

## **MANAGEMENT OF CONFIRMED COVID-19 CASE IN LOW RISK COVID-19 QUARANTINE AND TREATMENT CENTRE (PKRC) AND PKRC-INTEGRATED (PKRC-i)**

### **1. Introduction**

PKRC is a quarantine and treatment centre that treats low risk COVID-19 patients to accommodate the increasing number of COVID-19 cases. The establishment of PKRC can ease pressures on existing hospitals.

### **2. Admission Selection Criteria**

Below are some guides on admission criteria for PKRC (Refer Box 1). Admission criteria can be customized based on three factors:

- i. The infrastructure and design of the PKRC such as clinical work areas, and toilets.
- ii. The clinical staffing capabilities for treatment and monitoring of patients.
- iii. The clinical support services located within the PKRC such as radiology and laboratory services.

#### **Box 1: PKRC Admission Criteria**

**(these criteria should be customized as suited for the local setting)**

**Confirmed COVID-19 patients can be placed at PKRC if fulfil ANY of the following criteria.**

#### **PKRC (Level 1)**

- i. Category 1 and 2 but not suitable for home quarantine (if pregnant, POG < 22 weeks with no added comorbidities)
- ii. No comorbid or stable comorbid such as Diabetes Mellitus, cardiovascular disease, chronic pulmonary disease including asthma, chronic renal disease, hypertension
- iii. BMI < 35 kg/ m<sup>2</sup>
- iv. ADL independent and able to ambulate without assistance and self-administer medication
- v. Do not have ongoing clinical needs such as haemodialysis
- vi. Stable psychiatric patients

#### **PKRC (Level 2)**

- i. Category 1 and 2 but not suitable for home quarantine (if pregnant, POG < 22 weeks with no added comorbidities)
- ii. Category 3 disease

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| <ul style="list-style-type: none"><li>iii. No comorbid or stable comorbid such as Diabetes Mellitus, cardiovascular disease, chronic pulmonary disease including asthma, chronic renal disease, hypertension</li><li>iv. BMI &lt; 35 kg/ m<sup>2</sup></li><li>v. ADL independent and able to ambulate without assistance and self-administer medication</li><li>vi. Do not have ongoing clinical needs such as haemodialysis</li><li>vii. Stable psychiatric patients</li></ul> |
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### **3. Admission Assessment for PKRC**

3.1 Assessment for admission to PKRC can be done using phone triaging and physical assessment.

3.2 When using phone triaging assessment, local dialect or language descriptors for the following red flag symptoms must be assessed:

- i. Exertional dyspnea
- ii. Chest pain
- iii. Unable to tolerate orally
- iv. Unable to ambulate without assistance

3.3 Patients with any of the above symptoms should be physically assessed. Otherwise, patients can be directly admitted to PKRC.

3.4 High risk patients require physical assessment before being admitted to PKRC. The aim of the physical assessment is to determine patients who are already showing signs of progressing to COVID-19 pneumonia Category 4 or those who are not suitable to be admitted to the field hospital environment. Physical assessment involves three aspects:

- i. Targeted history taking regarding symptoms.
- ii. Vital signs assessment.
- iii. Exertional dyspnea test. This test should not be performed on patients with an underlying history of reduced effort tolerance, RR above 25/min and oxygen saturation below 95% on room air.

3.5 When available, a selected high-risk group of patients should undergo Lung Ultrasound or Chest Xray to diagnose the presence of COVID-19 pneumonia prior to admission.

### **4. Patient Monitoring in PKRC**

4.1 All patients should be monitored daily for clinical warning signs; this includes:

- i. Persistent or new onset fever
- ii. Worsening or persistent symptoms such as lethargy or cough

- iii. Reduced effort tolerance
- iv. Reduced level of consciousness

4.2 Blood investigation can be done after admission and may need to be repeated when the patient has clinical warning signs. The blood and biochemical parameters suggestive of progressive disease include:

- i. Dropping absolute lymphocyte count or single value  $< 1$  cells/uL
- ii. Neutrophil-lymphocyte ratio (NLR)  $\geq 3.13$
- iii. Increasing CRP of a single value  $> 50$ mg/L
- iv. Increasing LDH or a single value  $> 245$ U/L

4.3 Following practices help better assessment of patients and recognizing early deterioration:

- i. Have a proper clinic space with blood taking facilities in all PKRC where patients can be brought in for assessment one by one.
- ii. Have a separate area in the PKRC where patients who seem to be at higher risk of deterioration can be placed, hence close monitoring can be done.
- iii. Educate the paramedics on the warning signs, so that they can ask the relevant questions to the patients when the vital signs are being measured.
- iv. Educate patients to do self-assessment by putting up posters in the PKRC encouraging patients to call the staff if they themselves or their neighbours are experiencing vomiting, breathlessness, or fever

## **5. Stepping down stable patients to PKRC from hospital**

In addition, higher risk group patients who seem to be in the recovery phase can be transferred to PKRC before discharge. The criteria for step-down include:

- i. More than 7 days since onset of illness
- ii. Stable vitals and no hypoxia
- iii. Stable comorbid if any
- iv. Improved or stable laboratory data including inflammatory markers (especially C-reactive protein or lactate dehydrogenase)
- v. Able to ambulate without assistance and self-administer medications
- vi. Do not have ongoing clinical needs such as haemodialysis

## **6. PKRC-integrated (PKRC-i)**

6.1 PKRC-integrated (PKRC-i) has an expanded scope to admit high risk COVID-19 patients, category 3 COVID-19 pneumonia and temporarily manage category 4 patients. Refer Box 2 for admission criteria.

6.2 The setup of PKRC-i is similar to a field hospital with the following services.

- i. High risk in-patient facilities:
  - a. Mini emergency department with facilities to triage, resuscitate and transit observation areas
  - b. Acute monitoring beds with oxygen capabilities.
  - c. Efficient patient referral and transport system
  - d. Laboratory support to manage acute respiratory and non-respiratory cases.
- ii. Low risk in-patient facilities
  - a. Any type of beds for low-risk patients.
  - b. Provide areas for COVID-19 positive and negative patients (separate space area for sleeping and toilet).

**Box 2: PKRC-i (Level 3) Admission Criteria**

**(these criteria should be customized as suited for the local setting)**

- i. Category 1 and 2 diseases but not suitable for home quarantine
- ii. Category 3 and 4 diseases (Category 4 - requires low flow oxygen therapy)
- iii. If with comorbid, should not be in emergency condition
- iv. BMI < 35 kg/ m<sup>2</sup>
- v. ADL independent and able to ambulate without assistance and self-administer medication
- vi. Do not have ongoing clinical needs such as haemodialysis
- vii. Stable psychiatric patients
- viii. Any high risk or specialised criteria, based on clinical needs
- ix. If pregnant, POG < 28 weeks (category 1 & 2) with no added comorbidities
- x. Postnatal category 1 or 2 COVID-19 patients can be transferred to PKRC before discharge or directly admitted into PKRC if fulfil the criteria below:
  - More than 3 days post delivery
  - Stable vitals and no hypoxia
  - No added medical or obstetric comorbid.
  - Able to ambulate without assistance
  - Stable laboratory data including inflammatory markers (not applicable for direct admission)

Note: Admission of baby along with mother will be based on COVID-19 status of the baby