DIAVERUM

COVID-19 Contingency Plan

Policies and procedures
January 2021

Table of contents

Legal disclaimer

Dear reader,

Almost a year since it started, the COVID-19 pandemic continues to impact communities around the world, with new variants of the virus spreading faster than ever before.

Conscious of the potential consequences of COVID-19 for chronic kidney patients and our people, we started taking precautions early. In January 2020 and almost two months before the World Health Organisation declared the pandemic, we issued our first policies to contain the SARS-CoV-2 contagion in our clinics. Shortly after, in February, we published our COVID-19 Contingency Plan, which was made available publicly on our website.

These early measures were effective in promoting the health and safety of our patients and staff and therefore minimised the impact of the disease on our organisation. They ensured operational continuity throughout 2020 while stablished consistency of care across our more than 400 clinics worldwide.

Since December 2020, with the development and approval of COVID-19 vaccines, our focus has now turned to:

1. Facilitating prompt vaccination of our patients and staff when that becomes available in their countries, across our clinics and offices
2. Continuing with strict adherence to our Contingency Plan to avoid contagion
3. Evolving the Staff 4 Life programme into a company-wide well-being strategy to address the impact of COVID-19 on our people in the short, mid and long terms

To deliver on that, we have recently issued new vaccination policies with a strong expectation and clear guidance on vaccination for chronic dialysis patients and frontline clinical staff respectively. Our Contingency Plan, which we share today with you, has also been updated according to these policies.

As renal patients – alongside other chronic diseases – are at greater risk of becoming seriously unwell, we are also working closely with national health systems around the world to make sure dialysis patients are assigned high priority for COVID-19 vaccination.

We want 2021 to be a brighter year for our patients, staff and communities. Our ambition is to have all patients and staff taking the vaccine when that's available for them. We can achieve that together by embracing vaccination to end the pandemic and protect ourselves, our families and communities.

Dr. Fernando Macário
Chief Medical Officer, Diaverum

COVID-19 Contingency Plan

A plan to ensure continuity and consistency of care for patients in a COVID-19 outbreak environment and a comprehensive 84 points checklist to track compliance

Incident team development

- Country supervisory team to deploy the plan
- Define workstreams' leaders
- Incident reporting and renal information system update

Clinic's capacity

Define maximum clinic's capacity determined by:

- Number of dialysis stations ensuring 2 m distance
- HR availability
- Isolate or cohort suspected patients
- Define different entry exit routes for COVID positive patients
- Cancel non essential services
- Extend waiting areas / tents
- Review transportation

Infection prevention & control

- General procedures / training
- Positive COVID-19 management
- Suspected COVID-19 management
- Terminal and general disinfection policies
- Exclusive staff top suspected or confirmed cases
- Lab specimens management
- Healthcare waste management
- Laundry management
- Patient and staff vaccination strategy

Case

Accurate triage system and patient management by:

- Triage early recognition and source control including digital screening tool
- Tele-triage
- Suspected patients isolation and testing
- New transport strategies
- Cases referral according to national guidelines
- Digitial self triage

Human resources

- Daily staff health assessment
- Priority testing policy
- Training in use of PPEs and contingency plan
- In clinic strict social distancing
- Absenteeism management

Communications

- Contingency plan policies communication
- COVID-19 communication policy

Logistics & supplies' mangmt.

- Grow stock of PPE and other material for significant period
- Continuous availability of lab tests
- Estimate consumption of essential equipment and shortage alert
- Corporate task force on supplies

Essential support services

- Define contingency transportation / designated ambulance teams
- Ensure appropriate back-up life line (water, power oxygen)

Novel Coronavirus (COVID-19) prevention and management

Date issued	Type of document	Document version
2020-01-31	Policy	003

Purpose

- To ensure that all measures are in place to prevent cross contamination of novel coronavirus infection to patients and all staff.
- To ensure an early identification/diagnosis of COVID-19 at first point of contact with Diaverum renal facilities.
- To ensure effective communication during the COVID-19 outbreak.

The policy

Patient Management

1. A triage area (must maintain a safe distance between patients, as guidance 4 metres^2 per patient) must be established and supported by trained staff. Triage form 648A must be used and kept
    - All patients should be assessed for signs and symptoms of COVID-19 infection including but not limited to:
        - Fever
        - Cough
        - Shortness of breath
    - Epidemiological risk
        - A travel history must be taken.
        - Any patients who have travelled to a country designated as a risk from World Health Organisation, within the last fourteen days, must be under close surveillance. Patients must wear a surgical mask before during and after the treatment, until at home
        - Any patient, who in the last 14 days before symptom onset had close contact with a person who is under investigation for COVID-19 infection, or a strong epidemiological link to high-risk country/regions, must be under close surveillance. Patients must wear a surgical mask before during and after the treatment, until at home.

2. All patients must have body temperature measured with a non-touch device, upon entering the clinic before entering the waiting room/area, during treatment and before disconnection. All members of staff and visitors must also have body temperature measured before entering the waiting area.

3. If patients have the above signs and symptoms, dialysis treatment must not be commenced without medical evaluation. The patient must wear a surgical mask and be isolated in an exclusive waiting and examination room until further medical decision. Staff contact should be limited to one nurse/doctor.

4. Staff that enters the isolation room to examine the patients must wear appropriate PPE for droplet and contact precautions (medical mask, eye protection, long sleeved gown and gloves). A new set of PPE is needed when care is given to a different patient.

5. Staff and patients must perform hand hygiene for the following points (but not limited to)
    - At entering and leaving the triage room
    - Before entering and after leaving the treatment area

6. Staff must in addition to the above point 5, must adhere to the 5 moments of hand hygiene.

7. Respiratory hygiene, must be practiced by all patients and staff (covering the mouth and nose during coughing and sneezing, using surgical mask or flexed elbow, followed by hand hygiene).

8. Any suspected cases must be referred to health care authorities, according to the specific country regulations.

9. Patients must be educated regarding, COVID-19 cross contamination risk and prevention, travel precautions (according to local country policy and procedures) and early signs and symptoms of COVID-19 infection (acute respiratory infection).

Staff Management

10. All staff must be trained regarding monitoring and surveillance of COVID-19 infection, including but not limited to:
    - Standard precautions, reinforcing hand hygiene and donning and doffing PPE
    - Control and prevention of airborne and droplet infectious disease transmission
    - Nebulised procedures should not be carried in treatment areas (if needed only if in dedicated areas)
    - Required communication and correct escalation in case of a suspected infection

11. All staff must be compliant with respiratory hygiene.

12. Staff are responsible to provide the required education to the patients.

13. Staff are responsible to self-report any signs and symptoms of acute respiratory disease.

Environment Management

14. Adequate ventilation should be available in all areas

15. Cleaning and disinfection procedures must be followed consistently and correctly, including high touch points (with Sodium Hypochlorite or other disinfectant recommended by local authorities).

16. Complete cleaning and disinfection of the isolation room must be carried out after each suspected patient.

17. Terminal disinfection (deep clean of all surfaces and equipment) must be carried out in case of a confirmed or suspected COVID-19 infection, after each patient.

18. Laundry from negative patients should follow safe routine procedures. Positive and/or suspected patient's laundry must be washed between 60°C – 90°C or above, after each session.

19. Food service- during the outbreak food and beverages must not be consumed during or after dialysis.

20. Best practices for safely managing health care waste must be followed, including assigning responsibility and sufficient human and material resources to dispose of such waste safely.

Contingency plan

21. Each country must develop and follow a contingency plan in line with this policy, corporate contingency policy, and country regulations that includes:

    - Information about infection and ways of transmission
    - Information about preventive measures for staff and patients/visitors
    - Compliance with Diaverum infection control policies
    - Supply chain continuity of relevant products and equipment
    - Responsible use of supplies
    - Continuity of care

- Information from the transport provider regarding precautions in place
- Strategy to dialyze COVID-19 positive and/or suspected patients in the clinic, if applicable.
- Staff management

Risk Communication

22. Any suspected or confirmed COVID-19, must be immediately reported to the Clinic Medical Director/Clinic Manager and subsequently reported directly to Country crisis team.

23. Country Medical Director must immediately report to the Chief Medical Officer.

24. The Chief Medical Officer will alert the COVID-19 Crisis Team and schedule a meeting (Crisis Team, Country Managing Director, Country Medical Director and Country Nursing Director) if required.

25. Country Management Team must ensure that country clinics are compliant with country regulations/directives, and contingency plan regarding COVID-19 management.

26. Country Management Team should if required, develop a country specific procedure compliant with country regulation and this policy.

Incident reporting and follow up

27. Management of COVID-19 incidents and patient status at clinic level
    - REGISTER AS SUSPECTED: Patient or staff with SYMPTOMS that suggests COVID AND TESTED
    - REGISTER AS CONFIRMED: Patient or staff that has been TESTED POSITIVE
    - NOT TO BE REGISTERED:
        - Patients or staff with NO SYMPTOMS but tested for screening
        - Patients or staff NOT TESTED

28. Incident Report status should be kept as “Pending” if no result and outcome is not known yet.

29. Incident report Disease information section, field “Recovered” must be updated accordingly.

30. Patient status should be always updated accordingly:
    - Active patient: “Admit Permanent”

- Hospitalization:
    - Event: Hospitalized/away and or active
- Treatment in hospital and but patient in ambulatory
    - Event: Leave Clinic Temporarily
- Death: Cause of Death; Detailed Cause of Death; Death Location of Death

31. Each country must designate a person to manage the A26 and B6 at country level.

32. All incidents must be followed up at country level in iRIMS: Medical reporting → Country Incident Follow-up. The following three questions/topics should be part of the country follow up (in English) and include in the comments:
    - Incident description
    - Patient treatment (in-clinic; in hospital: ward; ICU)
    - Epidemiologic risk assessment (number of "exposed" patients/ number of "exposed" staff)
    - Reported/notified to other stakeholders, as required (if yes, please list name(s), date, expected outcomes, e.g. family, national regulatory entities, etc.)
    - Support given to those affected (patient, families and staff)

33. In case of Death, incident form A26 or B6_Serious incident report must be sent to Corporate, within 24 hours after the incident.

34. The Country Medical Director and the Country Nursing Director are responsible for accurate and timely incident reporting.

References and links

Hospital Readiness Checklist for COVID-19. Interim Version, February 24, 2020 file:///C:/Users/spearsta/AppData/Local/Microsoft/Windows/INetCache/Content.Outlook/PO2IE4TM/WebPage.pdf;
Infection prevention and control during healthcare when novel coronavirus (COVID-19) infection suspected interim guidance: World Health Organisation January 2020 https://www.who.int/publications-detail/infection-prevention-and-control-during-health-care-when-novel-coronavirus-(COVID-19)-infection-is-suspected-20200125 ; accessed on February 27, 2020
Interim guidance for preventing 2019 novel coronavirus (2019-COVID-19) from spreading to others in homes and communities: CDC https://www.cdc.gov/coronavirus/2019-COVID-19/hcp/guidance-prevent-spread.html?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2F2019-COVID-19%2Fguidance-prevent-spread.html; accessed on March 23, 2020
World Health Organization. (2020). Rational use of personal protective equipment (PPE) for coronavirus disease (COVID-19): interim guidance, 19 March 2020. World Health Organization. https://apps.who.int/iris/handle/10665/331498. License: CC BY-NC-SA 3.0 IGOWorld Health Organization. accessed on March 23, 2020

Novel Coronavirus (COVID-19) Contingency Plan

Date issued	Type of document	Document version
2020-03-01	Policy	002

Definitions

A contingency plan is a course of actions designed to support clinics respond effectively to a COVID-19 outbreak.

Purpose

To ensure continuity of care for patients in a COVID-19 outbreak. A contingency plan for each country/clinic must be developed using the following guidance.

The policy

Countries must follow/refer to Government or institutional contingency plans where available.
Countries must define country specific task group (crisis team) to co-ordinate the plans, with defined instructions for COVID-19.

The process

4.1. A COVID-19 incident management system/team is essential for the management of clinics during emergency situations.

- Establish a country specific supervisory team responsible for directing clinic responses, this should include but not limited to: Country Medical Director, Country Nursing Director, Country Human Resources Director, Country Operations Director and Country Managing Director with direct communication to the Corporate Crisis Team
- Designate a lead for each key component provided in this document to ensure the appropriate coordination and management of related response activities
- To ensure effective and efficient management for COVID-19 outbreak in con-junction with internal and external documents related to the management of COVID-19.

4.2. Capacity: the ability of a clinic to expand beyond its normal working practices. Implement the following actions

- Calculate maximum clinic capacity:
    - determined not only by the total number of dialysis stations, but ensuring that the safe distance (2m) between stations is maintained
    - availability of human resources (consider increasing the number of patients to staff ratio, according to agreement with MoH 1:6 might be considered depending on patient acuity)
    - to isolate or cohort suspected patients, positive patients must be either in isolation room or cohorted on a separate shift
    - ensuring that positive patients enter the clinic separately from non-positive patients
- Nonessential services should be cancelled.

4.3. Infection Prevention and Control, to minimise the risk of transmission of COVID-19 to patients, staff and visitors. Implement the following actions.

- Non-essential staff and visitors must not enter the clinics.
- Ensure that staff and patients are aware of respiratory, hand hygiene and prevention of infections. Provide written instructions to patients, informational posters, leaflets. Ensure that hand sinks and alcohol gel is easily accessible in all areas of the clinic.
- Ensure that all staff are trained and assessed, and apply standard precautions for all patients.
- All relevant documents, policies and procedures are easily and centrally accessible; staff have all been informed where to find them.
- Ensure that all staff are trained and assessed and apply droplet and contact precautions for suspected or confirmed COVID-19 cases. These precautions should continue until the suspected patients are proven negative or the confirmed cases became asymptomatic with SARS-Cov2 negative tests.

    - **Confirmed COVID-19:**

        - PPE for staff: long sleeved isolation gown, hair caps, eye protection (face shields or googles), gloves and preferably FFP3 or FFP2 (N95) masks as available. Cleaners should wear boots or closed work shoes and shoe covers.
        - PPE for patients: surgical mask before, during and after the treatment until at home (patients who are confirmed should be given a FFP2 mask to wear in transport to and from the clinic).

    - **Suspected COVID-19 patients**

        - PPE for staff: non-woven gowns, hair caps, eye protection (face shields or googles), gloves and surgical mask. Cleaners should wear boots or closed work shoes and shoe covers.

- PPE for patients: surgical mask before, during and after the treatment until at home

  - PPE donning should be overseen by a senior member of nursing staff

- Ensure that staff are applying airborne precautions for aerosol-generating procedures, such a cardiopulmonary resuscitation, nebulisers must not be administered in the treatment areas. PPE for staff: long sleeved isolation gown, hair caps, face shields, gloves and preferably FFP3 or FFP2 (N95) masks as available. Hand hygiene must be performed as per 5 moments, before, and after donning and doffing PPE.
- Ensure equipment is either single-use and disposable or if equipment (e.g., stethoscopes, blood pressure cuffs, thermometers) needs to be used among patients, clean and disinfect between use of each patient (e.g., by using ethyl alcohol 70%)
- Terminal disinfection must be carried out after each patient, in the case of a confirmed or suspected COVID-19. Routinely clean and disinfect surfaces with which the patient is in contact. All areas should be free of non-essential items to ensure a proper disinfection.
- Items in the waiting areas should kept to a minimum, magazines and other materials that could potentially be shared should be removed. All waste generated in the waiting are should be considered as clinical waste.
- Staff workstations (shared PCs, doctors offices, phones and remote controls etc...) must be disinfected frequently and at the end of each staff member shift.
- Staff should be designated to care exclusively for suspected or confirmed cases to reduce the risk of transmission.
- Manage laboratory specimens, following safe routine procedures according to guidelines.
- Laundry from negative patients should follow safe routine procedures. Positive and/or suspected patient's laundry must be washed between 60°C – 90°C or above, after each session.
- Food service: during the outbreak food and beverages must not be consumed during or after dialysis.
- Best practices for safely managing health care waste must be followed, including assigning responsibility and sufficient human and material resources to dispose of such waste safely. Medical waste from confirmed or suspected patients must be considered as infectious medical waste.

4.4 Case Management: an accurate triage system and patient management strategy are required. Implement the following actions.

- Ensure mechanisms to implement triage, early recognition and source control (isolating patients with suspected COVID-19), according to policy 648.
- Suspected patients should be tested, in an isolated room as per manufacturer instruction.

- Isolation should continue for at least 14 days or until is confirmed that the patient remains asymptomatic or negative.
- Instruct patients to contact the Diaverum clinic, in the presence of acute respiratory symptoms, before they arrive at the clinic. This tele-triage system must be done by a healthcare professional.
- Ensure staff have a high level of clinical suspicion.
- Unless there is a country directive to dialyze COVID-19 patients in Diaverum clinics, consider referral to hospital of all suspected or confirmed cases of COVID-19 infection in coordination with local health authorities. Patients with COVID-19 acute respiratory infection with comorbidities recognised as posing a risk for a severe or fatal course should be admitted to the hospital.
- Ensure the availability of oxygen. Oxygen masks and nasal cannula should be single use.
- Provide patient care following national and international guidelines. Ensure all staff are aware of them.
- Patient contact should be kept to the minimum of only direct care when necessary.
- Clinics should define different routes for negative and positive patients.
- Patient appointment times should be reviewed to reduce the contact time between patients.
- Waiting rooms must be managed in order secure 4m^2 per patient; positive patients must not wait in the waiting areas. Negative patients should where appropriate, wait outside the clinic until they are notified that they can enter.
- Patients should be advised to use their own transport where possible.
- When transport is shared, must be restricted to a minimum of half capacity of passengers.
- Arrival time should be according to the appointment time and not before.
- Transport providers need to supply their contingency plan, which should include their cleaning procedures.
- Staff must ensure that patient contact details are updated.
- Patients must not bring items from home to the clinic.

4.5. Human resources, adaptability is required to ensure adequate staff capacity of continuity of services in response to increased demand, whilst maintaining services. Implement the following action.

- Update the staff contact list
- Estimate staff absenteeism in advance and monitor it continuously
- Staff must be assessed for symptoms on a daily basis prior to starting duties. Establish a clear policy (the policy should define levels of exposure) to monitor and manage staff suspected or confirmed of having COVID-19 or who have had exposure to a confirmed, probable or suspected COVID-19 patient.
- Staff should be screened (tested) if suspected as a matter of priority.
- Ensure that all staff have been informed and trained in the following topics, as required by professional category:
    - Hand and respiratory hygiene

- Who should use PPE: why, when and how
- Internal and external communication lines and rules (both to receive and provide information)
- Data protection with regard to patients
- Triage procedures
- Case definitions
- Notification of cases, incident reporting follow policy 648, and local authorities
- Placement and movement of patients in isolation
- Sick-leave policy and what to do if staff members show symptoms
- Where to find the documents and training materials

- For each clinic, identity the minimum number of staff needed to ensure the sufficient operation of the unit or service.

- Prioritize staffing needs clinic and distribute personnel accordingly.
- Strict social distancing measures should be applied to all members of staff especially during meals, coffee breaks, etc… Staff should not take meal breaks together and must ensure 1m away from all patients and staff unless giving direct patient care.
- PPE must be removed before meals, and hands washed with flowing water. Talking during meals should be minimized to reduce the spread of droplets.
- Staff at high risk for complications must not care for suspected or confirmed COVID-19 patients.
- Appoint prospective replacements for key personnel to guarantee the continuity of decision- making and resource management in any situation.

4.6. Communication

- Ensure that all decisions on clinical triage, infection prevention and control measures, and policies related to case management are communicated to all relevant staff and stakeholders.
- Ensure the corporate communication policy for COVID-19 is followed.

4.7. Logistics and Management of supplies, including pharmaceuticals

- Develop/maintain an updated inventory of all equipment, supplies, and pharmaceuticals; establish a shortage alert and reordering mechanism.
- Estimate the consumption of essential equipment, supplies, and pharmaceuticals (e.g., amount used per week).
- Consult with suppliers/authorities to ensure the continuous provision of essential medications and supplies (e.g. institutional and central stockpiles, emergency agreements with local suppliers). In case of any sign of shortage this should trigger an escalation to operation and country management team.

- Identify physical space within the clinic for the storage and stockpiling of additional supplies. Factors to consider include accessibility, security, ambient temperature, ventilation, light exposure, and humidity. Ensure an uninterrupted cold chain for essential items requiring refrigeration.
- Ensure a mechanism for the prompt maintenance and repair of the equipment required for the essential services. Postpone non-essential maintenance and repair.
- Ensure the continuous availability of basic laboratory testing.

4.8. Essential support services

- Coordinate with pre-hospital networks and transportation services in establishing a contingency transportation strategy to ensure continual patient transfers, such as designated ambulance teams (as the outbreak grows, the strategy may need to change).
- Ensure the availability of appropriate back-up arrangements for essential life-lines, including water, power, and oxygen.

References and links

Hospital Readiness Checklist for COVID-19. Interim Version, February 24, 2020 file:///C:/Users/spearsta/AppData/Local/Microsoft/Windows/INetCache/Content.Outlook/PO2IE4TM/WebPage.pdf;
Infection prevention and control during healthcare when novel coronavirus (COVID-19) infection suspected interim guidance: World Health Organisation January 2020 https://www.who.int/publications-detail/infection-prevention-and-control-during-health-care-when-novel-coronavirus-(COVID-19)-infection-is-suspected-20200125 ; accessed on February 27, 2020
Interim guidance for preventing 2019 novel coronavirus (2019-COVID-19) from spreading to others in homes and communities: CDC https://www.cdc.gov/coronavirus/2019-COVID-19/hcp/guidance-prevent-spread.html?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2F2019-COVID-19%2Fguidance-prevent-spread.html; accessed on March 23, 2020
World Health Organization. (2020). Rational use of personal protective equipment (PPE) for coronavirus disease (COVID-19): interim guidance, 19 March 2020. World Health Organization. https://apps.who.int/iris/handle/10665/331498. License: CC BY-NC-SA 3.0 IGOWorld Health Organization. accessed on March 23, 2020
https://academic.oup.com/ndt/advance-article-abstract/doi/10.1093/ndt/gfaa069/5810637 by guest on 23 March 2020
Recommendations for the prevention, mitigation and containment of the emerging SARS-CoV-2 (COVID-19) pandemic in haemodialysis centres. Nephrol Dial Transplant (2020) 1–4 doi: 10.1093/ndt/gfaa069

Novel Coronavirus (COVID-19) Positive Patient Management

Date issued	Type of document	Document version
2020-11-06	Policy	002

Purpose

- To minimize cross infection of COVID-19 in renal facilities
- To ensure adherence to standard and transmission-based precautions.

The policy

Patient Management

1. Positive patient appointment times should be reviewed to reduce the contact time between patients.

2. Patients should be identified in electronic medical records with the required isolation requirements.

3. Patients should be advised to use their own transport where possible.

4. Arrival time should be according to the appointment time and not before.

5. Consider dedicated points of entry to the facility. Clinics should define different routes for positive patients.

6. Patients must not bring items from home to the clinic. If any items, brought from home these should be kept in a hermetic plastic bag closed.

7. Suspected or confirmed COVID-19 patients should wear a surgical facemask at check-in and keep it on until they leave the facility, including in transport.

8. Suspected or confirmed COVID-19 patients should be dialyzed in a separate room with the door closed and with dedicated Health Care Professionals (HCP). Dedicated means that HCP are assigned to care only for these patients during their shift. Suspected and confirmed patients should not be dialyzed together.

9. If a hemodialysis facility is dialyzing more than one patient with suspected or confirmed COVID-19, consideration should be given to cohorting these patients and the Health Care Professionals (HCP) caring for them together in the section of the unit and on the same shift. Consider the last shift of the day.

10. If a separate room is not available, the confirmed masked patient should be treated at a corner or end-of-row station, away from the main flow of traffic. The patient should be separated by at least 2 meters from the nearest negative patient (in all directions).

11. Recovery status should be reviewed on a case by case basis and a favorable patient condition and should also refer to the relevant algorithm (Appendix I - Guidance on ending transmission-based precautions for COVID-19 patients).

12. For laboratory testing for coronavirus disease (COVID-19) for patients see relevant algorithm (Appendix II - Laboratory testing for coronavirus disease (COVID-19) for patients).

Staff and Care Management

13. Dedicated team should be assigned to care only for these patients.

14. A record of the staff caring for COVID-19 patients must be kept. Staff at high risk for complications must not care for suspected or confirmed COVID-19 patients.

15. Determine how staffing needs will be met according to the number of patients. HCPs should be limited to only the “essential” to carry out the treatments in room. Consider the ratio of 1:3. No healthcare assistants / auxiliaries should be involved in the care for confirmed patients.

16. Physicians should where possible keep a distance of two meters between patients and proper use of PPE is required.

17. All staff should be compliant with standard precautions, control and prevention of airborne and droplet infectious disease transmission.

18. Before entering the treatment room staff should wear personal protective equipment according to Appendix III - . Don sequence should be followed at all times.

19. For connection, disconnection and procedures with a risk of spill: a second pair of gloves and an apron should be worn per each patient.

20. Before leaving the station: perform hand hygiene with gloved hands, disposed of the apron and second pair of gloves. Perform hand hygiene with gloved hands.

21. During the shift, the staff should wear head cover, FFP2 or N95 respirators, eye protectors, long sleeved isolation gown and shoes protectors.

22. Patients should be assessed and monitored as per standard operations procedures. Body temperature should be measured and recorded hourly.

23. Clinic with paper-based records: patient flowchart should be digitalized and uploaded into electronic medical records, if permitted by country regulations.

24. Staff should not leave the treatment room during the patient's shift.

25. Manage laboratory specimens, following safe routine procedures according to guidelines: samples should be identified with positive COVID-19 and shipped in two hermetic plastic bags.

26. Staff should strictly follow basic infection control practices between patients (e.g., hand hygiene, cleaning and disinfecting shared equipment).

27. PPE should be doffed before leaving the isolation room according to appendix IV, and disposed of at the entrance of the isolation room.

28. Staff are responsible to self-report any signs and symptoms of acute respiratory disease and must be tested. Refer to the relevant algorithm (Appendix V - Laboratory testing for coronavirus disease (COVID-19) for exposed healthcare workers).

Environment Management

29. Adequate ventilation should be available in all areas.

30. Dedicated hand sinks and alcohol gel must be easily accessible in all areas of the clinic. Hand hygiene supplies are readily available to all personnel in every care location.

31. Items in the treatment room should kept to a minimum necessary for the shift.

32. All products and medication should be prepared in advance and taken to the "positive" room only when needed. All products and medication not used should be discarded of as clinical waste.

33. All equipment is either single-use and disposable. If equipment (e.g., stethoscopes, blood pressure cuffs, thermometers) needs to be used among patients, clean and disinfect between use of each patient by using ethyl alcohol 70%.

34. Staff workstations (shared PCs, phones, TGS tablets and remote controls etc...) must be disinfected frequently and at the end of each staff member shift.

35. All shared equipment shared PCs, phones, TGS tablets and remote controls should be plastic wrapped before starting the shift. Plastic wraps should be disinfected and disposed of as clinic waste at the end of the shift.

36. Cleaning and disinfection procedures must be followed consistently and correctly, including high touch points (with Sodium Hypochlorite or other disinfectant recommended by local authorities).

37. Complete cleaning and disinfection of the isolation room must be carried out after each patient by the Health Care Professionals responsible for the treatments:
    a. Disposable linen removal, and disposed of as clinical waste
    b. External decontamination of the dialysis machine
    c. Decontamination of shared equipment.
    d. Decontamination and removal of plastic wraps of the equipment.

38. The nurse staff should leave the treatment room and close the door, ensuring that is well ventilated. Either by opening a window or by mechanical ventilation, and comply with local legislation

39. Terminal disinfection (deep clean of all surfaces and equipment) must be carried out by the healthcare worker assistant after 20 minutes patients leaving the treatment room/area:
    a. Generic principles:
        i. Dedicated equipment to the isolation room
        ii. Decontaminated after each use (buckets and mops)
        iii. Direction: from horizontal to vertical, always from “clean” to “dirty” areas”
        iv. Wall: up to a minimum height of 1.5 meters.
        v. 1st Clean with water and soap all the surfaces.
        vi. 2nd Apply a 1000 ppm hypochlorite solution on all surfaces; respecting the contact time of 10 minutes.
        vii. 3rd Rinse all the surfaces with hot water. Let dry naturally!

40. The healthcare assistance should use appropriate PPE and follow the same donning and doffing procedures.

41. Positive and/or suspected patient’s laundry must be washed between 60°C – 90°C, after each session and after negatives patient’s laundry. Linen (blankets) should be removed from the isolation room in a hermetic plastic bag. If possible, disposable blankets should be available.

42. Food service- during the outbreak food and beverages must not be consumed during or after dialysis.

43. All domestic waste generated (e.g. products packaged) should be removed before starting the treatments and disposed of accordingly.

44. All waste generated after starting the treatments should be considered as clinical waste.

45. Best practices for safely managing health care waste must be followed, including assigning responsibility, sufficient human and material resources to dispose of such waste safely:
    a. The clinical waste container should be at the entrance of the isolation room.
    b. After completing, all the positive treatments, the nurse is responsible for close all the clinical waste bags and sharps containers.
    c. External disinfection of waste and sharps containers
    d. All clinical waste containers should be foot-operated.

46. Restrooms: If used by a positive patient should be immediately decontaminated after use following the above steps.

47. Crash trolley: material should be reduce to the minimum necessary, and medication limited to one kit for cardiac arrest and one kit for anaphylactic reaction. If manual ventilator is used a bacterial/viral filter should be used. Endotracheal intubation should be avoided. Only basic support life! FFP2 or N95 respirators masks should be included.
    If used; the crash trolley should submitted to a terminal disinfection. All the supplies disposed of and all equipment decontaminated with a 1000 ppm hypochlorite solution and 70% ethyl alcohol for the equipment

Associated documents, references and links

Appendix I - Guidance on ending transmission-based precautions for COVID-19 patients

Appendix II - Laboratory testing for coronavirus disease (COVID-19) for patients

Appendix III – Steps to don personal protective equipment

Appendix IV – Steps to remove personal protective equipment

Appendix V - Laboratory testing for coronavirus disease (COVID-19) for exposed healthcare workers

CDC. Interim Infection Prevention and Control Recommendations for Patients with Suspected or Confirmed Coronavirus Disease 2019 (COVID-19) in Healthcare Settings. https://www.cdc.gov/coronavirus/2019-ncov/hcp/infection-control-recommendations.html?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2F2019-ncov%2Finfection-control%2Fcontrol-recommendations.html#minimize. Page last reviewed April 9, 2020. Accessed on April 14.

CDC. Interim Additional Guidance for Infection Prevention and Control Recommendations for Patients with Suspected or Confirmed COVID-19 in Outpatient Hemodialysis Facilities. https://www.cdc.gov/coronavirus/2019-ncov/hcp/dialysis.html. Accessed on April 14.

DIAVERUM

Appendix I - Guidance on ending transmission-based precautions for COVID-19 patients

1) We recommend testing for SARS-CoV2 to support the decision to end transmission-based precautions, obtaining at least one negative test for SARS-CoV-2. A time-based strategy, without performing SARS-CoV-2 tests is also acceptable for ending transmission-based precautions. However, a careful analysis of each individual case should be done taking into account the timelines stated below and the potential risks of cross contamination.

2) Immunocompromised patients (e.g. medical treatment with immunosuppressive drugs, bone marrow or solid organ transplantation recipients, inherited immunodeficiency, poorly controlled HIV) and patients with a more severe presentation of COVID-19, may have longer periods of SARS-CoV-2 detection and shedding, possibly being contagious for longer periods. Take a more conservative approach than the one stated in this guidance if considered necessary.

3) Transmission based precautions must not be lifted in symptomatic patients irrespective of the amount of time that has passed since diagnosis.

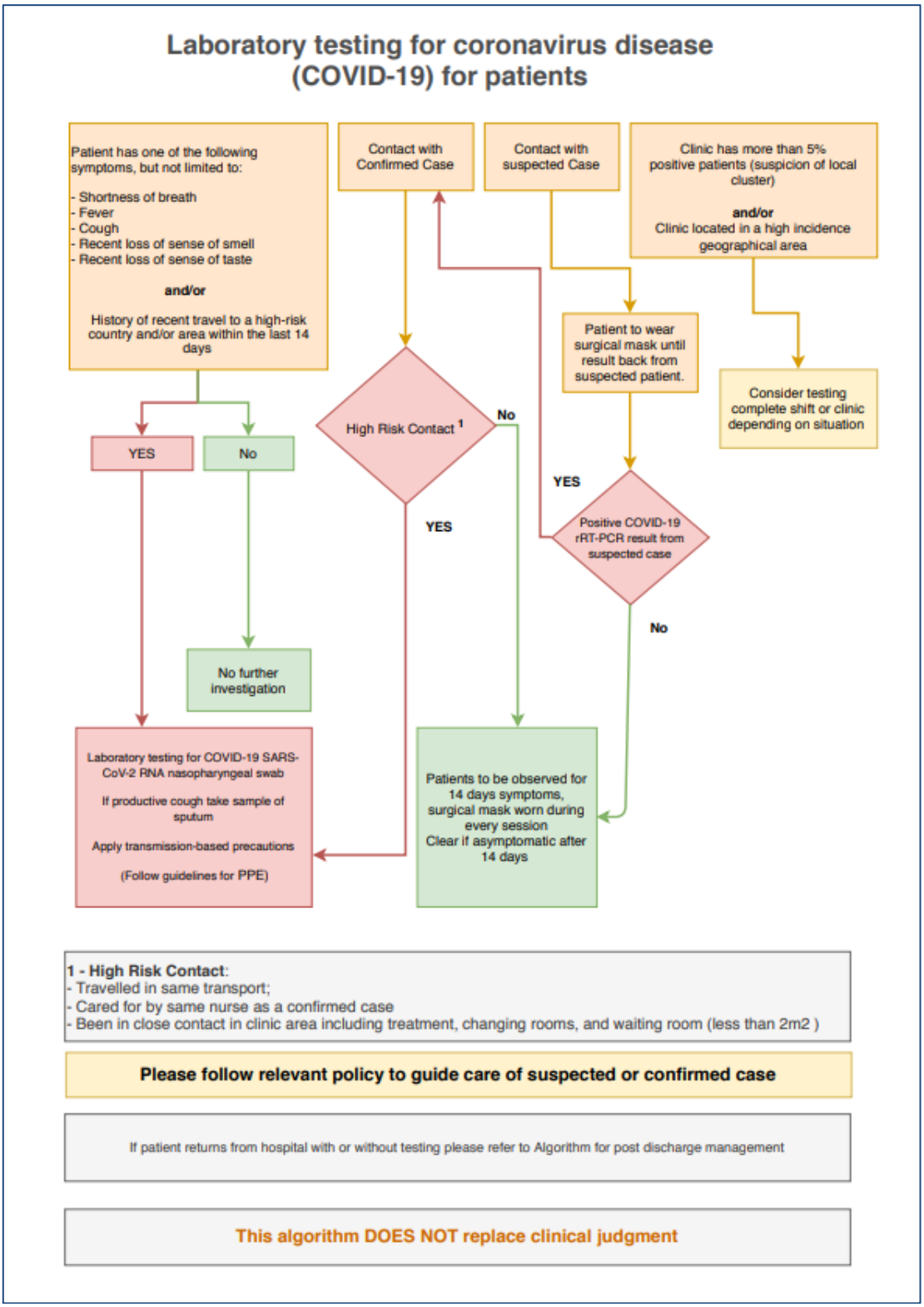
4) Maintain transmission-based precautions for at least 20 days from diagnosis **and** for 10 days after symptom recovery date. Ending transmission based precautions, before 20 days from diagnosis, can be considered if the patient is asymptomatic for 10 days and has at least one negative test for SARS-CoV-2.

5) A positive SARS-CoV-2 test (PCR) obtained after symptoms recovery date will trigger a recommendation to test in one week and maintain precautions until test results are available or per clinical judgment.

6) In patients with an asymptomatic course of the disease, ending transmission-based precautions can be considered after at least one negative test for SARS-CoV-2 **or** after 10 days have passed since diagnosis.

DIAVERUM

Appendix II - Laboratory testing for coronavirus disease (COVID-19) for patients

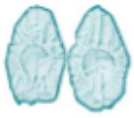


DIAVERUM

Appendix III - Steps to don personal protective equipment

Steps to don Protective Personal Equipment

1



Put on Shoes covers

2

Perform hand hygiene

3

Put on gloves

4

Put on long sleeved isolation disposable gown

5

Put on FFP2 or N95 respirators masks

6

Put on goggles and face shields

7

Put on head cover

8

Put on disposable waterproof apron

9

Put on second pair of gloves over cuff

Remove all personal items (jewelry, watches, cell phones, pens, etc.)

Undertake the procedure of putting on PPE under the guidance and supervision of a trained observer (colleague).

DIAVERUM
LIFE ENHANCING RENAL CARE

DIAVERUM

Appendix IV - Steps to remove personal protective equipment

Steps to Remove Protective Personal Equipment

1. Perform hand hygiene on gloved hands

2. 
Remove apron leaning forward and taking care to avoid contaminating your hands. When removing disposable apron, tear it off at the neck and roll it down without touching the front area. Then untie the back and roll the apron forward.

3. Perform hand hygiene on gloved hands

4. Remove outer pair of gloves and dispose of them safely.

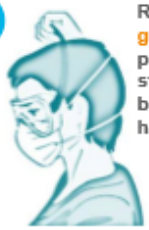
5. Perform hand hygiene on gloved hands

6. 
Remove face shield. Remove head cover taking care to avoid contaminating your face by starting from the bottom in the back and rolling from back to front and from inside to outside, and dispose of it safely.

7. Perform hand hygiene on gloved hands

8. Remove the gown by untying the knot first, then pulling from back to front rolling it from inside to outside and dispose of it safely.

9. Perform hand hygiene on gloved hands

10. 
Remove goggles by pulling the string from behind the head.

11. Perform hand hygiene on gloved hands

12. 
Remove the mask from behind the head by first untying the bottom string above the head and leaving it hanging in front; and then the top string next from behind head and dispose of it safely.

13. Perform hand hygiene on gloved hands

14. Remove shoes covers.

15. Perform hand hygiene on gloved hands

16. 
Remove gloves carefully with appropriate technique and dispose of them safely.

17. Perform hand hygiene

Undertake the procedure of putting on PPE under the guidance and supervision of a trained observer.

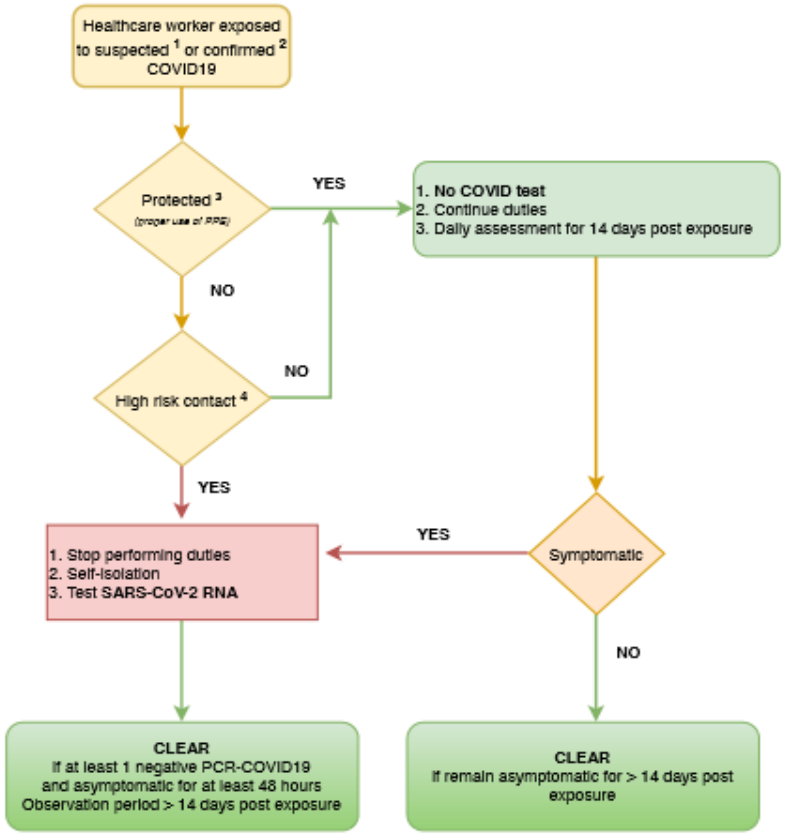
Ensure that infectious waste containers are available in the doffing area for safe disposal of PPE.

DIAVERUM
LIFE ENHANCING RENAL CARE

DIAVERUM

Appendix V - Laboratory testing for coronavirus disease (COVID-19) for exposed healthcare workers

Laboratory testing for coronavirus disease (COVID-19) for exposed healthcare workers



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

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

3 - **Proper PPE to care for suspected or confirmed cases**: First pair of gloves, long sleeved gown, head cover, FFP2 or N95, goggles, face shield and second pair of gloves over the gown cuff.

4 - **Hight Risk Contact**
A contact is a person who experienced any one of the following exposures during the **2 days before** and the **14 days after** the onset of symptoms of a probable or confirmed case:
1. Face-to-face contact with a probable or confirmed case within 1 meter and for more than 15 minutes;
2. Direct physical contact with a probable or confirmed case;
3. Direct care for a patient with probable or confirmed COVID-19 disease without using proper personal protective equipment;
4. Other situations as indicated by local risk assessments.
Note: for confirmed asymptomatic cases, the period of contact is measured as the 2 days before through the 14 days after the date on which the sample was taken which led to confirmation.

This algorithm DOES NOT replace clinical judgment

COVID-19 (SARS-CoV-2) vaccination for chronic dialysis patients

Date issued	Type of document	Document version
2021-01-15	Policy	001

Definitions

Chronic renal disease patients are at increased risk of severe illness from the virus that causes COVID-19.

Purpose

- To provide patients with immunisation against SARS-CoV-2
- To protect patients from COVID-19, and the subsequent severity of the disease including hospitalisations and increased mortality.
- To prevent cross contamination in clinics.
- To help stop the COVID-19 pandemic.

The policy

1. COVID-19 vaccination is strongly recommended for all patients except those who are not eligible (for example those who are allergic to an ingredient of the vaccine like polyethylene glycol and polysorbate, medical judgement, etc.). Dependent on local legislation it may be mandatory in some countries.

2. Each patient should be provided with verbal and/or written information about the risk and benefits of the COVID-19 vaccine as required by country, regional or local regulations.

3. If vaccinations are to be given by Diaverum staff, country procedures must be in place.

4. The administration of the COVID-19 vaccine must be documented in the patient record and in the vaccination module in iRIMS. Vaccine must be recorded in iRIMS even when the administration is undertaken outside of the clinic.

5. Vaccinated patients should be closely monitored for any potential adverse drug reactions (ADR) and ADRs should be documented in the patient medical records and in the vaccination module in iRIMS.

6. After vaccination the current measures to prevent the cross contamination of COVID-19 as stated in the contingency plan must be maintained for all staff and patients and visitors.

7. Countries must maintain communication with local authorities where necessary to facilitate or obtain vaccination for patients.

8. The Country Clinical Team should if required develop a country specific procedure that is compliant with country regulations and this policy.

Associated documents, references and links

Novel Coronavirus (COVID-19) prevention and management.

Novel Coronavirus (COVID-19) contingency plan.

Contingency plan check list.

COVID-19 positive patient management.

COVID-19 (SARS- CoV-2) vaccination for clinic based staff.

https://www.cdc.gov/coronavirus/2019-ncov/vaccines/index.html Accessed on Jan 12, 2021.

COVID-19 (SARS-CoV-2) vaccination for clinic based staff

Date issued	Type of document	Document version
2021-01-15	Policy	001

Definitions

Health care personnel are at an increased risk of exposure to SARS-CoV-2 and infected healthcare personnel risk exposing patients to COVID-19.

Vaccination of staff will save lives.

Purpose

- To provide staff with immunisation against SARS-CoV-2
- To prevent patients from cross contamination of COVID-19 from staff.
- To protect staff from contracting COVID-19.
- To ensure the continuity of care in Diaverum clinics.
- To help stop the COVID-19 pandemic.

The policy

1. COVID-19 vaccination is, subject to availability of vaccines, considered to be a requirement to perform patient care at Diaverum clinics. It is therefore mandated for all clinic staff who have access to COVID-19 vaccination and work in proximity to patients.

   Those who are not eligible (for example those who are allergic to an ingredient of the vaccine like polyethylene glycol and polysorbate, medical judgement, etc.) are excluded from this requirement.

2. The Country Manager and Country Medical Director may grant exemptions from the above requirement in exceptional circumstances or due to local regulatory restrictions.
   Staff should access the vaccination as soon as possible.

3. Each staff member should be provided with verbal and/or written information about the potential risks and benefits of COVID-19 vaccine as required by country, regional or local regulations.

4. If vaccinations are to be given by Diaverum staff, country procedures must be in place.

5. Status of staff vaccination must be held in clinics and aggregated data only sent to corporate.

6. After vaccination the current measures to prevent the cross contamination of COVID-19 as stated in the contingency plan must be maintained for all staff and patients and visitors.

7. Vaccinated staff should be closely monitored for any potential adverse drug reactions (ADRs). ADRs should be immediately reported to the Country Clinical Team and to Corporate.

8. Countries must maintain communication with local authorities where necessary to facilitate or obtain vaccination for staff.

9. The Country Clinical Team should if required develop a country specific procedure that is compliant with country regulations and this policy.

Associated documents, references and links

Novel Coronavirus (COVID-19) prevention and management.

Novel Coronavirus (COVID-19) contingency plan.

Contingency plan check list.

COVID-19 positive patient management.

COVID-19 (SARS- CoV-2) vaccination for clinic based staff.

https://www.cdc.gov/coronavirus/2019-ncov/vaccines/index.html Accessed on Jan 12, 2021.

DIAVERUM

Novel Coronavirus (COVID-19) Triage Checklist

Date issued	Type of document	Document version
2020-03-01	Policy form	003

TRIAGE CHECKLIST

(To be completed by a health professional)

Date: ___ / _____ / _____ **Patient Name:**_____

1. Symptoms

Body temperature ____ °C

a) Have you had a fever or history of fever (37.5℃ or higher)?
Yes ☐ No ☐

b) Have you had any of the following?
Cough ☐
Shortness of breath ☐
Sore throat ☐

2. Recent travel or contact with someone with novel coronavirus:

a) Have you travelled to or from countries or areas of concern* within 14 days?
Yes ☐ No ☐

b) Have you been in close contact with a person with confirmed or suspected COVID-19?
Yes ☐ No ☐

If YES to any of the above, the patient needs to be evaluated before starting treatment.
* The list of countries or areas of concern will be updated regularly – please check with the relevant Ministry of Health.

Associated document, references and links

Policy Novel Coronavirus (COVID-19) prevention and management

Policy Novel Coronavirus (COVID-19) contingency plan

Hospital Readiness Checklist for COVID-19. Interim Version, February 24, 2020 http://www.euro.who.int/__data/assets/pdf_file/0004/428863/Operational-Readiness-Checklist_final-version_Feb-13.pdf?ua=1; accessed on March 23, 2020

Infection prevention and control during healthcare when novel coronavirus (COVID-19) infection suspected interim guidance: World Health Organisation January 2020 https://www.who.int/publications-detail/infection-prevention-and-control-during-health-care-when-novel-coronavirus-(COVID-19)-infection-is-suspected-20200125 ; accessed on March 23, 2020

Interim guidance for preventing 2019 novel coronavirus (2019-COVID-19) from spreading to others in homes and communities: CDC https://www.cdc.gov/coronavirus/2019-COVID-19/hcp/guidance-prevent-spread.html?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2F2019-COVID-19%2Fguidance-prevent-spread.html; accessed on March 23, 2020

Consolidated data Country Name

Contingency plan checklist	Due for review	In progress	Complete	Not feasible (reason why)	Specific Clinic issue	Date	Responsible person
Example	*Date in here*	*Yes*	*No*	*Reason why*	*Not allowed in the clinic by public health*	*24/03/2020*	*Me*
A COVID-19 incident management system/team is essential for the management of clinics during emergency situations.							
Establish a country specific supervisory team responsible for directing clinic responses, this should include but not limited to: Country Medical Director, Country Nursing Director, Country Human Resources Director, Country Operations Director and Country Managing Director with direct communication to the Corporate Crisis Team							
Designate a lead for each key component provided in this document to ensure the appropriate coordination and management of related response activities							
To ensure effective and efficient management for COVID-19 outbreak in con-junction with internal and external documents related to the management of COVID-19.							
Capacity: the ability of a clinic to expand beyond its normal working practices. Implement the following actions							
Calculate maximum clinic capacity:							
determined not only by the total number of dialysis stations, but ensuring that the safe distance (2m) between stations is maintained							
but also by the availability of human resources , (consider increasing the number of patients to staff ratio, according to agreement with MoH 1:6 might be considered depending on patient acuity)							
to isolate or cohort suspected patients, positive patients must be either in isolation room or cohorted on a separate shift							
ensuring that positive patients enter the clinic separately from non-positive patients							
Nonessential services should be cancelled.							
Infection Prevention and Control, to minimise the risk of transmission of COVID-19 to patients, staff and visitors. Implement the following actions.							
Non-essential staff and visitors must not enter the clinics.							
Ensure that staff, patients and visitors are aware of respiratory, hand hygiene and prevention of infections. Provide written instructions to patients, informational posters, leaflets. Ensure that hand sinks and alcohol gel is easily accessible in all areas of the clinic.							
Ensure that all staff are trained and assessed, and apply standard precautions for all patients.							
All relevant documents, policies and procedures are easily and centrally accessible; staff have all been informed where to find them.							
Ensure that all staff are trained and assessed and apply droplet and contact precautions for suspected or confirmed COVID-19 cases. These precautions should continue until the suspected patients areis proven negative or the confirmed cases became asymptomatic with SARS-Cov2 negative tests.							
Confirmed COVID-19:							
PPE for staff: long sleeved isolation gown, hair caps, eye protection (face shields or googles), gloves and preferably FFP3 or FFP2 (N95) masks as available. Cleaners should wear boots or closed work shoes and shoe covers.							
PPE for patients: surgical mask before, during and after the treatment until at home (patients who are confirmed should be given a FFP2 mask to wear in transport to and from the clinic).							
Suspected COVID-19 patients							
PPE for staff: non-woven gowns, hair caps, eye protection (face shields or googles), gloves and surgical mask. Cleaners should wear boots or closed work shoes and shoe covers.							
PPE for patients: surgical mask before, during and after the treatment until at home							
PPE donning should be overseen by a senior member of nursing staff							

Ensure that staff are applying airborne precautions for aerosol-generating procedures, such a cardiopulmonary resuscitation, nebulisers must not be administered in the treatment areas. PPE for staff: long sleeved isolation gown, hair caps, face shields, gloves and preferably FFP3 or FFP2 (N95) masks as available. Hand hygiene must be performed as per 5 moments, before, and after donning and doffing PPE.							
Ensure equipment is either single-use and disposable or if equipment (e.g., stethoscopes, blood pressure cuffs, thermometers) needs to be usedshared among patients, clean and disinfect between use of each patient (e.g., by using ethyl alcohol 70%)							
Terminal disinfection must be carried out after each patient, in the case of a confirmed or suspected COVID-19. Routinely clean and disinfect surfaces with which the patient is in contact. All areas should be free of non-essential items to ensure a proper disinfection.							
Items in the waiting areas should kept to a minimum, magazines and other materials that could potentially be shared should be removed. All waste generated in the waiting are should be considered as clinical waste.							
Staff workstations (shared PCs, doctors offices, phones and remote controls etc...) must be disinfected frequently and at the end of each staff member shift.							
Staff should be designated to care exclusively for suspected or confirmed cases to reduce the risk of transmission.							
Manage laboratory specimens, following safe routine procedures according to guidelines.							
Laundry from negative patients should follow safe routine procedures. Positive and/or suspected patient's laundry must be washed between 60oC – 90oC or above, after each session.							
Food service: during the outbreak food and beverages must not be consumed during or after dialysis.							
Best practices for safely managing health care waste must be followed, including assigning responsibility and sufficient human and material resources to dispose of such waste safely. Medical waste from confirmed or suspected patients must be considered as infectious medical waste.							
Case Management: an accurate triage system and patient management strategy are required. Implement the following actions.							
Ensure mechanisms to implement triage, early recognition and source control (isolating patients with suspected COVID-19), according to policy 648.							
Suspected patients should be tested, in an isolated room as per manufacturer instruction.							
Isolation should continue for at least 14 days or until the patients is negative							
Instruct patients to contact the Diaverum clinic, in the presence of acute respiratory symptoms, before they arrive at the clinic. This tele-triage system must be done by a healthcare professional.							
Ensure staff have a high level of clinical suspicion.							
Unless there is a country directive to dialyze COVID-19 patients in Diaverum clinics, consider referral to hospital of all suspected or confirmed cases of COVID-19 infection in coordination with local health authorities. Patients with COVID-19 acute respiratory infection with comorbidities recognised as posing a risk for a severe or fatal course should be admitted to the hospital.							
Ensure the availability of oxygen. Oxygen masks and nasal cannula should be single use.							
Provide patient care following national and international guidelines. Ensure all staff are aware of them.							
Patient contact should be kept to the minimum of only direct care when necessary.							
Clinics should define different routes for negative and positive patients.							
Patient appointment times should be reviewed to reduce the contact time between patients.							
Waiting rooms must be managed in order secure 4m2 per patient; positive patients must not wait in the waiting areas. Negative patients should where appropriate, wait outside the clinic until they are notified that they can enter.							
Patients should be advised to use their own transport where possible.							

When transport is shared, must be restricted to a minimum of half capacity of passengers.							
Arrival time should be according to the appointment time and not before.							
Transport providers need to supply their contingency plan, which should include their cleaning procedures.							
Staff must ensure that patient contact details are updated.							
Patients must not bring items from home to the clinic.							
Human resources, adaptability is required to ensure adequate staff capacity of continuity of services in response to increased demand, whilst maintaining services. Implement the following action.							
Update the staff contact list							
Estimate staff absenteeism in advance and monitor it continuously							
Staff must be assessed for symptoms on a daily basis prior to starting duties. Establish a clear policy (the policy should define levels of exposure) to monitor and manage staff suspected or confirmed of having COVID-19 or who have had exposure to a confirmed, probable or suspected COVID-19 patient.							
Staff should be screened (tested) if suspected as a matter of priority.							
Ensure that all staff have been informed and trained in the following topics, as required by professional category:							
Hand and respiratory hygiene							
Who should use PPE: why, when and how							
Internal and external communication lines and rules (both to receive and provide information							
Data protection with regard to patients							
Triage procedures							
Case definitions							
Notification of cases, incident reporting follow policy 648, and local authorities							
Placement and movement of patients in isolation and visitors' access							
Sick-leave policy and what to do if staff members show symptoms							
Where to find the documents and training materials							
For each clinic, identity the minimum number of staff needed to ensure the sufficient operation of the unit or service.							
Prioritize staffing needs clinic and distribute personnel accordingly.							
Strict social distancing measures should be applied to all members of staff especially during meals, coffee breaks, etc... Staff should not take meal breaks together and must ensure 1m away from all patients and staff unless giving direct patient care							
PPE must be removed before meals, and hands washed with flowing water. Talking during meals should be minimized to reduce the spread of droplets.							
Staff at high risk for complications must not care for suspected or confirmed COVID-19 patients.							
Appoint prospective replacements for key personnel to guarantee the continuity of decision- making and resource management in any situation.							
Communication							
Ensure that all decisions on clinical triage, infection prevention and control measures, and policies related to case management are communicated to all relevant staff and stakeholders.							
Ensure the corporate communication policy for COVID-19 is followed.							
Logistics and Management of supplies, including pharmaceuticals							
Develop/maintain an updated inventory of all equipment, supplies, and pharmaceuticals; establish a shortage alert and reordering mechanism.							
Estimate the consumption of essential equipment, supplies, and pharmaceuticals (e.g., amount used per week).							
Consult with suppliers/authorities to ensure the continuous provision of essential medications and supplies (e.g. institutional and central stockpiles, emergency agreements with local suppliers). In case of any sign of shortage this should trigger an escalation to operation and country management team.							
Identify physical space within the clinic for the storage and stockpiling of additional supplies. Factors to consider include accessibility, security, ambient temperature, ventilation, light exposure, and humidity. Ensure an uninterrupted cold chain for essential items requiring refrigeration.							

Ensure a mechanism for the prompt maintenance and repair of the equipment required for the essential services. Postpone non-essential maintenance and repair.							
Ensure the continuous availability of basic laboratory testing.							
Essential support services							
Coordinate with pre-hospital networks and transportation services in establishing a contingency transportation strategy to ensure continual patient transfers, such as designated ambulance teams (as the outbreak grows, the strategy may need to change).							
Ensure the availability of appropriate back-up arrangements for essential life-lines, including water, power, and oxygen.							
Patient Vaccination							
Ensure all eligible patients are vaccinated for COVID-19.							
Each patient must be provided with verbal and/or written information about the risk and benefits of the COVID-19 vaccine as required by country, regional or local regulations.							
Ensure if vaccinations are to be given by Diaverum staff, country procedures are in place.							
Document the administration of the COVID-19 vaccine in the patient record and in the vaccination module in iRIMS. Vaccine must be recorded in iRIMS even when the administration is undertaken outside of the clinic.							
Ensure after vaccination the current measures to prevent the cross contamination of COVID-19 as stated in the contingency plan are maintained for all staff and patients.							
Ensure communication with local authorities occurs where necessary to facilitate or obtain vaccination for patients.							
Staff Vaccination							
Ensure all eligible staff are vaccinated for COVID-19.							
Each employee must be provided with verbal and/or written information about the risk and benefits of the COVID-19 vaccine as required by country, regional or local regulations.							
Ensure if vaccinations are to be given by Diaverum staff, country procedures are in place.							
Ensure status of staff vaccination is held in clinics and aggregated data is sent to corporate.							
Ensure communication with local authorities occurs where necessary to facilitate or obtain vaccination for staff.							

Collection of Nasopharyngeal Specimens with the Swab Technique

Date issued	Type of document	Document version
2020-04-14	Corporate Clinical Procedure	001

Objectives

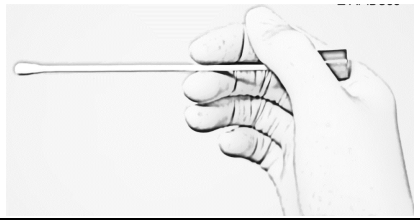
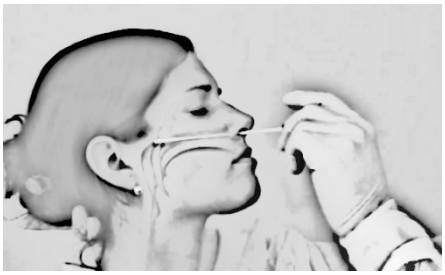
To ensure that:

- Staff are trained for appropriate collection nasopharyngeal specimens.
- Staff who collect specimens adhere rigorously to infection prevention and control guidelines.
- All specimens collected for laboratory investigations should be regarded as potentially infectious.

Procedure

No.	Actions	Comments/Responsibility
1.	Gather all the need material: a. FFP2 or N95 Respirator mask b. Isolation gown c. Protective goggles and face shield d. 2 pairs of gloves e. Sterile swabs made from material cotton with flexible plastic shafts with patient identification, specimens type and required test. f. Laboratory request form properly filled. g. Laboratory transport biohazard bag properly identified.	***Note:*** *Calcium alginate swabs or swabs with wooden swabs must not be used. These materials can inactivate viral particles or inhibit PCR tests. Furthermore, wooden shafts are more likely to cause patient injury.*

2.	Perform hand hygiene.	
3.	Don personal protective equipment by the following sequence: Put on: • first pair of gloves, • isolation gown, • head cover, • face mask, • goggles, • face shield • and second pair of gloves over the cuff	
4.	Have the patient blow his/her nose into a tissue paper to clear excess secretion from the nasal passages.	The patient should be alert and cooperative.
5.	Tell the patient to head back slightly so that the nasal passages becomes more accessible, and support it with your non-dominant hand. If necessary, lean the patient's head against a wall to minimize jerky movements.	The patient should sit in a relaxed and comfortable position during the collection process.
6.	Instruct the patient to close his/her eyes to lessen the mild discomfort of the procedure.	Be sure to advise the patient of potential discomfort during sample collection.
7.	Stand slightly offset from the patient to avoid the risk of contamination in case of sudden cough or sneeze.	

8.	Hold the swab like a pen between the thumb, index, and middle fingers, maintaining a loose grip that allows the swab to accommodate any resistance encountered during sample collection to reduce the risk of injury.	
9.	Start by gently inserting the swab horizontally into the left or right nostril. Carefully advance the swab while maintaining a course that is close to both the septum and the floor of nose, parallel to the palate. Never advance the swab upwards, but instead straight back until resistance is felt. When the swab reaches the posterior nasopharynx. In adults, this corresponds to a travel distance of approximately 10 centimetres in an adults.	
10.	Rotate de swab gently against the nasopharyngeal mucosa for 10 to 15 seconds.	
11.	Slowly and gently, remove the swab.	
12.	Immediately insert the swab into the sample collection tube.	
13.	Put the sample collection tube in the laboratory transport biohazard bag with the help of a second member of the staff (protected with PPE (apron, gloves and face shield)	
14.	Perform hand hygiene on gloved hands.	
15.	Take off personal protective equipment by the following sequence:	

	• remove outer pair of gloves, perform hand hygiene on gloved hands, • remove face shield and head cover, • remove isolation gown, • perform hand hygiene on gloved hands, • remove eye protection and face mask, • remove gloves carefully with appropriate technique and dispose of them safely.	
16.	Perform hand hygiene.	
17.	Make sure that specimens are delivered promptly to the laboratory or stored (< 5 days) and shipped at 2-8°C (manufacturer's instructions should be followed).	Specimens for virus detection should reach the laboratory as soon as possible after collection. Correct handling of specimens during transportation is essential.

Roles & responsibilities

To be performed only by staff trained and competencies assessed for appropriate collection nasopharyngeal specimens.

Associated document, references and links

Novel Coronavirus (COVID-19) prevention and management

Novel Coronavirus (COVID-19) positive patient management

World Health Organization. (2020). Laboratory testing for coronavirus disease 2019 (COVID-19) in suspected human cases: interim guidance, 2 March 2020. World Health Organization. https://apps.who.int/iris/handle/10665/331329

		Key steps of minimising contamination										Contingency items implemented							
No	Country/clinic	Transportation	Triaging implmentation	Waiting area	Treatment room	Positive patients	HR capacity	Correct use of PPE equipment	Patient & staff education	Supplies mgmt in place	Cleaning procedures	Yes%	WIP%	No%	n/a%	Yes	WIP	No	n/a
1																			
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			
13																			
14																			
15																			
16																			
17																			
18																			
19																			
20																			
21																			
22																			

Individual	Adequate	Safe distance	In line with contingency	None or transferred	Sufficient	Yes	>80%	Yes	Enhanced
Shared	With constraints	Temporarily extended	Extra shift	Isolated in different room	Above patient ratios	No	50-80%	No	Normal
Unprotected	Not yet implemented	Local regulations	Local regulations	Isolated in different shift	Extra shift		<50%		
				Non isolated	Changed medical practice				

Dashboard criteria grouped

No	Contingency plan checklist
Transportation	
41	Patients should be advised to use their own transport where possible.
42	When transport is shared, must be restricted to a minimum of half capacity of passengers.
43	Arrival time should be according to the appointment time and not before.
44	Transport providers need to supply their contingency plan, which should include their cleaning procedures.
Triage	
29	Ensure mechanisms to implement triage, early recognition and source control (isolating patients with suspected COVID-19), according to policy 648.
30	Suspected patients should be tested, in an isolated room as per manufacturer instruction.
31	Isolation should continue for at least 14 days or until the patients is negative
32	Instruct patients to contact the Diaverum clinic, in the presence of acute respiratory symptoms, before they arrive at the clinic. This tele-triage system must be done by a healthcare professional.
33	Ensure staff have a high level of clinical suspicion.
34	Unless there is a country directive to dialyze COVID-19 patients in Diaverum clinics, consider referral to hospital of all suspected or confirmed cases of COVID-19 infection in coordination with local health authorities. Patients with COVID-19 acute respiratory infection with comorbidities recognised as posing a risk for a severe or fatal course should be admitted to the hospital.
49	Staff must be assessed for symptoms on a daily basis prior to starting duties. Establish a clear policy (the policy should define levels of exposure) to monitor and manage staff suspected or confirmed of having COVID-19 or who have had exposure to a confirmed, probable or suspected COVID-19 patient.
50	Staff should be screened (tested) if suspected as a matter of priority.
Waiting area	
40	Waiting rooms must be managed in order secure 4m2 per patient; positive patients must not wait in the waiting areas. Negative patients should where appropriate, wait outside the clinic until they are notified that they can enter.
Treatment room	
4	determined not only by the total number of dialysis stations, but ensuring that the safe distance (2m) between stations is maintained
37	Patient contact should be kept to the minimum of only direct care when necessary.
38	Clinics should define different routes for negative and positive patients.
39	Patient appointment times should be reviewed to reduce the contact time between patients.
Positive patients	
34	Unless there is a country directive to dialyze COVID-19 patients in Diaverum clinics, consider referral to hospital of all suspected or confirmed cases of COVID-19 infection in coordination with local health authorities. Patients with COVID-19 acute respiratory infection with comorbidities recognised as posing a risk for a severe or fatal course should be admitted to the hospital.
HR capacity	
5	but also by the availability of human resources , (consider increasing the number of patients to staff ratio, according to agreement with MoH 1:6 might be considered depending on patient acuity)
24	Staff should be designated to care exclusively for suspected or confirmed cases to reduce the risk of transmission.
45	Staff must ensure that patient contact details are updated.
47	Update the staff contact list
61	For each clinic, identity the minimum number of staff needed to ensure the sufficient operation of the unit or service.
62	Prioritize staffing needs clinic and distribute personnel accordingly.
65	Staff at high risk for complications must not care for suspected or confirmed COVID-19 patients.
66	Appoint prospective replacements for key personnel to guarantee the continuity of decision- making and resource management in any situation.
Correct use of PPE	
14	PPE for staff: long sleeved isolation gown, hair caps, eye protection (face shields or googles), gloves and preferably FFP3 or FFP2 (N95) masks as available. Cleaners should wear boots or closed work shoes and shoe covers.
15	PPE for patients: surgical mask before, during and after the treatment until at home (patients who are confirmed should be given a FFP2 mask to wear in transport to and from the clinic).
16	PPE for staff: non-woven gowns, hair caps, eye protection (face shields or googles), gloves and surgical mask. Cleaners should wear boots or closed work shoes and shoe covers.
17	PPE for patients: surgical mask before, during and after the treatment until at home
18	PPE donning should be overseen by a senior member of nursing staff
19	Ensure that staff are applying airborne precautions for aerosol-generating procedures, such a cardiopulmonary resuscitation, nebulisers must not be administered in the treatment areas. PPE for staff: long sleeved isolation gown, hair caps, face shields, gloves and preferably FFP3 or FFP2 (N95) masks as available. Hand hygiene must be performed as per 5 moments, before, and after donning and doffing PPE.
64	PPE must be removed before meals, and hands washed with flowing water. Talking during meals should be minimized to reduce the spread of droplets.
Patient & staff education	
10	Ensure that staff, patients and visitors are aware of respiratory, hand hygiene and prevention of infections. Provide written instructions to patients, informational posters, leaflets. Ensure that hand sinks and alcohol gel is easily accessible in all areas of the clinic.
11	Ensure that all staff are trained and assessed, and apply standard precautions for all patients.
12	All relevant documents, policies and procedures are easily and centrally accessible; staff have all been informed where to find them.

13	Ensure that all staff are trained and assessed and apply droplet and contact precautions for suspected or confirmed COVID-19 cases. These precautions should continue until the suspected patients areis proven negative or the confirmed cases became asymptomatic with SARS-Cov2 negative tests.
46	Patients must not bring items from home to the clinic.
51	Hand and respiratory hygiene
52	Who should use PPE: why, when and how
53	Internal and external communication lines and rules (both to receive and provide information
54	Data protection with regard to patients
55	Triage procedures
56	Case definitions
57	Notification of cases, incident reporting follow policy 648, and local authorities
58	Placement and movement of patients in isolation and visitors' access
59	Sick-leave policy and what to do if staff members show symptoms
60	Where to find the documents and training materials
63	Strict social distancing measures should be applied to all members of staff especially during meals, coffee breaks, etc… Staff should not take meal breaks together and must ensure 1m away from all patients and staff unless giving direct patient care
67	Ensure that all decisions on clinical triage, infection prevention and control measures, and policies related to case management are communicated to all relevant staff and stakeholders.
68	Ensure the corporate communication policy for COVID-19 is followed.
Supplies management system in place	
35	Ensure the availability of oxygen. Oxygen masks and nasal cannula should be single use.
69	Develop/maintain an updated inventory of all equipment, supplies, and pharmaceuticals; establish a shortage alert and reordering mechanism.
70	Estimate the consumption of essential equipment, supplies, and pharmaceuticals (e.g., amount used per week).
71	Consult with suppliers/authorities to ensure the continuous provision of essential medications and supplies (e.g. institutional and central stockpiles, emergency agreements with local suppliers). In case of any sign of shortage this should trigger an escalation to operation and country management team.
72	Identify physical space within the clinic for the storage and stockpiling of additional supplies. Factors to consider include accessibility, security, ambient temperature, ventilation, light exposure, and humidity. Ensure an uninterrupted cold chain for essential items requiring refrigeration.
73	Ensure a mechanism for the prompt maintenance and repair of the equipment required for the essential services. Postpone non-essential maintenance and repair.
74	Ensure the continuous availability of basic laboratory testing.
Cleaning procedures	
20	Ensure equipment is either single-use and disposable or if equipment (e.g., stethoscopes, blood pressure cuffs, thermometers) needs to be usedshared among patients, clean and disinfect between use of each patient (e.g., by using ethyl alcohol 70%)
21	Terminal disinfection must be carried out after each patient, in the case of a confirmed or suspected COVID-19. Routinely clean and disinfect surfaces with which the patient is in contact. All areas should be free of non-essential items to ensure a proper disinfection.
22	Items in the waiting areas should kept to a minimum, magazines and other materials that could potentially be shared should be removed. All waste generated in the waiting are should be considered as clinical waste.
23	Staff workstations (shared PCs, doctors offices, phones and remote controls etc…) must be disinfected frequently and at the end of each staff member shift.
26	Laundry from negative patients should follow safe routine procedures. Positive and/or suspected patient's laundry must be washed between 60oC – 90oC or above, after each session.
27	Food service: during the outbreak food and beverages must not be consumed during or after dialysis.
28	Best practices for safely managing health care waste must be followed, including assigning responsibility and sufficient human and material resources to dispose of such waste safely. Medical waste from confirmed or suspected patients must be considered as infectious medical waste.
Not allocated to dashboard	
1	Establish a country specific supervisory team responsible for directing clinic responses, this should include but not limited to: Country Medical Director, Country Nursing Director, Country Human Resources Director, Country Operations Director and Country Managing Director with direct communication to the Corporate Crisis Team
2	Designate a lead for each key component provided in this document to ensure the appropriate coordination and management of related response activities
3	To ensure effective and efficient management for COVID-19 outbreak in con-junction with internal and external documents related to the management of COVID-19.
6	to isolate or cohort suspected patients, positive patients must be either in isolation room or cohorted on a separate shift
7	ensuring that positive patients enter the clinic separately from non-positive patients
8	Nonessential services should be cancelled.
9	Non-essential staff and visitors must not enter the clinics.
25	Manage laboratory specimens, following safe routine procedures according to guidelines.
36	Provide patient care following national and international guidelines. Ensure all staff are aware of them.
48	Estimate staff absenteeism in advance and monitor it continuously
51	Hand and respiratory hygiene
52	Who should use PPE: why, when and how
53	Internal and external communication lines and rules (both to receive and provide information
54	Data protection with regard to patients
55	Triage procedures
56	Case definitions
57	Notification of cases, incident reporting follow policy 648, and local authorities
58	Placement and movement of patients in isolation and visitors' access

59	Sick-leave policy and what to do if staff members show symptoms
60	Where to find the documents and training materials
64	PPE must be removed before meals, and hands washed with flowing water. Talking during meals should be minimized to reduce the spread of droplets.
75	Coordinate with pre-hospital networks and transportation services in establishing a contingency transportation strategy to ensure continual patient transfers, such as designated ambulance teams (as the outbreak grows, the strategy may need to change).
76	Ensure the availability of appropriate back-up arrangements for essential life-lines, including water, power, and oxygen.