COVID – 19 Case Management Committee Membership:

1. General Directorate of Health Emergencies and Epidemics
2. General Directorate of Curative Medicine
3. Directorate General of Quality, Development and Accreditation
4. General Directorate of Primary Healthcare
5. World Health Organization (WHO)
7. Sudanese Association of Pediatricians
8. Obstetrical & Gynecological Society of the Sudan (OGSS)
9. Sudanese Chest Physicians Society
10. Sudanese Emergency Physician's Association (SEPA)
11. Sudanese Association of Physicians (SAP)
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<td>1- Triage Checklist for Acute Respiratory Illnesses at Health facilities</td>
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Republic of the Sudan
Federal Ministry of Health
COVID_19 Case Management Committee

Triage Checklist for Acute Respiratory Illnesses at Health facilities

This protocol is developed on 16th March 2020 and revised on the 31st of March and will be updated regularly.

<table>
<thead>
<tr>
<th>Risks for Acute Respiratory Illnesses</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. Exposure Risks:</strong></td>
<td></td>
</tr>
<tr>
<td>Had a history of travel to areas with ongoing community transmission of COVID-19. OR A close physical contact in the past 14 days prior to symptom onset with suspected or confirmed case of COVID-19. OR Working in or attended a healthcare facility where patients with confirmed COVID-19 were admitted.</td>
<td>5</td>
</tr>
<tr>
<td><strong>B. Clinical Signs and Symptoms</strong></td>
<td></td>
</tr>
<tr>
<td>✓ Fever ≥ 38</td>
<td>1</td>
</tr>
<tr>
<td>✓ Cough (new or worsening)</td>
<td>1</td>
</tr>
<tr>
<td>✓ Shortness of breath (new or worsening)²</td>
<td>1</td>
</tr>
<tr>
<td>✓ Sore throat and/or runny nose</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total Score</strong></td>
<td></td>
</tr>
</tbody>
</table>

- calculate the score of the patient condition (exposure risk and clinical signs and symptoms) if the final score is ≥ 6 please do the following:
  1. Instruct patient to wear face mask.
  2. Place patient in a separate room (if the room is not available consider the space of 1-2 meter between the patients).
  3. Inform Medical Director immediately to notify the local health authority.
- If the patient has any of the exposure risks (Only Score 5), should be home isolation.
- *If the score is less than or equal 4 and the patient is stable, advice the patient for home isolation*, give the patient all instructions and contact details. (*Refer to home isolation protocol)*
- If the patient has Sever SOB (unstable) **, consider as suspected case. (** Refer to suspected covid-19 severity scoring protocol)**

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¹ Triage occurs at the patient’s initial entry point to the health facilities, before entering the emergency room.
² For Pediatric patient exclude SOB from score, i.e. score 3 and less for stable patients.
SUSPECTED COVID-19 SEVERITY SCORING

Name | Age | M | F

START HERE

ASK

Score – circle only those that apply

<table>
<thead>
<tr>
<th>Mobility</th>
<th>With help</th>
<th>Stretcher</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comorbidities</td>
<td>&gt;2 comorbidies or Immunocompromised or Cardiovascular disease</td>
<td>2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

LOOK

Score – circle only those that apply

<table>
<thead>
<tr>
<th>Assessment</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiorespiratory arrest</td>
<td></td>
</tr>
<tr>
<td>Difficulty breathing or Unresponsive</td>
<td></td>
</tr>
</tbody>
</table>

| Temperature                                     | 2 | 3 |
|                                               | ≤ 35 | ≥ 38.5 |
|                                               | ≥ 45 | ≥ 110 |

| Pulse                                   | 2 | 3 |
|                                        | ≤ 9 | ≥ 28 |
|                                        | ≤ 20 | ≥ 27 |

| Respiratory rate                      | 2 | 4 |
|                                        | ≤ 9 | ≥ 28 |
|                                        | 20 - 27 | ≥ 28 |

Systolic BP

<table>
<thead>
<tr>
<th>Systolic BP</th>
<th>4</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤ 90</td>
<td></td>
<td></td>
</tr>
<tr>
<td>≥ 160</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Add all those circled to give patient’s total:

8 or more points

Probably needs mechanical ventilation

5-7 points

Less likely to need mechanical ventilation. Likely needs Oxygen

0-4 points

Less likely to need Oxygen

Surgisphere

AFEM
Algorithm for management of COVID-19 at Isolation Centers

COVID-19 SUSPECTED PATIENTS

As per case definition and Visual Triage Score of ≥6

Send to Isolation Center

Take swab (COVID-19)

1st-ve

Complete treatment at Isolation center (section A)*

Case definition: a patient with acute respiratory tract infection AND with no other etiology that fully explains the clinical presentation + Triage check list

*Section A: for confirm case
** Section B: for –ve case
*** Decision of timing second swab can be modified by treating physician according to patient status

Keep Pt at Isolation center (section B)**

Investigate and manage according to clinical condition

After 5 days*** Take 2nd swab (COVID-19)

-ve

No

Improved

Discharge and complete home isolation until complete recovery

+ve

18/3/2020

Version 1, Update 1
Guidelines of case management of COVID-19 patients

This protocol is developed on 16th March 2020 and revised on the 1st of April and will be updated regularly

Clinical syndromes associated with COVID-19 infection:

1- Uncomplicated illness:
- Patient with uncomplicated upper respiratory tract infection
- Nonspecific symptoms such as fever, cough, sore throat, nasal congestion, malaise, headache
- The elderly and immune compromised may present with atypical symptoms
- Patient doesn’t have any signs of dehydration, sepsis, or shortness of breath

2- Mild pneumonia:
- Patient with pneumonia without signs of severe pneumonia

3-Severe pneumonia:
- Patient with fever or suspected respiratory infection plus one of the following:
  - Respiratory rate ≥ 30 breath/min. (For pediatrics, refer to table)
  - Severe respiratory distress
  - SPO2 ≤ 90 % on room air
  - Confusion, drowsiness, convulsion in children
  - Systolic blood pressure ≤ 90 mmHg or diastolic ≤ 60 mmHg

4- Acute respiratory distress syndrome:
- New or worsening respiratory symptoms within one week of known clinical insult
- Chest imaging (X-ray, CT scan, or lung ultrasound)
- Origin of edema not fully explained by cardiac failure or fluid overload
- Oxygenation ≤ 90 % on room air

5- Sepsis:

1 Presentation in elderly may be atypical and need to be considered separately
• A life threatening organs dysfunction, altered mental status, difficult or fast breathing, low oxygen saturation, reduced urine output, tachycardia, weak pulse, thrombocytopenia, acidosis, impaired LFT (hyperbilirubinemia)

6- Septic shock:
• Persistent hypotension’s despite volume resuscitation require vasopressors to maintain mean arterial pressure ≥65 mmHg and serum lactate level ≥2mmol/l
• Or hypothermia

**Immediate implementation of appropriate IPC measures**

1- At triage:
  • Give suspect patient a medical mask and direct him to separate area, isolation room if available
  • Keep at least one meter distance between suspected patients and others
  • Instruct all suspected patient to cover nose and mouth during coughing or sneezing with tissues or flexed elbow for others
  • Perform hand hygiene after contact with respiratory secretions

2- Apply droplet precautions

3- Apply contact precautions

4- Apply airborne precautions when performing aerosol generating procedures

**Early supportive therapy and monitoring**

• Give supplementary oxygen therapy immediately to patients with SARI and respiratory distress, hypoxia, or shock
• Use conservative fluid management in patients with SARI when there is no evidence of shock
• Give empirical antimicrobials to treat all likely pathogens causing SARI. Give antimicrobials within one hour of initial patient assessment for patients with sepsis
• Don’t routinely give systemic corticosteroids for treatment of viral pneumonia or ARDS outside of clinical trials unless they are indicated for another reason
• Closely monitor patients with SARI for signs of clinical deterioration, such as rapidly progressive respiratory failure and sepsis and apply supportive care interventions immediately

23-3-2020
Adapted from WHO protocol 2020
- Understand the patient co-morbid condition/s to tailor the management of critical illness and appreciate the prognosis. Communicate early with patient and family

**Collection of specimens for laboratory diagnosis**

- Collect blood cultures for bacteria that cause pneumonia and sepsis, ideally before antimicrobial therapy. DO NOT delay antimicrobial therapy to collect blood cultures
- Collect specimens from both the upper respiratory tract (URTI; nasopharyngeal and oropharyngeal) and lower respiratory tract (LRT; Expectorated sputum, endotracheal aspirate, broncho alveolar lavage) for n COV testing by RT-PCR. Clinicians may elect to collect only LRT samples when these are readily available (for example in mechanically ventilated patients)
- In hospitalized patient with confirmed n COV repeat URT and LRT samples should be collected to demonstrate viral clearance. The frequency of the specimens collection will depend on local conditions but should be at least every 2 or 4 days until there are two consecutive negative results in a clinically recover patient at 24 hours apart

**Management of hypoxemic respiratory failure and ARDS**

- Recognize severe hypoxemic respiratory failure when a patient with respiratory distress is failing standard oxygen therapy
- Endotracheal intubation should be performed by a trained and experienced provider using airborne precautions
- Implement mechanical ventilation using lower tidal volumes (4-8 ml/kg predicted body weight, PBW) and lower inspiratory pressure (plateau pressure ≤ 30 cmH2O)
- In patient with severe ARDS, prone ventilation for more than 12 hours per day is recommended
- Use a conservative fluid management strategy for ARDS patients without tissue hypo perfusion

**Management of septic shock**

- Recognize septic shock in adult when infection is suspected or confirmed and vasopressors are needed to maintain MAP ≥ 65mmHg and lactate ≥ 2mmol/L in absence of hypovolemia and in children with any hypotension or 2 to 3 of the following; altered mental state, tachycardia or bradycardia, tachypnea, oliguria, hyperthermia, hypothermia, mottled skin or petechial or purpuric rash.
- In resuscitation from septic shock in adult give at least 30ml/kg isotonic crystalloid in the first 3 hours, and in children give 20 ml/kg as a rapid bolus and up to 40-60 ml/kg in the first 1 hour
- Administer vasopressin when shock persists during or after fluid resuscitation, the initial blood pressure target is MAP ≥ 65mmHg in adults and age appropriate targets in children

23-3-2020

Adapted from WHO protocol 2020
Prevention of complication

- Reduce days of invasive mechanical ventilation
- Reduce incidence of ventilators associated pneumonia
- Reduce incidence of VT
- Reduce incidence of catheter related infection
- Reduce incidence of pressure ulcers
- Reduce incidence of stress ulcers and GI bleeding
- Reduce incidence of ICU related weakness

Specific anti-Novel-CoV treatments and clinical research

- There is no current evidence to recommend any specific treatment and we do not recommend adding any trial drugs at the current situation

Special considerations for pregnant and lactating women

- For pregnant women suspected of COVID-19 or confirmed and due for labor, to deliver in isolation centers
- Isolation centers should be equipped with a surgical setup
- If operation room not available, deliver in nearest facility and adhere to infection control measures
- Lactating mothers should continue to breastfeed her infant/young child while taking all infection prevention precautions
- If condition of mother deteriorates then separate child from mother and extract breast milk for feeding infant/young child
- A midwife should be present in every isolation center.
- A nutritionist should be present in every isolation center

Nutritional guidance during the isolation period for children age 6-59 months:

The trained health care provider conducts MUAC screening for all children and if the child is classified;

- Severe Acute Malnutrition (SAM), should apply SAM protocol for treatment
• Moderate Acute Malnutrition (MAM), should apply MAM protocol for treatment
• Child without Acute Malnutrition, should be provided Vitamino/plumpy doz
• Healthy children without malnutrition should give one preventive dose of Vitamin (A), if she/he did not take any dose during the previous six months

**General nutritional guidance during home care, quarantine or isolation period:**

• Drinking water in sufficient quantities constantly
• Consumption of foods and drinks that contain Vitamin C, such as lemon/orange/grape fruit/guava/baobab and hibiscus.
• Nutrients like copper, Folate, Selenium, Zinc and Vitamin A are important for immune system.
• Having healthy and balanced food throughout the day, which contains fruits, vegetables, carbohydrates, proteins, fats, vitamins and minerals.

Adherence to infection control measures is crucial to prevent disease transmission
Case Treatment Protocol for COVID-19 Patients
This protocol is developed on 16th March 2020 and will be updated regularly

This document is developed by members of the Case Management Committee in the Federal Ministry of Health (FMOH) to provide guidance to frontline clinicians caring for patients with COVID-19. It also provides guidance on screening tools, severity scoring system, categorization, and management protocol.

The FMOH’s view at this stage is to manage all suspected or confirmed cases at the isolation centers to limit the community spread and flatten the epidemic curve. As the Epidemic progress with increasing number of cases, more use of home isolation will be practiced.

All hospitals should assign a dedicated area for isolation and management of patients with suspected COVID-19 infection till decision to discharge or transfer to an isolation center accomplished.

Screening
• Screening tool utilize scoring system combining epidemiological factors with symptoms.
• Screening to be conducted on Phone when a suspected patient contacts the Corona Virus Helpline 221.
• Screening tool is used at the external triage area of all health facilities.

Personal Protective Equipment (PPE)
See PPE guidance.

Immediate Implementation of Appropriate IPC Measures
1. At triage:
   ○ Give suspected patient a medical mask and direct him/her to separate area, isolation room if available.
   ○ Keep at least one meter distance between suspected patients and others.
   ○ Instruct all suspected patient to cover nose and mouth during coughing or sneezing on tissues or flexed elbow.
   ○ Perform hand hygiene after contact with respiratory secretions.
2. Apply droplet precautions
3. Apply airborne precautions when performing aerosol generating procedures

Severity Assessment
WHO classifies COVID-19 into 4 severity grades as shown in the following table:

<table>
<thead>
<tr>
<th>Severity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mild</td>
<td>Uncomplicated upper respiratory tract infection</td>
</tr>
<tr>
<td>Moderate</td>
<td>Pneumonia with no need for supplemental oxygen (O2 saturations &gt;92% on air)</td>
</tr>
<tr>
<td>Severe</td>
<td>Fever or suspected respiratory infection, plus one of the following: respiratory rate &gt; 30 bpm; severe respiratory distress; O2 saturations ≤92% on air</td>
</tr>
<tr>
<td>Critical</td>
<td>Acute respiratory failure and/or shock</td>
</tr>
</tbody>
</table>
Clinical Syndromes Associated with COVID-19 Infection:

1- Mild Disease - Uncomplicated URTI:
- Severity score of 0-4
- Patient with uncomplicated upper respiratory tract infection
- Nonspecific symptoms such as fever, cough, sore throat, nasal congestion, malaise, headache.
- The elderly and immune compromised may present with a typical symptoms.
- Patient doesn’t have any signs of dehydration, sepsis, or shortness of breath.

Management:
- Symptomatic support—antipyretics for fever (Avoid NSAID), hydration, and rest.
- Admission to isolation center.
- With progression of the epidemics will be advised to home quarantine with written instructions on precautions, behavior modification and health team contact information.

2- Moderate Disease - Uncomplicated pneumonia:
- Severity score of 0-4
- Patient with higher clinical suspicion for pneumonia, or evidence of pneumonia on CXR (typically bilateral ground glass opacities)
- O2 saturations >92% on room air

Management:
- Symptomatic support as above.
- If Admission to isolation center , with progression of the epidemic, selected cases will be advised to self-quarantine at home for 14 days
- Give empiric antibiotics based for CAP pneumonia, recommend Amoxicillin 500mg TDS for 5 days + Azithromycin 500mg daily for 3 days.
- If bronchodilator treatment is required, provide Metered Dose Inhalers and spacers instead of nebulizers to prevent aerosolization of the virus
- Systemic corticosteroids are not recommended
- For high risk group with advanced age or comorbidities who are expected to develop severe lung disease and deteriorate clinically, start Hydroxychloroquine 400mg BD loading dose then 400mg daily for total of 5 days.

3- Severe Disease- Severe pneumonia: (**refer ICU protocol**)
- Patient severity score of 5-7
- Patient with Pneumonia – typically bilateral ground glass opacities on CXR
- O2 sats <92% on room air
- Patients are typically in respiratory distress with an increased respiratory rate and

---

1 Presentation in elderly may be Atypical and need to be considered separately
work of breathing, difficulty speaking in full sentences, and cyanosis (blue skin colour, especially lips and fingertips)

**Management:**

- Admit to isolation rooms
- Provide supplemental O₂ to achieve O₂ sats >94%
  - Nasal cannula
    - 20-40% oxygen
    - O₂ dose 1-5L/min
  - Simple facemask
    - 40-60% oxygen
    - O₂ dose 6-10L/min
  - Non-rebreather facemask
    - 60-90% oxygen
    - O₂ dose 10-15L/min
- Ensure proper fit, to reduce risk of aerosol spread

- May deteriorate rapidly; continuously monitor O₂ sats and vital signs; escalate oxygen dose and delivery device if hypoxia remains with maximal oxygen doses
- Give empiric antibiotics for severe CAP pneumonia, Ceftriaxone 1gm OD + Azithromycin 500mg daily for 3 days.
- Start Hydroxychloroquine 400mg BD loading dose then 400mg daily for total of 5 days.
- Non-invasive positive pressure ventilation is NOT advisable as it can aerosolize the virus and increase spread. High flow nasal cannula can be used safely. If additional respiratory support is required, patients should be intubated.
- Begin arranging for transfer to higher level of care as needed

**4- Critical Disease - Sepsis/shock and Respiratory failure: (refer ICU protocol)**

- Severity score of 8 or more.
- Hypoxemic respiratory failure, Acute Respiratory Distress Syndrome (ARDS), and/or shock
  Life threatening organs dysfunction, altered mental status, difficult or fast breathing, low oxygen saturation, reduced urine output, tachycardia, weak pulse, thrombocytopenia, acidosis, impaired LFT (hyperbilirubinemia)

**Management:**

- Endotracheal intubation and mechanical ventilation to manage ARDS
  - should be performed with airborne precautions by the most experienced clinician, with Rapid Sequence Intubation
Use low flow non-rebreather masks or masks with reservoir bags to oxygenate prior to intubation. Using a bag valve mask is NOT advisable as it can aerosolize the virus and increase spread.

- Mechanical ventilation goals:
  - SpO2 is >90%
  - Tidal volumes of 4-8 mL/kg
  - Inspiratory pressures < 30 cmH2O
- ECG and laboratory testing to monitor for complications including myocarditis, acute kidney injury, liver injury, and shock
- Test and treat co-infections, if possible, including influenza or other viruses, malarial blood tests, and blood cultures
- If shock is present, use conservative fluid management – aggressive fluid resuscitation may worsen oxygenation
  - 250-500 mL normal saline or lactated ringsers as rapid bolus
  - Monitor for signs of fluid overload before giving additional bolus
  - Administer vasopressors if shock persists
    - goal MAP >65 mmHg
    - If central lines are not available, give through peripheral IVs with monitoring for extravasation and local tissue necrosis
    - Noradrenaline is the first-choice vasopressor
    - Adrenaline is the second to be added.

**Collection of specimens for laboratory diagnosis**

- Collect blood cultures for bacteria that cause pneumonia and sepsis, ideally before antimicrobial therapy. DO NOT delay antimicrobial therapy to collect blood cultures
- Collect specimens from both the upper respiratory tract (URTI: nasopharyngeal and oropharyngeal) and lower respiratory tract (LRT: Expectorated sputum, endotracheal aspirate, Broncho alveolar lavage) for n COV testing by RT-PCR. Clinicians may elect to collect only LRT samples when these are readily available (for example in mechanically ventilated patients).
- In hospitalized patient with confirmed n COV repeat URT and LRT samples should be collected to demonstrate viral clearance. The frequency of the specimens collection will depend on local conditions, but should be at least every 2 or 4 days until there are two consecutive negative results in a clinically recovered patient at 24 hours.
Additional Supportive Measures:

- Optimize nutritional support
- Rationalize medications and guard against interactions
- VTE risk assessment and appropriate prophylaxis of admitted patients.

Specific Anti-Novel-CoV Treatments and Clinical Research

- There is currently scarce evidence to recommend a specific treatment. Clinical trials are highly encouraged to advance medical knowledge for this pandemic.
- Use of Hydroxychloroquine has been trialed in pilot studies, evidence is promising and further information might appear soon. Given the good safety profile hydroxychloroquine have been advised to help mitigate the risk of severe lung injury and clinical deterioration.
  *This part will be updated once new evidence arises.
- The use of antivirals and/or immunomodulators is to be discussed with ID/Microbiologist on case by case bases or through clinical trials.
- FMOH is encouraging researchers and clinicians to come forward.

Special Considerations for Pregnant and Lactating Women

- For pregnant women suspected of COVID-19 or confirmed and due for labor, to deliver in isolation centers
- Isolation centers should be equipped with a surgical setup
- If operation room not available, deliver in nearest facility and adhere to infection control measures
- Lactating mothers should continue to breastfeed her infant/young child while taking all infection prevention precautions
- If condition of mother deteriorates then separate child from mother and extract breast milk for feeding infant/young child.
- A midwife should be present in every isolation center.
- A nutritionist should be present in every isolation center.
**Nutritional guidance during the isolation period for children age 6-59 months:**

- The trained health care provider conducts MUAC screening for all children and if the child is classified:
  - Severe Acute Malnutrition (SAM), should apply the SAM protocol for treatment.
  - Moderate Acute Malnutrition (MAM), should apply the MAM protocol for treatment.
  - Child without Acute Malnutrition, should provide Vitamino/plumpy doz.

- Healthy children without malnutrition should give one preventive dose of Vitamin (A), if she/he did not take any dose during the previous six months.

**General nutritional guidance during the Isolation period:**

- Drinking water in sufficient quantities is highly encouraged.

- Drinking liquids which contain Vitamin C, such as lemon / orange / grape fruit / guava/baobab and hibiscus local juices is recommended.

- Eat a healthy and balanced food throughout the day, which contains carbohydrates, proteins, fats, vitamins and minerals.

- Focus on eating a variety of vegetables and fruits, especially the ones which contains zinc, vitamin D and iron to strengthen immune system.
Assessment of patients in dedicated respiratory illness areas of the hospital

<table>
<thead>
<tr>
<th>Presentation</th>
<th>Features</th>
<th>Management &amp; intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mild disease</td>
<td>URTI</td>
<td>- Assess vitals and concerns</td>
</tr>
<tr>
<td></td>
<td>Severity score 0-4</td>
<td>- Take both Nasopharyngeal swabs for SARS-Cov2 PCR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Admit to isolation area</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Simple antipyretics Paracetamol.</td>
</tr>
<tr>
<td>Moderate disease</td>
<td>Pneumonia without oxygen support</td>
<td>- Assess Vitals, Focused exam, PMH and Medication history</td>
</tr>
<tr>
<td></td>
<td>Severity 0-4</td>
<td>- Both NPS for SARS-Cov2 PCR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Admit to a isolation area</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Treat empiric CAP (Amoxicillin 500mg TDS+ Azithromycin 500mg daily for 3 days)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Start hydroxy-Chloroquine 400mg BD for 1 day followed by 400mg for total of 5 days</td>
</tr>
<tr>
<td>Severe disease</td>
<td>Severe Pneumonia with oxygen requirement</td>
<td>- Assess Vitals, Focused exam, PMH and Medication history</td>
</tr>
<tr>
<td></td>
<td>Severity score 5-7</td>
<td>- NPS for SARS-Cov2 PCR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Admit to a Monitored bed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Supplemental oxygen Keep saturation &gt;92%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Empiric severe CAP (Ceftriaxone 1Gm OD + Azithromycin 500mg OD)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Start Hydroxy-Chloroquine 400mg BD for 1 day followed by 400 daily for total of 5 days</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Specialist consultation for considering antivirals/immunomodulators.</td>
</tr>
<tr>
<td>Critically ill</td>
<td>Severe Sepsis/Respiratory failure</td>
<td>ABCD support</td>
</tr>
<tr>
<td></td>
<td>Severity Score &gt;8</td>
<td>Treat as severe sepsis</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ICU bed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Don’t delay I&amp;V once optimise Haemodynamic with fluids and pressors (See below)</td>
</tr>
</tbody>
</table>

Adhere to all standard infection control measures to prevent disease transmission

31/3/2020

Version 1
COVID-19 protocol for pregnant and recently delivered women

This protocol is approved on 26th March 2020 and will be updated regularly

1- Clinical manifestations (symptoms)
   - Currently no difference between the clinical manifestations of COVID-19 pregnant and non-pregnant women or adults of reproductive age.
   - No evidence that pregnant women are at higher risk of severe illness.
   - Considering asymptomatic transmission of COVID-19 may be possible in pregnant women. Carefully assess the exposure history.

2- How COVID-19 affects fetus and infant:
   - No evidence of vertical transmission, however IPC standards must be adhered to.
   - No evidence that pregnant women with COVID-19 present the increased risk of fetal compromise.
   - Relatively few cases have been reported of newborns confirmed with COVID-19 and they experienced mild illness.

3- Caring for pregnant women suspected/confirmed with COVID-19:
   - Triage pregnant women using the national COVID-19 triage checklist.
   - Prioritize pregnant women among other patients for COVID-19 testing.
   - In the isolation center, follow the same routine of pregnancy and labor care.
   - There is no indication for termination of pregnancy or emergency delivery due to COVID-19.
   - Mode of delivery should be individualized based on obstetric indications and the woman’s preferences.
• If a pregnant women suspected/confirmed of COVID-19 and in active stage of labor, and the isolation center is equipped to support the delivery, she should be delivered in the isolation center facility.

• In the situation that the isolation center does not have labor room, the patient should be referred to the nearby prepared EmONC facility.

• Provide mental health and psychosocial support.

• Recently delivered mothers suspect or confirmed of COVID-19 should practice respiratory hygiene (coughing and sneezing etiquette and wear mask) during breast feeding, perform hand hygiene before and after contact with the child, and routinely clean and disinfect surfaces which the symptomatic mother has been in contact with.

• Expressed milk or formula are alternative option, depends on mother’s physical condition and preference.

• Mothers and infants should be enabled to remain together and practice rooming-in throughout the day and night with utmost adherence to IPC measures to reduce the risk of transmission to the infant.
Clinical Guidance for admitted children (<18 years) with COVID-19

This protocol is approved on 26th of March 2020

This clinical guidance is developed to assist in management of patients and does not replace clinical judgment or individual patient needs.

Admission Date: \__________\      Time: \__________\      Admitted From: \__________\nNo Code □      Date: \__________\      Age: \ □ \ □ \ □ \ □ \Consultant: \__________\nHospital:
Hx of travelling from endemic area Yes □ NO □
Hx of contact with confirmed or suspected case Yes □ NO □

ESSENTIAL INFORMATION FOR COVID-19 ADMISSIONS

☑ Diagnosis of COVID-19 confirmed (Positive Covid-19 PCR) Yes □ No □

☑ Epidemiological criteria + two of the following 3 criteria (Clinical laboratory or radiological)

Yes □ No □

☑ Clinical criteria + laboratory criteria + Radiological criteria Yes □ No □

### Epidemiological Criteria
- Hx of travelling to or residence in a location reporting community transmission of COVID-19 disease
- Hx of contact with confirmed or suspected case.

### Clinical Criteria
- □ Child with severe acute respiratory illness (Severe pneumonia, sepsis, septic shock ARDS or needs PICU admission)
- PLUS
  - □ Clinical assessment that patient is not improving and no clear underlying causes.

### Laboratory Criteria
- □ WBCs normal or decreased with lymphopenia.
- □ High CRP or ESR

### Radiological Criteria
- □ Interstitial changes on HRCT chest OR Chest X-ray and negative Covid-19 PCR and any of the previous criteria. (non-specific)
Assessment of Severity: Indications for Hospital Admission and Site of Care
(History, Physical Examination, Investigations)

<table>
<thead>
<tr>
<th>PR</th>
<th>RR</th>
<th>BP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temp</td>
<td>Pulse Oximetry</td>
<td>RBG</td>
</tr>
<tr>
<td></td>
<td></td>
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</tr>
<tr>
<td>BP centiles</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Presence of any of the Following Features makes Hospital Admission Obligatory

<table>
<thead>
<tr>
<th>Site of Care</th>
<th>General Ward</th>
<th>HDU/PICU</th>
<th>PICU</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Severe pneumonia</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Pneumonia* PLUS</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>At least one of the followings:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Central cyanosis or SpO2 &lt; 90%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Severe respiratory distress (grunting, very severe chest indrawing).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>( ) Signs of pneumonia with a general danger signs inability to breastfeed or drink, lethargy or unconsciousness, or convulsions</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| **Severe pneumonia Cough** | | |

| **Sepsis** | | |
| Children: suspected or proven infection PLUS | | |
| ≥ 2 age-based SIRS criteria, of which one must be abnormal temperature or white blood cell count. | | |
| 1. Temperature >38 °C or <36 °C | | |
| 2. Tachycardia | | |
| > 160 bpm in infants | | |

| **Septic shock** | | |
| □ Hypotension (SBP < 5th centile) | | |
| Or | | |
| Two or three of the following: | | |
| □ 1. Altered mental state | | |
| □ 2. Tachycardia | | |
| > 160 bpm in infants | | |
| > 150 bpm in children or □ 2- Bradycardia | | |
| < 90 bpm infants | | |
| < 70 bpm in children | | |
| □ 3. Prolonged CRT (> 2 sec) or feeble pulse | | |
| □ 4. Tachypnoea (see table of severe) | | |

| | | |
| Refractory hypoxaemia | | |
| Confusion/coma | | |
| Hemodynamic Compromise | | |
| Acute hypercapnia or respiratory fatigue | | |
or difficulty breathing + fast breathing:
Fast breathing figures:
RR < 2 months: ≥ 60
RR 2–11 months: ≥ 50
RR 1–5 years: ≥ 40
RR > 5 years: ≥ 30

> 150 bpm in children

pneumonia

□ 5. Mottled or cool skin or petechial or purpuric rash
□ 6. Oliguria
□ 7. Hyperthermia or Hypothermia.
□ 8. Increased lactate

---

Any of the following signs:

- Obstructed or absent breathing
- Severe respiratory distress,
- Central cyanosis
- Shock
- Coma
- Convulsions.

Airway management and oxygen therapy during resuscitation to target SpO2 > 94%; otherwise, the target SpO2 is ≥ 90%.

---

Indications of chest CT scan

A) Bilateral lung involvement on CXR.
B) ICU admission.
C) In a patient who has not responded to primary treatment and is developing respiratory distress.
D) The CXR is getting worse.
E) Symptomatic patient in contact with definitive patient with COVID-19.
Presenting Symptoms:

HPI:

PH & Co morbidities
Previous Hospital Adm.: Y N
A- Long term respiratory conditions
Chronic lung disease of prematurity with oxygen dependency Y N
Cystic fibrosis Y N
Asthma Y N
Respiratory complications of neurodisability Y N
B- Immunocompromised:
Treatment for malignancy Y N
Congenital immunodeficiency Y N
HIV Y N
Immunosuppressive medication including long term >2 consecutive days of daily
oral or IV steroids (not alternate day low dose steroid or hydrocortisone
maintenance) Y N
Post-transplant patients (solid organ or stem cell) Y N
Asplenia (functional or surgical) Y N
Trisomy 21 Y N
c- Haemodynamically significant and/or Cyanotic heart disease Y N
Other: ...

Nutritional Hx: Sufficient □ Not sufficient □
Developmental Hx: Normal □ Delayed □
Immunization Hx: Unknown □ Vaccinated up to date □ Completed vaccination □

SH/FH
Hx of contact with confirmed or suspected COVID-19 patient Y N
Smoker at home Y N
TB contact Y N
Recent travel Y N
Country: ...

DH: [Handwritten]

Start antibiotics within 1 hour of initial assessment for patients with sepsis

Choice of antibiotic:
1. Patients with Pneumonia on CXR or HRCT (Ward Admission for 6-10 days):
   - Start Ceftriaxone + Azithromycin + oseltamivir+ chloroquine
2. Underlying lung disease
   Consider antipseudomonal antibiotic in stead of Ceftriaxone plus the other antibiotics.
3. Suspected aspiration: 2nd or 3rd generation cephalosporin and Clindamycin or Metronidazole plus the other antibiotics.

4. ICU admission:
Piperacillin/Tazobactam
Recent antibiotic & Which:  
Chronic medications  
**Allergic HX:**  
Penicillin Allergy Y N

| + Osletamivir plus + hydroxychloroquine or chloroquine + Kaletra (lopinavir + ritonavir) | ribavirin |
| If concern for MRSA: Add Vancomycin or Linezolid. |

Physical Examination:  
General:  
Weight..... kg    height/length....... cm    weight/height.........z score  

CVS

Chest

Abdomen

CNS

Summary of Case:
Name & Signature:

Senior paediatrician Comments:
Concur with above findings: Y □ N □ Expected length of stay:
Revisions/Additions:
COVID-19 admission orders

- Date and Time:
- Inform Infection Control Team
- Condition: Stable □ Unstable □
- Vital signs: Q Hourly
- Insert Cannula
- Allergies:
- Diet:
- Gluco checks: Q ..........Hrly
- Keep O2 saturation >/= -------------%
- Consult Infectious Disease, Pulmonary and ICU as appropriate.

<table>
<thead>
<tr>
<th>Investigations/Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Covid-19 RT. PCR</td>
</tr>
<tr>
<td>□ Chest x-ray:</td>
</tr>
<tr>
<td>□ HRCT Chest if available (order if Covid-19 PCR is negative and diagnosis is highly-probable:</td>
</tr>
<tr>
<td>□ ABG on RA/Oxygen: pH PaO2 PaCO2 HCO3^-</td>
</tr>
<tr>
<td>□ CBC/Diff: Hb MCV TWBC Neut Lymp Platelets Eosinophils</td>
</tr>
<tr>
<td>absolute lymphocyte count</td>
</tr>
<tr>
<td>&lt; 3000/microL in infants (1 month to 12 months)</td>
</tr>
<tr>
<td>&lt; 2000/microL in Childs 1 - 5 years of age</td>
</tr>
<tr>
<td>&lt; 1100/microL in older than 5 years).</td>
</tr>
</tbody>
</table>
- Renal: Urea, Creatinine, Na⁺, K⁺, Glucose, HCO₃⁻, Cl⁻, Ca²⁺, Mg²⁺
- LDH (marker of severity)
- Ferritin level
- LFT
- INR
- Sputum Gram stain and C/S:
- Blood C/S
- Urinalysis:
- CRP (Usually high in Covid-19)
- Stool for PCR
- Other tests
### Medications

- **Oxygen (Delivery device & percent):**

- **Ceftriaxone infusion** 100mg/kg/day

- **Azithromycin 10mg/kg/ on day 1 followed by 5mg/kg Once daily from day 2 to day 5 PO**

- **Piperacillin/Tazobactam 300 mg/ kg/day divided every 6-8 hours**

- **Vancomycin 15 mg/kg/dose every 6 hours**

- **Oseltamivir**
  - Term infants 0 - 12 month, 3 mg/kg/dose, twice daily
  - 10-15 kg: 30 mg, twice daily
  - 15 - 25 kg: 45 mg, twice daily
  - 25 - 40 kg: 60 mg, twice daily
  - > 40 kg: 75 mg, twice daily
  - Adults 75 mg, twice daily
  - For at least 5 days.

- **Hydroxychloroquine 10 mg/kg orally every 12 hours (max: 600 mg/dose), followed by 3 mg/kg orally every 8 hours (max: 200 mg/dose) or**

  Chloroquine loading 10 mg/kg orally (maximum 600 mg) followed by 5 mg/kg orally

  (maximum: 300 mg) daily 6 hours after the loading dose for 5 days.

- **Lopinavir + Ritonavir**

  Dosage based on weight, presented based on mg of lopinavir; maximum dose: Lopinavir 400 mg/ritonavir 100 mg

  - 7-15 kg: 12 mg/kg twice daily
  - 15-40 kg: 10 mg/kg twice daily
  - >40 kg: 400 mg/100 mg twice daily

  Should not be administered to neonates before gestational age of 42 weeks and postnatal age of at least 14 days.

- **Ribavirin** For children over 3 years old:
  - < 47 kg: 15 mg/kg/day-BID
  - 47 - 59: 400 mg-BID
  - 60 - 73: 400 mg– in the morning, 600 mg– in the evening
  - 73: 600 mg-BID

  For up to 14 days, depends on patient’s response.

- **IV Fluid (Specify type & rate):**

  Fluid in septic shock (maximum two boluses):

  - 10-20 mL/kg NS or ringer lactate in the first 30-60 minutes and reassess for signs of fluid after each bolus.
Determine need for additional fluid based on clinical response and improvement of perfusion targets.

**Perfusion targets include:**
- MAP > age-appropriate targets in children urine output (> 1 mL/kg/hr in children), and improvement of skin mottling and extremity perfusion, capillary refill, heart rate, level of consciousness, and lactate.

**Administer vasopressors if:**
- 1. Signs of shock such as altered mental state / bradycardia or tachycardia / prolonged capillary refill (> 2 seconds) or feeble pulses /tachypnea; mottled or cool skin or petechial or purpuric rash / increased lactate / oliguria persists **after two repeat boluses**; or
- 2. age-appropriate blood pressure targets are not achieved; or
- 3. signs of fluid overload are apparent
  - Epinephrine is considered first-line treatment, while norepinephrine can be added if shock persists despite optimal dose of epinephrine.

**Other Orders:**

**COVID-19 DISCHARGE ORDERS**

---

Paediatrician name & signature
Contact Management & Testing Strategy Protocol

This protocol is developed on 1st of April 2020 and will be updated regularly

Definition of a close contact:

1. A person having direct contact with infectious secretions of a COVID-19 case (e.g., being coughed on)

   OR

2. A close contact is someone having close (within 2 meters) and prolonged (generally ≥30 minutes) contact with the COVID-19 patient

Examples of close contacts (High-risk exposure):

• A person living in the same household as a COVID-19 case

• A person having had direct physical contact with a COVID-19 case (e.g. shaking hands)

• A person having unprotected direct contact with infectious secretions of a COVID-19 case (e.g. being coughed on, touching used paper tissues with a bare hand)

• A person having had face-to-face contact with a COVID-19 case within 2 metres and > 30 minutes

• A person who was in a closed environment (e.g. classroom, meeting room, hospital waiting room, etc.) with a COVID-19 case for 30 minutes or more and at a distance of less than 2 metres

• A healthcare worker (HCW) or other person providing direct care for a COVID-19 case, or laboratory workers handling specimens from a COVID-19 case without recommended PPE

• A contact in an aircraft sitting within two seats (in any direction) of the COVID-19 case, travel companions or persons providing care, and crew members serving in the section of the aircraft where the index case was seated.

\[1\] Reference of the Cut off of 30 minutes is Singapore (a country that has been marked as successful in containment strategies and early case detection)
Definition of low risk contact (low risk exposure):

Persons who had some interactions with the COVID-19 patient for shorter periods of time (less than 30 minutes) and at a distance of more than 2 meters.

Examples of low risk contacts:

- A person who was in a close environment with a COVID-19 case or had face-to-face contact with a COVID-19 case for less than 30 min and at a distance of more than 2 metres.
- Travelling together with a COVID-19 case in any kind of conveyance.

N.B. Low risk contacts with co-morbidities or age ≥ 65 to be considered as at risk groups when prioritizing for testing.

Management of Contacts:

- Asymptomatic close contacts are to be placed under quarantine for 14 days.
- Asymptomatic low risk contacts to be placed under active monitoring for the duration of 14 days.

All contacts in quarantine or during monitoring period should be assessed by telephone for fever or respiratory symptoms by public health officials, twice daily for close contacts and once daily for contacts at lower risk.

Who should be tested for COVID-19?

1- Suspected cases score ≥62 based on case definition

2- Close contacts of a confirmed case

3- Low risk contacts with co-morbidities

4- Low risk contacts followed by contact tracing/ monitoring whom developed symptoms suggestive of COVID-19

2 Refer to Zero Triage protocol
5. Pneumonia patients admitted to hospitals not responsive to treatment identified through active surveillance and/or zero reporting.

6. Symptomatic health workers (including emergency services and non-clinical staff) regardless of whether they are a contact of a confirmed case.

7. Medical practitioners could choose to test patients if there was clinical (e.g., prolonged respiratory illness with unknown cause) or epidemiologic (e.g., association with known clusters) suspicion.

*Ideally all levels should be tested especially at the beginning of an outbreak where local transmission has not yet been reported. Depending on available resources priority should be given starting with inner circle outwards.

**When to take a swab:**

1- In a suspected case (symptomatic) take swab day 1, if result comes negative repeat on day 5 or
2- For contacts take first swab day 5 after first contacting confirmed case (median of incubation period) if negative, repeat only if contact started showing symptoms during quarantine/monitoring.

3- In hospitalized patient with confirmed COVID-19, samples should be taken after clinical recovery after 2-4 days until there are two consecutive negative results

Who is responsible of initiating testing?
1- Rapid response teams receiving feedback from contact tracing surveillance/officers
2- Healthcare professionals at triage suspecting a case and contacting the isolation centre
3- Healthcare professionals at isolation centre determining the recovery of a patient from COVID-19

References:
3- World Health Organization (WHO). Laboratory testing strategy recommendations for COVID-19 Interim guidance 22 March 2020
موجهات الرعاية المنزلية لمرضى كوفيد-19 وحالات المشتبهة

هذا البروتوكول أُجيز في 18/3/2020 وهو قانون للتعديل بصورة مستمرة
قرار الرعاية المنزلية يتم اتخاذه من قبل الكادر الطبي ب亚军 إجراء التقييم لحالة المريض وبيئة المنزل للرعاية الصحية المنزلية.

1. لمن يجب تقديم الرعاية المنزلية:
   - المرضى الذين يعانون من أعراض خفيفة لاستبعاد التخلي في المراكز الصحية. (تأتيهم على قياس أقل من أو يساوي 4 للنظام الفرز).
   - المرضى الذين تoinsPLEح حالاتهم ولا يحتاجون إلى الرعاية المركزة في المراكز الصحية/مركز العزل.
   - الأشخاص الذين يعانون من أعراض مرضة اكتشأت حالات اقتصادية داخل المجتمع.
   - الأشخاص المنزليون لحالات اقتصادية مؤكدة وهم:
     - الأشخاص الذين قاما بتقديم الرعاية الطبية بدون معدات الوقاية الشخصية المناسبة لمرضى الكورونا.
     - الأشخاص الذين يوجدوا في البيئة القريبة لمريض الكورونا (مثال: مكن، مكان العمل، القبول الدراسي، طائرة، حافلة، التجمعات).

2. الشروط التي يجب أن توفر في المنزل متى يمكن تقديم:
   - أن يكون مساحة منزلية كبيرة والمريض فقط ولا يشارك فيه أحد.
   - أن تكون الرعاية التهوية المناسبة.
   - أن يكون له حوض قريب أو معدات (أريج) لفصل الابد. 
   - أن يتم الادارة الطبية والعلاج من الخدمات الخاصة بالمريض بالضرورة الصحية.
   - أن يكون له شخص محدد يقدم الرعاية بالمرض حسب الموجهات مع تجنب الاتصال المباشر ما أمكن.
   - توفير إمكانية الاتصال بمقدمي الخدمات الصحية في حالة الظهور السريع لحالة المريض.

3. نصائح وارشادات أثناء فترة رعاية المريض بالمنزل:
   - يتم وضع المريض في مكان مخصص عن بفصة أفراد العائلة عن إن تتوفر به الرعاية المناسبة.
   - يجب الالتزام بعدم خروج المريض من المنزل طوال فترة العزل مع التأكد على الحد من حركة المريض داخل المنزل والتنقل من المنزل إلى الأماكن المشتركة (الطريق، الحمام) قدر الإمكان.
   - يتم تخصيص شخص محدد يقوم بالعناية بالمريض ويجب أن يكون بصحة جيدة ولا يتعلق من أمراض مزمنة أو ضعف في المناطة.
   - يمنع زيارة المريض طوال فترة العزل المنزل.
   - المكروت بالمنزل لمدة 15 يوم.
   - القيام بتطهير جميع الأسطح حول المريض بصورة دورية باستخدام المطهرات مثل الكلاور...

في حالة الحوالات على ورك الوضع يتم إقفال في المراكز الصحية مركز العزل إلى الوضع حتى لو كانت حالاتهم مستقرة.

25/3/2020
Version 1: Update 2
يجب تخصيص أطبية ومعمارش أو أزكس لولاية خاصة بالمرضى ويعتبر استخدام هذه الأدوات يجب علاجها جيدا بالماء وصابون مع ضوءًا ازدهار جوانب لقياس اللحظة.

يجب على المريض رغبة الكامنة الطبية على قدر المستطاع خاصيًا في الفترات التي يواجد فيها رفع المريض، ولذلك لحاجة إلى الأفكار المناسبة. إذا تمتلك الكامنة أو ظهرت إلكترونات فوريا. إذا كان المريض لا يتحرك لحي الكامنة الطبية يجب عليه الإلتزام بدفعها إلى الأمام المريض عند뭇 أو الكحلا وجمع المنسوب إليه في راجع مغلفة ملزمة حتى يحولها، حيث يحول مرة تفاضل يراقب تغطية الأذن وقطر بكارت. عند العمل أو الكحلا ثم غير البيري مباشرة.

يجب على من يقوم برعاية المريض ارتداء الكامنة الطبية عندما يكون بالقرب منه (على سبيل المثال عند دخول غرفة المريض) وتشماد من أن بعد الاستخدام يوضعها داخل كيس مغلق ثم حرقها. لأيًا استخدام الكامنة أو الجوانب، يجب تنظيف وتطهير الحمام بكل استخدام بالكحلا. شرب السوائل الدافئة أو الفستق بكمية.

الرجوع إلى الطبيب المختص عن أي رعاية إضافية قد تحتاج إليها في بعض الأوضاع الخاصة مثل: حالة الحمل أو بعض الأمراض المتصلة كالسكري، أمراض القلب، الضغط، الرئة، انتفاخ الرئة، ضعف المناعة والسرطان.

اذن أصيب المريض بأحد الأعراض التالية، يجب الإتصال بالمرفق الصحي المختص/مركز الزلز:

- صعوبة أو ضيق في التنفس أو في النزف.
- حمى.
- تغيرات شديدة إلى السمنة أو الأزمة.
- قي، والفم والسوائل.
- ظهور علامات الجفف مثل الدوار عند الوقوف، قطرتب اللثوي، أو عند الانتهاء عن الوضوء، وقفة الدوران عند البقاء لدى الأطفال.
- حدوث تشنجات.
- اختلافات الأذن عند المريض، وفقدان الوعي.

إذا استدعى الأمر الذالم إلى المرفق الصحي/مركز الزلز، حافظ على ارتداء الكامنة وتجنب المواصلات العامة واتلاف المركزة. من الإمكان. في الططلة في المركزة التي تقم بها المريض (من خلال الأفكار المناسبة أو أفكار أخرى من جسم المريض) يجب تنظيفه بالماء وصابون ثم تطهيره بالكحلا بتركيز 0.1%.

- نصائح وأرشادات للناس أثناء فترة رعاية المريض بالزلز:

يجب على أفراد الأسرة البقاء في غرفة غير غرفة المريض الخاضع للزلز المنزلي بقدر الإمكان والحفاظ على مساحته بعد مساحته إذا كان لا بد من الاحتفاظ.

يجب على أفراد الازمة استخدام حمام منفصل عن حمام المريض إذا كان ذلك ممثلا.

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- نصائح وأرشادات للناس أثناء فترة رعاية المريض بالزلز:

يجب على أفراد الأسرة البقاء في غرفة غير غرفة المريض الخاضع للزلز المنزلي بقدر الإمكان والحفاظ على مساحته بعد مساحته إذا كان لا بد من الاحتفاظ.

يجب على أفراد الازمة استخدام حمام منفصل عن حمام المريض إذا كان ذلك ممثلا.

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لا يجب إعادة استخدام الكمامات أو الوجوه.

- محافظة أفراد الأسرة على أحيانهم بوضوح وذلك بتغليفهما بالبلاستيك والصابون وفركهما لمدة 20 ثانية على الأقل.
- تجنب لمس العينين والأنف والأنف بالماء غير مقشطة.
- تجنب جلسة البراز، البراز في الشرايين، البراز، البراز، البراز في الفم الذي يقوم بتجهيمه.
- تجنب الزوار الذين لا حاجة لوجودهم بالمنزل.
- تجنب رعاية الحموش للمرضى المريض إذا أمكن.

- إذا كان هناك شخص من يكون في الأوضاع الخاصة مثل حالة الحمل أو بعض الأعراض المزمنة مثل السكري، الضغط، امراض القلب، الريه، ارتفاع الرئة، السرطان، ضعفي المناعة في المنزل يجب أن تتجنب الأحكام مع المريض لضغط المناعة لديهم.

- عدم شاركة المريض أدوية الاستعمال الشخصية مثل الأغذية والمعادن واواني الاكل والشراب وبعد استخدام المريض هذه الأدوية يجب غسلها جيدا بالماء والصابون مع ضرورة ارتداء جوهرات نظيفة أثناء الغسل.
- تنظيف جميع الأسطح التي يتم لمسها كثيرا باستخدام المطهرات مثل الكلور بتركيز الف جزء في المليون (1%) من ملوقه في الأبواب والحواف، مفاتيح الأبواب، مقصات الحمام، الطاولات، الأرذة مع ضرورة ارتداء جوهرات نظيفة أثناء التنظيف.

- لا يجب إضافة المساحات المشتركة في المنزل بها نهية جيدة.
- تجنب التواجد في الجمعيات والأنشطة في الأماكن.

- في حالة العسل أو الكحة الالزام بألا يدا لião العسل طلبة تعليب الأف، وفق بمسودة، والغرض من التحليل الورقي في ملء نغابات مغلقة حتى حرمه.
- في حالة عدم موفر منبئ، يجب لغز الشمع عند العسل أو الكحة.

- على أفراد الأسرة المقابلة في الحجر الصحي لمدة 14 بعد شفاء المريض إذا كانت نتيجة مؤقتة لمرض كرونا.

- إذا أصيب إي أحد أفراد الأسرة أو المخالطين في من الأعراض التالية يجب اخبار الموقف الصحي قبل التوجه اليه: تجد:
  - جم.
  - كحة أو العرق في الحلق.
  - ضيق في التنفس.

5. في الطريق إلى المؤسسة الصحية (في حالة عدم توقف):

- حافظ على أرتداء الكمامات وتجنbewاصلات العامة والإحات المزدوجة قبل الأماكن.
- يجب حفظ أثاب العضل، نظافة اليد، الأرتداء ساري مدر على الأقل من الأقاصي المتزامن في الطريق إلى المركبة.
- و في حالة، كلما تم تلقيه في المركبة التي قد بها الخلاف لدى أنظمة الأعراض المتزامن (من خلال الأعراض التنفسية أو أعراض أخرى من الجسم) يجب أن يتم تنظيفها بالماء والصابون ثم تطهيرها بالكلور بمقدار ضعف نفاذية التربة (الاعتماد) تركيز الف جزء في المليون (0.1%).

Version 1: Update 2

25/3/2020
تحضير الكلور السائل:

- لتحضير 1 لتر (1000 ملم) من الكلور يتم أخذ 20 مل من الكلور السائل بتركيز 5% + 980 مل من الماء الم غلي.
- يتم استخدامه أيضاً في معالجة المفروشات وملابس المرضى وذلك بخمسها في الكلور لمدة 30 دقيقة ثم عملها ببما ساخن (90-60 درجة) وتجفيفها وكمها.
- يتم تحضير الكلور عند الحاجة للاستخدام الفوري حيث أن فعالية المادة المطهرة تقل بعد خلطه بالماء.
- يمنع تماماً خلط الكلور مع أي منتجات أخرى (مثل الديبول أو الفلينك...) وذلك تجنباً للتعرض للأبخرة والغازات السامة التي تنتج عن التفاعلات الكيميائية لهذه المنتجات.