic waiting area should be cleaned and disinfected regularly and frequently (it should be cleaned twice a day and whenever it gets dirty).
- » Patients' relatives should not be taken to the examination room in the outpatient clinic, or at least one accompanying person should be with the patient depending on the need.
- » Patient examination rooms, especially the areas used by patients (such as examination table), should be changed after each patient examination.
- » The doctor examining the patient should use the appropriate PPE. https://covid19bilgisaglik.gov.tr
- » Stethoscope, microscope, reflex hammers and other medical devices used in more than one patient should be cleaned with 70% alcohol solution or appropriate disinfectant recommended by the manufacturer. Disposable covers can be used in suitable instruments / devices (USG and probes, microscope, etc.).
- » Non-contact thermometers should be used. Blood pressure cuffs should be disinfected after they are used in one patient with 70% alcohol or a hospital disinfectant.

1.6. Clinics / Intensive Care

- » Possible/definitive COVID-19 patients should be admitted to the predetermined COVID-19 service, following the standard, droplet and contact isolation measures.
- » Patients who are hospitalized in other clinics due to other diseases should be questioned every day for their COVID-19 symptoms and signs during their application and during their stay. If the test is desired, the sample should be taken by the relevant unit and the patient should be isolated and monitored in the department until the result

- is obtained. https://covid19bilgi.saglik.gov.tr/depo/formlar/COVID19-VAKA-SORGULAMA-KILAVUZU-A4 1.pdf
- » Patients diagnosed with COVID-19 should be hospitalized in single rooms if possible and at least 1 meter if not possible.
- » Patients and accompaniers should be provided to wear medical masks during their stay.
- » Patients and accompaniers should be informed about hand hygiene and appropriate hand antiseptic should be available in every patient room and corridors.
- » Patients and accompanying persons should be warned not to enter other patient rooms or staff working / resting areas and not to go outside the hospital frequently.
- » Patient rooms and toilets should be cleaned and disinfected daily with a suitable cleaning material. https://covid19bilgi.saglik.gov.tr
- » Liquid soap, toilet paper and paper towels should be present in the toilets in patient rooms and clinics.
- » Cleaning and disinfection of the vehicles used in transfer such as stretchers, patient chairs used by patients should be provided after each patient use.
- » Patients and their relatives should be prevented from bringing food and drink from outside.

1.7. Special Units Such as Operating Room, Radiology, Bronchoscopy, Endoscopy, Nuclear Medicine, Hemodialysis etc.

- »Patient follow-up in these areas should be performed according to the ones recommended in the outpatient clinic/clinic section described above. In addition, the precautions to be taken according to the characteristics of these sections have been stated in the link of the Ministry of Health as https://covid19bilgi.saglik.gov.tr/tr/enfeksiyon-kontrol-onlemleri In accordance with these instructions, each unit should prepare its own instructions appropriate to its facility together with HICC.
- » If possible, patients and patient relatives should be questioned in terms of COVID-19 findings at the entry point to the hospital and if not possible at the relevant unit. https://covid19bilgi.saglik.gov.tr/depo/formlar/COVID19-VAKA-SORGULAMA-KILAVUZU-A4_1.pdf
- » If testing is required for COVID-19, the sample must be taken at least 48 hours before the procedure by the unit which the patient applies to. The patient should be informed about isolation at home until the test result is available. The procedure should be performed before 7 days after the negative test result. https://covid19bilgi.saglik.gov.tr/depo/formlar/COVID19-VAKA-SORGULAMA-

KILAVUZU-A4 1.pdf

1.8. Transportation/Service use

» Rules to be taken for COVID-19 have been determined in personnel services. https://covid19bilgi.saglik.gov.tr

1.9. Refectory/Cafeteria

- » Arrangement should be made so that the distance between tables and chairs is at least 1 meter (preferably 2 meters) in the dining hall. For easy follow-up of contact; meal times should be determined according to the groups and if possible, it should be ensured that the same people eat at the same table. Similar rules should be observed in tea drinking breaks.
- » Common items such as cups and plates should be washed with water and detergent after each use and stored in a clean environment until the next use.
- » If possible, food and drinks should be served in disposable containers.
- » Open buffet food service should not be used. Spices, toothpicks, salt and bread should not be left open at the tables.
- » Refectory officers should wear medical masks and bones. Gloves should not be used, but frequent hand hygiene should be provided.
- » There should be a sink or hand antiseptic at the entrance of the refectory.

1.10. Organizing Meeting / Training Activities

- » Meetings and trainings should be conducted with methods such as distance education and teleconferences.
- » The meetings and trainings that should be held in the meeting rooms should be conducted in a well-ventilated room, not lasting for a long time, taking into account the social distance rules. After the meeting, ventilation of the meeting room and proper cleaning / disinfection of the frequently contacted areas should be ensured.

2. PLAN FOR RETURNING TO NORMAL IN SURGICAL OPERATIONS AND INVASIVE PROCEDURES DURING THE MITIGATION PROCESS OF COVID-19 PANDEMIC

Planned health care provided to patients other than COVID-19 was delayed due to the pandemic. It has been inevitable that some procedures will be included in the emergency category over time, especially due to the absence of surgical procedures other than emergency. On the other hand, considering the fact that the outbreak will continue although it alleviates, planned surgical interventions should be started gradually. While providing these services, it is inevitable to provide healthcare to patients with and without COVID-19 in hospitals. In this process, a planning is required to manage the increasing demand due to the delayed planned operations. While making this planning, it is important to continue the COVID-19 related measures, not to disrupt the services that require critical health care, and to ensure the safety of patients and healthcare professionals in the process.

All institutions and organizations, units, sub-units and persons should get prepared to fulfill their roles and responsibilities in the gradual return to normal during the process of COVID-19 pandemic, which is contagious and threatens the community health. In such preparation, the decrease in the incidence of COVID-19 in the last 14 days at the provincial level and the prevalence and/or test positivity rates should be taken into consideration.

Along with this document, the documents listed below must be taken into account to manage the process.

T.R. Ministry of Health COVID-19 Guideline

<u>Plan for Returning to Normal in Hospitals During the Normalization Period of COVID-19</u> Pandemic

<u>Infection Control Measures to be Taken at the Operating Rooms during COVID-19 Pandemic</u> Period

2.1. Things to Do Before Starting Planned Surgery At the Hospital

- » Hospitals should plan their services by following the decisions of the Provincial Pandemic Board and/or Provincial Health Directorate. In order to start the healthcare service that will be given to the pre-scheduled elective surgery patients, especially at the provincial level, a steady decrease in the incidence of COVID-19 should be observed for at least 14 days.
 - » In order to determine planned surgical procedures to be carried out in the hospital, a board (including infectious diseases, surgery, anesthesia, pathology, gastroenterology and other branches of science) should be established to plan and arrange according to changing city and hospital data.

- » After the transition process has been decided by the administrators, the stages of the program should be shared with the healthcare professionals. In the management of the operation process (including before and after), checklists must be prepared and updated in terms of patient safety.
- » Before starting the planned surgical procedures, the institutional possibilities should be revised in accordance with the increasing need;
 - » Personnel capacity
 - » Physical capacity (operation rooms, general patient beds, intensive care bed, laboratory, pathology, radiology, perioperative anesthesia care units, number of ventilators etc.)
 - » Personal protective equipment (PPE) stock and supply capacity
 - » Before re-activating elective surgeries and interventional procedures (angiography, etc.), surgical equipment, catheters, implants and equipment, etc. needs and support procedures (e.g., anesthesia sedation drugs, minimally invasive surgery, trocar desufflation filters, etc.) should be reviewed and planned.
- » The list of the primary surgical procedures to be performed by the established board for each unit in the hospital should be based on changing country, province, and hospital data. While creating this list, it should be started with gradual transition. It can be given priority to delayed interventions with pandemic, and in cases where the possibilities are very limited, daily surgeries or diagnostic procedures involving especially the low risk patients (ASA I-II) can be the first step in the transition to the planned operations. In institutions with a large surgical profile, scoring systems can be used to plan the surgical priority.
- » The factors related to the patient, disease and surgical procedure that should be taken into consideration in the prioritization of the operations in the gradual transition are summarized in Table 1.

Table 1. The factors related to the patient, disease and surgical procedure that should be taken into consideration in the prioritization of the operations in the normalization period

	•	Age
	•	Chronic diseases (COPD, asthma, SVH, CAD, malignancy, DM)
Patient	•	Immunosuppression (chemotherapy, immunosuppressive therapy for other reasons)
	•	Presence of COVID-19 or flu-like symptoms
	•	Contact history with COVID-19 patients in the last 14 days
	•	Whether there is a non-surgical treatment option
711	•	Effect of delayed surgery on the progression of disease
Illness	•	Whether the delayed surgery will cause difficulty in surgical technique
	•	Surgery duration
	•	Possibility of intubation
Surgical	•	Risk of the surgical field (head, neck, nose-throat, respiratory tract, thoracic surgery etc.)
procedure	•	The estimated amount of blood loss during surgery
	•	Number of people in the surgical team
	•	Necessity of postoperative intensive care follow-up
	•	Expected postoperative duration of stay

COPD: Chronic obstructive pulmonary disease, CVD: cerebrovascular disease, CAD Coronary artery disease, DM: Diabetes mellitus

¹Medically-Necessary, Time-Sensitive Procedures: Scoring System to Ethically and Efficiently Manage Resource Scarcity and Provider Risk During the COVID-19 Pandemic. Journal of the American College of Surgeons. DOI: https://doi.org/10.1016/j.jamcollsurg.2020.04.011

- » Documents of the Ministry of Health of the Republic of Turkey should be relied on in cases where the patients should be taken care of until they leave after entering the hospital.
 - » Plan for Returning to Normal in Hospitals During the Normalization Period of COVID-19 Pandemic
 - » T.R. Ministry of Health COVID-19 Guideline
- » The sections reserved for COVID-19 patients in the hospital and the areas where other patients will be served should be clearly defined. Tools for patient transfer

^{*} Adapted from MeNTS score1.

and roads should be described.

» PPE Planning

- » There should be sufficient number and quality PPE (N95 / FFP2 mask, surgical gown, gloves, glasses, face protector, disposable bone, shoe covers, antiseptics) in accordance with the hospital's guidelines. Continuity should be ensured in supply of PPE. While calculating the necessary materials, PPE planning should be made taking into account the potential second COVID-19 wave probability. It should be ensured that there is at least 30 days of PPE stock in the institution before the planned transactions are initiated.
- » In order to prevent waste of PPE, appropriate use of PPE should be provided and a guideline should be created for this. This guide should be shared with all employees. Improper use of PPE should be avoided. For example, the use of N95 mask is not suitable for non-aerosol-emitting processes. Processes that emit aerosol: processes that require intensive contact with respiratory secretions such as aspiration, bronchoscopy and bronchoscopy procedures, intubation, endoscopy, respiratory sampling.

2.2. What To Do For Patients Before Surgical Procedures

- » Only scheduled surgical procedures should be performed (except for emergency surgical procedures). Personnel, material, intensive care bed, service bed, laboratory and pathology services should be planned before, during and after the procedure.
- » If the patient should not be hospitalized in a single room, at least one meter distance should be kept between two patients.
- » If the companion is required, only one should be allowed and delivered training on COVID-19 findings and ways of protection.
- » Before the procedure, patients and their relatives should be questioned in terms of COVID-19 findings.
- » Thorax CT should not be requested for screening purposes in asymptomatic people.
- » PCR test should be performed for COVID-19 in patients for whom surgery is planned only in the cases listed below;
 - » T.R. Ministry of Health COVID-19 Guideline The patients who fall within the definition of potential COVID-19 case, or the persons who are in close contact with such patients
 - » Testing is not recommended for asymptomatic patients who do not have contact with a patient who is known or suspected to have COVID-19 and/or if the prevalence and / or test positivity rates is in the range of (<2%).

- » Testing is recommended for asymptomatic patients who do not have contact with a patient who is known or suspected to have COVID-19 and/or if the prevalence and / or test positivity rates is in the range of (> %2).
- » PCR testing before the procedure is recommended regardless of the prevalence and / or test positivity rates in the following cases.
 - » Immunosuppressive therapy; cytotoxic chemotherapy, solid organ or stem cell transplant, long-acting biological therapy, cellular immunotherapy, high-dose chemotherapy etc.
 - » In asymptomatic COVID-19 cases, major surgeries to be performed medically within three months
 - » PCR test should be done as soon as possible (48 hours) before the planned treatment / procedure.
- » PCR test for COVID -19 should be done at least 48 hours before surgery. In those who have negative first test results, it is recommended to perform the second test at least 24 hours later, only if COVID-19 is suspect is high. If COVID-19 is not suspected, the second test is not recommended. The sampling process for the test should be performed by the unit that will perform the operation in inpatients and outpatients and the result should be monitored. The patient should be isolated at home or in the hospital until the test result comes. The procedure should be performed before 7 days passes after the negative test result. The patient whose test result comes as positive is managed according to the https://covid19bilgi.saglik.gov.tr/depo/rehberler/COVID-19_Rehberi.pdf T.R. Ministry of Health COVID-19 Guideline
- » Even if the test result is negative, N95 / FFP2 mask, goggles / face protector should be used in aerosol emitting processes. https://covid19bilgi. saglik.gov.tr/depo/rehberler/COVID-19 Rehberi.pdf (Chapter on Evaluation of Contacting Healthcare Professionals), https://covid19bilgi. saglik.gov.tr/depo/Brosur/COVID-19 N95 FFP2 MASKELERİNİN KULLANIMI 41X22 3KIRIMLI BROSUR.pdf
- » The evacuation of the smoke caused by the use of electrocautery and laser should be provided effectively and these devices should be operated at the lowest possible power.
- » If the patient has positive test and / or COVID-19 compatible symptoms, the planned surgery should be postponed. » <u>T.R. Ministry of Health COVID-19 Guideline</u> is relied on as the healing criteria for the patient.
- » The patient's procedure should be carried out as soon as possible (on the same day if possible) after hospitalization, and the periods before and after the procedure should be kept short.

2.3. Operating Room Cleaning

»In this process, operating room cleaning should be planned according to pandemic conditions. The cleaning is made in accordance with the Document titled "Infection Control Measures to be Taken at the Operating Rooms during COVID-19 Pandemic Period" tr/depo/enfeksiyon-kontorl-onlemleri/COVID19-PandemiDonemindeAm eliyathanelerdeAlinacakEnfeksiyonKontrolOnlemleri.pdf

»It should be checked whether the ventilation systems are operating effectively in the operating rooms. It should be checked whether regular ventilation and air conditioning works are carried out in accordance with the technical standard.

Sources

- Covidien-19: Elective Case Triage Guidelines for Surgical Care. Journal of the American College of Surgeons. March 24, 2020.https://www.facs.org/covid-19/ clinical-guidance/elective-case
- COVID-19: Guidance for Triage of Non-Emergent Surgical Procedures. Journal of the American College of Surgeons. March 17, 2020. https://www.facs.org/covid-19/clinical-guidance/triage
- Operating framework for urgent and planned services in hospital settings during COVID-19. National Health Service (NHS) England. 14 May 2020. https://www.england.nhs.uk/coronavirus/publication/operatingurgent-and-planned-services-within-hospitals/
- 4. Restarting planned surgery in the context of the COVID-19 pandemic. A strategy document from the Royal College of Anesthetists, Association of Anesthetists, Intensive Care Society and Faculty of Intensive Care Medicine. 1 May 2020. https://static1.squarespace.com/static/5e6613a1dc75b87df82b78e1/t/5eac2a173d65cd27933fca88/1588341272367/Restarting-Planned-Surgery.pdf
- Prachand VN, Milner R, Angelos P, et al. Medically Necessary, Time- Sensitive Procedures: Scoring System to Ethically and Efficiently Manage Resource Scarcity and Provider Risk During the COVID-19 Pandemic [published online ahead of print, 2020 Apr 9]. J Am Coll Surg. 2020; S1072- 7515(20)30317-3. doi:10.1016/j.jamcollsurg.2020.04.011
- Kimberly Hanson, Angela M. Caliendo, Cesar A. Arias, et. al. Infectious Diseases Society of America Guidelines on the Diagnosis of COVID-19. Published by IDSA, 5/6/2020. https://www.idsociety.org/practice-guideline/covid-19-guidelinediagnostics/

3. MEASURES ON THE PROCEDURES EMITTING AEROSOL IN THE COVID-19 PANDEMIC MITIGATION PROCESS

3.1. Precautions to be Taken in Bronchoscopy Units

This directive is designed for flexible (FOB), rigid, interventional bronchoscopy and endobronchial ultrasonography procedures performed in bronchoscopy units.

- » Since bronchoscopy applications form aerosols, bronchoscopy intervention can be planned in emergency situations such as malignancy diagnosis and treatment or foreign body aspiration, central airway obstruction and massive hemoptysis.
- » Except for the above conditions, if possible, all elective diagnostic bronchoscopy methods should be postponed to the next date and if possible, alternative diagnostic methods should be used in this process (diagnostic FOB, bronchial thermoplasty, bronchoscopic volume-reducing surgery, mucus clearance, in patients with bronchial thermoplasty, bronchoscopic volume-reducing surgery, mucus clearance, mild airway stenosis and the like).

3.1.1. General measures to be taken in the patient who is scheduled for bronchoscopy

- » In the case with bronchoscopy indication, fever before the procedure and presence of symptoms compatible with COVID-19 and risky contact history should be questioned.
- » In cases without symptoms and with no contact history and COVID-19 lung radiological findings, bronchoscopy can be planned without COVID-19 PCR test.
- » COVID-19 PCR test is requested from cases with symptom or contact history. Bronchoscopy can be planned for patients who are negative as a result of COVID-19 PCR test performed two times in at least 24 hours interval. Since COVID-19 cannot be excluded with PCR negativity, necessary infection control measures should be taken.
- » Until the date of bronchoscopy after PCR test, the patient should be isolated in the hospital or at home.
- » For outpatients, the patient is called by phone one day before the procedure and s/he and the people who share the same environment (house/workplace) with him/her are interrogated in terms of the presence of emerging fever or COVID-19 symptoms and whether they have contacted with any COVID-19 patient.
- » All patients should wear a mask as much as the procedure allows.

3.1.2. General measures to be taken in the bronchoscopy room

» Bronchoscopy should be performed in a negative pressure room if possible. If it is not possible, the room should be well ventilated.

- » Bronchoscopy should be performed with a limited number of staff.
- » All healthcare professionals participating in the bronchoscopy should use an apron, N95 / FFP2 mask, goggles or face protection and gloves if necessary.
- » After the procedure, disinfection is performed according to the bronchoscopy device manufacturer's recommendations.
- » Surface disinfection can be achieved by using a disinfectant preferred in hospital disinfection after cleaning with water and detergent in the bronchoscopy room after the procedure. 1 / 100 diluted bleach (Sodium hypochlorite Cas No:7681-52-9) or chlorine tablet (according to the product recommendation) can be used. Chlorine compounds can form corrosion on the surfaces. It is a recommended disinfectant for durable surfaces. For sensitive surfaces, 70% alcohol can be left for a minute and used for surface disinfection. The surfaces contaminated with the patient's excreta are firstly cleaned by using paper towels, then disinfected with 1/10 diluted bleach (Sodium hypochlorite Cas No: 7681- 52-9) or chlorine tablet (according to product recommendation) and it is left for drying.
- » After cleaning, standard cleaning and disinfection processes should be applied to all equipment in the room to remove aerosol and droplets, and the room should be ventilated for at least 30 minutes.
- » After cleaning, the room can be sterilized with an ultraviolet lamp when empty.

3.1.3. Bronchoscopic procedures in patients with a low probability of COVID-19

» Provided that the bronchoscopy team uses the appropriate PPE, bronchoscopic procedures can be performed by taking the above general precautions, regardless of PCR test, for patients without symptoms and with no radiological findings and contact history in terms of COVID-19.

3.1.4. Possible/Definitive bronchoscopic procedures in COVID-19 patients

- » Bronchoscopic procedures may be urgently required in order to detect the presence of additional respiratory disease or superinfection that may alter treatment, cleansing of the mucus plugs and atelectasis areas developing during the treatment process, massive hemoptysis, severe central airwayobstruction, and foreign body aspiration.
- » For the diagnosis of malignancy or other diseases, it is appropriate to postpone bronchoscopy 28 days after treatment in a possible/definite COVID-19 patient.
- » Since possible/definite COVID-19 patients who are being treated in the hospital remain

in the isolated room, bronchoscopy should be performed at the bedside if possible, in case of mandatory indication.

» If the procedure is to be performed in the bronchoscopy unit, the patient should be taken as the last case of that day.

Sources

- Wahidi WM, Shojaee S, Lamb CR, et. get. The Use of Bronchoscopy During the COVID-19 Pandemic. CHEST / AABIP Guideline and Expert Panel Report. Article in Press. Chest Journal.DOI: https://doi.org/10.1016/j. chest.2020.04.036.https://journal.chestnet.org/article/S0012-3692(20)30850-3/fulltext
- 2. Baldwin DR, Lim WS, Rintoul R, et. al. Recommendations for day case bronchoscopy services during the COVID-19 pandemic Version 2: Services during the restoration and recovery COVID-19 endemic phase. https://www.brit-thoracic.org.uk/document-library/quality-improvement/covid-19/ bronchoscopy-services-during-the-covid-pandemic/
- 3. Suggestions of Turkish Thoracic Society on Measures to be Taken During and After Bronchoscopy During Covid-19 Pandemic Period. Turkish Thoracic Society Respiratory System Infections Working Group. Turkish Thoracic Society. April 8, 2020.https://www.toraks.org.tr/news.aspx?detail=5817

3.2. Precautions to be taken in Respiratory Function Test (RFT) Laboratory

The risk of COVID-19 transmission is high due to the emergence of aerosolization because of difficult expiration and stimulation of the cough reflex during the tests in RFT laboratories and due to the occurring contact with these droplets during the cleaning of the device. Therefore, precautions should be taken completely in the RFT laboratory during the pandemic process and the implementation of these tests should be postponed unless necessary. Since detailed disinfection of the device and room will be required after each patient, the process time reserved for one patient will be longer. Considering this situation, test appointments should be arranged in such a way that sufficient time is allocated for each patient.

When necessary measures are taken in the pandemic mitigation process, RFTs can be made, albeit limited.

3.2.1. General principles of RFT application in COVID-19 pandemic

- » In order to prevent cross contamination, RFT should be limited to simple spirometry and diffusion capacity measurement.
- » Pulmonary volume measurements with plethysmograph are not recommended as the

- device is difficult to clean and disinfect as a result of droplet contamination.
- » Cardio pulmonary exercise tests and broncho-provocation tests can only be performed if the patient does not have a risk of COVID-19 and if such tests are very necessary.
- » Bedside tests are not recommended to other individuals due to the risk of transmission by droplet inhalation.
- » RFT should be administered to COVID-19 patients at the earliest 28 days after the recovery.

3.2.2. Measures to be taken by the personnel who will perform the test

- » To ensure the safety of laboratory staff, they must wear PPE completely.
- » When wearing PPE, the sequence of wearing should be first the apron, followed by N-95 / FFP2 mask, goggles / face protector, gloves, and when putting off, the sequence should be first the gloves, followed by goggles / face protector, apron, mask. Hand hygiene should be provided each time when wearing and removing each piece of personal protective equipment. For hand hygiene, hands should be washed with soap and water for at least 20 seconds or an alcohol-based hand antiseptic should be used.
- » After each respiratory function test, after the patient leaves the test area, the healthcare worker performing the test should move to the clean area by removing the PPE from the room to ensure the hygiene of the test environment, and enter the laboratory to test the new patient by wearing PPEs again.
- » The used PPE must be disposed of in the medical waste bin.

3.2.3. Evaluation of the patient at the entrance to the laboratory

- » Technicians should be trained in fever measurement and disease findings, and patients should be questioned for COVID-19 infection and contact.
- » If the risk of COVID-19 is low or absent, RFT can be applied to the patient.
- » If there is a risk of COVID-19, the technician should discuss the appointment with the patient's doctor and give the appointment at a later date (after 14 days). COVID-19 PCR test is requested from cases with symptom or contact history.
- » Patients whose COVID-19 PCR results are negative 48-72 hours before RFT are managed according to standard laboratory conditions.
- » The time spent in the test room can be shortened by showing to the patient for whom RFT is planned the video of the test maneuver, before s/he enters to the laboratory. In patient education, it is not appropriate for technicians to show the test one to one to the

patients.

- » RFT is not performed in patients with positive COVID-19 test results.
- » RFT is not applied to COVID-19 patients before 28 days after the recovery.

3.2.4. Use of spirometry during testing

- » Materials such as nose clips, mouthpieces are recommended to be disposable for each patient. It is recommended to use disposable apparatuses in which bacteria/virus filter and mouthpiece/sensor are found together. Apparatuses in which mouthpiece / sensor and bacterial / viral filter are combined, provides cleaning and disinfection of the head of the SFT device in a much shorter time and simply.
- » Due to the risk of aerosolization, a maximum of 2 tests are recommended for each test.
- » Adequate distance between the patient and technician should be maintained. The faces of the patient and technician should be parallel to each other and in the same direction during the maneuver.
- » The laboratory door must be closed and the window must be kept open during the test. It is not correct to have individuals other than technicians and patients in the laboratory.
- » The technician should not contact the patient and the patient's surrounding.
- » When the test is over, the patient should wear the mask and leave the laboratory.
- » Bronchoscopy should be performed in a negative pressure room if possible. RFT should be done by using PPE in the patient's room which is sufficiently ventilated in centers that do not have negative pressure rooms.

Sources

- Recommendation from ERS Group 9.1. (Respiratory function technologists
 /Scientists). Lung function testing during COVID-19 pandemic and beyond.
 European Respiratory Society.https://ers.app.box.com/s/
 zs1uu88wy51monr0ewd990itoz4tsn2h
- Pulmonary Function Laboratories: Advice Regarding COVID-19. American Thoracic Society. https://www.thoracic.org/professionals/clinical-resources/disease-related-resources/pulmonary-function-laboratories.

php

- 3. Peak Respiratory Bodies recommend suspension of lung function testing. The Thoracic Society of Australia & New Zealand. https://www.thoracic.org.au/documents/item/1864
- 4. ARTP COVID19 Guidelines. Association for Respiratory Technology & Physiology.

https://www.artp.org.uk/COVID19

5. Gemicioğlu B, Börekçi Ş, Görek Dilektaşı A, et. al. Turkish Thoracic Society Specialist Opinion Report: Recommendations for Respiratory Function Tests During and After COVID 19 Pandemic.https://www.toraks.org.tr/userfiles/file/COVID%2019%20Pandemisi%20S%C4%B1ras%C4%B1nda%20 ve%20Sonras%C4%B1nda%20Solunum%20Fonksiyon%20Testleri%20 %C4%B0%C3%A7in%20%C3%96neriler.pdf

3.3. Bronchodilator Drug Applications with Nebulizer

- » In patients with bronchospasm (asthma, COPD), nebulizer and bronchodilator applications are another application that increases aerosolization. In the presence of a possible / definitive COVID-19 infection, this method should not be used, because taking an inhaler medication with a nebulizer may increase the likelihood of transmission of the disease.
- » In cases where a nebulizer is required, high dose metered-dose inhaler drugs should be used instead. After the procedure, the spacer should be cleaned with soap and water, and disinfected with an alcohol-based solution.

Source

 How to Use Nebulizer? Turkish National Alerjiv Clinical Immunology Society. https://www.google.com/url?sa=t&source=web&cd=&ved=2ahUKEwjKitS-gt_pAhXToFsKHQtFBbcQFjAGegQIBRAB&url=https%3A%2F%2Fwww.aid.org.tr%2Fnebulizator-nasil-kullanilir%2F&usg=AOvVaw21GAwyILFKQ_qCTi4hfGBA

3.4. Precautions to be Taken in the Endoscopy Unit

- » "The directive titled" Infection Control_ Measures" in Endoscopy Units in the Period of COVID-19 Pandemic ", dated 26.04.2020 remains applicable.
- » Before the endoscopic procedure in the COVID-19 pandemic during the mitigation process, each case should be evaluated for COVID-19. Each unit should arrange its work schedule so that sufficient time is given for post-patient cleaning, disinfection and ambient ventilation.
- » Before the procedure, the patient is asked about the symptom of COVID-19, and if necessary, the COVID-19 PCR test is performed. Thorax CT has no place in preendoscopy evaluation. Patients should be contacted regarding the symptoms of COVID-19 on the 7th and 14th day after the procedure.

Sources

- 1. Chiu PWY, Ng SC, Inoue H, et al. Practice of endoscopy during COVID-19 pandemic: position statements of the Asian Pacific Society for Digestive Endoscopy (APSDE-COVID statements). Gut 2020; 69:991-996. doi:10.1136/ gutjnl-2020-321185. https://gut.bmj.com/content/gutjnl/69/6/991.full.pdf
- 2. Gastroenterology Professional Society Guidance on Endoscopic Procedures During The COVID-19 Pandemic. American Society for Gastrointestinal Endoscopy (ASGE). https://www.asge.org/home/advanced-education-training/covid-19-asge-updates-for-members/gastroenterology-professional-society-guidance-on-endoscopic-procedures-during-the-covid-19-pandemic
- 3. Gastrointestinal Endoscopy in COVID-19 Pandemic. Turkish Gastroenterology Association. http://www.tgd.org.tr/egitim_ve_kongreler/duyurular/covid19_pandemisinde_gastrointestinal_endoskopi
- 4. Turkish Republic Ministry of Health Infection Control Measures in Endoscopy Units in the Period of COVID-19 Pandemic. https://covid19bilgi.saglik.gov. tr/depo/enfeksiyon-kontorl-onlemleri/COVID19-PandemiDonemindeEnd oskopiUnitelerindeEnfeksiyonKontrolOnlemleri.pdf



4. PLAN FOR RETURNING TO NORMAL IN DENTAL PROCEDURES DURING THE MITIGATION PROCESS OF COVID-19 PANDEMIC

Since the COVID-19 pandemic is not fully terminated, the risk remains until an effective virus-specific treatment and / or vaccine is found. In this period when the pandemic has been taken under control, the need for other health services increased gradually. However, levelling of the pandemic curve does not reduce the total number of cases, but spreads the burden of disease over a longer period of time. Therefore, it is inevitable for other health services to start considering the fact that the pandemic continues. This situation reveals the need to serve patients with and without COVID-19 within the same system.

Points to be paid attention to during the mitigation process;

- » To ensure that the COVID-19 related measures and health care services continue,
- » Keeping healthcare institutions safe for patients with and without COVID-19 diagnosis,
- » Ensuring the safety of health workers,
- » To ensure that all patients are approached equally in terms of access and safety, and
- » To organize the personnel and health services as gradually as possible.

In this process, personal protection measures should be paid attention to in all patients and accompanying persons. All institutions and organizations, units, sub-units and persons should get prepared to fulfill their roles and responsibilities in the gradual return to normal in the COVID-19 pandemic process.

4.1. Education

- » The trainings given during the COVID-19 pandemic should be updated and continued. Training should be done online, if possible, recorded and should be in accordance with the materials of the Ministry of Health of the Republic of Turkey https://covid19bilgi.saglik.gov.tr.
- »Visuals about COVID-19 and about the precautions to be taken should be placed in visible areas within the hospital.

4.2. General Provisions

» Healthcare institutions should plan their services by following the decisions of the Provincial Pandemic Board and/or Provincial Health Directorate. In order to start the healthcare service that will be given to elective patients, especially at the provincial level, a steady decrease in the incidence of COVID-19 should be considered for at least 14 days.

- » In order to manage the new normalization process, it is recommended to create a multidisciplinary board including administrative managers in hospitals and centers where Oral and Dental Health Services are offered.
- » Risk assessment and emergency plans should be prepared taking into account the current status of the pandemic. Plans should be renewed and shared according to the documents updated by the Ministry of Health for COVID-19.
- » It is recommended to inform patients and healthcare professionals on time, accurately and clearly, and to establish a communication system and review it if it already exists.
- » As long as the pandemic continues, COVID-19 should be included in the differential diagnosis in every patient coming to the hospital.
- » If possible, patients and patient relatives should be questioned in terms of COVID-19 findings at the entry point to the hospital and if not possible at outpatient clinic.
 https://covid19bilgi.saglik.gov.tr/depo/formlar/COVID19-VAKA-SORGULAMA-KILAVUZU-A4_1.pdf
- » Consultation for exclusion from COVID-19 should be requested from the patients who do not fall within the definition of COVID-19 potential case.
- » Patients who could not receive service during the pandemic period in the new normalization process may apply to the healthcare institutions at an increased rate. Considering the increase in the physical capacity and personnel capacity of healthcare institution and the number of services it provides, efforts regarding the expected demand should be carried out.
 - » Workforce planning should be done by considering the possibility of healthcare workers to get sick.
 - » Necessary support should be provided by considering the stress and fatigue levels of healthcare professionals.
- » Each unit in the hospital should prepare the necessary measures in accordance with the service feature under the management of the Hospital Infection Control Committee (HICC). In healthcare facilities that do not have a hospital and no Infection Control Committee, a dentist and a nurse should be assigned to carry out infection control practices during the COVID-19 process.

- » Methods and ways of working and the number of patients to be admitted should be reviewed by paying attention to the social distance rule; and necessary arrangements should be made. Office areas, waiting areas, dining halls and elevators should be reorganized according to social distance rules. https://covid19bilgi.saglik.gov.tr/depo/toplumda-salgin-yonetimi/COVID19-KapaliIsYeriOfisle rdeAlinacakOnlemler-09042020.pdf
- » Arrangements should be made to maintain the necessary social distance as at least 1 meter during meetings, rest and meal breaks. https://covid19bilgi.saglik.gov.tr/depo/enfeksiyon-kontorl-onlemleri/COVID19-SaglikKurumlarindaSosyalOrtamlardaAlinacakOnlemler.pdf
- » Healthcare workers' work apparels/uniforms should be left at work and changed daily.
- » Necessary Personal Protective Equipment (PPE) should be provided to the employees, they should be located in easy-to-reach places and should be used correctly.
 https://covid19bilgi.saglik.gov.tr/depo/afisler/Saglik_Personeli/
 COVID-19_KKE_UYGUN_KULLANIMI_AFIS_A4.pdf.
- » PPE stocks should be monitored regularly. While entering the new normalization processes, considering the numbers that will increase over time, PPE stocks should be available at a level to provide at least 30 days of activity. https://www.cdc.gov/vhf/ebola/healthcare-us/ppe/calculator.html.
- » The COVID-19 test policy for healthcare professionals will be determined according to the TR Ministry of Health_COVID-19 Guidelines.

4.3. Precautions to be Taken in Healthcare Institution Common Areas

- » A controlled entrance to hospitals should be provided.
- » All kinds of catering stands, newspapers, magazines, brochures, pens and books that will allow hand contact and contamination in the waiting room should be removed.
- » Accompanying persons should not be accepted, except when the patient needs help (pediatric patients, individuals with special needs, elderly patients, etc.). If the patient needs to be accompanied, it should be limited to one person at most.
- » The restrictions on medical promotion staff and visitors should continue.
- » Everyone in the healthcare institution (such as employee, student, patient, companion) should wear mask during their stay.

- » It is necessary to prevent unnecessary applications by encouraging patients to contact with remote communication methods before applying to the health institution.
- » The services provided in the healthcare institution should be based on appointment except for emergencies, the appointments should be arranged in a way to prevent the accumulation in the units, and arrangements should be made in a way to minimize the waiting times of the patients. It is recommended that there is sufficient time (at least 30 minutes) between two examinations while the new appointment is being made. If patients without an appointment are not urgent, they should be directed to the appointment system.
 - » The arrival of patients with chronic diseases should be minimized and a system to regulate their arrival in the healthcare institution should be established.
 - » Any patient without an appointment should not be taken to the clinics
- » In order to reduce the risk of contamination that may occur due to the presence of patients together in the waiting areas, measures such as ensuring that appointments are made on time and patients wait outside of the building, if necessary, should be taken.
- » Alcohol-based hand antiseptic should be placed in appropriate areas within the healthcare institution, including common areas.
- » The instructions should be placed or given in order to prevent unnecessary walking of patients in the healthcare institution. All diagnostic units (such as imaging, laboratory) where the crowd can be the most should work based on digital appointment and appointments must be provided within the clinic and the patient must be prevented from going to that unit separately for appointment.

4.3.1. Social distance

- » In the general areas, elevators, service and outpatient clinics within the healthcare institution, the transition markings in accordance with the social distance rule should be maintained to keep the social distance and crowding should be prevented.
- » The distance between the seats in the general areas should be adjusted / marked to be at least one meter. If necessary, the number of seats should be reduced.
- » The capacity of the elevators should be determined in accordance with the social distance rule and marked accordingly.
- » Warning signs must be placed in front of the normal or escalators at least 3 steps away from the person in front.

4.3.2. Ventilation and Air Conditioning Systems

- » Ventilation systems of all working areas, including general areas in the hospital, should be reviewed and periodic maintenance should be carried out. If there is a section / unit whose ventilation is closed during the pandemic process, maintenance should be performed when it is operated again and its effectiveness should be measured.
- » Free standing air conditioners and ventilators should not be operated, because it might be risky. Air conditioning systems other than central ventilation systems should not be used.
- » In central ventilation systems, fresh air should be taken from outside. Controls and replacements of the filters of the ventilation system should be done regularly. Since filter change is considered as a procedure which will emit aerosol, the personnel should wear N95/FFP2 mask, use gloves and face shield, and the removed filter should be thrown into the medical waste bin.
- » In places with windows, ventilation should be done by opening the windows frequently.

4.3.3. Healthcare Institution Cleaning, Disinfection and Wastes

- » Cleaning / disinfection procedures should be performed by using appropriate cleaning materials in accordance with the characteristics of the areas in the healthcare institution, and especially the areas that are frequently touched should be paid attention (table, desk, corners, elevators, stair arms, door handles, chair arms, electrical switch points, washing rooms, keyboard, telephone, diaphone, patient call bells etc.). A checklist should be created by identifying frequently touched locations for each region in advance. From clean area to dirty area;
 - » In floor and surface disinfection, at the rate of 1/100,
 - » Areas contaminated with patient excreta are cleaned with 1/10 diluted bleach or chlorine tablet (according to product recommendation).
- » Liquid soap and paper towels should be kept in toilets in general areas; it should be cleaned and disinfected frequently. Hand dryers should not be operated.
- » Elevators should be cleaned at least 3 times a day and the surfaces with hand contact should be disinfected
- » Waste boxes with lids and not requiring hand contact should be used and kept closed.

4.4. Health Control of the Healthcare Professional and Other Personnel

- » Daily fever, cough, colds, body aches, diarrhea, weakness and a history of traveling anywhere in the past two weeks and COVID-19 patient contact without using PPE should be questioned and should be managed according to T.R. Ministry of Health COVID-19 Guideline.
- » The healthcare professional should be questioned for COVID-19 findings and a history of travel anywhere in the past two weeks.
- » COVID-19 Contact / Case Follow-up Form for Healthcare Professional must be filled.
- » An employee suspected of COVID-19 should be referred to a pandemic hospital immediately. The management of such people should be conducted in accordance with "https://covid19bilgi.saglik.gov.tr/depo/rehberler/COVID-19_Rehberi.pdf"» T.R. Ministry of Health COVID-19 Guideline
- » Healthcare professionals should not travel to high-risk areas unless it is mandatory during the pandemic period.
- » It should be ensured that laboratory and similar unit employees who receive services outside the healthcare institution also comply with the health control rules.

4.5. Clinics

- » If possible, patients and patient relatives should be questioned in terms of COVID-19 findings at the entry point to the healthcare institution https://covid19bilgi.saglik.gov.tr/depo/formlar/COVID19-VAKA-SORGULAMA-KILAVUZU-A4 1.pdf
- » Patients with suspected COVID-19 should be directed to the pandemic hospital, and these patients should be managed according to the Turkish Republic Ministry of Health's COVID-19 Guidelines.
- » The ventilation of clinic waiting area and the examination room should be sufficient. If any, the windows and doors should be opened to provide fresh air intake.
- » The distance between the secretary of the clinic and the patient should be at least 1 meter, if necessary, this distance should be indicated by signs. If there is no barrier between the patient and the secretary, secretaries are recommended to use a face shield in addition to the medical mask.
- » Patients and their relatives should sit at least one meter apart from others in the waiting area. The seating arrangement should be provided by marking or reducing the seats.

- » If possible, patient traffic should be kept under control by looking at appointment patients. Patient appointments should be directed towards preventing unnecessary piling of crowd in the clinics. Appointment times should be determined in a way that allows sufficient time for cleaning and ventilation between two patients.
- » There should be hand antiseptic in accessible areas.
- » Clinic waiting area should be cleaned and disinfected regularly and frequently (it should be cleaned twice a day and whenever it gets dirty).
- » Patients' relatives should not be taken to the treatment area in the clinic, or at least one accompanying person should be with the patient depending on the need.
- » The doctor examining and treating the patient should use the appropriate PPE. https://covid19bilgi.saglik.gov.tr
- » Non-contact thermometers should be used. In cases where blood pressure is required to be measured, blood pressure cuffs should be disinfected with 70% alcohol or surface disinfectant used in hospital disinfection.

» Treatment Procedure

- » In order to manage the density of patients that may occur, first of all, appointments of patients with urgent and compulsory treatment needs should be organized.
- » Common use of paper-file and stationery materials should be avoided in healthcare institutions.
- » If the operation starts again after a long time, the water lines of the units should be cleaned.
- » Disinfection of medical devices such as dental unit and chair, dental x-ray device and light used in multiple patients should be provided after each patient. For disinfection, 1/100 diluted bleach (Sodium hypochlorite Cas No: 7681-52-9) or chlorine tablet (according to the product recommendation) can be used. Chlorine compounds can form corrosion on the surfaces. It is a recommended disinfectant for durable surfaces. For sensitive surfaces, 70% alcohol can be left for a minute and used for surface disinfection. The surfaces contaminated with the patient's excreta are firstly cleaned by using paper towels, then disinfected with 1/10 diluted bleach (Sodium hypochlorite Cas No: 7681- 52-9) or chlorine tablet (according to product recommendation) and it is left for drying. Disposable covers or transparent films should be used in suitable tools / devices.
- » Only one unit should be used actively in the treatment units where 1-3 units are located. In 2 and 3-unit treatment departments, it is recommended to change the unit within the department in case of patient changes.

- » In treatment departments where 4 or more units are located, work should be performed at a distance of at least 2 meters between the units to be actively used.
- » Changes (such as creating isolated treatment areas, opening doors, opening / closing windows, creating appropriate waiting areas, etc.) should be made to reduce the intensity and facilitate service provision in healthcare facilities.
- » Only the necessary materials must be kept in the treatment units during the procedure.
- » Aerosol producing processes should be done in isolated areas and units. In this way, these areas should be created by working on this issue in health institutions which do not have such departments.
- » The process appointments that create an aerosol should be organized in a manner so that there will be maximum 1 patient per hour and the duration of the procedure should not exceed 45 minutes.
- » When an procedure that can create an aerosol is performed, the day should be programmed in a manner so that the number of people who can be exposed to aerosols will be at the minimum level, and that the appointment that can create an aerosol is the last appointment of the day as much as possible.
- » The evacuation of the smoke caused by the use of electrocautery and laser should be provided effectively and these devices should be operated at the lowest possible power.
- » Necessary measures should be taken for the discharge of the aerosol in the environment, and ventilation should be provided by natural methods.
- » It is recommended to manage appointment processes by creating separate clinics for the treatments within the scope of emergency and compulsory service.
- » Although there is not enough study in which the clinical effectiveness is fully demonstrated, it is recommended to use 1.5% hydrogen peroxide or 0.2% povidone as mouthwash as a pre-treatment before the treatments to benefit from the effect of oxidation on SARS-CoV-2.
- » Treatment with hand tools should be given priority as the COVID-19 infection spreads through droplets or aerosols.
- » In order to minimize the spread of COVID-19 infection via droplets or aerosols, rubber drops should be used in appropriate treatments.

- » During dental treatments, it is preferable to use 4 hand techniques with an assistant.
- » It is preferable to use tools with anti-retraction function which are known to provide additional benefit in preventing cross infections.
- » During the dental treatments, it should be preferred to use high volume evacuation devices. It should be noted that the backflow that may occur during saliva absorber use may be a source of cross-infection.
- » When stitching is required during treatments, suture materials that can be resorbed should be preferred and patients should be prevented from making an appointment again to get the stitches removed.
- » Three-piece syringes should be minimized if possible, as they may increase droplet formation due to strong injection potential.
- » n dental implant applications, which are provided by commercial company employees as well as the employees of the institution, it should be ensured that these employees use the appropriate PPE like other healthcare workers, and that these employees are present for short time as possible only in the areas they will serve, and not to go out and re-enter during the procedure, except in compulsory cases. Again, the institution that receives service should be responsible for the disinfection and sterilization of the implant set, physiodispenser and similar instruments and devices brought to the institutions by these commercial companies. It is recommended that these tools and devices are provided by the healthcare provider.
 - » The information given after the completion of the patient's procedures should also include informing the patient in the presence of COVID-19 symptoms or signs within the next 14 days.

4.6. Private Departments

4.6.1. Operating Room and Inpatient Services

Although the precautions to be taken by surgical institutions in transition to surgical operations are the same in principle, they may differ in terms of the structure and equipment of the departments. It is recommended to start with a gradual transition period within the frame of capacity and facilities of the institutions. It can be given priority to delayed interventions with pandemic, and in cases where the possibilities are very limited, daily surgeries or diagnostic procedures involving especially the low risk patients (ASA I-II) can be the first step in the transition to the planned operations.

In the preparation for transition to surgical operations, the decrease in the incidence of COVID-19 in the last 14 days at the provincial level and the prevalence and/or test positivity rates should be taken into consideration.

» The factors related to the patient, disease and surgical procedure that should be taken into consideration in the prioritization of the operations in the gradual transition are summarized in Table 1.

Table 2. The factors related to the patient, disease and surgical procedure that should be taken into consideration in the prioritization of the operations in the normalization period

Patient	• Age
	• Chronic diseases (COPD, asthma, SVH, CAD, malignancy, DM)
	 Immunosuppression (chemotherapy, immunosuppressive therapy for other reasons)
	Presence of COVID-19 or flu-like symptoms
	Contact history with COVID-19 patients in the last 14 days
Illness	 Whether there is a non-surgical treatment option Effect of delayed surgery on the progression of disease Whether the delayed surgery will cause difficulty in surgical technique
Surgical procedure	 Surgery duration Possibility of intubation Risk of the surgical field (head, neck, nose-throat, respiratory tract, thoracic surgery etc.) The estimated amount of blood loss during surgery Number of people in the surgical team Necessity of postoperative intensive care follow-up Expected postoperative duration of stay

- » PCR test for COVID -19 should be done at least 48 hours before surgery. In those persons who have negative first test results, it is recommended to perform the second test at least 24 hours later, only if COVID-19 is suspect is high. If COVID-19 is not suspected, the second test is not recommended. The procedure should be performed before 7 days passes after the negative test result.
- » If the patient has positive test and / or COVID-19 compatible symptoms, the planned surgery should be postponed.

- » Thorax CT should not be requested for screening purposes in asymptomatic patients.
- » Even if the test result is negative, N95 / FFP2 mask, goggles / face protector should be used in aerosol emitting processes. https://covid19bilgi.saglik. gov.tr/depo/rehberler/COVID-19_Rehberi.pdf
- » Management of operating theaters during the COVID-19 pandemic period should be realized in accordance with the document titled as "Infection Control Measures to be Taken in the Operating Theaters".https://covid19bilgi.saglik.gov.tr/depo/ enfeksiyon-kontorl-onlemleri/COVID19-PandemiDonemindeAmeliyathan elerdeAlinacakEnfeksiyonKontrolOnlemleri.pdf
- » The patient's procedure should be carried out as soon as possible (on the same day if possible) after hospitalization, and the periods before and after the procedure should be kept short.
- » The sections reserved for COVID-19 patients and the areas where other patients will be served should be clearly defined. Vehicles and roads for patient transfer should be described.
- » Possible/definitive COVID-19 patients should be admitted to the predetermined areas, by complying with the standard, droplet and contact isolation measures
- » Patients who are hospitalized should be questioned every day for COVID-19 symptoms and signs during their application and during their stay.
- » Patients and accompaniers should be provided to wear medical masks during their stay.
- » Patients and accompaniers should be informed about hand hygiene and appropriate hand antiseptic should be available in every patient room and corridors.
- » Patients and accompanying persons should be warned not to enter other patient rooms or staff working / resting areas and not to go outside the hospital frequently.
- » Patient rooms and toilets should be cleaned and disinfected daily with a suitable cleaning material. https://covid19bilgi.saglik.gov.tr/tr/.
- » Liquid soap, toilet paper and paper towels should be present in the toilets in patient rooms and clinics.
- » The vehicles used in transfer such as stretchers and patient chairs used by patients should be cleaned and disinfected after each patient use.

» Patients and their relatives should be prevented from bringing food and drink from

outside.

4.6.2. Radiology

- » Personal protective measures must be taken for all patients sent to the radiology units.
- » All imaging appointments should be arranged taking into account the time to allow patient entry-exit and room disinfection.
- » In order to minimize the time that the patient will stay in the radiology department, the examinations should be adjusted in a way so as to be completed as soon as possible, the necessary preparations should be made before the patient is examined, and then the patient should be called in.
- » Cleaning and disinfection should be done after every patient is taken out of the room. Surface disinfection can be achieved by using a disinfectant preferred in hospital disinfection after cleaning with water and detergent in the room after the procedure. For disinfection, 1/100 diluted bleach (Sodium hypochlorite Cas No: 7681-52-9) or chlorine tablet (according to the product recommendation) can be used. Chlorine compounds can form corrosion on the surfaces. It is a recommended disinfectant for durable surfaces. For sensitive surfaces, 70% alcohol can be left for a minute and used for surface disinfection. The surfaces contaminated with the patient's excreta are firstly cleaned by using paper towels, then disinfected with 1/10 diluted bleach (Sodium hypochlorite Cas No: 7681- 52-9) or chlorine tablet (according to product recommendation) and it is left for drying.
- » In imaging services, it is recommended to take maximum 5 patients per hour for panoramic devices and maximum 6 patients per hour for periapical devices.
- » If possible, the healthcare professional should stay at least 1 meter away from the patient, and if s/he needs to stay at 1 m or closer distance, s/he should use an apron, goggles / face protection in addition to the medical mask.
- » It is very important to use the gloves correctly and to provide hand hygiene before and after use. Since unchanged gloves will cause contamination, attention should be paid to the hand hygiene and not touching the patient's environment. Gloves should be changed and hand hygiene should be provided after each contact with the patient and the surrounding of patient.
- »The use of panoramic radiographs and cone beam computed tomography should be preferred, as intraoral radiographs frequently used in patient evaluations increase saliva secretion and stimulate the cough reflex.
- » Bite sticks in panoramic devices should be used with disposable covers that change in each patient. Disinfection of the device should be ensured after each patient, since the

patients lean their forehead and their jaws on the device.

- » When using the periapical x-ray device, if the end of the device touches the patient, surface disinfection should be performed before the other patient.
- » In order to avoid repetitive radiographs that may be required due to artifact, care should be taken to ensure that the masks used by patients do not contain metal.
- » In intraoral x-rays, the patient should be ensured to use gloves, as they should hold the film. After the gloves are removed, hand hygiene must be ensured.
- » Healthcare professional's using nail polish, beard, jewelry, watch, etc. is risky in terms of appropriate use of PPE and disinfection.
- » After the shooting, all the waste materials of the patients should be accepted as medical waste and they should be removed from the environment.
- » Good ventilation of radiology units should be ensured.

4.6.3. Dental Laboratories

- » Laboratory services can be carried out inside the health institution and / or outside the institution in the form of outsourcing. In order to protect from infections, standard infection control measures should be ensured in these units, trainings should be organized in order to raise the consciousness and awareness of employees and these trainings should be recorded.
- » Laboratory workers should use aprons, medical masks, goggles / face protectors and gloves in disinfection and laboratory working areas.
- » You should not go outside the laboratory with PPE.
- » Nobody should eat or drink in laboratory working areas and no food or personal belongings should be kept.
- » Good ventilation of the laboratories should be ensured.
- » A disinfection area which is separate from the study rooms should be created in the laboratories, and if the materials came from outside without disinfection, they should be sent to this area first, and when the disinfection process is completed, they should be transferred to the working area.

» In order to prevent surface contamination in disinfection areas, it is recommended to

lay liquid-proof disposable covers under the materials.

- » If laboratory service is received from outside the institution; a written procedure should be developed between the healthcare provider and the laboratory for disinfection of measurements, proofing materials, prostheses, apparatus and similar materials. With this procedure, it is necessary to explain which side is responsible at which stage within the process starting from the stage of measuring through the state of prosthesis completion in proportion to the capabilities of institutions. The responsible party should perform disinfection and/or sterilization as soon as possible to prevent contamination during the measurement, modeling, rehearsal and prosthesis completion stages.
- » The materials used at these stages should be disinfected in accordance with the manufacturer's instructions and prevented from being exposed to structural change. Disinfectants suitable for these materials and licensed by the Turkish Ministry of Health should be used in disinfection procedures.
- » Disinfected material, prosthesis, measurement tool, etc. should be placed in a closed box or a locked bag and the disinfected label should be affixed on it.
- » Disinfection and sterilization of the motor heads used in the making of prostheses should be provided in order to prevent the risk of cross infection. It is also recommended to add disinfectants to the pumice used during polishing and to use vacuum aspiration systems to prevent infection.
- » All wastes that come into contact with the patient's oral cavity and have blood or secretion should be disposed of as medical waste.
- » If the laboratory service is provided within the institution; compliance with standard infection control measures should be ensured and the above procedures applied for services received from outside the institution should be implemented within the institution.

4.7. Transportation/Service Usage

» Rules to be taken for COVID-19 have been determined in personnel services. https://covid19bilgi.saglik.gov.tr

4.8. Refectory/Cafeteria

» Arrangement should be made so that the distance between tables and chairs is at least 1

meter (preferably 2 meters) in the dining hall. For easy follow-up of contact; meal times should be determined according to the groups and if possible, it should be ensured that the same people eat at the same table. Similar rules should be observed in tea drinking breaks.

- » Common items such as cups and plates should be washed with water and detergent after each use and stored in a clean environment until the next use.
- » If possible, food and drinks should be served in disposable containers.
- » Open buffet food service should not be used. Spices, toothpicks, salt and bread should not be left open at the tables.
- » Refectory officers should wear medical masks and bones. Gloves should not be used, but frequent hand hygiene should be provided.
- » There should be a sink or hand antiseptic at the entrance of the refectory.

4.9. Organizing Meeting / Training Activities

- » Meetings and trainings should be conducted with methods such as distance education and teleconferences.
- » The meetings and trainings that should be held in the meeting rooms should be conducted in a well-ventilated room, not lasting for a long time, taking into account the social distance rules. After the meeting, ventilation of the meeting room and proper cleaning / disinfection of the frequently contacted areas should be ensured.