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General Directorate for Infection Prevention and Control (GDIPC),

Common questions among HCWs when dealing with suspected or confirmed cases of COVID-19

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These are the common questions among Health Care Workers, our answers were prepared by specialists in the field of infection control, based on the latest international guidelines, policies, and national protocols. General Directorate for Infection Prevention and Control team wishes you all the best.

2020 GDIPC

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Common questions among HCWs when dealing with suspected or confirmed cases of COVID-19

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Infection Control Role

Q1. According to the guidelines, what is the role of infection control practitioners regarding official clearance for HCWs and allowing them to return back to work after being infected or exposed to a patient who has been diagnosed with an infectious disease that necessitates isolation?

A1. This procedure is carried out according to the guidelines for dealing with cases, and it mainly depends on the risk assessment of each contact separately based on his contact level with the confirmed case (i.e., the duration of exposure, distance and if the patient and the healthcare worker use the appropriate personal protective equipment PPE) taking into consideration the importance of maintaining the operation of the departments without exposing HCWs or patients to the risk.

Q2. What is the role of infection control practitioner when a patient who requires to be isolated, escapes from the health care facility? Who should be notified?

A2. The role of infection control practitioner is limited to inform the health care facility administration of (hospital director or medical director), the public health department and public health officials.

The health care facility administration is responsible for notifying the security authorities if necessary, while public health officials take over access to the patient and follow-up contacts, including new contacts after escape.

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Q3. Are infection control practitioners responsible for taking samples and/or swabs for patients suspected of being infected with the COVID-19 virus, as some infection control practitioners who are not doctors and nurses do not have sufficient experience to take the swabs in a correct medical way?

A3. Taking samples and/or swabs is not the responsibility of infection control practitioners, but every hospital must have a trained and dedicated team for sampling and/or swabbing, and the responsibility of infection control team is to ensure that the necessary preventive measures are applied during sampling and/or swabbing.

Q4. Are infection control practitioners responsible for cleaning and disinfection of patients' rooms inside healthcare facilities?

A4. No, it is not the responsibility of the infection control practitioners. Only, the infection control team is responsible for explaining the correct mechanisms of cleaning and disinfection to the assigned housekeeping staff with training them about the proper way of using all recommended materials in the correct way.
Regarding supervision, it will be the responsibility of the nursing staff.

Q5. Are infection control practitioners responsible for cleaning and disinfection of patients' rooms inside quarantine?

A5. No, it is not the responsibility of the infection control practitioners. Only, the infection control team is responsible for explaining the correct mechanisms of cleaning and disinfection to the assigned housekeeping staff with training them about the proper way of using all recommended materials (i.e., there is no need for a special infection control team inside quarantine).
Regarding supervision, it will be the role of the technical supervisors inside quarantine.

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Q6. Are infection control practitioners responsible for reporting infectious diseases in the health facility either through HESN program or any other program?

A6. Reporting infectious diseases is not a direct duty of the infection control practitioners, but it is a direct responsibility of the public health departments or other supportive departments according to the structure of the healthcare facility.

Q7. If testing of a patient reveals positive result for COVID-19 virus, what are the necessary procedures?

A7. Infection control department should cooperate with occupational health clinic in counting patient contacts and identifying their categories in terms of the risk of infection (high risk and low risk) according to updated publications, guidelines and systems issued by Command and Control Center.
According to risk categories, the following decisions should be considered: taking necessary samples, work restriction and daily follow-up of symptom.

Q8. Can COVID-19 be transmitted through airborne route, so that we must apply airborne isolation precautions when dealing with confirmed and suspected COVID-19 patients?

A8. No, COVID-19 virus is transmitted by contact and droplet routes according to the guidelines issued by Saudi CDC (Prevention) as well as WHO recommendations. Therefore, Contact and Droplet isolation precautions should be applied while providing care for confirmed and suspected COVID-19 patients, except when performing Aerosol Generating Procedures (AGPs) where Airborne Isolation Precautions should be applied.

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Q9. What are the points that we should follow to decrease the chance of transmission of COVID-19 between HCWs?

A9. Physical distancing, hand hygiene, universal masking, and respiratory etiquette are the most important factors that shall decrease the chance of transmission of the infection.

Q10. Can COVID-19 virus infection be transmitted from COVID-19 asymptomatic carrier?

A10. There is no evidence of this currently, but this does not deny the possibility of that. So, precautions should be taken with all patients including strict adherence to hand hygiene (hand washing or hand antisepsis) with proper techniques and recommended durations, wearing surgical mask while dealing with all patients and leaving sufficient distance (at least about 1 meter) from the patients if there's no need for direct patient's contact.
For direct patient's contact all required PPE should be used according to the procedure performed.

Q11. Can people get infected from a COVID-19 patient before he can show symptoms in his incubation period?

A11. According to some studies, yes they could transmit the virus before significant symptoms develop, that is why everyone must adhere to social distancing and universal masking.

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Q12. When are patients most contagious during their illness?

A12. According to recent studies, usually the first three days of onset of symptoms are the most time the patient can transmit the disease.

Q13. If a COVID-19 test was negative for symptomatic patient, does that clear the patient of the risk of transmission and we can relax any of the precautions?

A13. Precautions for prevention of transmission should not be relaxed for anyone, so all HCWs must wear the required PPE when dealing with the patient.

Q14. If a HCW has COVID-19 symptoms but his swab was negative, what should be done?

A14. He should be restricted from work until he is cured, he can be reevaluated if there is a need to re-swab him/her.

Q15. Symptoms have been seen in a doctor which was compatible with COVID-19. First, how can I know the source of the infection so that I am alert to any outbreak and control it from the beginning and secondly who is at risk of being infected by this doctor?

A15. According to recent studies, symptoms usually appear on Day 6–5 after exposure, which is called the incubation period (the time between exposure to the virus and symptom onset) that may last up to 14 days, so the source of infection is mostly someone who he has contacted 5 to 6 days before symptoms started, up to 14 days.
People who are more susceptible to get the infection from the doctor are the ones who dealt with him two days before symptoms appear until he was isolated.

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Q16. When dealing with patient suspected for COVID-19 infection, does this mean that infection could be transmitted to all concerned healthcare providers?

A16. Transmission of infection to all concerned healthcare providers is not an absolute fact, as it depends on the following circumstances:

- Adherence to hand hygiene: before and after patient's contact.
- Type and duration of contact with the case: for example, being inside the patient's room, but more than 2 meters away from the case and for a duration less than 15 minutes, the risk for infection transmission declines.
- The patient wears a surgical mask or not: infection transmission to others decreases when the patient wears a surgical mask.
- The healthcare provider wears all required PPE especially surgical mask or high-efficiency respirator when performing an Aerosol Generating Procedure (AGP).

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Preventive Measures

Q17. When dealing with patient suspected for COVID-19 infection, does this mean that infection could be transmitted to all concerned healthcare providers?

A17. This means to assign a certain healthcare team to exclusively care for confirmed isolated COVID-19 patients (they are not allowed to deal with any other patients outside isolation areas) in addition to the presence of another team to deal with suspected cases.
This helps to reduce risk of infection transmission among healthcare workers and other patients. Also, it facilitates follow up and tracking of contacts and decrease irrational use of Personal Protective Equipment PPE.
It is preferable that these health care workers are not elderly or chronically ill, it is better to designate the ones that have been infected or asymptomatic confirmed and suspected HCWs.

Q18. Is there a high risk on pregnant HCWs from COVID-19 patients?

A18. Information on COVID-19 in pregnancy is limited. Pregnancy does not increase the risk of getting COVID-19 or the risk of more severe disease.

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Q19. When forming COVID-19 team, who should it contain putting in mind that our aim is to decrease the transmission of infection between Health Care Workers (HCWs)?

A17. This means to assign a certain healthcare team to exclusively care for confirmed isolated COVID-19 patients (they are not allowed to deal with any other patients outside isolation areas) in addition to the presence of another team to deal with suspected cases.
This helps to reduce risk of infection transmission among healthcare workers and other patients. Also, it facilitates follow up and tracking of contacts and decrease irrational use of Personal Protective Equipment PPE.
It is preferable that these health care workers are not elderly or chronically ill, it is better to designate the ones that have been infected or asymptomatic confirmed and suspected HCWs.

(Refer to answer no.20)

Q20. Which cases of COVID-19 could turn to be life threatening?

A20. People 65 years and older and people of all ages with serious heart conditions, chronic lung disease, and diabetes are the ones that seem to be at higher risk of developing severe illness from COVID-19.

Q21. If the patient is confirmed to have another respiratory virus different from COVID-19, does this exclude infection with it?

A21. No, as patient may be infected with more than one respiratory virus at the same time.

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Q22. How can you handle HCWs that are coming from abroad?

A22. According to the latest update, all health care workers coming from outside must register at the application "Ttman" and commit to house quarantine for 14 days. If the HCW has any symptoms, he/she must be swabbed before being directed to home quarantine. If The home quarantine does not meet the right protocol or the Internet that should be used with the application "Ttman" is not available, then they must be taken to the quarry.

Q23. Do all confirmed or suspected covid19 cases need to be admitted to the hospital, putting in mind that we want to reduce the number of positive cases in the hospital to decrease the chance of transmission of the infection?

A23. Not all patients with COVID19- require hospital admission, only admit who needs medical care.

Q24. Are governmental or private facilities entitled to refuse to serve any patient who is suspected or confirmed to have a COVID19 on the grounds that there are no isolation rooms?

A24. No, governmental or private facilities cannot refuse to provide service to any patient who is suspected or confirmed to have a COVID19 on the grounds that there are no isolation rooms, and in cases where the rooms are unavailable, you can cohort the suspected or confirmed cases of COVE19 together, but to cohort the cases together you must follow some rules. (Refer to answer no.110)

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Q25. Is there any procedure that could decrease the risks of infection transmission and support social distancing within the healthcare facilities?

A25. There are many procedures, such as:

- Activate daily monitoring for all healthcare providers before starting their work and it should be documented. (measuring temperature, reporting symptoms and history of contact with COVID-19 patient)
- Enhance the universal masking policy for all HCWs within the health care facility.
- Prevent healthcare workers' gatherings (restaurant, library and staff breakroom) with alternative means for staff breaks to ensure proper social distancing.
- Reducing the daily medical rounds of the medical staff (the minimum number of medical teams).
- Decreasing the number of HCWs attending to work inside the healthcare facilities and working with the least number required, as in official vacations.
- Working in groups: Extending the work of departments to 12 hours a day for 14 days, then exchanging them for other groups without contact between the groups.
- Dedicate a team for the confirmed and suspected COVID19- patients separated from other teams, and prevent them from mixing together.

Q26. How does physical distancing apply in Health Care Facilities and clinical settings?

A26. Population health measures such as physical distancing in the community do not apply when you are providing clinical care for your patients. This is why HCWs must use PPE in clinical settings. All people at waiting rooms and staff lounges should sit two meters apart, HCWs and patients must wear masks while in the health care facility.

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Q27. Is the seasonal influenza vaccine protective against COVID19-infection?

A27. No, till now, there are no scientific studies to confirm that.

Q28. We have a problem with health care workers©compliance with the instructions, which has led to the spread of COVID-19 among health personnel, what is the solution?

A28. To increase the commitment of health care workers, all instructions must be clear to them in a clear and understandable language and attempt to deliver it to them through more than one channel, you should train them on it when needed. Allocate people to monitor their full and correct compliance, and the (Code of Commitment) issued by CCC must be signed by them, therefore when not committed their own health facilities can take an action.

Q29. Can we reuse the Oxygen Treatment Hood for more than one patient?

A29. Yes, you can reuse the Oxygen Treatment Hood for more than one patient on the condition that you clean and disinfect it the right way, to do that you should follow the manual that was published from General Directorate for Infection Prevention and Control (GDIPC)

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Q30. can you explain how we can clean and disinfect the Oxygen Treatment Hood to be reused for another patient?

A30. The assigned Instrument reprocessing nurse will perform the following to prepare the helmets for disinfection:

- Wear appropriate attire, Don PPE (gown, gloves, face shield or goggle, surgical mask) for contact precautions when removing the used Helmet from collecting bag.
- Discard the used bag for collection and transport of the used helmets in appropriate waste bin as infectious medical waste (yellow waste bag).
- Perform a visible check of the helmets for visible debris or gross material and ensure unit parts are free of any visible damage.
- If helmet is damaged, it should be discarded as an infectious medical waste at once.
- Health care worker will place the helmet in sink basin to commence the manual cleaning process, immerse in cleaning solution with detergent for a minimum of ten minutes' time (cleaning solution manufacturer’s recommendation should be followed if available).
- Perform rinse with water to ensure helmet is free of detergent residue.
- Perform rinse with water to ensure helmet is free of detergent residue.
- Dry helmet using a lint-free cloth.
- Wipe helmet (hood and neck ring) with disinfectant (quaternary ammonium or hydrogen peroxide wipes or spray).
- Allow to air dry to achieve the recommended contact time.
- Place helmet in clean bag to be used with another patient.
- Bag will be labeled with the date and time that the disinfection process was completed.
- It is preferable to perform procedure of reprocessing of the Oxygen Treatment Hoods in CSSD with consideration of collection, transport, and delivery processes.

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Personal Protective Equipment (PPE)

Q31. What are the Personal Protective Equipment (PPE) that the healthcare worker (HCW) in the triage station must wear?

A31. It is not necessary to wear any of the Personal Protective Equipment (PPE), except the surgical mask, when there are outbreaks, crowding of patients at the triage station or when applying the policy of universal masking.

Q32. Can we wear "Negab" instead of wearing surgical mask during applying universal masking policy, and is it acceptable to wear it at respiratory triage station and during treating patients?

A32. Negab is not considered as a substitute for surgical mask during applying universal masking policy, and it is not acceptable to wear it at respiratory triage station and during treating patients to control transmission of infections.

Q33. Are boots and protective clothing that cover the entire body from head to toe (COVER ALL) essential as Personal Protective Equipment (PPE) for HCWs who provide medical care to patients suspected or confirmed for COVID-19 virus infection?

A33.There are no guidelines from the World Health Organization (WHO), the U.S. Centers for Disease Control and Prevention (CDC), nor the U.S. Occupational Safety and Health Administration (OSHA) regarding use of coveralls for protection from the COVID-19 coronavirus during patient care, you must adhere to the updated Saudi CDC guidelines and PPE specific guideline issued by GDIPC regarding proper use of PPE while caring for COVID-19 patients.

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Q34. What are the Personal Protective Equipment (PPE) that the healthcare worker (HCW) should wear when treating a covid-19 patient?

A34. He should wear full PPE (surgical mask, face shield, single use isolation gown and gloves) and when performing AGPs the HCW should replace the surgical mask with high-efficiency respirator or Powered Air Purifying Respirators (PAPR).

Q35. What are personal protective equipment (PPE) that should be worn by healthcare providers who are transporting patients suspected or confirmed for COVID-19 virus infection between healthcare facilities?

A35. They should wear single use isolation gowns, surgical masks, clean gloves, and face shields or goggles especially when in close contact with the patients (e.g., when transferring the patient on a wheel chair), perform hand hygiene before and after PPE donning and after doffing, and the patient should wear a surgical mask.
Generally, patient transport should be avoided unless necessary and the department or healthcare facility to which the patient will be transferred should be informed.

Q36.While transferring COVID-19 patients, when and where personal protective equipment (PPE) should be removed?

A36. The single use isolation gown, gloves, and face shield or goggles are removed inside the patient's room as soon as he is transported on the wheelchair, with practicing hand hygiene before leaving the patient’s room.
HCWs (and also the patient) have to wear surgical masks during the patient’s transfer process without need to wear the full set of personal protective equipment (PPE) unless there is close contact with the patient such as modifying his/ her mask.

Q37. Are medical glasses considered substitute of face shield or goggles?

A37. No, Medical glasses are not adequate for eye protection and face shield must be used.

Q38.How can we care for patients infected with emerging COVID-19 virus (e.g., administration of treatment or carrying out plain x-ray examination for them), in absence of face shields or goggles?

A38. Before approaching, contact with the patient or performing any procedure, the patient is asked to wear a regular surgical mask.

Q39. What are the Personal Protective Equipment (PPE) that HCW must wear during Nasopharyngeal Swabbing?

A39. Single use isolation gown, high-efficiency respirator or Powered Air Purifying Respirators (PAPR) or regular surgical mask if high-efficiency respirator or PAPR are not available, face shield or goggle, and clean gloves.

Q40. Is it possible to take Nasopharyngeal swab in absence of high-efficiency respirator or Powered Air Purifying Respirators (PAPR)?

A40. If high-efficiency respirator or PAPR are not available, Nasopharyngeal swab could be taken while wearing a regular surgical mask and a face shield.

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Q41. Is it necessary to change all Personal Protective Equipment (PPE) between cases while taking Nasopharyngeal swabs for many individuals in the same session?

A41. HCW who is responsible ONLY for Nasopharyngeal swabbing and has many individuals to take samples from them, should:

- Replace gloves and strict adherence to the proper hand hygiene between patients (alcohol-based hand rubbing if there's no visible contamination).
- Don't replace the isolation gown, mask, or face shield or goggles between cases provided that HCW doesn't go outside the swabbing area.
- Immediately replace the mask if it's contaminated with the patient's secretions.
- Replace the isolation gown, or face shield or goggles only if they are visibly contaminated.
- Healthcare worker should avoid any unnecessary contact with his face, eyes, exposed parts of his body or environmental surfaces while wearing PPE.

Q42. Is it necessary to change all Personal Protective Equipment (PPE) between cases while taking Nasopharyngeal swabs for many individuals in the same session?

A42. No, it is a wrong procedure, as the surgical mask acts as a barrier between the face and high-efficiency respirator, which prevent it from functioning properly (i.e., waste of our valuable resources without real benefits or needs).

Q43. When should we use a High Efficiency Respirators?

- Airborne isolation precautions (such as cases of Varicella, Measles, Tuberculosis).
- For Aerosol Generating Procedures AGPs. (Refer to Answer No. 114)

Q44. Is it allowed for the housekeeping staff to wear a High Efficiency Particulate Air Filter Respirators?

A44. It is allowed only when entering a room of a patient under Airborne isolation precautions, putting in mind not to let him enter the patient room unless necessary. It is mandatory to perform a fit testing for high-efficiency respirator to ensure usage of the correct type and size, with training about its proper donning and doffing.

Q45. What can we do if personal protective equipment PPE supplies are deficient?

A45. Care should be taken to regulate the consumption of all available personal protective equipment PPE to be used wisely (only according to the MOH recommendations) and to apply the extended use and reuse policy of high-efficiency respirator, surgical masks, gowns and face shield or goggles according to guidelines issued by GDIPC.
Also, it is vital to reduce the number of healthcare workers in contact with CPVID19- cases (only according to the actual needs) and not to replace PPE when taking swabs for more than one patient in the same session (except the gloves, which must be changed with each patient, but for the high-efficiency respirator, the isolation gown, and face shield or goggles only when contaminated).

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Q46. What is the rational for an extended use and reuse policy of personal protective equipment PPE?

A46. To counter the shortage of resources while taking into account that correct precautions are taken in order to protect healthcare workers from the risk of infection transmission.

Q47. Is it allowed to use a high-efficiency respirator or other personal protective equipment PPE for more than one patient with various diseases while applying the policy for its extended use or reuse?

A47. No, it’s not possible; they can be used only for more than one patient with the same disease.

Q48. Is it possible to use the same high-efficiency respirator or other personal protective equipment PPE by more than one healthcare worker?

A48. No, a high-efficiency respirator or other personal protective equipment PPE should only be used by one healthcare worker and sharing with others is prohibited.

Q49. To save resources, can we use the surgical gloves for more than one patient or wash and disinfect them to be reused?

A49. No, it’s not acceptable; as this is one of the causes of transmission of infection in-between patients.

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Q50. What is meant by universal masking policy and what is the value for applying this policy?

A50. It is the extended wearing of the surgical masks by HCWs during the whole shift period, taking into account applying all required precautions. (Refer to answer no. 51)
This policy is applied in order to protect healthcare workers from the risk of infection transmission.

Q51. When should the surgical mask be replaced while applying the policy of universal masking by HCWs?

A51. Surgical mask should be changed when:

- When dealing with a patient suspected or confirmed for Covid19- virus infection.
- When surgical mask is contaminated with patient's respiratory secretions, blood or other body fluids.
- When it is compromised or damaged.

Q52. Does the policy of universal masking apply to patients and visitors?

A52. Yes, it is recommended for patients and visitors to wear fabric or cloth masks, with exclusion of patients with respiratory symptoms, as it is preferable to wear surgical masks.

Q53. Can a cloth mask be worn by healthcare worker?

A53. No, it is not accepted for HCWs who are providing services in patients' care areas, but it is possible in the administrative zones and any other areas where there is no contact with the patients.

Q54. Do I have to wear a regular surgical mask for the entire working time at the hospital, as instructed by of Infection Control Department, keeping in your mind that I work in the Financial and Administration Department?

A54. Yes, because you are working in a healthcare facility, whatever the nature of your work, and you must adhere to wearing surgical masks for the entire working time, for the sake of your own health and the health of others. It is preferable to wear a cloth mask, when there is no direct contact with the patients to preserve the resources.

Q55. What's the meant by the extended use of High Efficiency Particulate Air Filter Respirators and when it is applied?

A.55 Extended use of high-efficiency respirator means wearing it for a period that may extend up to 12 hours (one shift) when dealing with patients with the same respiratory infections.

Q56. How often is a high-efficiency respirator allowed to be reused?

A56. The maximum number for reusing high-efficiency respirator is five times (or as recommended by the manufacturer), but if resources are deficient, it can be used more than that.

Q57. How can we maintain high-efficiency respirators to be reused?

A57. High-efficiency respirators can be kept in paper bags in a specified storage area between multiple uses, with the names of the health workers written on them aiming not to be mixed with other masks for different HCWs. It is critical not to bend respirator during storage, so that efficiency is not affected.

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Q58. Is there any suggested model to reduce the possibility of infection transmission due to the extended use and reuse of high efficiency respirators?

A58. Because of the contamination of the outer surface of the high-efficiency respirator, which may extend up to 72 hours, some hospitals may give the healthcare worker several high-efficiency respirators, so that after each use the healthcare worker takes off the high-efficiency respirator and securely keeps it in the paper bag with the writing of the date to be reused later on the fourth day, which reduces the risk of infection transmission due to reuse.

Q59. What are the required precautions to be taken during the extended use or reuse of high efficiency respirators?

A59. The essential precautions to be followed:

- Avoid touching the respirator, either from the outside or the inside, and if it is accidentally touched, you should immediately discard it and perform hand hygiene.
- Wear the same respirator with patients of the same respiratory infections.
- Carefully remove respirator and keep it securely when eating or going to the toilet in order to reuse it again.
- Keep the respirator in a special paper bag that can be closed without folding the mask. The username is written on the bag, which is discarded after use in medical waste container.
- The respirator should be used by a single user only.
- When reusing the respirator, be sure to tighten it on your face by performing a seal check while wearing gloves to prevent transmission of infection.
- Carefully remove and properly dispose the respirator after Aerosol generating procedures AGPs or when contaminated with the patients' secretions.
- Use a face shield or a surgical mask over the respirator or ask the patient to wear a surgical mask.
- Take care to perform hand hygiene before and after touching or modifying the respirator.

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Q60. When should high efficiency respirator be discarded during the extended use or reuse?

A60. A high efficiency respirator should be disposed:

- After being used in Aerosol Generating Procedures AGPs (e.g., aspiration, tracheal intubation, etc.)
- When it’s contaminated with respiratory secretions, blood or other patient’s body fluids.
- When it’s obviously damaged or severely obstructs breathing.

Q61. During the extended use or reuse of high efficiency respirator, how can you protect it from the patient‘s secretions?

A61. There are several precautions to maintain a high efficiency respirator such as:

- Use a face shield or a surgical mask over the high-efficiency respirator.
- Ask the patient to wear a surgical mask.
- Maintain distance between you and the patient when there is no need for close contact.

Q62.When reusing the high-efficiency respirator and performing a seal check, won‘t this lead to contamination of the healthcare worker's hands?

A62. This is true, so clean gloves must be used when high-efficiency respirator is re-worn, and seal check test is performed.
Hand washing should be performed after removing gloves, followed by wearing new pair of clean gloves when dealing with the patient.

Q63. When the right size of the high efficiency respirator is not available, is it possible to use another size?

A63. No, depending on fit testing, only the same model and size should be used, and if it is not available, the Powered Air Purifying Respirator PAPR can be used.

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Q64. Is it possible to use the same Powered Air Purifying Respirator PAPR for more than one healthcare worker?

A64. Yes, this device can be used fully for more than one HCW with strict adherence to cleaning and disinfection per the manufacturer's instructions (i.e., correctly clean and disinfect the helmet with approved disinfectants) with examining it before each use to ensure the safety of all its parts, for more information please refer to the PPE manual that was released by GDIPC.

Q65. Can a high efficiency respirator be used by bearded healthcare worker when Powered Air Purifying Respirator PAPR is not available?

A65. No, a high efficiency respirator cannot be used for bearded HCW when Powered Air Purifying Respirator PAPR is not available, another healthcare worker must be assigned to deal with the patient (the only exception is a lifesaving situation).

Q66. What are the reasons for using PAPR as an alternative to high-efficiency respirator?

A66. PAPR is used as an alternative to high-efficiency respirator in the following situations:

- All available high-efficiency respirators are not appropriate for the healthcare provider (i.e., failure of fit testing for all available models and sizes).
- For bearded healthcare workers.
- If the fit tested high-efficiency respirator is not available (i.e., temporarily, the proper model and size for the healthcare worker is not existing).

Q67. In the event of an outbreak, what are precautions required to be applied to preserve the stock of isolation gowns?

A67. Priority must be given to all procedures expected to produce or emit liquids' sprays or splashes.
Also it is possible to prolong the use of isolation gowns for several patients, provided that they have the same infectious disease without any other diseases that require contact isolation precautions.

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Q68. Can we reuse or extend the use of the face shield?

A68. Yes, under the current circumstances, and in order to confront the scarcity of resources, we recommend to do so, provided that it is cleaned and disinfected properly, so that it does not become a source of transmission of the infections.

Q69. Is there any recommendation to clean and disinfect the face shield or protective goggles during extended use and reuse?

A69. Yes, it is strongly recommended to do so, as during prolonged use some mist may fall on its external surface, so it must be taken off, cleaned, and disinfected. Also, this should be applied after each use in the event of repeated use.

Q70. When should I dispose of face shield or protective goggles during extended use and reuse?

A70. When it is damaged or difficult to see through, even with availability of proper cleaning and disinfection.

Q71. How can I clean and disinfect a face shield (or a protective goggles) if required to be reused?

A71. To clean and disinfect the face shield (or the protective goggles), apply the following steps:

- Wear a pair of clean gloves
- Wipe the face shield (or the protective goggles) by a clean towel saturated with a detergent solution, starting from the inside outwards.
- Carefully wipe the outside of the face shield (or the protective goggles) by a clean towel saturated with a disinfectant solution approved by the Ministry of Health (alcohol based disinfectant wipes / quaternary ammonium compounds).
- Wipe the outer surface of the face shield (or the protective goggles) with clean water or alcohol to remove residues of detergent and disinfectant.
- The face shield (or the protective goggles) is completely dried, either air dried or using clean absorbent towels.
- The face shield (or the protective goggles) is kept in a clean bag for reuse when needed.
- Gloves are removed and hand hygiene is performed.

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Q72. As we continuously obtain new types and sizes of highly efficient respirators that are different from the previous ones, on which, the fit testing for all healthcare providers has been performed. Do we need to re-test all employees and renew their Basic Infection Control Skills License (BICSL) to know their correct new models and sizes?

A72. Under the current circumstances, the use of the new types of high-efficiency respirator for repeating the fit testing to get the new appropriate sizes, is considered a waste of valuable resources, so the following should be applied:

- Only repeat the fit testing to get the new appropriate models and sizes for health workers who have direct contact with patients under airborne isolation precautions and/or patients suspected or confirmed for COVID-19 infection, provided that the stock of appropriate sizes from old types is about to finish.
  Do not forget to take the same high-efficiency respirator used during a valid fit testing with successful “Pass” result to be used later for patients’ care.

- Extend the validity of the fit testing after the two years that were prescribed by MOH, except in the following situations:
  - The stock of old types is about to finish.
  - Changes in the healthcare provider’s face shape due to loss or gain of weight or after facial surgeries.

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Q73. What steps must be taken to maintain the inventory of high-efficiency respirators to be used when needed?

1. The use of a highly efficient respirators is limited to the conditions specified in the personal protective manual that was released by GDIPC.

2. The distribution of highly efficient respirators is restricted to places where it is most commonly used, such as respiratory isolation rooms in intensive care, emergency, and other departments, also at the places where swabs are taken in hospitals, primary care centers and quarries.

3. The Medical Director at the Health Facility manages the distribution of the highly efficient respirators at his facilities, he hands it daily to the department's supervisor (e.g., Nursing Supervisor of the departments, quarry Medical Clinic Supervisor , Director of the Primary Health Care Center) With monitoring of consumption, promoting rational use and punishing the one's that do not follow, that is done in correlation with the Infection Control Department of the facility.

4. The infection control and medical supply platforms at each Command and Control Center are responsible for monitoring consumption patterns and maintain the level of high-efficiency respirators and other personal protective equipment.

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Healthcare Workers©Exposure to COVID-19 Positive Cases

Q74. What are the criteria to calculate the risk of healthcare worker's contact with a confirmed COVID-19 patient?

A74. Contact with patient confirmed for COVID-19 infection must be from a distance less than 2 meters and for a period longer than 15 minutes, to represent a risk of transmission of the infection from the patient to the health care worker starting two days before the onset of symptoms until the time the patient was isolated, without using full personal protective equipment in the right way and without performing hand hygiene when needed.

Q75. When you want to determine the type of exposure for the HCWs, what are the points that you should review?

- The distance between the patient and the HCW.
- The time that have passed while the HCW was providing the service.
- Type of PPE the HCW was wearing.
- Type of service provided.
- If the patient was wearing mask or not.

Q76. Exposure category for positive case was categorized as Low and High, what is the difference between them?

A76. The difference depends on the type of PPE that the HCW was wearing during the exposure and type of service, putting in mind that he dealt with the positive case within two meters for more than 15 minutes, the next step is to check his PPE, the categorization will be:

Low exposure: when the HCW is wearing full PPE or only facemask or respirator while he was exposed to a positive case.
High exposure: if the HCW did not wear a facemask or respirator during any procedure or if he did not wear the recommended PPE (respirator, face shield, gown and gloves) during AGPs (any duration of time).

Q77. What should be done by HCWs who was exposed to a positive case regardless of the level of their exposure?

A77. They should adhere to universal masking policy during their presence in the health care facility even in their lounge during break times, as long as they are asymptomatic, but if symptoms occur they must be excluded from work regardless to the result of the swab weather it is positive or negative until he is cured.

Q78. Should we swab all exposed HCWS weather they have Low or High exposure?

A78. No, a swab should be done only to the HCWs that was categorized as having high exposure, and that is done at the 3rd to 5th day of the exposure.

Q79. Is it recommended to exclude asymptomatic health care worker from duty if his exposure to COVID-19 virus is categorized as high-risk?

A79. According to the updated guidelines for management of health care workers 'exposure to COVID-19 virus, there is no restriction from duties unless there are symptoms regardless to the exposure category. There should be continuous monitoring for any symptoms, and they should be excluded from duty if any.

Q80. When should the HCW be isolated?

- HCWs should be isolated if their swab turned positive.
- HCWs should be isolated if they developed any symptoms.

Q81. There was a HCW that was exposed to a COVID19- confirmed case and then developed symptoms, he was isolated immediately but after taking the swab the result was negative, do we tell him to come back to work or he should continue his isolation?

A81. Any HCW with symptoms regardless to the result of his swab should be isolated and he should come back to work after three days from the disappearance of his symptoms and ten days from the start of his symptoms.

Q82. I `m a healthcare worker, and I have contact with a patient who was proved to be confirmed COVID-19 infection later on. Is it necessary to take a sample from me and start home isolation for 14 days, knowing that I was wearing a surgical mask during dealing with that patient?

A82. According to the updated guidelines regarding healthcare workers' exposure to confirmed COVID19- patients, the risk is low and you do not need to take a sample or apply home isolation, you can continue practicing your regular work while observing the emergence of respiratory symptoms for a period of 14 days from the date of exposure and inform the employee health clinic as soon as any of them appears.

Q83. I am a healthcare worker and I have performed suctioning for an ICU COVID-19 patient. During the procedure, I was wearing personal protective equipment, but I wore a regular surgical mask instead of a high-efficiency respirator without using a protective goggle or a face shield. What is the level of risk of infection? What is the right action?

A83. The level of risk is high, and you should go to the employee health clinic in your health care facility to reevaluate your risk level and the need to take a Nasopharyngeal swab 5-3 days after exposure, you should continue working with strict adherence to universal masking, with daily follow up for the emergence of respiratory symptoms.

Q84. I am a healthcare practitioner working in the emergency department. I have dealt with a patient in the respiratory triage station, later on, he has been proved as a confirmed COVID19- case.
What is the right action, knowing that the patient had respiratory symptoms and I was wearing the regular surgical mask during performing the respiratory triaging with him?

A84. The risk is low due to the lack of time factor in contact with this patient (less than 15 minutes), in addition, you were wearing a mask.
Consequently, there is no need to take a sample, you can continue practicing your regular work, but you must follow-up the emergence of respiratory symptoms for 14 days from the date of exposure and inform the employee health clinic as soon as any of them appears.

Q85. I am a healthcare practitioner working in the emergency department and one of Cardio Pulmonary Resuscitation CPR team. I participated in CPR for a patient who died afterwards and was proved as a confirmed COVID-19 case.
Unfortunately, due to lack of time, I did not wear required Personal Protective Equipment PPE. What is the risk level? What is the proper action?

A85. Unfortunately, the risk level is high because contact with the confirmed patient was at less than 2 meters' distance, for a period longer than 15 minutes and carrying out an Aerosol Generating Procedure. Therefore, a sample must be taken from you on the 3rd to the 5th day of the exposure, with daily follow-up for the emergence of respiratory symptoms and you can continue your work in the hospital with strictly adherence to universal masking.

Q86. I was exposed to COVID19- virus infection. This exposure category was considered "low ", as I dealt with the patient for a very short period of about five minutes with the use of proper PPE. Now I feel a high fever and shortness of breath, knowing that I have a chronic asthma, what is the right action?

A86. The case must be evaluated by the physician of employee health clinic. The risk is assessed according to the updated guideline for "Management of Healthcare Workers Exposed to COVID19-" by applying the standard definition and the epidemiological link.
According to the available information the way of dealing with the case is determined. You should be restricted from work until symptoms disappear regardless of risk exposure as the source of the infection may be different from what was expected.

Q87. We have a physician who is exposed to one of the contacts of a confirmed COVID-19 case. Should we take a nasopharyngeal swab from him?

A87. No samples should be taken, as exposure cannot be classified as one of the approved risk categories (i.e., actually, he is in contact with an uninfected person), you should only closely monitor him for any symptoms of COVID-19.

GDIPC

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Q88. If the first nasopharyngeal sample for a patient suspected for COVID-19 virus infection is negative, should we take a second sample for confirmation?

A88. Decision is made by the treating physician according to the degree of suspicion and the symptoms present. All isolation precautions required to deal with a suspected case must be kept.

Q89. I'm working in an employee health clinic and responsible for taking nasopharyngeal samples from healthcare workers that contacted positive cases daily. Am I required to be frequently examined by taking regular samples to check that I am not infected with COVID-19 virus?

A89. It is not necessary, because according to the approved guidelines for management of healthcare workers' contacts, daily follow-up should be carried out for symptoms of (coughing - fever - pain in the throat - shortness of breath) in addition to strict adherence to wearing correct PPE and proper hand hygiene.

Q90. A HCW developed symptoms in my hospital, I excluded him from his work immediately, but now how can I perform contact tracing as the list is very long?

A90. First of all, you have to make sure that the HCW is positive by taking a swab for him, if he was positive then the tracing should cover whomever contacted him two days before symptom onset.

Q91.What if he did not have any symptoms, how can I do the tracing then?

A91. For confirmed COVID-19 HCWs or patients who never developed symptoms, they should be considered potentially infectious beginning 2 days after their exposure, If the date of exposure cannot be determined , use a starting point of 2 days prior to the positive test result.

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Q92.We suffer from shortage in HCWs due to the isolation of several of them as high risk exposure to a confirmed case, so what can we do?

A92. All risk exposure categories should not be isolated unless they developed symptoms or had positive result, so they are supposed to return to work with an emphasis on following the infection control instructions, which include wearing the surgical mask at all times, being careful not to remove it even at the staff lounge.

Q93. We suffer from shortage in HCWs due to the isolation of several of them as confirmed or suspected cases although they are asymptomatic, so what can we do?

A93. If there is a severe shortage, it is possible for confirmed or suspected HCWs to return to work on the condition that they do not have symptoms and they can perform the following:

1- Asymptomatic suspected or confirmed COVID19- HCW could be allowed to perform job duties where they do not close interact with others, such as in registration, documentation jobs and telemedicine.

2- Asymptomatic suspected or confirmed COVID19- HCWs could be allowed to provide direct care only for patients with confirmed COVID19-, preferably in a cohort setting. They should:

- Avoid close contact with other HCWs or dealing with non COVID-19 patients. Using surgical mask all the time as source control, if they must remove their facemask, in order to eat or drink, they should separate themselves from others.
- Before starting work shift duty, supervisor of the department should actively check all HCWs for the presence of any COVID-19 suggestive symptoms.
- Any time HCW develop even mild symptoms consistent with COVID-19, they must stop patient care activities and notify their supervisor and infection control department or occupational health department to be reassessed and leave the health care facility immediately.

Q94. If the symptoms of Covid19- infection disappear from the health care worker 5 days after its onset, can he return to work?

A94. The HCW can return to work if at least 10 days or more have passed from the date of appearance of the symptoms in addition to its disappearance for at least 3 days without taking any antipyretics.

GDIPC

Q95. Should we take a swab before allowing the infected HCW to come back to work and consider him cured?

A95. No, there is no need for that.

Q96. When can the infected HCW come back to work and consider him cured putting in mind that he/she is asymptomatic?

A96. HCW with laboratory-confirmed COVID-19 who have not had any symptoms can resume their duty if 10 days have passed since the date of their first positive COVID-19 diagnostic test assuming they have not subsequently developed symptoms since their positive test.

Q97. Is there any precautions that the cured HCWs should follow after returning to work?

A97. They must adhere to universal masking policy as long as they are at the health care facility, with daily follow up for the emergence of respiratory symptoms (coughing - fever -shortness of breath), if any of it appears you should contact your employee health clinic immediately.

Q98. If a previously infected person has clinically recovered but later develops symptoms consistent with COVID-19, should the person be isolated again and tested for covid-19?

A98. Yes, he/she should be isolated and retested for COVID-19.

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Visiting Patients

Q99. Are family visits allowed for confirmed and suspected COVID-19 patients?

A99. Whenever possible, visits are not allowed for fear of infection transmission. Only for some urgent situations, visits may be permitted for a very short duration with strict adherence to the following precautions:

- Elderly persons, children, people with chronic conditions and pregnant females are not permitted to conduct the visit.
- The patient should wear a surgical mask.
- The visitor should wear PPE and be well trained on donning and doffing of it.
- Health education and awareness: specific messages about the disease and mode of transmission should be declared to the visitor.
- Direct contact of the patient and sharing foods and drinks with him/her are strictly prohibited.
- The visitor should be advised to adhere to proper social distancing and follow up of symptoms after the visit.

Q100. How can we explain to the visitors the concept of not coming to the facility if they have signs and symptoms of acute respiratory illness that is consistent with COVID-19?

A100. You can do that through:

- health educator staff that can explain the sign and symptoms and inform the visitors not to come to the facility if they notice that they have it.
- Visual alerts, such as signs and posters, that should be placed at facility entrances and other strategic areas instructing visitors not to enter as a visitor if they have fever or respiratory symptoms.
- Signage should include signs and symptoms of COVID19- and who to notify if visitors have symptoms.

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Q101. What are the instructions that the visitors must follow when entering the health care facility?

- Visitors should not enter the facility if they have signs and symptoms of acute respiratory illness consistent with COVID-19.
- Visitors should be asked to wear a surgical or cloth mask to cover their nose and mouth all the time during their visit and never remove it except after leaving the facility.
- Visitors should be encouraged to perform hand hygiene by washing hands with soap and water for at least 40 seconds or by using an alcohol-based hand rub with %70 isopropanol for at least 20 seconds, Healthcare should provide adequate supplies for visitors to perform hand hygiene.
- Visitors should be instructed to follow respiratory hygiene and cough etiquette (e.g., covering mouth and nose with a disposable tissue when coughing or sneezing).
- Visitors should only visit the patient they are caring for and avoid going to other locations in the facility.

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Q102. How can the health care facility decrease the chance of transmitting the COVID19- from and to the visitors?

A102. Healthcare facilities should:

- Apply alternatives for direct interaction between visitors and patients, including setting up remote communications (e.g., telephone or internet connection) to allow for video or audio calls (if possible).
- Designate and control an entrance that visitors can use to access the healthcare facility.
- Screen all visitors for fever or other symptoms of acute respiratory illness (e.g., cough or shortness of breath) at the designated visitor entrance.
- Any visitor who are noted by healthcare facility staff to have fever or other symptoms of acute respiratory should be prevented from visiting and instructed to leave the facility.
- Outsourced food and drinks are not allowed to be brought to the facility, eating and drinking are not allowed during the visit.
- The number of visitors for one patient should be limited to two visitors per patient at the same time and the time of the visit should be no more than 20 minutes per visit.
- Visit is not allowed to old visitors above 65 years old, children, pregnant women and those who have chronic diseases.
- It is preferable to avoid waiting of the visitors inside the facility and if this is not possible, the facility should prepare a designated waiting area for visitors that encourage social distancing.
- Visitors should NOT be allowed to be present during aerosol generating procedures or during collection of respiratory specimens.

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Ambulance Transportation

Q103. What precautions should be taken when transporting a confirmed or suspected COVID-19 patient from one health facility to another?

- Inform the health facility that the patient is transferring to, about his medical status weather he is a confirmed or suspected COVID-19 patient.
- There should be arrangement between the transporting facility and the receiving facility for transportation timing, personal and clinical information of the patient.
- The patient should be masked with surgical mask during transportation if he/she can tolerate it.
- The patient must be health educated about respiratory etiquette to be applied during his transportation.
- The driver should wear surgical mask during transportation.
- All HCWs that are dealing with the patient must wear required PPE. (Refer to answer no.35)
- The used vehicle should be cleaned and disinfected using MOH approved disinfectant (quaternary ammonium chloride wipes or spray / freshly prepared sodium hypochlorite solution 1000 ppm).

Q104. How many people that are acceptable to be present during the transportation and who are they?

- Never transport suspected with confirmed COVID-19 in one vehicle.

  Family members are not allowed to accompany suspected and confirmed COVID-19 infected patients in the ambulance. However, if they accompany the patient, they must wear a facemask.
- The number of ambulance staff in the patient section of the ambulance should be restricted to the minimum required.

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Q105. What precautions must be followed by the ambulance driver during transportation?

A105. The driver must isolate himself from the patient section, by keeping connecting doors and windows closed before bringing the patient into the ambulance. He must wear the surgical mask throughout the transfer, and if he has to communicate with the patient to assist in transportation, the personal protective equipment must be fully worn with strict adherence to proper hand hygiene.

Q106. How is the ambulance cleaned after a confirmed or suspected covid-19 patient has been transferred?

- the ambulance should be aerated with several cycles of air changes by leaving its rear doors open. This will get rid of possibly infected particles.
- Prior to cleaning the ambulance, staff should don disposable gowns and gloves. Eye/face protection PPE (goggles, face shields or facemasks) are recommended if the cleaning procedure will generate splashes or sprays.
- Environmental cleaning and disinfection should be carried out following procedures consistently and correctly. This includes assuring adequate ventilation when chemicals are used by keeping doors open.
- Routine cleaning and disinfection procedures (e.g., using cleaners and water to pre-clean surfaces prior to applying approved disinfectant to frequently touched surfaces or objects for appropriate contact times as indicated on the product's label).
- Clean and disinfect reusable patient-care equipment before use on another patient, according to manufacturer's instructions.
- Get rid of single used items and used PPE in medical waste.
- Hand hygiene.

Ambulance Transportation

Q107. When are COVID-19 patients isolated in negative pressure isolation rooms?

A107. The priority is for critically ill patients and when aerosol generating procedures AGPs are frequently required.

Q108. Should patients suspected or confirmed for COVID19- infection be isolated in negative pressure isolation rooms?

A108. This is not required even for confirmed cases if they are stable (i.e., it is recommended to place the patient in a regular single room, and the door should always be closed. However, if negative pressure isolation rooms are available, confirmed COVID19- patients can be isolated inside them).

If negative pressure isolation rooms and regular single rooms are not available, isolation can take place in a shared room by cohorting a group of patients who are confirmed for COVID19-infection, provided that there are no other diseases that necessitate contact isolation precautions, availability of adequate spaces, providing continuous medical care, and ensuring that suspected cases are not isolated with them.

Q109. Can we isolate a number of patients suspected for COVID19-infection as a group in one large room with multiple beds (Cohort Isolation)?

A109. No, it is prohibited, because some cases could be confirmed as COVID19- patients and their contacts (i.e., negative cases who are isolated with them) will be at risk of acquiring infection, unless there are no single rooms in which case you can cohort them together following certain conditions.

(Refer to answer no.110)

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Q110. What conditions must be followed when cohorting confirmed or suspected COVID-19 patients together in one room?

A110. The health care facility must adhere to the following criteria

- Evaluation of patients in the emergency departments according to MOH memos, and restrict admission for only patients whose medical condition necessities that.
- Avoid cohorting of suspected and confirmed cases in the same room.
- There should be a physical separation between the beds (single-use curtains or moving partitions) in the multi-beds room. In the case of unavailability, the distance between the beds should not be less than two meters or more.
- Avoid doing any aerosol generating procedures such as aspiration, naso/oro-pharyngeal swabs in the multi-beds room, these procedures are implemented only in designated places according to the guidelines. (Refer to answer no.115)
- Encourage the use of HEPA filter as possible in all multi-bed rooms, while ensuring good ventilation in them.
- Assign patient care supplies to each patient and not to share them with others.
- Asking patients to wear the surgical mask throughout the hospital's stay if he can tolerate it, and not allowing them to move freely between the rooms or beds and in the corridors.
- Strict adherence by health care workers to infection control practices, particularly hand hygiene and changing of gloves between patients. Replacement of personal protective equipment (PPE) according to the infection control guidelines at any time if it gets contaminated.
- Evaluation of the patients' condition (including all inpatients, whether as a COVID19- patient or not) by the treating physician twice daily, determining the need to stay in the hospital and activating the early discharge policy without affecting the safety of patients, and coordinating with the public health in the region / province to follow up the preventive measures upon discharge.

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Q111. Is it required to use portable HEPA filter devices inside isolation rooms for suspected or confirmed COVID-19 patients?

A111. No, it is not required, except when performing Aerosol Generating Procedures (AGPs).

(Refer to answer no.114)

Q112. Is it required to use portable HEPA filter devices for positive COVID-19 patients and inpatients in quarantines (hotels)?

A112. No, it is not necessary and regular ventilation of the room is enough.

Q113. What is the correct procedure to be applied if the red indicator of the portable HEPA filter device lights up?

A113. When the red indicator of the portable HEPA filter device illuminates, this visual alarm means that there is something wrong with the device, a defect in the filter, or the filter has been expired, and requires replacement.
The device should be removed immediately from the patient's care area (i.e., it is out of service) with notification of the maintenance department within the facility or the company responsible for guarantee or maintenance of the device to do the necessary repairs or replacement of the filter.

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Aerosol Generating Procedures (AGPs)

Q114. What are the Aerosol Generating Procedures (AGPs) that must be performed within a negative pressure room or a single room with portable HEPA filter device?

A114. AGPs that require to be carried out within a negative pressure room or a single room with portable HEPA filter device are:

- Endotracheal Intubation or Extubation and Tracheostomy.
- Bronchoscopy and all upper airway procedures that require open suctioning.
- Some dental procedures (e.g. High-speed drilling).
- Cardiopulmonary resuscitation CPR.
- Sputum extraction from the patient's respiratory tract.
- Nasopharyngeal swabbing (when not available, please see question 65).

Q115. What are the precautions that should be followed while performing AGPs?

A115. The following precautions must be followed:

- Hand Hygiene must be done when needed.
- Perform procedures in negative pressure rooms with at least 12 air changes per hour (ACH).
- In case of unavailability of negative pressure room, it could be done in well ventilated single room with portable HEPA filter.
- Limit the number of persons present in the room to the absolute minimum required for the patient’s care and support.
- HCWs must use a fit tested particulate respirator.
- Always perform the seal-check when putting on a disposable particulate respirator.
- The HCW that all available types of respirators are not fit to him should be avoided from aerosol-generating procedures or use PAPR(Powered Air-Purifying Respirator).
- Use eye protection (i.e. goggles or a face shield).
- Use clean, non-sterile, long-sleeved fluid resistant isolation gown.
- Use gloves.

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Q116.Is it possible to give examples of Aerosol Generating Procedures and Non Aerosol Generating Procedures?

A116. Examples of Aerosol Generating Procedures & Non Aerosol Generating Procedures:

Aerosol Generating Procedures (AGPs)	Non Aerosol Generating Procedures (Non AGPs)
Nasopharyngeal swabbing	Cardiac catheterization
Endotracheal intubation & extubation	Central Venous Catheter insertion
Cardiopulmonary resuscitation	Interventional radiological procedures
Manual ventilation	Ophthalmological procedures
Non-invasive ventilation (NIV) e.g. Bi-level Positive Airway Pressure (BiPAP)	Connection & disconnection to haemodialysis machine
Continuous Positive Airway Pressure ventilation (CPAP)	Oral examination
High-Frequency Oscillating Ventilation (HFOV)	Tooth extraction
Tracheotomy/tracheostomy procedures (insertion / open suctioning / removal)	Extracorporeal shock wave lithotripsy (ESWL)
Bronchoscopy and all upper airway procedures that require open suctioning	Ear wash
Surgery and post-mortem procedures involving high-speed devices	
Open suctioning of the respiratory airways (including the upper respiratory tract)	
"Some dental procedures (e.g. High-speed drilling)"	
Induction of sputum and open suctioning	
Sputum extraction from the patient's respiratory airways	

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Nasopharyngeal Swabs

Q117. Is it mandatory to take the nasopharyngeal swab in a negative pressure room that has special ventilation equipped with HEPA filter?

A117. It is preferable to take the Nasopharyngeal swab in a negative pressure isolation room, if this is not available, sample can be taken in a closed single room while operating portable HEPA filter device.

In absence of negative pressure rooms and portable HEPA filter devices, and the patient's condition is stable, the swab could be taken in a well-ventilated single room with firmly closed door or a place with good natural ventilation, provided that healthcare practitioners strictly adhere to all required precautions.

Q118. Where should the Nasopharyngeal swab be taken for unstable patients?

A118. It should be taken either in a negative pressure isolation room or in a closed single room while using portable HEPA filter device.

Q119.We have several confirmed COVID-19 cases, who are quarantined in hotel rooms. Where can Nasopharyngeal swab be taken for them?

A119. Nasopharyngeal swabs could be taken in a definite separate room with a portable HEPA filter or in open place with good natural ventilation.

Q120. What are the requirements of the room specified for taking Nasopharyngeal swabs within the hospital?

A120. The following must be available:

- Door must be firmly closed.
- All the required PPE are available (Refer to answer no.39).
- The floor is made of a cleanable material (e.g., vinyl) and without cracks.
- Furniture is preferably made of stainless steel or any other material that can be easily cleaned and disinfected (furniture made of wood or fabric is not acceptable).
- Hand hygiene supplies are readily available: hand wash sink, soap dispenser, and paper tissue and/or approved alcohol-based hand rub dispenser.
- Environmental disinfectants that are approved by MOH to be used after each patient. (Refer to answer no.134)
- The medical waste container that should be in a good condition, securely closed with foot operated lid to be opened only when needed, and it contains a yellow waste bag with a biological hazard sign on it.

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Ministry of Health

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- Environmental disinfectants that are approved by MOH to be used after each patient. (Refer to answer no.134)
- The medical waste container that should be in a good condition, securely closed with foot operated lid to be opened only when needed, and it contains a yellow waste bag with a biological hazard sign on it.

Q121. What are the requirements of the room specified for taking Nasopharyngeal swabs within the quarantine?

A121. It should be well-ventilated, airtight, with the least possible furniture that can be easily cleaned and disinfected with approved disinfectants, preferably free of carpet, … etc.

(Refer to answer no. 68)

Q122. Is it possible to take Nasopharyngeal swabs within the same room of stable patient?

A122. It is preferable to allocate definite room that fulfills all requirements to take all Nasopharyngeal swabs.

Q123. Is it possible to use the Rapid Test for COVID19- during the comprehensive scanning to determine the categories from which PCR samples should be taken?

A123. The efficiency and sensitivity of the Rapid Test for COVID-19 have not been established or approved yet by the relevant authorities, Command & Control Center (CCC) and Saudi CDC.

Q124. Is it possible to take a Nasopharyngeal swab from a healthcare provider who was a high-risk contact of a confirmed COVID19- case three days ago?

A124. Yes, this is possible, but the most important point is that 24 hours have passed since contact, so that the test becomes sensitive to detect infection with the virus.

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Q125. Is there a priority for certain categories or people to take samples from?

A125. Yes, priorities must be set to take samples according to risk assessment, as follows:

High priority:

- Hospitalized patients who have symptoms.
- Healthcare workers within the healthcare facility or nursing homes who have symptoms.
- Residents of long-term care facilities who have symptoms.
- Dialysis patients who have symptoms.

Priority:

- Dialysis patients who have close contact with a confirmed case.
- Residents of long-term care facilities and nursing homes, when they come in contact with confirmed cases.
- People who have close contact with a confirmed case.
- People with symptoms suggestive of Covid-19
- People without symptoms who have been given priority by public health departments or physicians, for any reason.
- The housing of workers in the healthcare field, according to the specific plans recommended by the concerned authorities.

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Serological Tests

Q126. Is rapid serological test for COVID-19 testing can be used for diagnosis of Covid-19 acute infection?

A126. No, positive test does not indicate acute infection, but rather mean exposure to the virus either recent or remote.

Q127. Is the validity of rapid serological tests for COVID-19 testing is 100 percent?

A127. Detected antibiotics does not confirm or exclude infection as it may be negative in despite infection if performed shortly after infection. Also, if may be positive despite no infection if there is cross matching with antibodies for other corona virus group. In addition, different available tests differ in their sensitivity and specificity and so only FDA approved tests are used to yield more valid results.

Q128. What is the value of rapid serological tests for COVID-19 testing?

A128. The use of highly efficient tests helps to detect the immune response of the individuals and the community against the Novel corona virus. Follow-up to these tests at intervals also helps in studying the development of community immunity against the virus and determining the survival periods of these protecting antibodies, which reflects the possibility of re- infection.

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DRIVE-THROUGH STATIONS for COVID-19 Mass Testing

Q129. Regarding DRIVE-THROUGH STATIONS for COVID-19 mass testing, is it required to take weekly nasopharyngeal swabs to examine HCWs responsible for taking samples and ensure that they are not infected with COVID-19 virus?

A129. The risk criteria should be applied according to the updated guideline for “Management of Healthcare Workers Exposed to COVID-19”.
HCWs should be continuously monitored, by themselves and also by supervisor(s), in anticipation of appearance of respiratory symptoms (high fever - shortness of breath - cough) and once any of these symptoms appears, a sample from symptomatic HCW should be taken in addition to his/her restriction from work until he is cured.

Q130. In DRIVE-THROUGH STATIONS for COVID-19 mass testing, is it necessary to remove all personal protective equipment and wear new ones with each case?

A130. There is no need to remove and replace all personal protective equipment PPE with every case, except the gloves, which must be removed after each case in addition to performing hand antisepsis with alcohol-based hand rub before wearing the new gloves to take the next sample. When other PPE become visibly contaminated with the patient’s secretions, they must be completely replaced before continuing work (i.e., high-efficiency respirator, the isolation gown, and face shield or goggles).

Q131. Is it required to use portable HEPA filter devices in DRIVE-THROUGH STATIONS for COVID-19 mass testing to prevent transmission of COVID-19 infection?

A131. There is no need to use portable HEPA filter devices, as the sampling takes place in an open area that is naturally ventilated with continuous, changeable and fresh air currents.

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Q132. Sometimes there is shortage of high efficiency respirators in DRIVE-THROUGH STATIONS for COVID-19 mass testing, should we stop sampling in order to ensure that responsible teams are not exposed to the risk of COVID-19 infection?

A132. With the use of regular surgical mask in addition to the face shield, teams can continue to take samples in DRIVE-THROUGH STATIONS as usual.

Q133. Does COVID-19 sampling in DRIVE-THROUGH STATIONS represent more risk for teams responsible for taking samples, as the number of samples is very large compared with those taken in healthcare facilities?

A133. Certainly not, as the sampling takes place in an open area that is naturally ventilated with continuous and fresh air currents.
With proper use of personal protective equipment and strict adherence to hand hygiene, the risk of COVID-19 sampling becomes low for teams in DRIVE-THROUGH STATIONS and HCWs in healthcare facilities.

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Environmental Cleaning & Disinfection

Q134. What are the disinfectants required to be used for the rooms of patients suspected or confirmed for COVID-19 infection?

A134. Common approved environmental disinfectants should be used (depending on compatibility & availability):

- Quaternary ammonium compounds wipes.
- Quad ammonium compounds sprays.
- Concentrated quaternary ammonium compounds to be diluted according to the manufacturer's recommendations.
- Alcohol swabs.
- Chlorhexidine swabs.
- Freshly diluted sodium hypochlorite solution (%5 household bleach) to get a minimal concentration of 5000 pp

Q135. Does COVID-19 virus remain viable on environmental surfaces for long periods up to several weeks?

A135. According to the available published studies, COVID-19 virus remains viable on environmental surfaces that have not been cleaned from several hours up to 3 days as a maximum.

There are many factors that affect the survival of the virus such as temperature, humidity, porosity of the surface, … etc. Therefore, care should be taken to clean the environmental surfaces periodically.

Q136. Can COVID-19 virus be detected for a long time in the air of the isolation room after patient's discharge, (i.e., the room must be closed and not used for at least three days after the patient© discharge)?

A136. No, this is incorrect, as according to all approved references, the COVID-19 virus is transmitted by droplets not by airborne route, and droplets fall within a distance of only one meter from the patient and it does not remain suspended in the air of the room at all.

Therefore, terminal cleaning and disinfection of the environmental surfaces is quite enough and immediately afterwards the room can be reused.

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Q137. Should environmental samples be taken from the COVID-19 infected patient's room after discharge and carrying out terminal cleaning and disinfection to ensure that the room is free from the virus and safe?

A137. No, it is strictly prohibited (there are no scientific recommendations to support this claim).

Q138. Should modern technologies such as hydrogen peroxide fogging devices or ultraviolet disinfection devices be used for comprehensive terminal disinfection of the isolation rooms for suspected or confirmed COVID-19 patients after their discharge?

A138. If these modern devices are available, it is preferred to use them for comprehensive terminal disinfection of patients' isolation rooms. In absence of these recent technologies, it is possible to use manual techniques for efficient and effective terminal disinfection by using the MOH approved environmental detergents and disinfectants.

Q139. How can the residence rooms (quarantine) be disinfected after discharge of asymptomatic cases positive for COVID-19 virus?

A139. Use the approved environmental disinfectants. (Refer to answer 134)

Q140. Is it possible to admit confirmed COVID-19 patient in the same room of a previous confirmed COVID-19 patient without performing terminal disinfection of the room?

A140. Yes, this is possible and helps in saving resources. It is quite sufficient to carry out regular cleaning and disinfection with special care to frequently touched surfaces, provided that the previous patient didn't have another infectious disease.

Q141. Is there any special precaution for handling laundry and textiles from rooms of patients suspected or confirmed for COVID-19 infection, assuming that it's highly contagious?

A141. Laundry and textiles from rooms of patients suspected or confirmed for COVID-19 infection are handled as usual in the healthcare facility's laundry (standard handling of health-care textiles).

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Q142. Can we use the same transportation method or tool to transport confirmed and suspected cases?

A142. It is preferable to have special transportation method or tool for confirmed positive patients and another one for suspected cases.

Q143. How to clean and disinfect the means of transportation those are used to transport suspected or confirmed cases?

A143. It is preferable to clean and disinfect them with approved disinfectants with special care to high contact areas and frequently touched surfaces without need for terminal disinfection.

Q144. Is there a special treatment for furniture, rugs, and environmental surfaces in the room of a suspected or confirmed COVID-19 patient in the quarantine?

A144. Carpet, furniture, and environmental surfaces in the room of a suspected or confirmed COVID19- patient in the quarantine are treated with the same methods of cleaning and disinfection of home isolation room. So, freshly prepared sodium hypochlorite compounds (household bleach) (at least 1000 ppm of sodium hypochlorite) could be used if this is suitable for the environmental surfaces to be used with, taking in consideration contact time of at least one minute, and a good ventilation throughout the cleaning process. It is prohibited to mix the household bleach with any other compounds, detergents, or antiseptics, the dilution method for the sodium hypochlorite solution (5tablespoons (3/1 cup) solution of household chlorine per gallon of water (3.8 liters).
Approved disinfectants to be used:

- Household bleach with the right dilution and contact time.
- Quaternary ammonium compounds in the form of sprays or swabs.
- %70 concentrated Alcohol in the form of sprays or swabs.

Q145. Is the COVID-19 virus highly resistant to disinfectants and needs to use high-level disinfectants to eliminate it?

A145. This is not true. COVID-19 virus is an enveloped virus and is easy to be eliminated with low or medium level disinfectants. There is no need to use high-level disinfectants.

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Ministry of Health

Q146. How can we clean the clinics such as Dental clinic, x-rays, etc.?

A 155. General rules:

- Floors must be cleaned daily at the beginning and at the end of each shift.
- Clean the walls and ceilings once every week or month according to the internal policy of the health facility in accordance with the pressure of work.
- Beds, work surfaces, and equipment are cleaned after work is completed.
- In case of contamination and visible dirt during work, immediate cleaning and disinfection must be done.
- The materials used for cleaning and disinfection must be approved by the Ministry of Health, which include:
    - Alcohol %90-70
    - Chlorhexidine with alcohol
    - Quaternary ammonium compound wipes or sprays
    - Newly diluted sodium hypochlorite solution 1000 ppm
    - Liquid quaternary ammonium compounds
- Correct contact time and concentration must be followed.
- Cleaning the Environmental surfaces is as important as disinfection and it must be done first.
- Beds, work surfaces, and equipment are cleaned after work is completed.
- Instruments and equipment can be reused after cleaning and disinfecting them using disinfectants approved by MOH, taking in consideration the manufacturer's recommendations.
- It is necessary to have blood and body fluids spill kits available in all departments, all staff should be trained on how to use it.
- Cleaning is done from clean to dirty surfaces and from high to low points.
- Gloves should be worn by housekeeper while carrying out the cleaning process. If there is a risk of splashing, eye protection, clean gown and surgical mask should be used. Hand hygiene should be done after finishing the cleaning process and removal of personal protective equipment.

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Q147. Do we need to handle the medical waste coming from COVID-19 patients differently or do additional disinfection to it?

A156. There is no difference in handling of medical waste coming from COVID19- patients or others. According to CDC management of laundry, food service utensils, and medical waste should be performed in accordance with routine procedures. There is no evidence to suggest that facility waste needs any additional disinfection.

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Ministry of Health

Housekeepers

Q148. How many housekeepers are considered enough in the facility?

A148. Work is done by the lowest possible number, by dividing staff into two groups, each group is responsible for a certain period of time (14 days) and is separated in housing from the other groups, and ensured that each group is divided within the hospital into a team responsible for suspected and confirmed cases areas, and a team for general and administrative departments.

Q149. Is it acceptable to have housekeepers in the facilities throughout the day?

A149. It is unacceptable, that is to limit their movement within the facility and thus reducing the possibility of transmission of infection through them and to them.

Q150.Does the universal masking policy apply to housekeepers?

A150. Yes, they are like any other healthcare worker, they might get exposed to the infected patients and their secretions.

Q151. Regarding infection control what are the topics that the housekeepers should be trained for?

- Hand cleaning and disinfection.
- The proper way of wearing and removing personal protective equipment (either theoretical or by using videos so that resources are not consumed)
- The proper method of cleaning and the proper use of different types of disinfectants in terms of method of dilution, and the contact time during which they must remain on the surface according to the manufacturer's instructions.
- Using cleaning tools in the correct way and how to clean and dry them after use.
- Daily follow-up to record the temperature and any symptoms before and after each shift.

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Q152. Which surfaces are required to be cleaned by the housekeeper in the patient room?

A152. Floor, lower part of the bed, bathroom, walls, plugs, door handle, windows, chairs, telephone, tables, television and remote control.

Q153. What are the requirements for the equipment and materials used for cleaning?

- Using the materials properly in terms of their type, how to dilute them, and how long they should remain on the surface.
- Using cleaning tools in the proper way and clean and dry them after every use.
- Dedicating different cleaning tools for each ward (suspicious wards, positive cases wards, other wards).
- Providing enough cleaning tools according to the workload.

Q154. What are the important precautions to be followed while cleaning the departments that contain suspected and confirmed cases?

- A dedicated team should be assigned to work in these wards so that they do not have any duty in any of the other departments.
- Ensure that the housekeepers of the ward are well trained.
- Adherence to hand hygiene and the proper use of personal protective equipment.
- Exclude those who do not follow the right precautions and the required instructions.
- Cleaning the whole ward completely at the same time.
- Leaving the ward as soon as the cleaning process is completed.
- The head nurse should supervise the cleaning process in the ward.

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Q155. What is required from the company responsible for the housekeepers?

- Separating the two groups into two different accommodations and different means of transportation.
- Not to employ housekeepers in any other facility, so that work is committed to the same hospital (no rotation of housekeepers).
- Ensure that housekeepers do not leave their accommodation (the company should fulfil their needs).
- Providing a separate and private place to isolate suspected and confirmed cases.
- Implementing the worker's accommodation health requirements guidelines to combat COVID-19 disease issued by the National Centre for Disease Prevention and Control (Weqaya).
- Adherence to the schedule for the attendance of the housekeepers and the time within which they must stay in the hospital.

Q156. When to take swabs for the housekeeper?

- When there are symptoms.
- When there is an approved plan from the concerned departments.

Q157.What are the precautions that should be followed by hospital housekeepers?

- Adherence to social distance whether in the hospital, transportation or housing.
- Adherence to universal masking.
- Measuring the temperature and report any symptoms before and after each shift.
- Reporting if he has contacted any symptomatic person.
- Not staying in the hospital after work.
- Hand washing and disinfection.
- Proper wearing and removing of personal protective equipment.
- Using cleaning materials properly.
- Use cleaning tools properly and pay attention to washing and drying them after each use.

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Infection Control Precautions in the Dental Clinics Department

Q158. What personal protective equipment should be worn when providing urgent dental care to a suspected or confirmed Covid-19 patient at the dental clinic?

A159. Aerosol generating procedures are any procedure that have the potential to aerosolized saliva or secretion from the patient's mouth, for example dental cleaning using ultrasonic scaler, dental fillings using a high-speed hand piece and many periodontics or oral surgeries. Try to avoid AGPs as much as possible, but in case of necessity the rubber dam is used Inside the patient's mouth with a highly volume evacuator in addition to the personal protective equipment necessarily for air borne precaution.

Q160. Since the dentist is always physically close to the patient, do I need to wear a high-efficient respirator all the time during my work in the dental clinic?

A160. No, the high-efficient respirator is only worn during aerosol-generating procedures, otherwise, the surgical mask is enough. Refer to policy of extended use of the High-Efficient Respirators and the universal masking policy to apply it in your health care facility.

Q 161. If the patient appears to be in a good health condition and does not have any respiratory or COVID-19 suggested symptoms, can this patient consider as not having COVID-19?

A161. No, it is possible that the person is infected with no symptoms during the incubation period, so we should deal with all patients carefully and use the standard or transmission-based precautions according to the procedure done for the patient.

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Q162. Why not to continue closing dental clinics and only treat urgent conditions until the end of the COVID-19 pandemic?

A162. Many simple preventive measures or early decay will have future complications if not treated and may turn into emergency cases later, or their treatment may become more difficult with the associated increase cost of treatment for the patient and facility.

Q 163. What are precautions that must be done before starting to receive patients in dental clinics?

A163. The facility should ensure that the preventive measures are applied according to the guidelines released by the General directorate of Dental Services , such as training all health care workers on infection control measures, the availability of hand-hygiene materials and personal protective equipment in sufficient quantities and training the health care workers on the correct way of use, also they must reduce the number of the health care workers in the facility for the fewest number possible with dividing them into shifts according to the need.

Q164. What are the precautions that we should take during work?

A164. HCWs must adhere to the universal masking policy, patients must wear the cloth mask within the facility. Daily active follow up for respiratory symptoms and temperature for both healthcare workers and patients, encourage applying the cough etiquette, social distancing, and prevent any gatherings between the HCWs within the facility. It is important to record the contact numbers for all patients to facilitate contacting them if there is any confirmed COVID-19 case reported.

Q165. The waiting room for dental clinics is always crowded and may cause transmitting the infection between patients. How can this be avoided?

A165. Care must be taken to prevent overcrowding in the waiting room as much as possible, and this can be done by coordinating between clinics in scheduling patients appointments, asking the patient to come at the exact time of his appointment, or waiting inside the car until he is called by phone. The waiting room should meet the following requirements to prevent infection transmission, there should be a distance of one and a half meters at least between each chair and the other, everything inside are easy to be cleaned and regular cleaning and disinfection of the room must be done.

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Q166. On what base are the dental team selected during COVID-19 pandemic?

A166. It is better that the HCWs are in a good health condition, so avoid old age HCWs and the ones suffering from any chronic diseases as much as possible, Also, it is possible to assign recovered COVID-19 HCWs who developed some immunity to provide dental care.

Q167. When can we schedule suspected COVID-19 patients?

A167. It is prohibited to treat suspected or confirmed COVID 19 patients in the regular dental clinics and should be referred to the designated centers or hospitals for COVID 19 patients.

Q168. How to identify patients suspected for COVID 19 before entering the dental clinic?

A168. By triaging all patients before they come to the dental clinic, either by using self-evaluation through MOH application “appointment” or telephone contact before the patient visit and make sure there are no symptoms. Triaging must be registered in the patient's file and done by the dentist himself in the clinic by asking the patient about the presence of any respiratory symptoms and if he was exposed to any positive case, or he was working or visiting a health care facility where there are positive cases.

Q169. Is there a protocol for dealing with patient's companions in the dental clinic, specially that their presence may pose a risk of transmitting or gaining infection to or from others?

A169. It is strictly forbidden to allow anyone accompanying the patient to enter the facility, except for the utmost necessity, such as those accompanying children or those with special needs, and they are not allowed to be inside the dental clinic.

Q170. How can we deal with a patient that has respiratory symptoms or high temperature, or any other symptoms associated with COVID-19?

A170. Give him a surgical mask, then call 937 and refer the patient to the nearest health facility for medical evaluation of the case or according to the MOH approved protocol to deal with the suspected cases.

Q171. Are there any additional precautions that must be taken while preparing the dental clinic between patients during the COVID 19 pandemic?

A171. Routine cleaning and disinfection procedures using the disinfectants and materials approved by the MOH according to the type of surfaces to be cleaned. You should focus on cleaning and disinfecting the high and most frequently touched areas such as the patient clinical area, doorknob, chairs, elevator buttons, etc. and assign a trained person to supervise the cleaning process. Single-use materials should be used between patients, such as disposable mouth mirror. (Refer to Answer No. 146)

Q172. How can we reduce the exposure to patient's fluids or secretions while providing dental care in a dental clinic?

A172. There are many instructions and advices mentioned in the guidelines released by the general directorate of dental services, for example:

- Use extra oral radiographic films instead of the intra oral one.
- Use of rubber dam inside the patient's mouth.
- Use of high-speed suction devices.
- Use of liquid absorbent materials such as sterile cotton or gauze.
- Use the manual filling or scaling tools instead of high-speed hand pieces or ultrasound scaler.

Q173. Is it recommended to use the mouth rinse for the patient before visiting the dental clinic?

A173. Yes, as the COVID 19 virus is vulnerable to oxidation, a rinse containing oxidizing agents such as povidin %0.2 is used to reduce the amount of microbes in the saliva.

Q174. A patient complains of only elevated temperature with dental pain, can he be considered suspected COVID 19 patient?

A174. It is very important to accurately diagnose the patient's condition. Some dental emergencies may be associated with high temperature and it can be treated in the dental clinic. The case suspicion is done by applying the definition and the epidemiological link according to the guidelines released by Saudi CDC.

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Infection Control Precautions in Radiology Department

Q175. In case that there is a need to use a portable x-ray device for isolation cases for patients outside the isolation wards (ICU patients - emergency), what are the preventive measures that must be taken to prevent the transmission of infection?

A175. It is preferable to dedicate a portable x-ray device for the cases in the isolated word, but in case that it is necessary to use it outside the isolation wards, the device and its accessories must be treated as a contaminated environmental surface, the cleaning and disinfection process must be done by using MOH approved hospital disinfectant so that the device is not a source of transmission of infection, the cleaning and disinfection process must be in accordance with the recommendations of the device manufacturer, it is considered a routine after every use within the isolation wards.

Q176. In case that a portable X- ray device was used with a COVID-19 isolated patient, how long should the device be kept before reusing it for patients outside the isolation wards?

A176. There is no specific period, but it is the period during which the cleaning and disinfection process of the device is completed in accordance with the approved environmental cleaning and disinfection policy.

Q177. Can a bearded staff take an X-ray for an isolated patient if the Positive Pressure Air Purifying Respirator (PAPR) is not available?

A177. There is no need to wear PAPR for the bearded staff during X-ray with confirmed or suspected cases, only a surgical mask with face shield is enough.

Q178. When should the x-ray examiner wear personal protective equipment?

A178. Personal protective equipment should be worn by the X-ray examiners when conducting the examination for a patient under isolation precautions, whether he is confirmed or suspected.

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Q179. What is the appropriate type of mask when dealing with a COVID-19 patient?

A179. The surgical mask should be used while performing an x-ray examination of a confirmed or suspected COVID-19 patient.

Q180. What are the required PPE for radiologist when performing an examination of a suspected or confirmed patient in the radiology department or with a portable X-ray device?

A180. The technician should wear surgical mask, face shield or eye googles, isolation gown, and clean nonsterile gloves while performing the X-ray for a suspected or confirmed patient either in radiology department or any other departments with a portable X-ray device.

Q181. Should we use a Medium or High-level disinfectant? Can we use Hypo sodium chloride tablet with water and let it react for a quarter of an hour then distribute it in a spray and use it?

A181. You should use a Medium level disinfectant. You can use either a quaternary ammonium compounds sprays or wipes, hydrogen peroxide sprays, or the freshly diluted household chlorine solution at a concentration of 100-1, taking into account the manufacturer's recommendations for disinfection of the devices.

Q182. What type of precautions should be followed (Droplet-Contact or Airborne- Contact)?

A182. When performing a radiological examination, Droplet and Contact precautions should be applied for Covid-19 confirmed or suspected patients.

Q183. What can we do in case of shortage of eye googles or the protective face shields, and we need to carry out an x-ray examination for COVID-19 infected patients?

A183. Upon entering the patient room, you should ask him to wear a regular surgical mask and maintain a distance of 2 meters at least if possible.

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Q184. Who is responsible for cleaning and disinfecting radiology rooms and devices?

- Housekeepers are responsible for cleaning and disinfection of radiology rooms after their training by the infection control department, this should be under the direct supervision of the supervisor of the radiology department.

- Cleaning and disinfection of all the equipment in the radiology department, whether inside the rooms or mobile equipment, is the responsibility of the radiology technicians after their training by the infection control department according to the instructions of the manufacturers of the devices.

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Infection Control Precautions in Dialysis Department

Q185. Is it necessary for all patients to pass through the respiratory triage station before allowed to enter the dialysis department?

A185. Yes, all dialysis patients must pass through the respiratory triage station before they enter the dialysis department to start the dialysis session.

Q186. Should the respiratory triage nurse be present at the respiratory triage station all the time?

A186. No, it is enough for the respiratory triage nurse to be present at the respiratory triage station only during the patients' arrival period.

Q187. What types of PPE the respiratory triage nurse should wear while at the triage station?

A187. The respiratory triage nurse must wear the surgical mask while at triage station during COVID-19 pandemic.

Q188. What should be done if a dialysis patient gets 4 or more score in the respiratory triage form?

A188. The patient is directed to the clinic to be examined by the doctor of the department to evaluate the case and take a sample if the suspicion is confirmed, the dialysis session is then done in the isolation room.

Q 189. What should be done if a patient treated in the dialysis department become positive for COVID-19?

A189. The patient should be admitted to the isolation department, carry out the dialysis sessions with portable machine (if available), and contact tracing of all patients and health care workers should be done, it include all patients and HCWs that have been in the department during dialysis session two days prior to the onset of his symptoms until the day the patient was isolated.

Q190. In light of the global spread of COVID-19, should any special preventive measures be implemented in the dialysis department?

A 190. All workers in the dialysis department must adhere to the policy of universal masking throughout the period of presence in the department, the patients (if possible) must wear a cloth or surgical mask and implement alcohol-based hand rubbing policy during the dialysis session.

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Infection Control Measures in the Lab

Q191. What is the biosafety level required for a laboratory designated to deal with testing samples for COVID-19?

A191. For the routine viral examination of samples, the required biosafety level is the second level, standard infection control precautions should be applied during staining, microscopic examination, bacterial culture examination, molecular analysis, and electron microscopic study.

Q192. Are there any special standards for handling medical waste in the COVID-19 Laboratory?

A192. There is no recommendation to apply special standards when dealing with medical waste, but rather the standards adopted according to the national waste program, there is no evidence to apply different measures.

Q193. Should Nasopharyngeal samples be handled in the second level safety cabinet? What could be done if it is not available?

A193. For procedures that have a high probability of generating aerosols, these procedures must be done in a certified Level II (Type A1 or A2) safety cabinet as a minimum, or applying additional precautions to provide a barrier between the sample and workers as PPE (Surgical mask, face shield) aerosol protector and safety cups with central centrifuge devices to reduce the risk of laboratory personnel being infected.

Q194. What are the ideal conditions for storing samples for analysis of the COVID-19?

A194. Storing samples at 2-8 ° C for up to 72 hours after being taken. If there is delay in processing, the samples should be stored at -70 ° C or less. The extracted nucleic acid samples should be stored at -70 ° C or less.

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Q195. How are the results of the COVID 19 samples reported and documented in HESN?

A 195. All accredited laboratories for testing the detection of Virus COVID-19 are obligated to inform public health platforms in Command And Control Centers when a positive result appears through the HESN portal, also send positive samples to the public health laboratory of the National Centre for Disease Prevention and Control, in order to conduct further tests whether the samples are from Ministry of Health hospitals or other non-MOH governmental hospitals from other sectors or hospitals belonging to the private sector.
Samples are stored at a temperature ranging from 2-8 ° C and shipped to the public health laboratory of the National Centre for Disease Prevention and Control in an ice box.

Q196. What are precautions to be followed when transferring samples to the laboratory in the healthcare facility?

- A trained staff should be assigned to transport samples, monitor safety procedures, and enhance precautionary measures to reduce the risk of contamination because of spillage or leakage of samples.
- All samples should be packed in leak-proof plastic bags specified for the transportation of infectious biological samples.
- Patient identification information should be written clearly on the basic collection package and a complete analysis request should be attached with it.

Q197. What are the environmental disinfectants to be used to clean the environmental surfaces in the COVID 19 virus testing laboratory and how to be used?

A197. Environmental surfaces are disinfected in the laboratory by wiping them using MOH approved disinfectants by the Ministry of Health (quaternary ammonium compounds spray - hydrogen peroxide sprays - sodium hypochlorite solution freshly diluted at a concentration of 1000 ppm). The contact time, concentration, and manufacturer's recommendations should also be considered when disinfecting laboratory equipment.

(Refer to answer no. 146)

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Q199. What is the protocol for handling samples from patients suspected of COVID-19 infection?

- All samples collected should be treated as if they have the risk of transmission of infection.
- Health care workers should adhere to the basic standards for infection prevention and control during collection and transporting of samples to reduce the risk of infection.
- Health care workers should wear personal protective equipment while collecting samples, including wearing goggles, masks, long-sleeved gowns and gloves.
- Health care workers should wear highly effective respiratory masks in addition to the personal protective equipment mentioned in the previous statement when collecting respiratory samples under aerosol generating procedures.
- Assign trained staff to transport samples, monitor safety procedures, and enhance precautionary measures to reduce the risk of contamination because of spillage or leakage of samples.

Q200. What is the difference between airborne transmission and droplet transmission?

- Aerosols are small liquid particles suspended in the air that contain infectious agents. It can spread throughout the laboratory and remain infectious over time and distance. These particles have a size that can be inhaled in the lower respiratory system, 5 microns in diameter or less, and spread over great distances due to their light weight. Examples of organisms that are transmitted by air borne transmission or aerosols: Aspergillus spores, Tuberculosis bacteria, Airborne viruses such as measles and chickenpox.
- Droplets are particles greater than 5 microns in diameter and do not remain suspended in the air for a long time as well as do not spread over long distances but fall quickly from the air and contaminate nearby surfaces, gloves and mucous membranes of the people who perform the procedure. Examples of infectious agents that travel through droplets include bacteria that cause whooping cough and meningitis, influenza viruses, and coronaviruses, including the COVID 19 virus.

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Q201. What are the procedures to be followed when dealing with respiratory or spillable samples?

A201. Strict adherence to hand hygiene and wearing proper PPE, also work within the safety cabinet according to the approved protocol, validation of safety cabinet should be done and valid certificates proving the efficiency of its work must be available.

Q202. Is the lab coat considered protective while working in the laboratory?

A202. The lab coat is not considered a substitute for the use of PPE, you should wear fluid resistance gown during work, as lab coats can be a source of transmission of infection if the lab technician goes out from the laboratory while wearing it and wanders around in the hospital, it is preferred to be washed in the hospital laundry and in case this is not possible It should be removed immediately upon leaving the laboratory and the health facility.

Q203. How can I protect myself against transmission of infections from environmental surfaces in the laboratory?

A203. It is necessary to adhere to the infection control precautions, starting with disinfection of work surfaces before starting and after completion of work, immediately after any spills or contamination on the surfaces using MOH approved disinfectants with adherence to the manufacturer's instructions in terms of use, dilution and the contact time.

Q204. I work as a laboratory technician, so how can I protect myself and my family from any infection that can be transmitted to me?

A204. Adherence to the laboratory's infection control policies and procedures such as:

- Adhere to Hand hygiene and appropriate use of personal protective equipment when exposed to blood and body fluids.
- Do not wear personal belongings while working, such as accessories, rings, watches etc.
- Allocate a special work uniform and change it before leaving the laboratory, such as (Niqab - Hijab - Lab Coat) and perform proper hand hygiene.

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Q205. What type of mask is required from the lab technician to wear when dealing with samples of COVID-19 patients or suspected ones?

A205. It is known that the virus is transmitted by Droplet, so the use of a surgical mask considered enough. It is not recommended to use a highly efficient respiratory respirator except in case of an aerosol generating procedures.

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Infection Control Precautions in Long Term Care Facilities

Q206. Is there a risk of COVID-19 transmission within rehabilitation centers and extended care facilities?

A206. In fact, the risk of transmission of infection within rehabilitation centers and extended care facilities increases as a result of the nature of patients inside these facilities, as well as sharing many activities, in addition to the fact that a large percentage of them are elderly people, associated with a lack of immunity against diseases.

Q207. What is the importance of having an infection control specialist inside rehabilitation centers and extended care facilities during the spread of COVID 19 infection?

A207. Infection control specialist responsibilities in rehabilitation centers and extended care facilities are:

- Educate health workers about the disease, mode of transmission and how to prevent its transmission by applying standard and isolation precautions.
- Educate all residents about the nature of the disease, how it is spreads and ways to prevent transmission of the disease.
- Monitor implementation of infection control precautions and HCWs compliance.
- Supervising the provision and use of infection control supplies.
- Developing a protocol for dealing with patients suspected or confirmed COVID- 19 inside the facility.
- Epidemiological investigation and identification of contacts of the confirmed cases.

Q208. How can social distancing be achieved within rehabilitation centers and extended care facilities?

- Restricting visits inside the facility to emergency cases that cannot be prevented, the necessary precautions should be applied.
- Prevent group activities and gatherings weather between residents or HCWs.
- Educating residents on the importance of social distancing and ensuring that hand hygiene is applied.
- The inmates must stay at their rooms, especially in case of presence of suspected or confirmed cases. In the event of extreme necessity and the need to leave the room, the surgical mask should be worn.
- Remind HCWs to keep a safe distance with colleagues in their own areas, and universal masking policy must be followed.
- Reduce the number of employees in the facility and volunteers as necessary only.
- Using the means of remote communication (if possible) to provide some services and consultations.
- Use educational means that can be understood and applied by residents.

Q209. Are visits allowed in rehabilitation centers and extended care facilities?

A209. In light of the prevalence of COVID-19 infection, visits to inmates are restricted to emergency cases only, which cannot be prevented, and the necessary precautions should be applied. It is possible to use online applications so that residents can communicate with their relatives.

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Q210. What precautions should be taken if it is necessary to allow visit to a resident in rehabilitation centers and extended care facilities?

- Triaging is done at the facility entrance for all visitors to ensure that there are no suspected symptoms or any risk factors.
- The visitor must wear a cloth face mask, if it was not with him, he will be given a surgical mask.
- In case of no suspicion, the visitor is allowed to go directly to the patient's room and then leave the center immediately after the visit.
- Only one visitor can enter the patient's room, and that is to maintain the safe distance.
- Give instructions to the visitor on how to disinfect the hands, how to wear personal protective equipment and avoid contact with the patient or environmental surfaces inside the patient's room.

Q211. How is monitoring of residents done in rehabilitation centers and extended care facilities?

A211. By examining all new residents before entering the center, as well as all residents daily, for any symptoms of suspected COVID-19 as high temperature and respiratory symptoms, and it is carried out by nurses or nursing assistants and documented in the resident file daily.

Q212. What are the isolation precautions for patients with COVID-19 infection?

A212. The patient is isolated inside a well-ventilated single room under contact and droplet isolation precautions. In the case of an aerosol generating procedure, airborne isolation precautions should be applied. If single room not available, they can be cohorted together in one room, but it should only be for positive COVID-19 cases.

Q213. How is monitoring done for workers inside rehabilitation centers and extended care facilities?

- Examine all workers daily before and after starting the shift to check for any suspected symptoms.
- In case of suspecting a HCW, infection control department is informed immediately, a sample is taken to confirm COVID-19 infection and the employee is restricted from work until the result of the sample is received.

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Q214. What precautions should health care workers follow?

- Strict adherence to hand hygiene.
- Implementation of the universal surgical mask policy.
- Implement the social distance policy and prevent any gatherings.
- Apply cough etiquette policy.
- He/she Should not work in more than one health facility.
- Report when there are any symptoms and record the symptoms daily.

Q215. What precautions do residents have to follow?

- Strict adherence to practice hand hygiene.
- Implementation of the universal masking policy either use cloth or surgical mask.
- Implement a social distance policy and prevent any gatherings.
- Commitment to stay in the room, except in the necessary cases and precautions must be followed.
- Communicate with family members and friends through electronic devices and applications.
- Implement cough etiquette policy.

Q216. Where could the positive cases be isolated in case of COVID-19 outbreak in the center?

A216. Confirmed COVID19- cases should be isolated in an area or department assigned to positive cases only, it should be separate from the rest of the residents and allocating health care workers assigned to them, they must be closely monitored and transferred to the hospital if necessary.

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Infection Prevention and Control for the Deceased of COVID-19

Q217. For those working in the departments of Mortuary and those who are responsible for autopsy or for preparing the deceased for burial, what are the most important precautions that must be taken to prevent infection with COVID-19?

A217. The following precautions should be applied:

- Hand hygiene.
- Safe use of personal protective equipment, with an emphasis on isolation precautions with the bodies of deceased patients.
- Follow infection control precautions in terms of safe handling of sharp objects, cleaning and disinfection of the environmental surfaces, and dealing with contaminated linen and medical waste in a safe manner.
- Transfer the body from the internal department using a body bag and a card showing the type of infection and the precautions required to deal with the body.
- The body is prepared inside the Mortuary of the health facility if available, but if not, then it should be prepared at the public health care facility for cadaver preparation, and it is strictly prohibited to deliver the deceased to his family.
- The body is prepared by well-trained workers under infection control precautions.
- Body washers should wear the following protective equipment: a medical mask, protective face shield, regular single-use gloves, single-use gown with long-sleeves, with a commitment to wear and remove them in accordance with infection control guidelines and washing hands before and after wearing it.
- It is strictly forbidden to eat food or drinks inside the washing rooms.
- Avoiding contact with the face or mucous membranes of the eyes or nose during work.
- The body should be washed with great care and avoiding the splash of liquids.
- The used equipment should be cleaned and disinfected after the washing is done.
- Prevent the relatives of the deceased from direct contact with the body, with the obligation to wear the recommended personal protective equipment.

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Q218. What are the procedures to be followed in the event of a rupture of the body bag, or leaks of infectious liquids outside the bag?

A218. The body bag that is torn or that has leaked infectious liquids through it must be placed inside another bag, it should be lined with a one-time absorbent material, to absorb any leaking liquids.

Q219. Why should the Mortuary departments and those responsible for washing the deceased and preparing them for burial be informed of the infectious condition of the deceased?

- In order to coordinate the transfer of the body as soon as possible to the department and enter it directly into a mortuary refrigerator (taking into consideration choosing the appropriate pathway, safe time and the correct method to complete the transfer process).
- To ensure that all necessary precautions are applied (follow the standard + contact and droplet isolation precautions).

Q 220. Can the body of the deceased with Covid-19 be transferred home or handed over to his relatives?

- It is strictly forbidden to transport the body of the deceased with COVID-19 to the home or handed over to his relatives.
- The deceased body is prepared to be buried in one of the equipped washing facilities in an MOH health care facility.
- In the absence of a hospital washing facility, the body can be transferred to the public one (belonging to the secretariats of the Ministry of Municipal and Rural Affairs), provided that the workers are well trained to deal with the bodies of the deceased with infectious diseases.

Q 221. How can the medical or non-medical staff be alerted to the deceased© infectious condition during the transportation, preparation, and burial procedures?

- Place a " risk to health" card directly on the wrist and ankle of the deceased.
- Place the "risk of infection" card in the pocket designated on the outside of the body bag to facilitate identification of the infectious condition of the deceased by medical and non-medical staff.
- If two bags are used to store the body, a "risk of infection" card should be placed in the pocket designated on the outside of the outer body bag.

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Q 222. What precautions should be applied to the relatives of the deceased with COVID-19?

- It is strictly prohibited to come into direct contact with the body, such as kissing or touching.
- The number of relatives wishing to view the body should be kept to the minimum, and should wear the necessary personal protective equipment, and keep them at a distance of not less than one meter from the body.
- The required protective equipment for the people wishing to view the body are: gloves, a single-use fluid impermeable plastic apron, long-sleeved gown, face mask, goggles or a face shield.

Q223. What to do with the suspected or confirmed COVID-19 deceased personal things?

- If they are not of value as normal clothes, they are considered consumed and disposed of as medical waste.
- If the belongings are precious, such as jewelry and cash, they should be disinfected before they are delivered to the relatives, with an approved MOH disinfectant.

Q224. Why should autopsy of suspected or confirmed COVID-19 done using high-efficiency respirator instead of a regular medical mask?

- A fit tested highly efficient respirator (to know the right size), should be worn as autopsy might generate aerosols.
- It is also necessary to make sure at each use that the highly efficient respirator is firmly attached to the face by performing a seal check to ensure that the breathing process is done only through the mask.

Q225. Is it possible to get COVID-19 infection from a dead body?

A225. According to WHO, to date there is no evidence of persons having become infected from exposure to the bodies of persons who died from COVID-19.

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