



Ruj. Tuan :  
Ruj. Kami : KKM.600-29/4/146 JLD.1 (65)  
Tarikh : 25 Mac 2020

## SENARAI EDARAN

YBhg. Datuk/Dato' Indera/Dato'/Tuan/Puan,

### EDARAN *GUIDELINES COVID-19 MANAGEMENT IN MALAYSIA* No. 05/2020 (EDISI KELIMA)

Dengan segala hormatnya perkara di atas adalah dirujuk.

2. Jangkitan COVID-19 di Malaysia telah menunjukkan peningkatan terutamanya semasa gelombang kedua ini. Oleh yang demikian, Kementerian Kesihatan Malaysia telah menambahbaik garis panduan sedia
3. Bersama ini dikemukakan *Guidelines COVID-19 Management in Malaysia* No. 05/2020 (Edisi Kelima). Adalah dipohon untuk YBhg. Datuk/Dato' Indera/Dato'/tuan/puan untuk mengedarkan garis panduan ini kepada semua fasiliti kesihatan di bawah tanggungjawab masing-masing. Dokumen ini juga boleh dimuat turun dari laman sesawang rasmi KKM di [www.moh.gov.my](http://www.moh.gov.my). Penggunaan garis panduan ini berkuatkuasa serta merta, bersamaan dengan tarikh surat ini dikeluarkan.
5. Sebarang pertanyaan lanjut mengenainya boleh dikemukakan kepada para pegawai berikut:

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CERTIFIED TO ISO 9001 : 2008  
CERT NO : AR 3367

6. Perhatian dan kerjasama YBhg. Datuk/Dato' Indera/Dato'/tuan/puan berhubung perkara ini amat kami hargai dan didahului dengan ucapan terima kasih.

Sekian.

**" BERKHIDMAT UNTUK NEGARA "**

**Saya yang menjalankan amanah,**



**(DATO' DR. CHONG CHEE KHEONG)**

Timbalan Ketua Pengarah Kesihatan (Kesihatan Awam)  
Kementerian Kesihatan Malaysia

s.k.

Timbalan Ketua Pengarah Kesihatan (Kesihatan Awam)  
Kementerian Kesihatan Malaysia

Timbalan Ketua Pengarah Kesihatan (Perubatan)  
Kementerian Kesihatan Malaysia

Timbalan Ketua Pengarah Kesihatan  
(Penyelidikan & Sokongan Teknikal)  
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Pengarah  
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## **SENARAI EDARAN**

Pengarah Kanan  
Bahagian Perkhidmatan Farmasi  
Kementerian Kesihatan Malaysia

Pengarah Kanan  
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Pengarah  
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Pengarah  
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Jabatan Kesihatan Negeri Perlis

Pengarah Kesihatan Negeri  
Jabatan Kesihatan Negeri Kedah

Pengarah Kesihatan Negeri  
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Pengarah Kesihatan Negeri  
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Pengarah Kesihatan Negeri  
Jabatan Kesihatan Negeri Pahang

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Jabatan Kesihatan Negeri Terengganu

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Jabatan Kesihatan Negeri Sarawak

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Jabatan Kesihatan Negeri Sabah

Pengarah Kesihatan Negeri  
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Pengarah  
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59000 Kuala Lumpur

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**Case Definition of COVID-19**

**1. PUI of COVID-19**

Acute respiratory infection (sudden onset of respiratory infection with at least one of: shortness of breath, cough or sore throat) with or without Fever

**AND**

Travelled to / resided in foreign country within 14 days before the onset of illness **OR**

Close contact<sup>1</sup> in 14 days before illness onset with a confirmed case of COVID-19 **OR**

Attended an event associated with known COVID-19 outbreak

**2. Confirmed Case of COVID-19:**

A person with laboratory confirmation of infection with the COVID-19

<sup>1</sup> close contact defined as :

- Health care associated exposure without appropriate PPE (including providing direct care for COVID-19 patients, working with health care workers infected with COVID-19, visiting patients or staying in the same close environment of a COVID-19 patient).
- Working together in close proximity or sharing the same classroom environment with a with COVID-19 patient
- Traveling together with COVID-19 patient in any kind of conveyance
- Living in the same household as a COVID-19 patient

## MANAGEMENT OF PUI

### 1. ADMISSION CRITERIA

- 1.1 PUI COVID-19 who is clinically ill
- 1.2 PUI COVID-19 with uncontrolled medical conditions, immunocompromised status, pregnant women, extremes of age (< 2 or > 65 years old)
- 1.3 Laboratory confirmed case (asymptomatic or symptomatic)

\*\* PUI who do not fulfil this criteria but are not suitable for home surveillance, to consider admission in quarantine station (annex 32)

### 2. TRANSFER TO A STEP-DOWN FACILITY

Confirmed COVID-19 who fulfilled below criteria :

- 2.1 At least seven days have passed since symptoms first appeared AND
- 2.2 At least three days (72 hours) have passed since recovery of symptoms (defined as resolution of fever without antipyretics and improvement in respiratory symptoms [eg, cough, shortness of breath]) AND stable co-morbid

Patient can be transferred to identified Step Down Centers until discharge.

Step Down Center can be from an identified ward in district hospital or an area which is suitable within the acute hospital.

The coordination and management of these centers is under the responsibility of the hospital.

Daily monitoring by medical personnel must be done in this center.

### 3. CRITERIA FOR DISCHARGE FROM WARD

- 3.1 At least three days (72 hours) have passed since recovery of symptoms (defined as resolution of fever without antipyretics and improvement in respiratory symptoms [eg, cough, shortness of breath]) **AND**

- 3.2 At least 1 sample (OP/NP swab) is negative.

The sample is to be taken after day 13 of illness.



**4. CHECKLIST FOR SUITABILITY OF PUI TO UNDERGO HOME SURVEILLANCE:**

(The checklist is provided as a guide, hence the assessment of patient suitability for home surveillance is tailored from one patient to another).

- 4.1 has a separate bedroom with en-suite bathroom (preferable); if not, common bathroom with
- 4.2 frequent disinfection
- 4.3 has access to food and other necessities
- 4.4 has access to face mask, glove and disinfectant at home
- 4.5 able to seek medical care if necessary and return with own private transport
- 4.6 able to adhere to instruction to follow home surveillance order
- 4.7 able to stay away (at least 2 meter apart) from the high-risk household members (eg. people > 65 years old, young children <2 years, pregnant women, people who are immunocompromised or who have chronic lung, kidney, heart disease)

## MANAGEMENT OF PUI AS OUTPATIENTS

(Refer to the flowchart below)

1. Patients who come to any health facilities should be screened for suspected COVID-19 at triage.
  - a. using Case Definition For Person Under Investigation (PUI): **Refer Annex 1**
  - b. A special area should be set up for COVID-19, to which he / she can come directly and to be assessed there.
    - i. and be managed by a dedicated team where possible.

**IF CRITERIA OF PUI IS SUSPECTED**, Consult with Physician-on-call of screening hospital for decision on whether:

- PUIs is fulfilled and further review of patients at screening hospitals is needed
  - PUI is fulfilled and requires admission to admitting hospital (Annex 2)
  - PUI has been ruled out
1. PUI who **do not require** admission shall be referred to the nearest screening hospital / centre using either:
    - own transport **OR**
    - arrange for designated ambulance from MECC.
  2. PUI who **requires admission** shall be transferred to admitting hospital using designated ambulance as above.
  3. Management of PUI at screening hospital / centre
    - PUI from GP/private hospital shall be reassessed by screening hospital / centre and either will be admitted to admitting hospital or not
    - Screening hospital / centre to inform the admitting hospital if admission needed
    - PUI shall be sent to the admitting hospital using **designated ambulance**.
    - Those PUI who do not fulfill admission criteria will be assessed for suitability of home surveillance (see checklist in annex 2)
    - If home surveillance is deemed suitable:

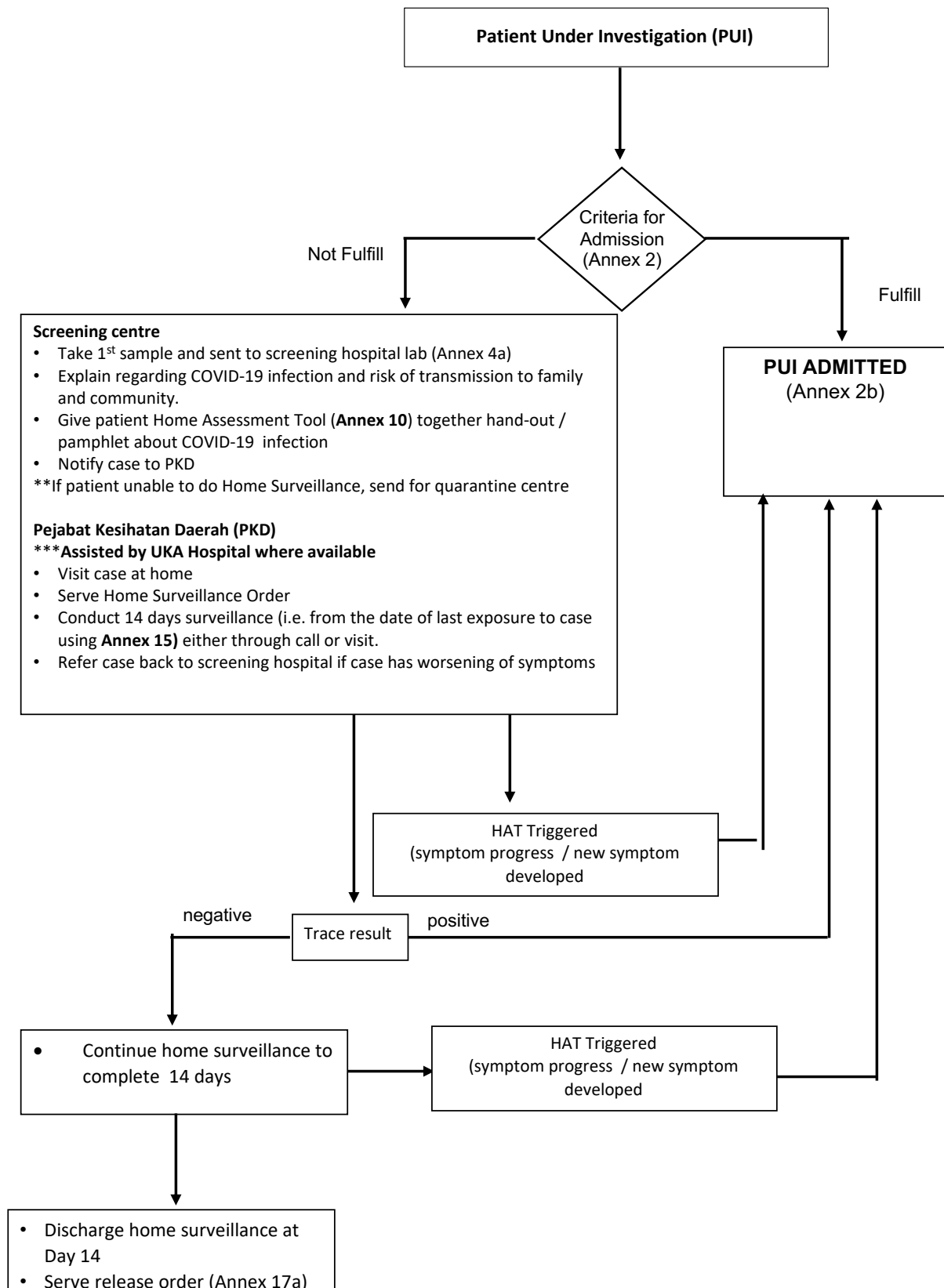
- Sample shall be taken at screening hospital / centre
- They shall send home and put under Home Surveillance Order for 14 days (Annex 15a)
- Samples of PUI should be send to Hospital Lab/IMR (Annex 4a)
- Explain to patient regarding home surveillance and COVID-19 infection and risk of transmission to family and community
  - Provide Home Assessment Tool (Annex 10a,10b)
  - Notify PUI COVID-19 to PKD.
- If home surveillance is deemed unsuitable, to consider admitted patient to a quarantine station (see annex quarantine station)

**All patients fulfilling PUI criteria require notification to the nearest PKD through telephone, fax or email using notification form (Annex 7) .**

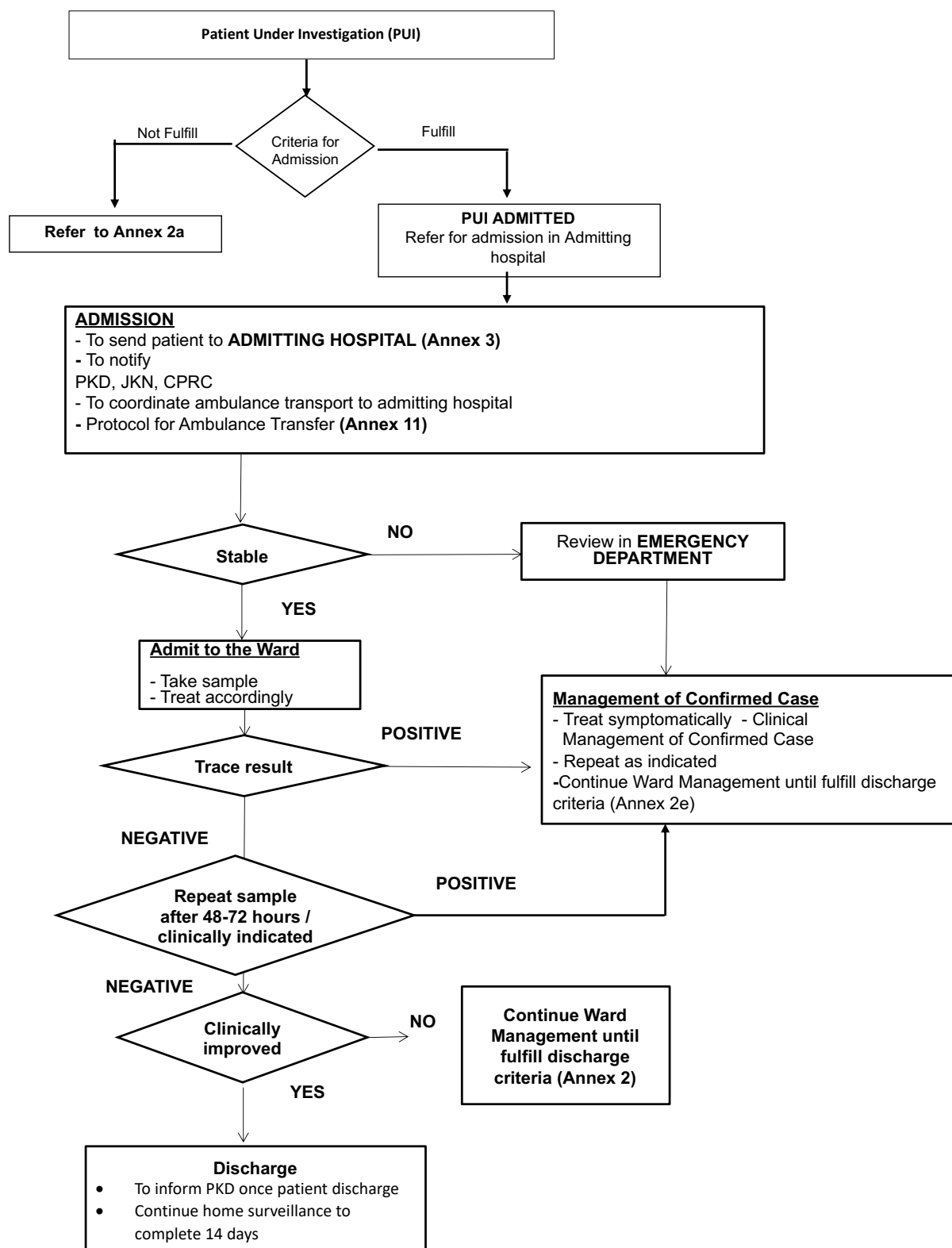
#### **INFECTION, PREVENTION AND CONTROL (IPC) – see annex on IPC**

4. All health care workers involved in managing the PUI shall adhere to the Infection and Prevention Control Guideline at all time.
5. Personal Protective Equipment (PPE) shall be used per recommendation in the infection control annex

\*\* screening hospital is listed in Annex 3. However, JKN may identify appropriate screening centre if necessary. Please consult with respective PKD/JKN.



## MANAGEMENT OF PUI ADMITTED TO WARD



## SCREENING AND TRIAGING

### 1. PRIVATE FACILITIES

#### Private Clinic

- **Provide good visual signages** in all relevant languages requesting patients to declare symptoms, travel or contact with a confirmed case
- Through verbal and visual cues, identify those with respiratory symptoms and **offer masks and hand sanitizer**
- **Rapidly assess verbally** if the patient has epidemiological links that might qualify him/her as a PUI. (**refer to Annex 1**)
  - If uncertain, discuss with medical / Infectious disease specialist at nearest screening hospital
- If PUI
  - place patient in a pre-designated waiting area<sup>1</sup>
  - Take patients identifiers (name, IC/passport, telephone number, address) for notification to PKD (and arranging transport if necessary)
  - Patient may use his/her own transport to nearest screening hospital (public transport not allowed)
  - If patient does not have private transportation, contact PKD for transport arrangement.
- After patient leaves – disinfect waiting area

<sup>1</sup>Pre-designated area

- more than 1m away from other patients and staff
- minimal surrounding items to minimize items requiring disinfecting

#### Private Hospital

- **Provide good visual signages** in all relevant languages requesting patients to declare symptoms, travel or contact with a confirmed case
- Through verbal and visual cues, identify those with respiratory symptoms and **offer masks and hand sanitizer**
- **Clinically assess the severity** and whether the patient qualifies as a PUI (in isolation room using appropriate).
  - If uncertain, discuss with medical / Infectious disease specialist at nearest screening hospital
- If severe PUI
  - Contact admitting medical / ID specialist at Admitting Hospital to arrange for admission.
  - If case accepted, to contact PKD to arrange transportation.

- If mild PUI:
  - Take patients identifiers (name, IC/passport, telephone number, address) for notification to PKD (and arranging transport if necessary)
  - Patient may use his/her own transport to nearest screening hospital (public transport not allowed)
  - If patient does not have private transportation, contact PKD for transport arrangement.
- After patient leaves – disinfect isolation room
- If the patient does not fulfill PUI criteria, but clinical suspicion remains, take samples and send to designated private laboratories (Annex 4a)

## 2. GOVERNMENT FACILITIES

- Patients who come to the respective health facilities should be screened for suspected COVID-19 at triage.
- A special area should be set up for PUI of COVID-19, to which he / she can come directly and to be assessed there.
- The PUI should be managed by a dedicated team where possible.

- **WHEN SHOULD YOU SUSPECT COVID-19?**

COVID-19 is to be suspected when a patient presents to Triage Counter with the following:

Fever **OR** acute respiratory infection (sudden onset of respiratory infection with at least one of: shortness of breath, cough or sore throat)  
**AND**  
 Travel to Affected in the 14 days before the onset of illness **OR**  
 Close contact<sup>1</sup> in 14 days before illness onset with a confirmed case of COVID-19

- Should a patient fulfill the description, to institute infection prevention and control measures as the following:
  - ✓ Place patients at least 1 meter away from other patients or health care workers. Clinics and Emergency Departments are to prepare an isolation area / room for patients.
  - ✓ Ensure strict hand hygiene for all clinic staffs and suspected patient.
  - ✓ Provide surgical mask to patients if not contraindicated.
  - ✓ Personal protective equipment as per recommendation should be worn at all times.
  - ✓ After the encounter, ensure proper disposal of all PPE that have been used
  - ✓ Decontamination of the isolation area and equipments used should be done.

- A group of suspected PUI who come to any healthcare facilities in a specific vehicle (e.g. bus, van) should be contained in that vehicle until being evaluated by a dedicated team to minimize exposure to healthcare workers and other patients.

**NOTE:**

It is not always possible to identify patients with COVID-19 early because some have mild or unusual symptoms. For this reason, it is important that health care workers apply standard precautions consistently with all patients – regardless of their diagnosis in all work practices all the time.



## WORK PROCESS IN MANAGEMENT OF SUSPECTED COVID-19 PATIENTS IN EMERGENCY AND TRAUMA DEPARTMENT

### GENERAL GUIDES TO ALL EMERGENCY AND TRAUMA DEPARTMENT (ETD)

1. All Emergency Trauma Departments should be prepared to accept the following patients scenarios:
  - a. Walk-in patients to be screened for criteria as Person under Investigation (PUI).
  - b. Referred patients send for Screening Purpose. This will only apply if the ETD is regarded as Screening Centre based on MOH Guidelines.
  - c. Referred patients send for Admission Purpose. This will only apply if the ETD is part of the hospital regarded as Admitting Hospital based on MOH Guidelines (Annex 3).
2. All ETDs should have their internal pathway to screen walk-in patients from triage.

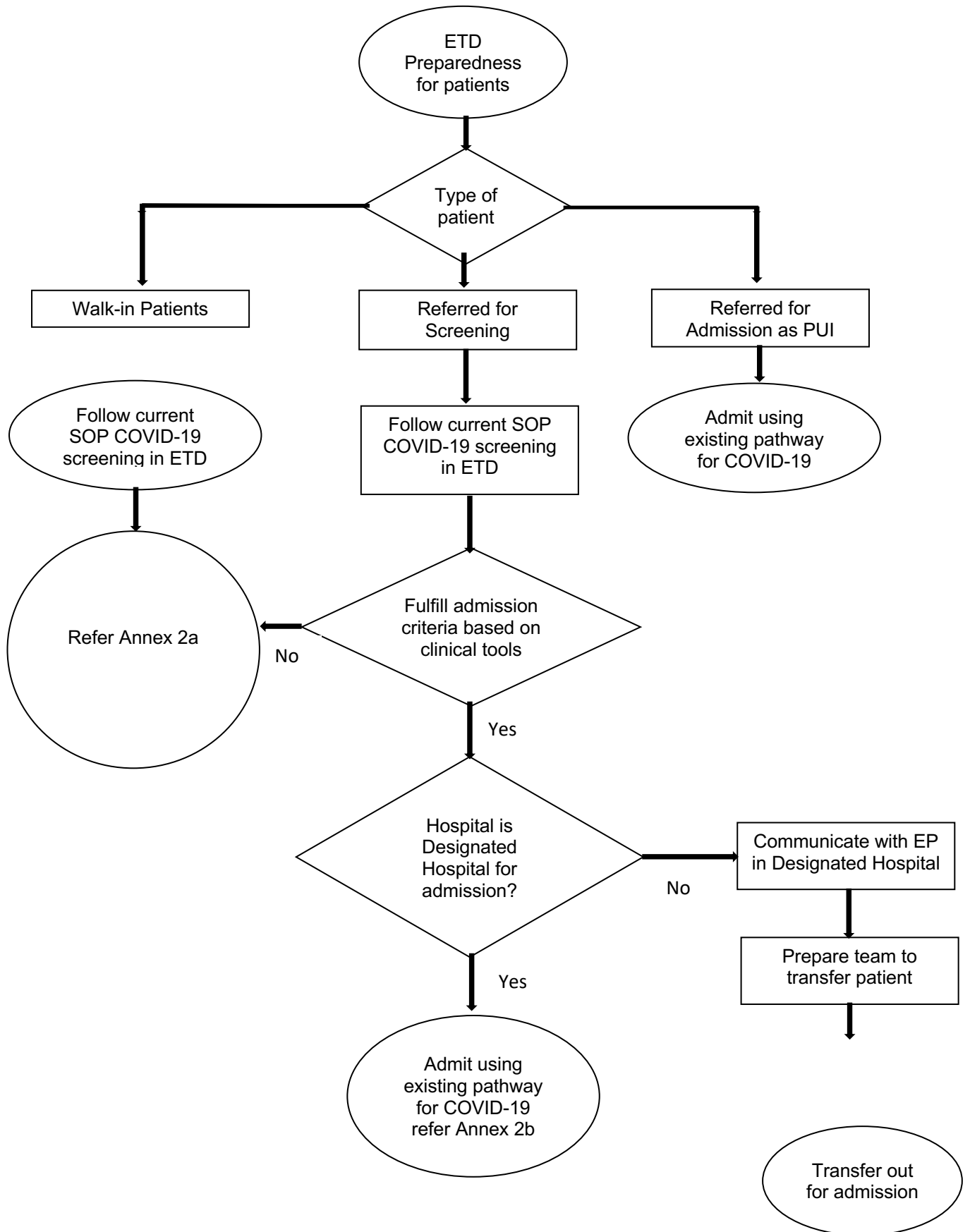
### ETD MANAGEMENT OF PATIENTS REFERRED FOR SCREENING.

1. The **Primary Team Physician** (ID Physician, Physician or Paediatrician) has the responsibility to inform the dedicated Screening ETD Hospitals (based on the MOH list of screening hospitals) regarding such patients.
2. The ETDs will screen the patients using the existing screening method similar for walk-in patients.
3. Outcome for these patients are:
  - a. Fulfill the criteria as PUI for admission in the hospital.
  - b. Fulfill the criteria as PUI but not require admission to hospital, patient will out under home surveillance.
  - c. Fulfill the criteria as PUI but not require admission to hospital and is unsuitable for home surveillance. Consider quarantine station.
  - d. Does **NOT** fulfill the criteria as PUI, thus discharged home
4. PUI not admitted and send home for surveillance will follow the Annex 2a.
5. Patients that are admitted to the hospital will follow existing hospital's current process for admitting COVID-19 patients (Annex 2b).
6. Patients that are transferred to another facility for admission will be transported based on the current agreed local protocol for interfacility transfer. EP to EP communication between referring and referral centre should occur prior to transport.

**ETD MANAGEMENT OF PATIENTS REFERRED FOR ADMISSION.**

1. The **Primary Team Physician** has the responsibility to inform the ETD regarding such patients.
2. Patients that are admitted to the hospital will follow existing hospital's current process for admitting COVID-19 patients.

**WORKFLOW OF MANAGING SUSPECTED PATIENTS OF COVID-19cOV IN EMERGENCY AND TRAUMA DEPARTMENT**



## CLINICAL MANAGEMENT OF CONFIRMED CASE

### Clinical staging of Syndrome Associated With COVID-19

Clinical stage	
1	Asymptomatic
2	Symptomatic, No Pneumonia
3	Symptomatic, Pneumonia
4	Symptomatic, Pneumonia, Requiring supplemental oxygen
5	Critically ill with multiorgan
Stage 2 and 3 can be further classified based on the presence or absence of warning signs	
Warning signs: Fever, Dropping ALC, Increasing CRP, Tachycardia	

### General Care

- a. Supportive care and symptomatic treatment, optimal nutritional support, maintain fluid and electrolytes balance, and close monitoring.
- b. Monitor vital signs (BP/PR/RR/SpO<sub>2</sub>) 12 hourly to 8hourly with increase in monitoring during intensive care.
- c. Blood investigations, e.g. FBC, CRP, LFT, RP, coagulation, Blood culture, Ferritin, D Dimer, Fibrinogen, Procalcitonin according to clinical indications. ABG if needed according to severity of disease, inform laboratory staff before sending specimens.
- d. Supplemental oxygen according to SpO<sub>2</sub>.
- e. Monitor sugar when needed.
- f. For children who needs bronchodilator therapy e.g. Salbutamol; avoid using nebulizer. Instead use MDI with spacer.
- g. Ensure good hydration in children by encouraging their usual milk/diets.

#### Note:

Although recent publications suggest that newer High Flow Nasal oxygenation (HFNO) and Non-invasive ventilation (NIV) systems with good interface fitting do not create widespread dispersion of exhaled air and therefore it is thought to be associated with low risk of airborne transmission. In general, the use of **non-invasive ventilation is discouraged** when managing patient with COVID-19.

For children with severe disease: preferred to be managed in intensive care unit or neonatal intensive care unit with isolation facilities.

### 1) Specific Treatment

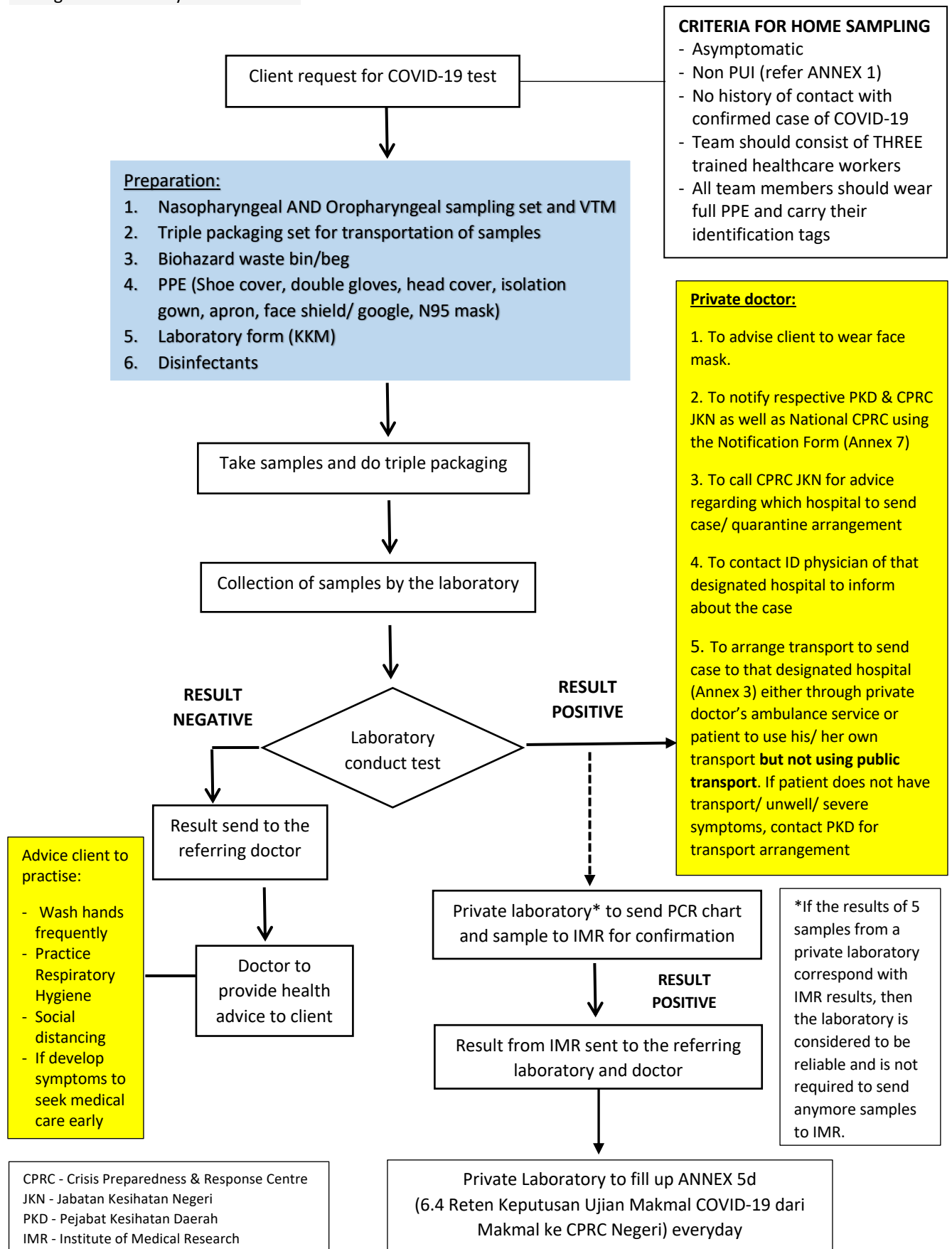
- No specific treatment for COVID-19 infection is currently approved.

- There are limited data on experimental agents including chloroquine, hydroxychloroquine, Lopinavir-ritonavir, interferon, ribavirin etc. .
- The treatment regime suggested below is likely to change as new evidence emerges. Kindly discuss with ID physician or ID paediatricians for specific treatment.

Clinical stage	
1	No treatment required
2	Hydroxychloroquine 400mg BD for 1 day and 200mg BD for 4 days Alternative: Chloroquine 500mg BD for 5 days
3	Hydroxychloroquine 400mg BD for 1 day and 200mg BD In the presence of warning signs – Add Lopinavir/Ritonavir 2 BD Duration – 7-14 days
4	Hydroxychloroquine 400mg BD for 1 day and 200mg BD AND Lopinavir/Ritonavir 2 BD Duration – 7-14 days
5	Hydroxychloroquine 400mg BD for 1 day and 200mg BD AND Lopinavir/Ritonavir 2 BD Ribavarin 2.4gm stat and 1.2gm BD OR S/C Interferon Beta-1b 250mgm/8mIU EOD for 7 doses Look for evidence of cytokine release syndrome
Warning signs: Fever, Dropping ALC, Increasing CRP, Tachycardia	

**FLOW CHART FOR HOME SAMPLING OF COVID-19**

N.B: This flow chart should be used together with Annex 2C - Screening and Triaging, Guidelines on COVID-19 Management in Malaysia Edisi Kelima



## SURVELAN COVID-19

### 1. INFLUENZA LIKE ILLNESS (ILI)

#### Senarai Klinik Kesihatan Yang Terlibat dalam Survelan ILI bagi Pengesanan Kes Sporadik Jangkitan COVID-19

Bil.	Negeri	Klinik Kesihatan Yang Terlibat (Sentinel Site)	Makmal bagi Menjalankan Ujian Pengesanan COVID-19
1.	Johor	KK Sultan Ismail	MKA Johor Bharu
		KK Kulai	MKA Johor Bharu
2.	Selangor	KK Kelana Jaya	MKAK
3.	Wilayah Persekutuan Kuala Lumpur	KK KL	MKAK
4.	Pulau Pinang	KK Jalan Perak	MKA Ipoh
5.	Perak	KK Greentown	MKA Ipoh
6.	Sabah	KK Manggatal	MKA Kota Kinabalu
7.	Kelantan	KK Pengakalan Chepa	MKA Kota Bharu

#### Jumlah Sampel Diambil Sehari

5-10 sampel sehari

#### Jenis Sampel

*Nasopharyngeal* atau *oropharyngeal* swab SAHAJA.

#### Tarikh Mula

Bermula pada 24 Februari 2020

#### Borang

Guna borang MKAK yang terbaru Borang Permohonan Ujian Makmal (Spesimen Klinikal) -(MKAK-BPU-01/rev2018).

Boleh muat turun dari laman sesawang MKAK.

Tuliskan di bahagian catatan : COVID-19 survelan

Tanggungjawab	Aktiviti
<b>Klinik Kesihatan</b>	<ul style="list-style-type: none"> <li>• Mengenalpasti pesakit yang memenuhi kriteria yang ditetapkan</li> <li>• Mengambil 10 sampel pesakit yang memenuhi kriteria.</li> <li>• Mengisi borang penghantaran sampel dan</li> <li>• Menghantar sampel ke MKA yang dikenalpasti</li> </ul>
<b>Pejabat Kesihatan Daerah (PKD)</b>	<ul style="list-style-type: none"> <li>• Mendapatkan salinan borang penghantaran makmal ke MKA</li> <li>• Melengkapkan line-listing</li> <li>• Menghantar line-listing ke JKN sebelum jam 10.00 pagi (data bagi hari sebelumnya)</li> <li>• <i>Trace result</i></li> </ul>
<b>Jabatan Kesihatan Negeri (JKN)</b>	<ul style="list-style-type: none"> <li>• Melengkapkan dan mengumpul line-listing yang dihantar oleh PKD</li> <li>• Melengkapkan "Daily Aggregated Form"</li> <li>• Menghantar borang "Daily Aggregated Form" ke CPRC sebelum jam 12.00 tengahari (data bagi hari sebelumnya)</li> <li>• <i>Trace result</i></li> </ul>
<b>Sektor Survelan BKP</b>	<ul style="list-style-type: none"> <li>• Mengumpul "<i>Daily Aggregated Form</i>".</li> <li>• <i>Trace result</i></li> </ul>



## 2. Severe Acute Respiratory Infection (SARI)

Semua kes yang dimasukkan ke wad dengan diagnosa pneumonia dikehendaki untuk diambil sample bagi COVID-19.

### Agihan Penghantaran Sampel ke Makmal:

- a. Hospital Sentinel SARI : lima (5) sampel dihantar ke Institut Penyelidikan Perubatan (IMR) setiap minggu, dan ujian COVID-19, manakala baki sampel seterusnya dihantar ke makmal hospital yang menjalankan ujian pengesanan COVID-19.
- b. Lain-lain hospital : Dihantar ke makmal hospital yang menjalankan ujian pengesanan COVID-19.

### Borang digunakan :

Sampel dari kes ARI perlu dilabelkan pada borang permohonan ujian sebagai ARI *Syndrome Notification* COVID-19 bagi membezakan ujian diagnostik ke atas patient under investigation (PUI) COVID-19.

### Data :

Senarai pesakit ARI Syndromic Notification COVID-19 yang dijalankan ujian pengesanan COVID-19 perlu dihantar ke Jabatan Kesihatan Negeri (JKN) dan Bahagian Kawalan Penyakit secara mingguan ke alamat emel : [ili\\_survelan@moh.gov.my](mailto:ili_survelan@moh.gov.my)

### Hospital Yang Terlibat Dengan Survelan SARI.

Bil.	Negeri	Makmal bagi Menjalankan Ujian Pengesanan COVID-19
1.	Perlis	Hosp Sultanah Bahiyah
2.	Kedah	Hosp Sultanah Bahiyah
3.	P. Pinang	Hosp. Pulau Pinang
4.	Perak	Hosp. Raja Permaisuri Bainun
5.	Kuala Lumpur	Hosp Kuala Lumpur
6.	Selangor	Hosp Sg Buloh
		Hosp Sg Buloh
		Hosp Sg Buloh
		Hosp Sg Buloh
7.	N. Sembilan	Hosp Tuanku Jaafar
8.	Melaka	Hosp Melaka
9.	Johor	Hosp Sultanah Aminah
10.	Kelantan	Hosp. Raja Perempuan Zainab 2
11.	Terengganu	Hosp. Sultanah Nur Zahirah
12.	Pahang	Hosp. Tengku Ampuan Afzan
13.	Sarawak	Hosp. Umum Kuching
14	Sabah	MKA Kota Kinabalu

Bil.	Negeri	Makmal bagi Menjalankan Ujian Pengesanan COVID-19
		MKA Kota Kinabalu

## SENARAI PUSAT SARINGAN DAN HOSPITAL YANG MENGENDALIKAN KES COVID-19

### 1. Senarai *Designated Hospital* Bagi Mengendalikan Kes COVID-19

#### A) Hospital KKM

NEGERI	BIL	COVID HOSPITAL
PERLIS	1	Hospital Tuanku Fauziah, Kangar
KEDAH	2	Hospital Sultanah Bahiyah, Alor Setar
	3	Hospital Sultanah Maliha, Langkawi
PULAU PINANG	4	Hospital Pulau Pinang
PERAK	5	Hospital Raja Permaisuri Bainun, Ipoh
	6	Hospital Teluk Intan
	7	Hospital Slim River
SELANGOR	8	Hospital Sungai Buloh
WP KL/ PUTRAJAYA	9	Hospital Kuala Lumpur
NEGERI SEMBILAN	10	Hospital Tuanku Jaafar, Seremban
	11	Hospital Rembau
MELAKA	12	Hospital Melaka
JOHOR	13	Hospital Enche Besar Hajjah Kalsom, Kluang
	14	Hospital Permai
	15	Hospital Sultanah Aminah, Johor Bahru
PAHANG	16	Hospital Tengku Ampuan Afzan, Kuantan
TERENGGANU	17	Hospital Sultanah Nur Zahirah, Kuala Terengganu
	18	Hospital Hulu Terengganu
KELANTAN	19	Hospital Raja Perempuan Zainab II, Kota Bharu
	20	Hospital Sultan Ismail Petra, Kuala Krai
	21	Hospital Kuala Krai (Lama)
	22	Hospital Tumpat
	23	Hospital Tanah Merah
SABAH	24	Hospital Queen Elizabeth I, Kota Kinabalu
	25	Hospital Duchess Of Kent, Sandakan
	26	Hospital Tawau
	27	Hospital Wanita dan Kanak-kanak, Likas
	28	Hospital Lahad Datu

NEGERI	BIL	COVID HOSPITAL
	29	Hospital Keningau
SARAWAK	30	Hospital Umum Sarawak, Kuching
	31	Hospital Miri
	32	Hospital Bintulu
	33	Hospital Sibu
WP LABUAN	34	Hospital Labuan

## B) Hospital Bukan KKM

NEGERI	BIL	SCREENING HOSPITALS	BIL	ADMITTING HOSPITALS* FOR 'PUJ & 'CONFIRMED COVID-19'
WP KL/ PUTRAJAYA	1	Pusat Perubatan Universiti Malaya	1	Pusat Perubatan Universiti Malaya

## 2. Screening Centre For COVID-19

SCREENING HOSPITALS	KLINIK KESIHATAN (WAKTU BEKERJA)	KLINIK KESIHATAN (SEMASA HUJUNG MINGGU)
<b>1. PERLIS</b>		
Hospital Tuanku Fauziah, Kangar	Klinik Kesihatan Beseri	KK UTC Sabtu 8.00pg - 4.00ptg Ahad 8.00pg - 4.00ptg
	Klinik Kesihatan Kangar	KK Kangar Sabtu 8.00pg - 11.00pg
	Klinik Kesihatan Padang Besar	
	Klinik Kesihatan Simpang Empat	
<b>2. KEDAH</b>		
Hospital Sultanah Bahiyah, Alor Setar	Klinik Kesihatan Kuah	Klinik Kesihatan Kuah (8.30 pagi – 12.00 tgh)
Hospital Sultan Abdul Halim, Sg. Petani	Klinik Kesihatan Padang Masirat	Klinik Kesihatan Kuala Nerang (8.30 pagi – 12.00 tgh)
Hospital Kulim	Klinik Kesihatan Ayer Hangat	Klinik Kesihatan Jeniang (8.30 pagi – 12.00 tgh)
Hospital Sultanah Maliha, Langkawi	Klinik Kesihatan Kuala Nerang	Klinik Kesihatan Guar Cempedak (8.30 pagi – 12.00 tgh)

**ANNEX 3**

<b>SCREENING HOSPITALS</b>	<b>KLINIK KESIHATAN (WAKTU BEKERJA)</b>	<b>KLINIK KESIHATAN (SEMASA HUJUNG MINGGU)</b>
	Klinik Kesihatan Jeniang	Klinik Kesihatan Pendang (8.30 pagi – 12.00 tgh)
	Klinik Kesihatan Guar Cempedak	Klinik Kesihatan Taman Selasih (8.30 pagi – 12.00 tgh)
	Klinik Kesihatan Pendang	Klinik Kesihatan Bandar Alor Setar (8.30 pagi – 12.00 tgh)
	Klinik Kesihatan Taman Selasih	Klinik Kesihatan Serdang (8.30 pagi – 12.00 tgh)
	Klinik Kesihatan Bandar Alor Setar	Klinik Kesihatan Changlun (8.30 pagi – 12.00 tgh)
	Klinik Kesihatan Simpang Kuala	Klinik Kesihatan Bandar Sungai Petani (8.30 pagi – 12.00 tgh)
	Klinik Kesihatan Simpang Empat	Klinik Kesihatan Kuala Ketil (8.30 pagi – 12.00 tgh)
	Klinik Kesihatan Kuala Kedah	
	Klinik Kesihatan Alor Janggus	
	Klinik Kesihatan Jalan Putra	
	Klinik Kesihatan Langgar	
	Klinik Kesihatan Pokok Sena	
	Klinik Kesihatan Kota Sarang semut	
	Klinik Kesihatan Datuk Kumbar	
	Klinik Kesihatan Bandar Baharu	
	Klinik Kesihatan Lubuk Buntar	
	Klinik Kesihatan Serdang	
	Klinik Kesihatan Ayer Hitam	
	Klinik Kesihatan Banai	
	Klinik Kesihatan Changlun	
	Klinik Kesihatan Kodiang	
	Klinik Kesihatan Laka Temin	
	Klinik Kesihatan Napoh	
	Klinik Kesihatan Tunjang	
	Klinik Kesihatan Bedong	
	Klinik Kesihatan Bukit Selambau	

<b>SCREENING HOSPITALS</b>	<b>KLINIK KESIHATAN (WAKTU BEKERJA)</b>	<b>KLINIK KESIHATAN (SEMASA Hujung MINGGU)</b>
	Klinik Kesihatan Bakar Arang	
	Klinik Kesihatan Kota Kuala Muda	
	Klinik Kesihatan Sg Lalang	
	Klinik Kesihatan Merbok	
	Klinik Kesihatan Bandar Sungai Petani	
	Klinik Kesihatan Malau	
	Klinik Kesihatan Kupang	
	Klinik Kesihatan Parit Panjang	
	Klinik Kesihatan Tawar	
	Klinik Kesihatan Kuala Ketil	
	Klinik Kesihatan Kampung Lalang	
<b>3. PULAU PINANG</b>		
Hospital Pulau Pinang	Klinik Kesihatan Jalan Perak	KK Jalan Perak 9.00pg - 1.00ptg
Hospital Seberang Jaya	Klinik Kesihatan Bayan Baru	KK Bayan Baru standby 9.00pg - 1.00ptg
Hospital Bukit Mertajam	Klinik Kesihatan Sungai Dua	KK Sungai Dua 9.00pg - 1.00ptg
Hospital Kepala Batas	Klinik Kesihatan Seberang Jaya	KK Seberang Jaya standby 9.00pg - 1.00ptg
	Klinik Kesihatan Bukit Panchor	KK Bukit Panchor standby 9.00pg - 1.00ptg
<b>4. PERAK</b>		
Hospital Raja Permaisuri Bainun, Ipoh	Klinik Kesihatan Jelapang	KK Jelapang 8.00pg - 5.00ptg
Hospital Taiping	Klinik Kesihatan Greentown	KK Greentown 8.00pg - 5.00ptg
Hospital Teluk Intan	Klinik Kesihatan Kampar	KK Kampar 8.00pg - 5.00ptg
Hospital Seri Manjung	Klinik Kesihatan Lenggong	KK Lenggong 8.00pg - 5.00ptg
Hospital Slim River	Klinik Kesihatan Padang Rengas	KK Padang Rengas 8.00pg - 5.00ptg
	Klinik Kesihatan Tapah	KK Tapah 8.00pg - 5.00ptg

<b>SCREENING HOSPITALS</b>	<b>KLINIK KESIHATAN (WAKTU BEKERJA)</b>	<b>KLINIK KESIHATAN (SEMASA HUJUNG MINGGU)</b>
	Klinik Kesihatan Seri Iskandar	KK Seri Iskandar 8.00pg - 5.00ptg
	Klinik Kesihatan Teluk Intan	KK Teluk Intan 8.00pg - 5.00ptg
	Klinik Kesihatan Bagan Serai	KK Bagan Serai 8.00pg - 5.00ptg
	Klinik Kesihatan Simpang	KK Simpang 8.00pg - 5.00ptg
	Klinik Kesihatan Sitiawan	KK Sitiawan 8.00pg - 5.00ptg
	Klinik Kesihatan Tanjung Malim	KK Tanjung Malim 8.00pg - 5.00ptg
<b>5. SELANGOR</b>		
Hospital Tengku Ampuan Rahimah Klang	Klinik Kesihatan Bestari Jaya	Saringan Covid-19 tidak dijalankan
Hospital Ampang	Klinik Kesihatan Kuala selangor	
Hospital Selayang	Klinik Kesihatan Jeram	
Hospital Serdang	Klinik Kesihatan Ijok	
Hospital Sungai Buloh	Klinik Kesihatan Bandar Tun Hussein Onn	
Hospital Shah Alam	Klinik Kesihatan Semenyih	
Hospital Kajang	Klinik Kesihatan Bangi	
Hospital Banting	Klinik Kesihatan Batu 14	
	Klinik Kesihatan Jenjarom	
	Klinik Kesihatan Teluk Datuk	
	Klinik Kesihatan Teluk Panglima Garang	
	Klinik Kesihatan Sijangkang	
	Klinik Kesihatan Kebun Baru	
	Klinik Kesihatan Bandar	
	Klinik Kesihatan Tg. Sepat	
	Klinik Kesihatan Bukit Changgang	
	Klinik Kesihatan Bandar Botanik	
	Klinik Kesihatan Kelana Jaya	
	Klinik Kesihatan Taman Medan	

<b>SCREENING HOSPITALS</b>	<b>KLINIK KESIHATAN (WAKTU BEKERJA)</b>	<b>KLINIK KESIHATAN (SEMASA HUJUNG MINGGU)</b>
	Klinik Kesihatan Puchong	
	Klinik Kesihatan Seksyen 19 Shah Alam	
	Klinik Kesihatan Seksyen 7 Shah Alam	
	Klinik Kesihatan Seri Kembangan	
	Klinik Kesihatan Sg Buloh	
	Klinik Kesihatan Selayang Baru	
	Klinik Kesihatan AU2	
	Klinik Kesihatan Taman Ehsan	
	Klinik Kesihatan Rawang	
	Klinik Kesihatan Gombak Setia	
	Klinik Kesihatan Kuang	
	Klinik Kesihatan Batu Arang	
	Klinik Kesihatan Hulu Kelang	
	Klinik Kesihatan Batu 8	
	Klinik Kesihatan Serendah	
	Klinik Kesihatan Ulu Yam Bharu	
	Klinik Kesihatan Rasa	
	Klinik Kesihatan Kalumpang	
	Klinik Kesihatan Selisik	
	Klinik Kesihatan Soeharto	
	Klinik Kesihatan Simpang Lima	
	Klinik Kesihatan Salak	
	Klinik Kesihatan Sg Pelek	
	Klinik Kesihatan Dengkil	
	Klinik Kesihatan Sepang	
<b>6. WP KL/ PUTRAJAYA</b>		
Hospital Kuala Lumpur	Pejabat Kesihatan - <i>drive through</i> (melalui temujanji)	Pejabat Kesihatan - <i>drive through</i> (melalui temujanji)
Hospital Putrajaya	Dewan Komuniti Batu Muda (melalui temujanji)	KK Jinjang (melalui temujanji)
	PLAN Msia (Bangunan lama Jab. Perancangan Bandar &	PLAN Msia (Bangunan lama Jab. Perancangan Bandar & Desa



<b>SCREENING HOSPITALS</b>	<b>KLINIK KESIHATAN (WAKTU BEKERJA)</b>	<b>KLINIK KESIHATAN (SEMASA HUJUNG MINGGU)</b>
	Desa Msia, sebelah JKWPKL) - <i>drive through</i> (melalui temujanji)	Msia, sebelah JKWPKL) - <i>drive through</i> (melalui temujanji)
	Pantai Eco Park Community Centre, Kg. Pasir (melalui temujanji)	Pantai Eco Park Community Centre, Kg. Pasir (melalui temujanji)
	KK Kuala Lumpur (melalui temujanji)	KK Kuala Lumpur (melalui temujanji)
	KK Putrajaya Presint 9 (melalui temujanji)	KK Putrajaya Presint 9 (melalui temujanji)
	Pejabat Kesihatan Putrajaya - <i>drive through</i> (melalui temujanji)	Pejabat Kesihatan Putrajaya - <i>drive through</i> (melalui temujanji)
	Klinik Kesihatan Kuala Lumpur	
<b>7. NEGERI SEMBILAN</b>		
Hospital Tuanku Jaafar, Seremban	Klinik Kesihatan Nilai	KK Seremban Sabtu 8.00pg - 12.00tgh
Hospital Jempol	Klinik Kesihatan Senawang	KK Port Dickson Sabtu 8.00pg - 12.00tgh
Hospital Tampin	Klinik Kesihatan Seremban 2	KK Bukit Pelanduk melalui temujanji
Hospital Tuanku Ampuan Najihah, Kuala Pilah	Klinik Kesihatan Lukut	KK Lukut melalui temujanji
Hospital Port Dickson	Klinik Kesihatan Pasir panjang	KK Bahau Sabtu 8.00pg - 12.00tgh
Hospital Jelebu	Klinik Kesihatan Bahau	KK Bandar Sri Jempol melalui temujanji
	Klinik Kesihatan Palong 4,5.6	KK Gemas melalui temujanji
	Klinik Kesihatan Gemas	KK Gemencheh melalui temujanji
	Klinik Kesihatan Gemencheh	KK Tampin melalui temujanji

<b>SCREENING HOSPITALS</b>	<b>KLINIK KESIHATAN (WAKTU BEKERJA)</b>	<b>KLINIK KESIHATAN (SEMASA HUJUNG MINGGU)</b>
	Klinik Kesihatan Juasseh	Saringan Covid-19 tidak dijalankan
	Klinik Kesihatan Terachi	KK Rembau melalui temujanji
	Klinik Kesihatan Rembau	Saringan Covid-19 tidak dijalankan
	Klinik Kesihatan Astana Raja	
	Klinik Kesihatan Pertang	
	Klinik Kesihatan Simpang Durian	
	Klinik Kesihatan Titi	
<b>8. MELAKA</b>		
Hospital Melaka	Klinik Kesihatan Tengkeru	KK Ayer Keroh 8.00pg - 12tgh
Hospital Alor Gajah	Klinik Kesihatan Seri Tanjung	KK Peringgit 8.00pg - 12tgh
Hospital Jasin	Klinik Kesihatan Ayer Keroh	KK Alor Gajah 8.00pg - 12tgh
	Klinik Kesihatan Kuala Sg. Baru	KK Merlimau 8.00pg - 12tgh
	Klinik Kesihatan Masjid Tanah	
	Klinik Kesihatan Rembia	
	Klinik Kesihatan Durian Tunggal	
	Klinik Kesihatan Alor Gajah	
	Klinik Kesihatan Merlimau	
	Klinik Kesihatan Simpang Bekoh	
<b>9. JOHOR</b>		
Hospital Sultan Ismail, Johor Bahru	Klinik Kesihatan Payamas	Samples taken at the screening hospitals  • Hospital Sultanah Nora Ismail, BatuPahat
Hospital Sultanah Nora Ismail, BatuPahat	Klinik Kesihatan Sg Mati	
Hospital Pakar Sultanah Fatimah, Muar	Wad B2, Hospital Permai	
Hospital Sultanah Aminah, Johor Bahru	Klinik Kesihatan Pekan Nanas	

<b>SCREENING HOSPITALS</b>	<b>KLINIK KESIHATAN (WAKTU BEKERJA)</b>	<b>KLINIK KESIHATAN (SEMASA Hujung MINGGU)</b>
Hospital Enche' Besar Hjh Kalsom, Kluang	Klinik Kesihatan Kulai Besar	<ul style="list-style-type: none"> <li>• Hospital Pakar Sultanah Fatimah, Muar</li> <li>• Hospital Sultanah Aminah, Johor Bahru</li> <li>• Hospital Enche' Besar Hjh Kalsom, Kluang</li> </ul>
Hospital Segamat	Klinik Kesihatan Kulai	
	Klinik Kesihatan Batu Pahat	
	Klinik Kesihatan Senggarang	
	Klinik Kesihatan Yong Peng	
	Klinik Kesihatan Jalan Mengkibol	
	Klinik Kesihatan Simpang Renggam	
	Asrama Jururawat	
	Klinik Kesihatan Maharani	
	Klinik Kesihatan Parit Jawa	
	Klinik Kesihatan Jemaluang	
	Klinik Kesihatan Segamat	
<b>10. PAHANG</b>		
Hospital Tengku Ampuan Afzan, Kuantan	Klinik Kesihatan Balok	KK Balok 8.00pg - 5.00ptg
Hospital Sultan Hj Ahmad Shah, Temerloh	Klinik Kesihatan Beserah	KK Beserah 8.00pg - 5.00ptg
Hospital Kuala Lipis	Klinik Kesihatan Bandar	KK Bandar 8.00pg - 5.00ptg
Hospital Sultanah Hajjah Kalsom	Klinik Kesihatan Indera Mahkota	KK Indera Mahkota 8.00pg - 5.00ptg
Hospital Pekan	Klinik Kesihatan Kurnia	KK Kurnia 8.00pg - 5.00ptg
Hospital Jengka	Klinik Kesihatan Paya Besar	KK Paya Besar 8.00pg - 5.00ptg
Hospital Bentong	Klinik Kesihatan Permatang Badak	KK Permatang Badak 8.00pg - 5.00ptg
Hospital Jerantut	Klinik Kesihatan Jaya Gading	KK Jaya Gading 8.00pg - 5.00ptg
	Klinik Kesihatan Gambang	KK Gambang 8.00pg - 5.00ptg
	Klinik Kesihatan Bkt Goh	KK Bkt Goh 8.00pg - 5.00ptg

<b>SCREENING HOSPITALS</b>	<b>KLINIK KESIHATAN (WAKTU BEKERJA)</b>	<b>KLINIK KESIHATAN (SEMASA Hujung MINGGU)</b>
	Klinik Kesihatan Sg Lembing	KK Sg Lembing 8.00pg - 5.00ptg
	Klinik Kesihatan Benta	KK Benta 8.00pg - 5.00ptg
	Klinik Kesihatan Padang Tengku	KK Padang Tengku 8.00pg - 5.00ptg
	Klinik Kesihatan Bukit Betong	KK Bukit Betong 8.00pg - 5.00ptg
	Klinik Kesihatan Merapoh	KK Merapoh 8.00pg - 5.00ptg
	Klinik Kesihatan Mela	KK Mela 8.00pg - 5.00ptg
	Klinik Kesihatan Sungai Koyan	KK Sungai Koyan 8.00pg - 5.00ptg
	Klinik Kesihatan Betau	KK Betau 8.00pg - 5.00ptg
	Klinik Kesihatan Jerkoh	KK Jerkoh 8.00pg - 5.00ptg
	Klinik Kesihatan Lipis	KKIA Lipis 8.00pg - 5.00ptg
	Klinik Kesihatan Ringlet	KK Ringlet 8.00pg - 5.00ptg
	Klinik Kesihatan Kg. Raja	KK Kg. Raja 8.00pg - 5.00ptg
	Klinik Kesihatan Tanah Rata	KK Tanah Rata 8.00pg - 5.00ptg
	Klinik Kesihatan Temerloh	KK Temerloh 8.00pg - 5.00ptg
	Klinik Kesihatan Tanjung Lalang	KK Tanjung Lalang 8.00pg - 5.00ptg
	Klinik Kesihatan Bandar Mentakab	KK Bandar Mentakab 8.00pg - 5.00ptg
	Klinik Kesihatan Kuala Krau	KK Kuala Krau 8.00pg - 5.00ptg
	Klinik Kesihatan Sanggang	KK Sanggang 8.00pg - 5.00ptg
	Klinik Kesihatan Kerdu	KK Kerdu 8.00pg - 5.00ptg
	Klinik Kesihatan Lanchang	KK Lanchang 8.00pg - 5.00ptg

**ANNEX 3**

<b>SCREENING HOSPITALS</b>	<b>KLINIK KESIHATAN (WAKTU BEKERJA)</b>	<b>KLINIK KESIHATAN (SEMASA HUJUNG MINGGU)</b>
	Klinik Kesihatan Bandar Pekan	KK Bandar Pekan 8.00pg - 5.00ptg
	Klinik Kesihatan Peramu Jaya	KK Peramu Jaya 8.00pg - 5.00ptg
	Klinik Kesihatan Chini	KK Chini 8.00pg - 5.00ptg
	Klinik Kesihatan Nenasi	KK Nenasi 8.00pg - 5.00ptg
	Klinik Kesihatan Padang Luas	KK Padang Luas 8.00pg - 5.00ptg
	Klinik Kesihatan Bandar 32	KK Bandar 32 8.00pg - 5.00ptg
	Klinik Kesihatan Purun	KK Purun 8.00pg - 5.00ptg
	Klinik Kesihatan Triang	KK Triang 8.00pg - 5.00ptg
	Klinik Kesihatan Kemayan	KK Kemayan 8.00pg - 5.00ptg
	Klinik Kesihatan Bukit Mendi	KK Bukit Mendi 8.00pg - 5.00ptg
	Klinik Kesihatan Tembangau	KK Tembangau 8.00pg - 5.00ptg
	Klinik Kesihatan Dong	KK Dong 8.00pg - 5.00ptg
	Klinik Kesihatan Jeruas	KK Jeruas 8.00pg - 5.00ptg
	Klinik Kesihatan Tersang	KK Tersang 8.00pg - 5.00ptg
	Klinik Kesihatan Lembah Klau	KK Lembah Klau 8.00pg - 5.00ptg
	Klinik Kesihatan Rompin	KK Rompin
	Klinik Kesihatan Tanjung Gemok	KK Tanjung Gemok 8.00pg - 5.00ptg
	Klinik Kesihatan Tekek	KK Tekek 8.00pg - 5.00ptg
	Klinik Kesihatan Leban Chondong	KK Leban Chondong 8.00pg - 5.00ptg
	Klinik Kesihatan Bukit Ibam	KK Bukit Ibam 8.00pg - 5.00ptg

**ANNEX 3**

<b>SCREENING HOSPITALS</b>	<b>KLINIK KESIHATAN (WAKTU BEKERJA)</b>	<b>KLINIK KESIHATAN (SEMASA HUJUNG MINGGU)</b>
	Klinik Kesihatan Bandar Tun Abdul Razak	KK Bandar Tun A. Razak 8.00pg - 5.00ptg
	Klinik Kesihatan Perantau Damai	KK Perantau Damai 8.00pg - 5.00ptg
	Klinik Kesihatan Chanis	KK Chanis 8.00pg - 5.00ptg
	Klinik Kesihatan Perwira Jaya	KK Perwira Jaya 8.00pg - 5.00ptg
	Klinik Kesihatan Maran	KK Maran 8.00pg - 5.00ptg
	Klinik Kesihatan Sri Jaya	KK Sri Jaya 8.00pg - 5.00ptg
	Klinik Kesihatan Pekan Tajau	KK Pekan Tajau 8.00pg - 5.00ptg
	Klinik Kesihatan Chenor	KK Chenor 8.00pg - 5.00ptg
	Klinik Kesihatan Pekan Awah	KK Pekan Awah 8.00pg - 5.00ptg
	Klinik Kesihatan Jengka 2	KK Jengka 2 8.00pg - 5.00ptg
	Klinik Kesihatan Jengka 22	KK Jengka 22 8.00pg - 5.00ptg
	Klinik Kesihatan Bandar Jengka	KK Bandar Jengka 8.00pg - 5.00ptg
	Klinik Kesihatan Jengka 7	KK Jengka 7 8.00pg - 5.00ptg
	Klinik Kesihatan Bentong	KK Bentong 8.00pg - 5.00ptg
	Klinik Kesihatan Karak	KK Karak 8.00pg - 5.00ptg
	Klinik Kesihatan Mempaga	KK Mempaga 8.00pg - 5.00ptg
	Klinik Kesihatan Simpang Pelangai,	KK Simpang Pelangai 8.00pg - 5.00ptg
	Klinik Kesihatan Chemomoi	KK Chemomoi 8.00pg - 5.00ptg
	Klinik Kesihatan Telemong	KK Telemong 8.00pg - 5.00ptg
	Klinik Kesihatan Lurah Bilut	KK Lurah Bilut 8.00pg - 5.00ptg

<b>SCREENING HOSPITALS</b>	<b>KLINIK KESIHATAN (WAKTU BEKERJA)</b>	<b>KLINIK KESIHATAN (SEMASA Hujung MINGGU)</b>
	Klinik Kesihatan Jengka 8	KK Jengka 8 8.00pg - 5.00ptg
	Klinik Kesihatan Sg Tekam Utara	KK Sg Tekam Utara 8.00pg - 5.00ptg
	Klinik Kesihatan Bandar Jerantut	KK Bandar Jerantut 8.00pg - 5.00ptg
	Klinik Kesihatan Damak	KK Damak 8.00pg - 5.00ptg
	Klinik Kesihatan Kuala Tembeling	KK Kuala Tembeling 8.00pg - 5.00ptg
<b>11. TERENGGANU</b>		
Hospital Sultanah Nur Zahirah, Kuala Terengganu	Saringan Covid-19 dijalankan di semua klinik kesihatan	Saringan Covid-19 dijalankan di semua klinik kesihatan 8.00pg - 5.00ptg
Hospital Hulu Terengganu		
Hospital Kemaman		
<b>12. KELANTAN</b>		
Hospital Raja Perempuan Zainab II, Kota Bharu	Klinik Kesihatan Kota Jembal	Klinik Kesihatan Kota Jembal (8.00 pg – 5.00 ptg)
Hospital Tanah Merah	Klinik Kesihatan Perol	Klinik Kesihatan Perol (8.00 pg – 5.00 ptg)
Hospital Sultan Ismail Petra, Kuala Krai	Klinik Kesihatan Meranti	Klinik Kesihatan Meranti (8.00 pg – 5.00 ptg)
Hospital Tumpat	Klinik Kesihatan Mahligai	Klinik Kesihatan Mahligai (8.00 pg – 5.00 ptg)
	Klinik Kesihatan Labok	Klinik Kesihatan Labok (8.00 pg – 5.00 ptg)
	Klinik Kesihatan Jeli	Klinik Kesihatan Jeli (8.00 pg – 5.00 ptg)
	Klinik Kesihatan Pasir Puteh	Klinik Kesihatan Pasir Puteh (8.00 pg – 5.00 ptg)
	Klinik Kesihatan Gua Musang	Klinik Kesihatan Gua Musang (8.00 pg – 5.00 ptg)
<b>13. SABAH</b>		

<b>SCREENING HOSPITALS</b>	<b>KLINIK KESIHATAN (WAKTU BEKERJA)</b>	<b>KLINIK KESIHATAN (SEMASA HUJUNG MINGGU)</b>
Hospital Queen Elizabeth I, Kota Kinabalu	Saringan Covid-19 dijalankan di semua klinik kesihatan	Saringan Covid-19 dijalankan di semua klinik kesihatan 8.00 pagi – 5.00 ptg
Hospital Duchess Of Kent, Sandakan		
Hospital Tawau		
Hospital Wanita dan Kanak-kanak, Likas		
Hospital Lahad Datu		
Hospital Keningau		
<b>14. SARAWAK</b>		
Hospital Umum Sarawak, Kuching	Kompleks Belia dan Sukan	Kompleks Belia dan Sukan 8.00pg - 5.00ptg
Hospital Miri	Klinik Kesihatan Kota Samarahan	
Hospital Bintulu	Klinik Kesihatan Sebuyau	
Hospital Sibu	Klinik Kesihatan Asajaya	
Hospital Sarikei	Klinik Kesihatan Sadong Jaya	
Hospital Limbang	Klinik Kesihatan Munggu Lallang	
Hospital Kapit	Institut Latihan Klinik Kesihatan Serian	
Hospital Daro	Klinik Kesihatan Sri Aman	
	Klinik Kesihatan Lubok Antu	
	Klinik Kesihatan Mid Layar	
	Klinik Kesihatan Debak	
	Klinik Kesihatan Pusa	
	Klinik Kesihatan Beladin	
	Klinik Kesihatan Roban	
	Klinik Kesihatan Kabong	
	Jabatan Kecemasan dan Trauma Hospital Mukah	
	Klinik Kesihatan Lanang	
	Klinik Kesihatan Bintangor	
	Jabatan Kecemasan dan Trauma Hospital Sarikei	
	Klinik Kesihatan Bintulu	
	Klinik Kesihatan Tatau	



<b>SCREENING HOSPITALS</b>	<b>KLINIK KESIHATAN (WAKTU BEKERJA)</b>	<b>KLINIK KESIHATAN (SEMASA Hujung MINGGU)</b>
	Klinik Kesihatan Kapit	
	Klinik Kesihatan Song	
	Klinik Kesihatan Sg Asap	
	Klinik Kesihatan Belaga	
	Klinik Kesihatan Miri	
	Klinik Kesihatan Kuala Lawas	
	Jabatan Kecemasan dan Trauma Hospital Limbang	
<b>15. WP LABUAN</b>		
Hospital Labuan	Klinik Kesihatan Labuan	KK Labuan 8.00pg - 5.00ptg

## SENARAI MAKMAL YANG MENJALANKAN UJIAN RT-PCR BAGI COVID-19

<b>A. FASILITI KESIHATAN KERAJAAN</b>		
<b>SAMPEL DI KALANGAN KES</b>		
1.	Perlis	Hospital Sultanah Bahiyah, Alor Setar, Kedah
2.	Kedah	Hospital Sultanah Bahiyah, Alor Setar, Kedah
3.	Pulau Pinang	Hospital Pulau Pinang
4.	Perak	Hospital Raja Permaisuri Bainun, Ipoh, Perak
5.	Selangor	Hospital Sungai Buloh, Selangor
6.	WP Kuala Lumpur & Putrajaya	Hospital Kuala Lumpur
7.	Negeri Sembilan	Hospital Tuanku Jaafar, Seremban, N. Sembilan
8.	Melaka	Hospital Melaka
9.	Johor	Hospital Sultanah Aminah, Johor Bahru, Johor
10.	Pahang	Hospital Tengku Ampuan Afzan, Kuantan, Pahang
11.	Terengganu	Hospital Sultanah Nur Zahirah, Kuala Terengganu, Terengganu
12.	Kelantan	Hospital Raja Perempuan Zainab II, Kota Bharu, Kelantan
13.	Sarawak	Hospital Umum Sarawak
14.	Sabah	Makmal Kesihatan Awam, Kota Kinabalu, Sabah
15.	WP Labuan	Makmal Kesihatan Awam, Kota Kinabalu, Sabah
<b>SAMPEL DI KALANGAN KONTAK</b>		
1.	Zon Tengah( Negeri Sembilan, Melaka, Selangor, WP Kuala Lumpur,WP Putrajaya, Pahang) dan Sarawak	Makmal Kes. Awam Kebangsaan (MKAK) Sg. Buloh, Selangor
2.	Zon Utara( Perlis, Pulau Pinang, Kedah, Perak)	Makmal Kesihatan Awam, Ipoh, Perak
3.	Zon Selatan( Johor)	Makmal Kesihatan Awam, Johor Bharu, Johor
4.	Zon Timur (Kelantan, Terengganu)	Makmal Kesihatan Awam, Kota Bharu, Kelantan
5.	Sabah, WP Labuan	Makmal Kesihatan Awam, Kota Kinabalu, Sabah
6.	Sarawak	Hospital Umum Sarawak
<b>SAMPEL SERUM DI KALANGAN KES DAN KONTAK RAPAT DENGAN KES YANG DISAHKAN (TERMASUK ANGGOTA KESIHATAN), YANG DIKESAN MELALUI AKTIVITI ACD DI LAPANGAN</b>		
20.	Seluruh negara	Unit Virologi, Institut Penyelidikan Perubatan (IMR), Kuala Lumpur
<b>B. FASILITI KESIHATAN SWASTA</b>		
21	Seluruh negara	Lablink(M) Sdn Bhd (KPJ)
		Pantai Premier Pathology Sdn Bhd
		Neogenix Laboratories Sdn Bhd
		Clinipath (M) Sdn Bhd
		BP Clinical lab Sdn Bhd (Glenmarie branch)
		Sunway Medical Centre
Gribbles Pathology Sdn Bhd		

**SENARAI PEGAWAI UNTUK DIHUBUNGI UNTUK PENGHANTARAN SAMPEL DI LUAR WAKTU  
PEJABAT, Hujung Minggu DAN CUTI UMUM**

**UNIT VIROLOGI, IMR/ MKAK/ MKAKK/ MKAI/ MKAJB/ MKAKB**

No.	Nama Pegawai IMR	Jawatan	No. Pejabat	No. H/P
1.	Dr. Ravindran Thayan	Ketua Unit Virologi	03-26162671	016-286 7647
2.	Dr. Rozainanee Mohd Zain	Pakar Patologi (Mikrobiologi Perubatan)	03-26162671	013-341 2468
3.	Pn Tengku Rogayah Tg Abd Rashid	Pegawai Penyelidik Kanan	03-33628942	0192283955
4.	Dr. Jeyanthi Suppiah	Pegawai Penyelidik Kanan	03-33628944	0165532067
5.	Dr. Kamal Haikal Mat Rabi	Pegawai Perubatan	03-26162671	019-3621747
6.	Dr. Khayri Kamel	Pegawai Perubatan	03-26162671	011-15649265

No.	Nama Pegawai MKA Kebangsaan (MKAK)	Jawatan	No. Pejabat	No. H/P
1.	Dr Donal Huda Nasril	Pakar Patologi (Mikrobiologi Perubatan)	03-61261281	016-2217131
2.	Pn Yu Kie A/P Chem	Pegawai Sains Mikrobiologi	03-61261304	013-2081724
3.	En Selvanesan A/L Sengol	Pegawai Sains Mikrobiologi	03-61261301	016-2657105

No.	Nama Pegawai MKA Kota Kinabalu (MKAKK)	Jawatan	No. Pejabat	No. H/P
1.	Pn Rashidah Mohammad	Pegawai Sains Mikrobiologi	088-251710 ext 19041	016-8091076
2.	En Joel Judson Jaimin	Pegawai Sains Mikrobiologi	088-251710 ext 19041	013-8682785

No.	Nama Pegawai MKA Ipoh (MKAI)	Jawatan	No. Pejabat	No. H/P
1.	Dr Thevendran Sadasivam	Pegawai Perubatan UD54	05-5287832	012-6961110
2.	Dr. Muhammad Hasyim Chew	Pegawai Sains Mikrobiologi	05-5287832	012-5211838
3.	Cik Nur Diyana binti Mastor	Pegawai Sains Mikrobiologi	05-5287832	0132482352
4.	Cik Yusnita Alwia binti Yusof	Pegawai Sains Mikrobiologi	05-5287832	013-4669039

No.	Nama Pegawai MKA Johor Bahru (MKAJB)	Jawatan	No. Pejabat	No. H/P
1.	Dr Norhamimah Abdullah	Pakar Kesihatan Awam , Pengarah MKAJB	07-2387162	019-7237740
2.	Norlin Abdul Latif	Pegawai Sains (Mikrobiologi), Ketua Seksyen Penyakit	07-2387162	019-3551972
3.	Nik Nur Azma Nordin	Pegawai Sains(Mikrobiologi)	07-2387162	016-9866206

**ANNEX 4b**

<b>No.</b>	<b>Nama Pegawai MKA Kota Bharu (MKAKB)</b>	<b>Jawatan</b>	<b>No. Pejabat</b>	<b>No. H/P</b>
1.	Dr Fauziah Bt Mohd Nor	Pakar Kesihatan Awam, Pengarah MKAKB	09-7138000	019-9386622
2.	Dr Suhana Bt Hashim	Pakar Patologi (Mikrobiologi Perubatan)	09-7138000	012-9555842
3.	Syahida Bt Omar	Pegawai Sains (Mikrobiologi)	09-7138000	019-9828223

**SENARAI PEGAWAI UNTUK DIHUBUNGI UNTUK PENGHANTARAN SAMPEL  
DI LUAR WAKTU PEJABAT, Hujung Minggu dan Cuti Umum**

**UNIT MIKROBIOLOGI HOSPITAL**

No	Hospital	Nama Pegawai	Jawatan	No.Pejabat	No. H/P
1.	Hospital Sultanah Bahiyah, Alor Setar, Kedah	Dr. Amizah Othman	Pakar Patologi (Mikrobiologi Perubatan)	04-7406244	019-4983246
		Cik Salwani Saad	Pegawai Sains Mikrobiologi	04-7406244	019-4788074
2.	Hospital Pulau Pinang, Pulau Pinang	Dr. Booh Kah Ying	Pakar Patologi (Mikrobiologi Perubatan)	04-2225220 Ext 5152	012-5862278
		Dr. Ch'ng Wei Choong	Pegawai Sains Mikrobiologi	04-2225220 Ext 5152	017-4283579
3.	Hospital Raja Permaisuri Bainun, Ipoh, Perak	Dr. Fatimah Dzohran Sharaddin	Pakar Patologi (Mikrobiologi Perubatan)	05-2085233/ 5204	013-3292248
		Pn. Norizah Ismail	Pegawai Sains Mikrobiologi	05-2085233/ 5204	012-2016922
4.	Hospital Sungai Buloh, Selangor	Dr. Nur Izati Mustafa	Pakar Patologi (Mikrobiologi Perubatan)	03-61456333	017-6820942
		Pn. Iliyana bt Ismail	Pegawai Sains	03-61456333	012- 5066637
5.	Hospital Kuala Lumpur	Datin Dr. Salbiah binti Nawi	Pakar Perunding Patologi (Mikrobiologi Perubatan)	03-26156852 0326155590	012-3295350
		Dr. Salmah binti Idris	Pakar Perunding Patologi (Mikrobiologi Perubatan)	03-26156852	0132502137
		Pn. Nur Hidayah Binti Mas'od	Pegawai Sains	03-26156852 03-26155590	012-2893829
6.	Hospital	Dr. Suhaila	Pakar Patologi	06-76844721	013-5339001

## ANNEX 4b

No	Hospital	Nama Pegawai	Jawatan	No.Pejabat	No. H/P
	Tuanku Jaafar, Seremban, Negeri Sembilan	Baharuddin	(Mikrobiologi Perubatan)		
		Pn. Aishah bt Salleh	Pegawai Sains	06-76844721	017-6454456
7.	Hospital Melaka, Melaka	Dr. Padmaloseni @ Nur Humairah Binti Thangarajah	Pakar Patologi (Mikrobiologi Perubatan)	06-2892879	019-7705778
		Pn. Zuraiha Mohammad	Pegawai Sains	06-2892879	013-3510021
8.	Hospital Sultanah Aminah, Johor Bahru, Johor	Dr. Dayangku Seritul Akmar bt Abd Razak	Pakar Patologi (Mikrobiologi Perubatan)	07-2257000 Ext 2408/ 2660/ 2222	013-7027249
		En. Shamsulbahri n bin Sidik	Pegawai Sains	07-2257000 Ext 2408/ 2660/ 2222	011- 13015150
9.	Hospital Tengku Ampuan Afzan, Kuantan, Pahang	Dr. Roesnita Baharudin	Pakar Patologi (Mikrobiologi Perubatan)	09-5572869 09-5572870	019-9883697
		Pn. Noradilah Marzuki	Pegawai Sains	09-5572869 09-5572870	013-6185265
10	Hospital Sultanah Nur Zahirah, Kuala Terengganu, Terengganu	Dr. Fatimah Haslina Abdullah	Pakar Patologi (Mikrobiologi Perubatan)	09-6212121 Ext 2105/ 2104	013-9229256
		Pn. Norazita Sapie	Pegawai Sains	09-6212121 Ext 2105/ 2104	013-9229256
11	Hospital Raja Perempuan Zainab II, Kota Bharu, Kelantan	Dr. Azura Hussin	Pakar Patologi (Mikrobiologi Perubatan)	09-7452425 09-7452426	019-9370793
		Pn. Normaizura Mokhter	Pegawai Sains	09-7452425 09-7452426	019-2125528

**ANNEX 4b**

<b>No</b>	<b>Hospital</b>	<b>Nama Pegawai</b>	<b>Jawatan</b>	<b>No.Pejabat</b>	<b>No. H/P</b>
12	Hospital Umum Sarawak, Kuching, Sarawak	Dr. Amira Amir	Pakar Patologi (Mikrobiologi Perubatan)	082-276666 Ext 6062	019-7360402
		En. Cyrus Anak Arong	Pegawai Sains	082-276666 Ext 6062	012-8506640

## GUIDELINES ON LABORATORY TESTING FOR COVID-19

### Clinical Specimens To Be Collected From Symptomatic Patients

Category	Test	Type of sample	Timing	Storage and transportation
Symptomatic patient	RT-PCR	Lower respiratory tract specimen - Sputum (if produced) - Tracheal aspirate - Bronchoalveolar lavage  Upper respiratory tract specimen - Nasopharyngeal <b>AND</b> oropharyngeal swabs - Nasopharyngeal wash / aspirate	Collect on presentation.	If transportation of samples is within 72 hours, store at 2- 8°C.  If transportation of samples is more than 72 hours, store at - 80°C and transport in ice.
	Serology	Serum	Collect at Day 5-8 (First Serum)  AND upon discharge from hospital (Second Serum)	As above

A single negative test result, particularly if the sample was collected from an upper respiratory tract does not exclude the infection. Repeat sampling and testing.

Lower respiratory tract specimen is strongly recommended in severe or progressive disease.

A positive result for any other pathogens does not necessarily rule out COVID-19.

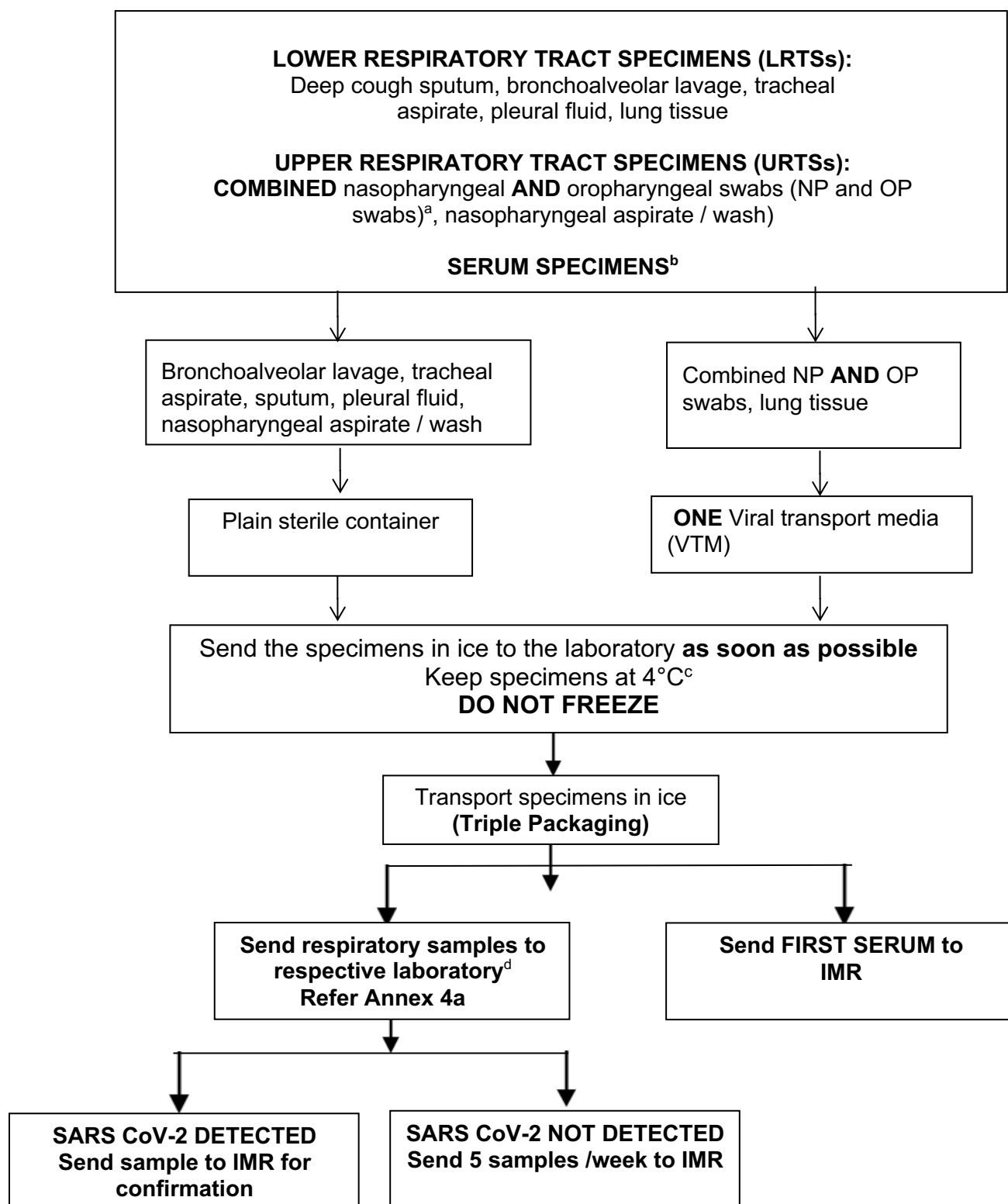


## GUIDELINES ON LABORATORY TESTING FOR COVID-19

### Clinical Specimens To Be Collected From Asymptomatic Contacts

Category	Test	Type of sample	Timing	Storage and transportation
Asymptomatic contacts	<b>RT-PCR</b>	Nasopharyngeal <b>AND</b> oropharyngeal swabs	Within 14 days of last documented contact – to collect on first encounter.	<p>If transportation of samples is within 72 hours, store at 2- 8°C.</p> <p>If transportation of samples is more than 72 hours, store at - 80°C and transport in ice.</p>
	RTK Serology IgM test (POCT)	Whole Blood Serum	Day 13 of Home surveillance	Not Applicable (Point of care testing)

## LABORATORY TESTING FOR PUI OF COVID-19 IN HOSPITAL

**NOTE:**

<sup>a</sup>Do not use wooden shaft / cotton swab. Use dacron / rayon / polyester swabs.

<sup>b</sup>Serum sample to be collected in serum separator tube and send to IMR.

<sup>c</sup>All clinical sample while awaiting to be send to the laboratory

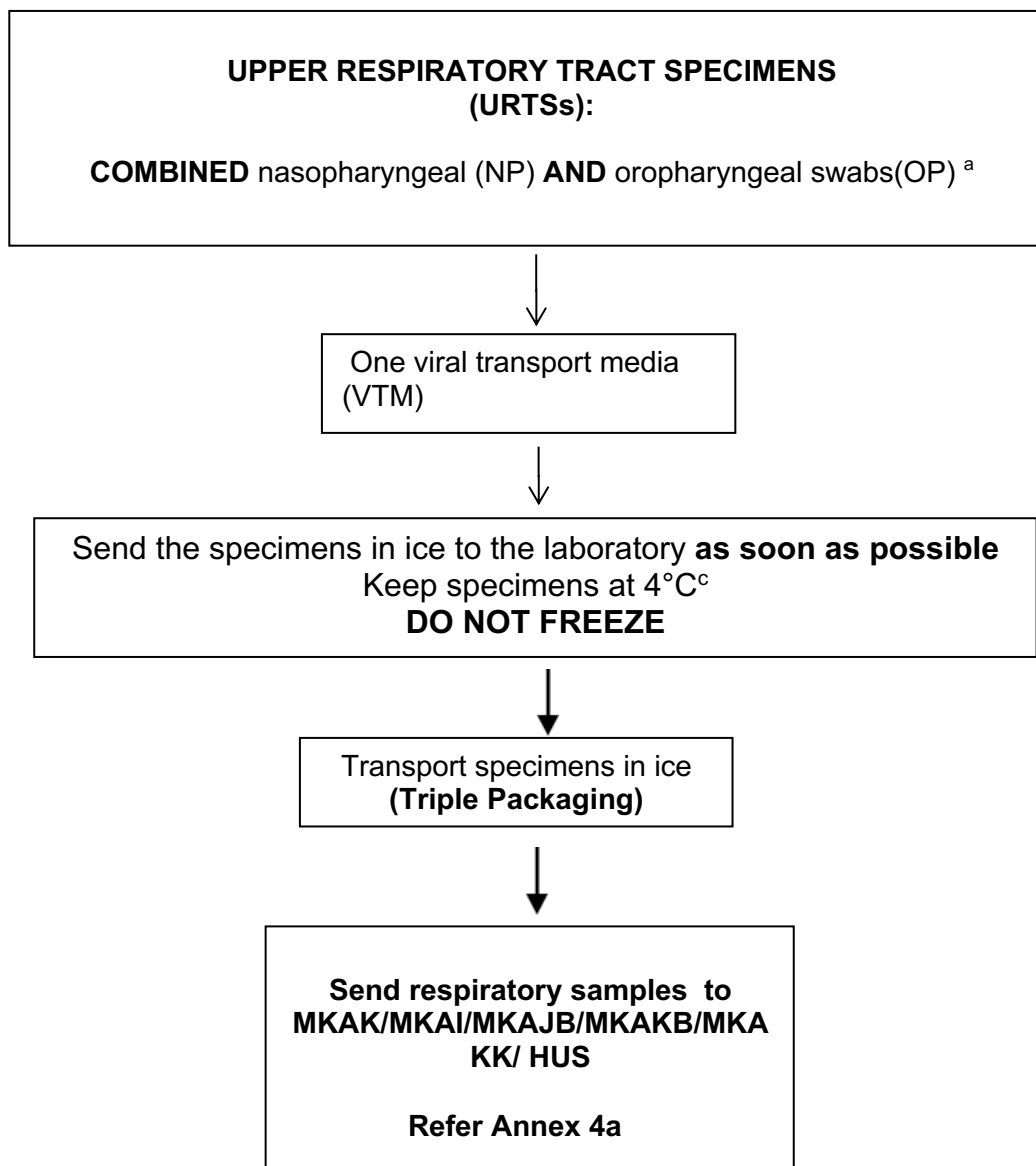
> If transportation of sample is within 72 hours, store at 2-8°C

> If transportation of sample is after 72 hours, store at -80°C

<sup>d</sup>Consult with Laboratory Officers first before sending samples.

**PLEASE SEND SECOND SERUM TO IMR ON DAY 13 OR PRIOR TO DISCHARGE**

## LABORATORY TESTING FOR ASYMPTOMATIC CONTACTS OF COVID-19

**NOTE:**

<sup>a</sup>Do not use wooden shaft / cotton swab. Use dacron / rayon / polyester swabs.

<sup>c</sup>All clinical sample while awaiting to be send to the laboratory

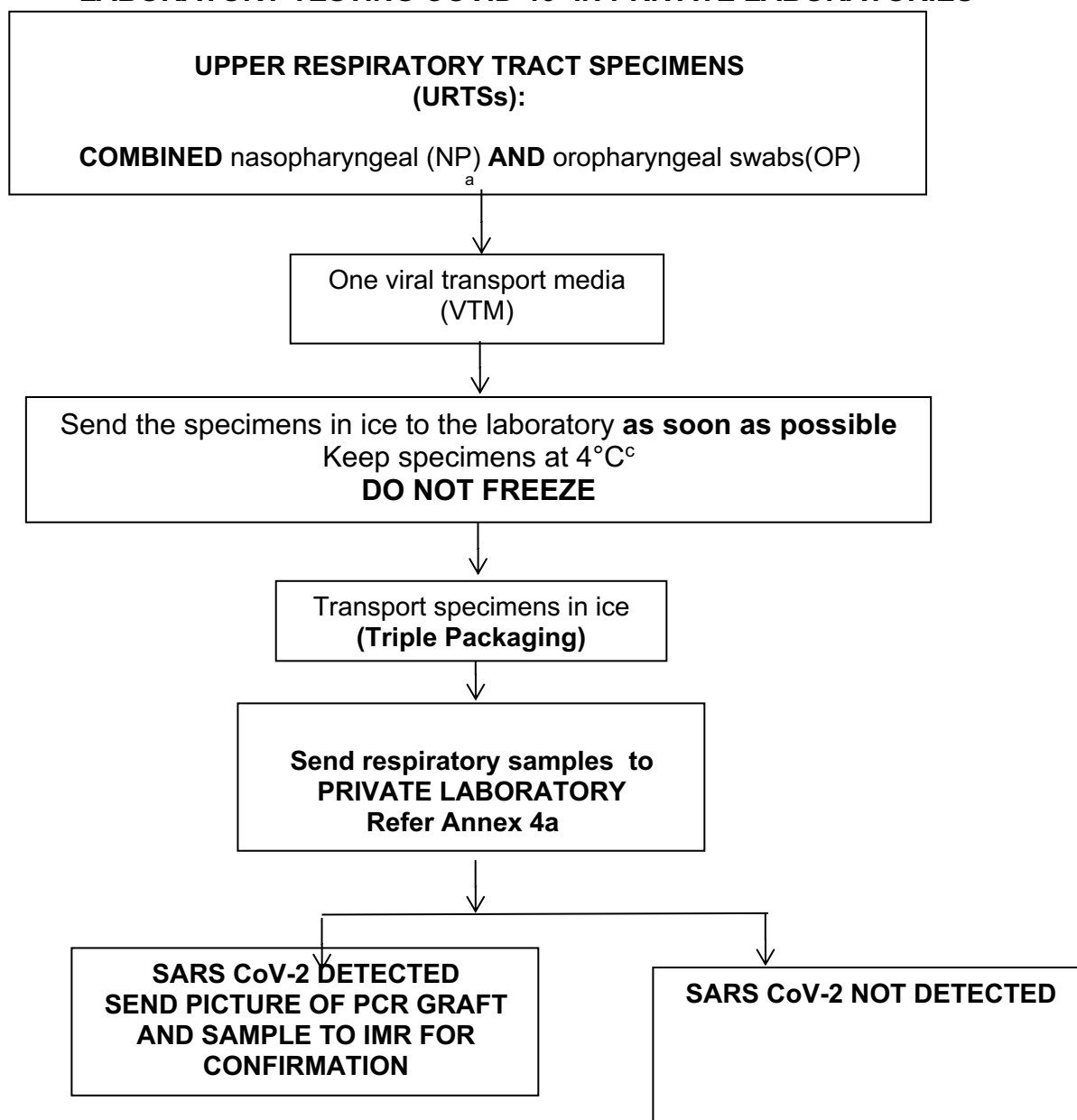
➤ If transportation of sample is within 72 hours, store at 2-8°C

➤ If transportation of sample is after 72 hours, store at -80°C

<sup>d</sup>Consult with Laboratory Officers first before sending samples.

**PLEASE PERFORM RTK SEROLOGY IGM ON DAY 13  
(SECOND SAMPLE TESTING)**

## LABORATORY TESTING COVID-19 IN PRIVATE LABORATORIES



## NOTE:

<sup>a</sup>Do not use wooden shaft / cotton swab. Use dacron / rayon / polyester swabs.

<sup>c</sup>All clinical sample while awaiting to be send to the laboratory

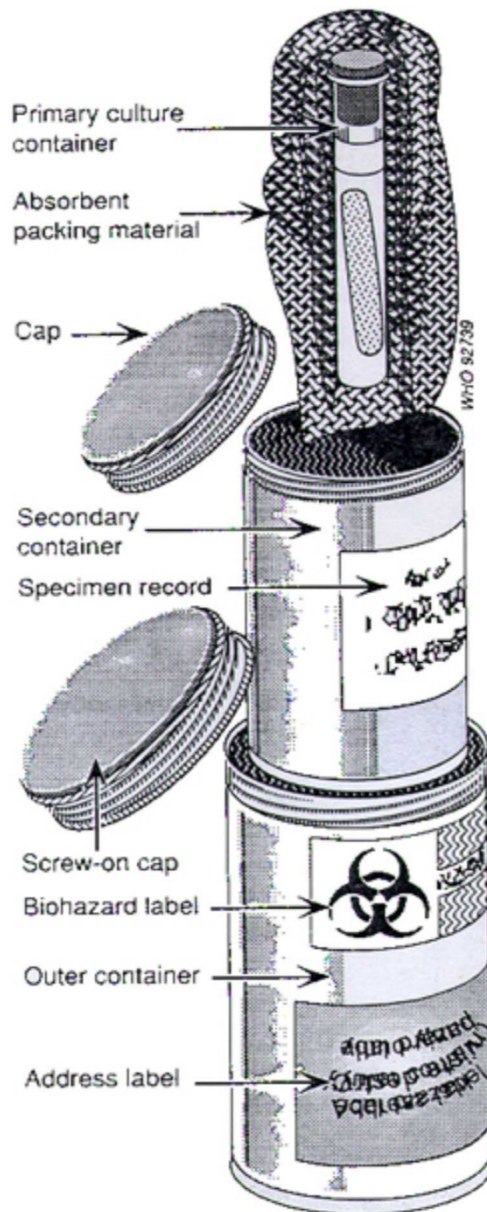
➤ If transportation of sample is within 72 hours, store at 2-8°C

➤ If transportation of sample is after 72 hours, store at -80°C

<sup>d</sup>Consult with Laboratory Officers first before sending samples.



### TRIPLE LAYER PACKAGING



#### NOTE:

This annex is a summary of specific MOH Malaysia guidance on transport of biological specimens which has already been published. For further information, kindly refer to this document:

- i. Standard Operating Procedure for Transport of Biological Specimens in Malaysia. Ministry of Health Malaysia, 2012

## Clinical Sampling for OPS/NPS at Health Centre and Field Setting

1. Laboratory screening at health centre and field setting shall be done for person as below :
  - a. Close contacts of confirmed case
  - b. PUI (not fulfilled Admission Criteria)
  - c. Humanitarian aid mission
  - d. etc
  
2. Preparation for sampling procedure :
  - a. Full set PPE (refer Annex 8a)
    - i. Head cover
    - ii. Face shields
    - iii. Mask N95
    - iv. Double glove
    - v. Isolation gown (Level 4-5)
    - vi. Plastic gown
    - vii. Boot cover
  - b. Set for sampling Nasopharyngeal swab (NPS) or Oropharyngeal swab and VTM
  - c. Triple packaging set for transportation of samples
  - d. Biohazard waste
  
3. All monitoring sheet and progress report for each PUI shall be reported to PKD and State CPRC on daily basis.

### Preparation of Clinical Sample Process at Field

1. Identify team consist of Epidemiologist/ Supervisor, Medical Officer, Paramedic and Assistant Environmental Officer. The role of the team are as stated below:
  - a. Epidemiologist/ Team Leader
    - a. To do risk assessment and guide team on setting up area for NPS/OPS
    - b. To do risk communication to patient, other family members in the household and neighbours if around.
    - c. To guide team on Donning/Doffing PPE as stated in Annex 8.
  
  - b. Medical Officer
    - a. The person who will do the NPS/OPS
    - b. To brief patient on the procedure process
    - c. To set up clean area for sampling process
  
  - c. Paramedics
    - a. The person who will do the NPS/OPS
    - b. To assist MO in fulfilling the laboratory request form beforehand
    - c. To label the specimen bottle before entering 'dirty area'

- d. To bring all the equipment as listed below in an appropriate bag. Do not rest the bag at any place at the 'dirty area'.
  - e. To assist MO in sampling process and specimen packaging.
- d. Assistant Environmental Officer
- a. The person who will do the NPS/OPS
  - b. To documented names of HCW who handle the specimens.
  - c. To become documenter for any activities.
  - d. To assist epidemiologist in monitoring the safety procedures of the sampling activities

**The role of staff will be change according to situation and needs.**

2. Identify number of cases that need to be sample at the field. Fill in the line-listing form as **Reten Keputusan Ujian Makmal COVID-19**
3. Identify the type of sample need to be taken. Refer **Annex 5a: Guideline on Laboratory Testing For COVID-19 For Patients Under Investigation** and prepare Viral Transport Media, Container dan Packaging materials.
4. Fill in the laboratory request form and label at specimen container before entering the dirty area.
5. Documented the name of Health Care Worker who involve in the activities and fill in the **Monitoring Form for Personnel Potentially Exposed to COVID-19**.
6. Prepare PPE and Items for biological sampling as listed in the **LIST OF COVID-19 FIELD SAMPLING EQUIPMENT AND PPE**.
7. Continue with the clinical sampling procedure at the field.

### **Clinical Sampling Procedure at The Field**

- i. Use full PPE for Medical Officer and Paramedic.
- ii. Get permission to enter the house/hotel/patient's compound before going to field. Ensure that the person is agreeable and available. (If the patient refuse, lodge police report.
- iii. Enter the compound and explain to the patient the sampling procedure and find the suitable place to do the procedure.
- iv. Epidemiologist/Supervisor to do risk assessment and brief team on the process.
- v. Choose appropriate place with good ventilation.
- vi. Medical officer to set up the clean area to place the tools. The clean area is determined by the line boundary of the paper.
- vii. Prepare the biohazard waste bag for disposal of contaminated items.
- viii. Explain the sampling procedure to patient
- ix. Medical Officer (dirty hand) to take clinical sample following the procedure as stated in **Annex 5b: Laboratory Testing For Patient**.
- x. Take Nasopharyngeal Swab and Oropharyngeal Swab and put in one VTM. Recap the specimen bottle tightly.



- xi. Remove 2<sup>nd</sup> layer glove and disinfect the first layer glove with hand sanitizer (poured by the assistant (clean hand).
- xii. Paramedic to pass the second glove to be wear by the Medical Officer.
- xiii. Medical officer to wrap the primary container with absorbent packing material.
- xiv. Paramedic to open secondary container that already pre label and received the primary container from the Medical Officer.
- xv. Paramedic to seal the second container and sterilized with sanitizing wipes tissue.
- xvi. Paramedic to place the sample in the outer container that had Biohazard Label.
- xvii. Medical Officer to explain to patient that the procedure is completed.
- xviii. Documenter to document all the process and document the number of specimen taken.
- xix. Epidemiologist to instruct the team to wrap all the tools and throw into biohazard waste bag.
- xx. Team to go out from dirty area and doffing as guided by epidemiologist.
- xxi. Transport specimen to the receiving laboratory as in Annex 4a: Agihan Makmal yang Menjalankan Ujian COVID-19.**
- xxii. All team to undergone daily health surveillance as per stated in (Annex 21)

## 6.1 LIST OF COVID-19 FIELD SAMPLING EQUIPMENT AND PPE.

### a. Medical Officer (Dirty Hand)

No.	ITEM	QUANTITY
1	A3-sized White Paper/ non-absorbable paper	2
2	Gauze	4
3	Boot Cover	2
4	N95 face mask	1
5	Head cover	1
6	3-ply surgical mask	1
7	Eye shield/ face shield	1
8	Non-sterile glove	2
9	Surgical glove	1
10	Apron	1
11	Hand rub	1
12	Clinical bag (Yellow bag)	1
13	Pen	1

### b. Paramedic (Clean Hand)

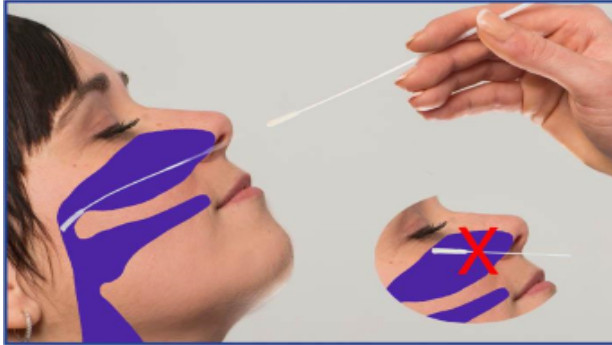
No.	ITEM	QUANTITY
1	A3-sized White Paper	1
2	Viral Transport Media	2
3	Gauze	4
4	Boot Cover	2
5	N95 face mask	1

6	Head cover	1
7	3-ply surgical mask	1
8	Eye shield/ face shield	1
9	Non-sterile glove	2
10	Surgical glove	1
11	Apron	1
12	Hand rub	1
13	Biohazard specimen zipper bag	2

**c. Assistant Environmental Health Officer (Documentor)**

No.	ITEM	QUANTITY
1	A3-sized White Paper	1
2	Boot Cover	2
3	N95 face mask	1
4	Head cover	1
5	3-ply surgical mask	1
6	Eye shield/ face shield	1
7	Non-sterile glove	2
8	Surgical glove	1
9	Apron	1
10	Hand rub	1
11	Biohazard specimen zipper bag	2
12	Specimen container	
13	Woven bag	1
14	Adhesive Tape	1
15	Clerking Sheet	1
16	Lab Request Form	1
17	Tranparent zipper bag (A4 sized)	1
18	Pen	1

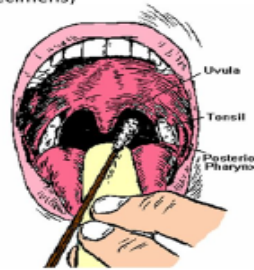
### 6.2 Technique for specimen Taking OPS/ NPS



#### Oropharyngeal Swab

(preferred specimens)

1. Ask the subject to open his or her mouth
2. Depress the tongue
3. Swab the posterior pharynx behind the tonsils
4. Avoid the tonsils



\* Contact referring Microbiologist at your state for further training and information

### 6.3 Example of Triple Packaging Container

#### TRIPLE PACKAGING



#### 6.4 Reten Keputusan Ujian Makmal COVID-19 dari Makmal ke CPRC Negeri

Nama Hospital/ Makmal : \_\_\_\_\_

Tarikh: \_\_\_\_\_

##### Keputusan Ujian COVID-19 PCR

Bil	Nombor Makmal	ID/ IC Pesakit	Nama Pesakit	Umur (Tahun)	Jantina	Pemohon (JKN/PKD/KK)	Keputusan	Warga negara	Symptom	Tarikh sampel diambil	Tarikh sampel diterima	Tarikh Ujian dijalankan
1												
2												
3												

\* Keputusan ujian telah verify oleh MKAK/ IMR

Disediakan oleh :

Disemak oleh :

Disahkan oleh :

\***Sampel Positif** – semua sampel positif hendaklah dihantar kepada MKAK dan IMR bagi tujuan virus isolasi.

Input SIMKA:

Keputusan positif – key in SIMKA selepas press conference dijalankan

Keputusan negative – setelah mendapat kebenaran dari Pengarah masing-masing

## 7.6 Reten Keputusan Ujian Makmal COVID-19 dari CPRC Negeri ke CPRC KKM

Nama CPRC Negeri : \_\_\_\_\_

Tarikh: \_\_\_\_\_

## Keputusan Ujian COVID-19 PCR

Bil	Nombor Makmal	ID/ IC Pesakit	Nama Pesakit	Umur (Tahun)	Jantina	Pemohon (JKN/PKD/KK)	Keputusan	Warga negara	Symptom	Tarikh sampel diambil	Tarikh sampel diterima	Tarikh Ujian dijalankan
1												
2												
3												

\* Keputusan ujian telah verify oleh MKAK/ IMR

Disediakan oleh :

Disemak oleh :

Disahkan oleh :

**HEALTH ALERT CARD****MINISTRY OF HEALTH MALAYSIA****HEALTH ALERT CARD  
FOR TRAVELERS AND FLIGHT CREW RETURNING  
FROM FOREIGN COUNTRY**

Keep this card for the next 14 days after returning to Malaysia. Monitor your body temperature and look out for fever ( $\geq 38^{\circ}\text{C}$ ) and symptoms of cough with breathlessness. If these symptoms were to develop or worsen and you are not feeling well, please seek medical treatment at nearest healthcare facility **IMMEDIATELY**.

As such, kindly practice the following:

- i. Cover your mouth and nose using tissue whenever you cough or sneeze. Throw the tissue in the trash after you use it. Wash your hands with soap and water or use hand sanitizer regularly;
- ii. Always follow cough etiquette
- iii. Use face mask whenever being in public or close contact with people;
- iv. Always maintain good personal hygiene and cleanliness

**Attention to The Attending Doctor:**

The person who is presenting this **ALERT CARD** to you had recently travelled or returned from affected countries with active transmission (within the past 14 days). If the person presents with fever ( $\geq 38^{\circ}\text{C}$ ), pneumonia or severe respiratory infection with breathlessness, please refer him/her **IMMEDIATELY** to the nearest hospital.



## KEMENTERIAN KESIHATAN MALAYSIA

### KAD AMARAN KESIHATAN BAGI PELAWAT DAN ANAK KAPAL YANG BARU PULANG DARI LUAR NEGARA

Simpan kad ini selama 14 hari setelah kembali ke Malaysia. Pantau suhu badan anda dan awasi gejala seperti demam ( $\geq 38^{\circ}\text{C}$ ), batuk dan susah bernafas. Sekiranya anda mengalami gejala atau bertambah teruk dan berasa tidak sihat, sila dapatkan rawatan perubatan di fasiliti kesihatan berdekatan dengan **SEGERA**.

Sekiranya anda mempunyai gejala tersebut:

- i. Tutup mulut dan hidung anda menggunakan tisu apabila anda batuk atau bersin. Sejurus selepas itu, buang tisu yang telah digunakan kedalam tong sampah. Cuci tangan dengan sabun dan air atau bahan pencuci tangan (*hand sanitizer*) selepas batuk atau bersin;
- ii. Amalkan adab batuk yang baik;
- iii. Pakai penutup mulut dan hidung (*mask*) apabila terpaksa berhubung / berurusan dengan orang lain;
- iv. Pastikan anda menjaga kebersihan diri sepanjang masa.

Kepada Pengamal Perubatan Yang Merawat Pesakit Ini

Individu yang membawa kad ini adalah merupakan penumpang atau anak kapal yang baru pulang dari negara yang mengalami penularan aktif jangkitan (dalam tempoh 14 hari yang lepas). Jika anda mendapati beliau mengalami gejala seperti demam ( $\geq 38^{\circ}\text{C}$ ), radang paru-paru, jangkitan respiratori serius dan susah bernafas, sila rujuk ke hospital yang berhampiran dengan **SEGERA**.

## KAD AMARAN KESIHATAN

**BAGI PELAWAT DAN ANAK KAPAL YANG BARU PULANG DARI  
KAWASAN YANG DIJANGKITI 2019 NOVEL CORONAVIRUS (2019 -nCoV)**

Simpan kad ini selama 14 hari setelah kembali ke Malaysia. Pantau suhu badan anda dan awasi gejala seperti demam ( $\geq 38^{\circ}\text{C}$ ), batuk dan susah bernafas. Jika anda tidak sihat sila berjumpa doktor dengan **SEGERA**.



• Demam



• Batuk



• Masalah Pernafasan

Jika anda mempunyai gejala tersebut :

- i. Amalkan adab batuk dan bersin yang baik ;
- ii. Tutup mulut dan hidung anda menggunakan tisu apabila anda batuk dan bersin. Buang tisu yang telah digunakan ke dalam tong sampah.
- iii. Cuci tangan dengan sabun dan air atau bahan pencuci tangan (*hand sanitizer*) selepas batuk atau bersin ;
- iv. Pakai penutup mulut dan hidung (*mask*) apabila terpaksa berhubung/ berurusan dengan orang lain ;
- v. Pastikan anda menjaga kebersihan diri sepanjang masa.

### KEPADA DOKTOR YANG MERAWAT PESAKIT INI :

Individu yang membawa kad ini adalah merupakan penumpang atau anak kapal yang baru pulang dari negara yang mengalami penularan aktif jangkitan (dalam tempoh 14 hari yang lepas). Jika anda mendapati beliau mengalami gejala seperti demam ( $\geq 38^{\circ}\text{C}$ ), batuk dan susah bernafas, sila rujuk ke klinik/hospital yang berhampiran dengan **SEGERA**.

## KAD AMARAN KESIHATAN

**BAGI PELAWAT DAN ANAK KAPAL YANG BARU PULANG DARI  
KAWASAN YANG DIJANGKITI 2019 NOVEL CORONAVIRUS (2019 -nCoV)**

Simpan kad ini selama 14 hari setelah kembali ke Malaysia. Pantau suhu badan anda dan awasi gejala seperti demam ( $\geq 38^{\circ}\text{C}$ ), batuk dan susah bernafas. Jika anda tidak sihat sila berjumpa doktor dengan **SEGERA**.



• Demam



• Batuk



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Jika anda mempunyai gejala tersebut :

- i. Amalkan adab batuk dan bersin yang baik ;
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- v. Pastikan anda menjaga kebersihan diri sepanjang masa.

### KEPADA DOKTOR YANG MERAWAT PESAKIT INI :

Individu yang membawa kad ini adalah merupakan penumpang atau anak kapal yang baru pulang dari negara yang mengalami penularan aktif jangkitan (dalam tempoh 14 hari yang lepas). Jika anda mendapati beliau mengalami gejala seperti demam ( $\geq 38^{\circ}\text{C}$ ), batuk dan susah bernafas, sila rujuk ke klinik/hospital yang berhampiran dengan **SEGERA**.



## HEALTH ALERT CARD

FOR TRAVELERS AND FLIGHT CREW RETURNING FROM COUNTRIES WITH ACTIVE TRANSMISSION OF 2019 NOVEL CORONAVIRUS (2019 -nCoV) INFECTION

Keep this card for the next 14 days after returning to Malaysia. Monitor your body temperature and look out for fever ( $\geq 38^{\circ}\text{C}$ ) and symptoms of cough and/or breathing difficulty. If these symptoms were to develop and you are not feeling well, seek medical advice **IMMEDIATELY**.



• Fever



• Cough



• Breathing Difficulty

Kindly practice the following :

- i. Always follow cough and sneeze etiquette ;
- ii. Cover your mouth and nose using tissue whenever you cough or sneeze. Throw the tissue in the trash after you use it ;
- iii. Wash your hands with soap and water or use hand sanitizer regularly ;
- iv. Use face mask whenever being in public or close contact with people ;
- v. Always maintain good personal hygiene and cleanliness.

### ATTENTION TO THE ATTENDING DOCTOR

The person who is presenting this health alert card to you had recently travelled or returned from affected countries with active transmission (within the past 14 days). If the person presents with fever ( $\geq 38^{\circ}\text{C}$ ), cough and breathing difficulty, please refer him/her **IMMEDIATELY** to the nearest clinic/hospital.

## HEALTH ALERT CARD

FOR TRAVELERS AND FLIGHT CREW RETURNING FROM COUNTRIES WITH ACTIVE TRANSMISSION OF 2019 NOVEL CORONAVIRUS (2019 -nCoV) INFECTION

Keep this card for the next 14 days after returning to Malaysia. Monitor your body temperature and look out for fever ( $\geq 38^{\circ}\text{C}$ ) and symptoms of cough and/or breathing difficulty. If these symptoms were to develop and you are not feeling well, seek medical advice **IMMEDIATELY**.



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Kindly practice the following :

- i. Always follow cough and sneeze etiquette ;
- ii. Cover your mouth and nose using tissue whenever you cough or sneeze. Throw the tissue in the trash after you use it ;
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### ATTENTION TO THE ATTENDING DOCTOR

The person who is presenting this health alert card to you had recently travelled or returned from affected countries with active transmission (within the past 14 days). If the person presents with fever ( $\geq 38^{\circ}\text{C}$ ), cough and breathing difficulty, please refer him/her **IMMEDIATELY** to the nearest clinic/hospital.

## 健康警示卡

所有从中国入境的旅客和机组人员

回马 14 天内，请保留此卡片，并检测体温。  
若出现发烧 ( $>38^{\circ}\text{C}$ )、咳嗽或呼吸困难等症状，请即刻前往邻近诊所或医院就医。



• 发烧



• 咳嗽



• 呼吸困难

若出现以上症状：

1. 请遵循咳嗽礼仪。
2. 咳嗽或打喷嚏时用纸巾或手帕掩住口鼻，并将用过的纸巾丢进垃圾桶。
3. 咳嗽或打喷嚏后清洗双手。
4. 使用口罩。
5. 时刻保持个人卫生。

### 至医务人员

拥有此卡片者在过去的 14 天内曾到访中国或疫情感染的国家。  
若检测之后发现病人出现发烧 ( $>38^{\circ}\text{C}$ )、咳嗽及呼吸困难等症状，请即刻送往邻近医院。

## 健康警示卡

所有从中国入境的旅客和机组人员

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• 发烧



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若检测之后发现病人出现发烧 ( $>38^{\circ}\text{C}$ )、咳嗽及呼吸困难等症状，请即刻送往邻近医院。



### MENTAL HEALTH ALERT CARD

To the responders / volunteers / individuals coming back from the outbreak area

Please tick (/) if you are experiencing any of the following symptoms:

- Easily anxious
- Difficulty in sleeping
- Feeling extremely sad
- Feeling hopeless/helpless
- Feeling guilty
- Easily irritated /angry
- Flashbacks /nightmares
- Crying without any specific reasons

If you are experiencing any of the above please seek professional help from nearest clinic/hospital and present this card for further assessment.

#### **To the Doctor**

The person who's presenting this mental health alert card has returned from a disaster/crisis/outbreak area \_\_\_\_\_

\_\_\_\_\_

If the person presents with symptoms related to mental health problems, kindly perform further assessment and appropriate intervention for him/her.

**TIPS ON MANAGING YOUR MENTAL HEALTH  
UPON RETURNING FROM A DISASTER/CRISIS/OUTBREAK AREA**

- Do not be alone or isolate yourself
- Talk to someone that you trust or share your feelings about the events that you have experience
- Try to eat even if you do not have the appetite
- Manage your stress by relaxation techniques, enough sleep, balance diet and exercises
- Practice deep breathing exercises or other forms of relaxation techniques
- Pay extra attention to rekindling your interpersonal relationships with your family members and friends, continue to communicate.
- Anticipate that you will experience recurring thoughts or dreams and they will decrease over time
- Try to get back to your normal routines
- Give yourself time and chance to recover from the memories of events

**THANK YOU**

## NOTIFICATION FORM

JADUAL  
(Peraturan 2)  
Borang  
(Peraturan 2)  
AKTA PENCEGAHAN DAN PENGAWALAN PENYAKIT BERJANGKIT 1988  
PERATURAN-PERATURAN PENCEGAHAN DAN PENGAWALAN PENYAKIT BERJANGKIT (BORANG NOTIS (PINDAAN) 2018)

Borang Notis: Rev/2020  
No. Sirt:

## NOTIFIKASI PENYAKIT BERJANGKIT YANG PERLU DILAPORKAN

(Seksyen 10, Akta Pencegahan Dan Pengawalan Penyakit Berjangkit 1988)

A. MAKLUMAT PESAKIT		
1. Nama Penuh (HURUF BESAR): <table border="1" style="width: 100%; height: 20px;"></table> Nama Pengiring (Ibu/Bapa/Penjaga): <table border="1" style="width: 100%; height: 20px;"></table> <i>(Jika belum mempunyai Kad Pengenalan diri)</i>		
2. No. Kad Pengenalan Diri / Dokumen Perjalanan <table border="1" style="width: 100%; height: 20px;"></table> <input type="checkbox"/> Sendiri <input type="checkbox"/> Pengiring <i>(Untuk Bukan Warganegara)</i> No. Daftar Hospital / Klinik <table border="1" style="width: 100px; height: 20px;"></table> Nama Wad: _____ Tarikh Masuk Wad: <table border="1" style="width: 100px; height: 20px;"></table> / <table border="1" style="width: 100px; height: 20px;"></table> / <table border="1" style="width: 100px; height: 20px;"></table>		
3. Kewarganegaraan: Warganegara: <input type="checkbox"/> Ya    Keturunan: <table border="1" style="width: 100%; height: 20px;"></table> Sukuketurunan: <table border="1" style="width: 100%; height: 20px;"></table> <i>(Bagi O/Asli, Pribumi Sabah/Sarawak)</i> <input type="checkbox"/> Tidak    Negara Asal: <table border="1" style="width: 100%; height: 20px;"></table> Status Kedatangan: <input type="checkbox"/> Izin <input type="checkbox"/> Tanpa Izin <input type="checkbox"/> Penduduk Tetap	4. Jantina: <input type="checkbox"/> Lelaki <input type="checkbox"/> Perempuan 5. Tarikh Lahir: <table border="1" style="width: 100px; height: 20px;"></table> / <table border="1" style="width: 100px; height: 20px;"></table> / <table border="1" style="width: 100px; height: 20px;"></table> 6. Umur: <table border="1" style="width: 100px; height: 20px;"></table> <input type="checkbox"/> Tahun <input type="checkbox"/> Bulan <input type="checkbox"/> Hari 7. Pekerjaan: _____ <i>(Jika tidak bekerja, nyatakan status diri)</i>	
8. No. Telefon: <input type="checkbox"/> Rumah <input type="checkbox"/> Tel. Bimbit <input type="checkbox"/> Pejabat <table border="1" style="width: 100%; height: 20px;"></table> - <table border="1" style="width: 100%; height: 20px;"></table> <i>(Untuk dihubungi)</i>		
9. Alamat Kediaman <table border="1" style="width: 100%; height: 40px;"></table>		10. Alamat Tempat Kerja / Belajar: <table border="1" style="width: 100%; height: 40px;"></table>
B. DIAGNOSIS PENYAKIT		
<input type="checkbox"/> 1. Poliomyelitis <input type="checkbox"/> 2. Viral Hepatitis A <input type="checkbox"/> 3. Viral Hepatitis B <input type="checkbox"/> 4. Viral Hepatitis C <input type="checkbox"/> 5. Viral Hepatitis (Others) <input type="checkbox"/> 6. AIDS <input type="checkbox"/> 7. Chancroid <input type="checkbox"/> 8. Cholera <input type="checkbox"/> 9. Dengue Fever <input type="checkbox"/> 10. Dengue Haemorrhagic Fever <input type="checkbox"/> 11. Diphtheria <input type="checkbox"/> 12. Dysentery <input type="checkbox"/> 13. Ebola <input type="checkbox"/> 14. Food Poisoning <input type="checkbox"/> 15. Gonorrhoea <input type="checkbox"/> 16. Hand, Foot and Mouth Disease	<input type="checkbox"/> 17. Human Immunodeficiency Virus Infection <input type="checkbox"/> 18. Leprosy (Multibacillary) <input type="checkbox"/> 19. Leprosy (Paucibacillary) <input type="checkbox"/> 20. Leptospirosis <input type="checkbox"/> 21. Malaria - Vivax <input type="checkbox"/> 22. Malaria - Falciparum <input type="checkbox"/> 23. Malaria - Malariae <input type="checkbox"/> 24. Malaria - Others <input type="checkbox"/> 25. Measles <input type="checkbox"/> 26. Plague <input type="checkbox"/> 27. Rabies <input type="checkbox"/> 28. Relapsing Fever <input type="checkbox"/> 29. Syphilis - Congenital <input type="checkbox"/> 30. Syphilis - Acquired <input type="checkbox"/> 31. Tetanus Neonatorum <input type="checkbox"/> 32. Tetanus (Others)	<input type="checkbox"/> 33. Typhus - Scrub <input type="checkbox"/> 34. Tuberculosis - PTB Smear Positive <input type="checkbox"/> 35. Tuberculosis - PTB Smear Negative <input type="checkbox"/> 36. Tuberculosis - Extra Pulmonary <input type="checkbox"/> 37. Typhoid - Salmonella typhi <input type="checkbox"/> 38. Typhoid - Paratyphoid <input type="checkbox"/> 39. Viral Encephalitis - Japanese <input type="checkbox"/> 40. Viral Encephalitis - Nipah <input type="checkbox"/> 41. Viral Encephalitis - (Others) <input type="checkbox"/> 42. Whooping Cough / Pertussis <input type="checkbox"/> 43. Yellow Fever <input type="checkbox"/> 44. Avian Influenza <input type="checkbox"/> 45. MERS-CoV <input type="checkbox"/> 46. Zika Virus Infection <input type="checkbox"/> 47. Others: please specify: _____
<b>Selain dari notifikasi bertulis, penyakit berikut perlu dinotifikasi melalui telefon dalam tempoh 24 jam iaitu:- Avian Influenza, Demam Denggi, Demam Kuning, Diphtheria, Ebola, Keracunan Makanan, Kolera, Measles, MERS-CoV, Plague, Poliomyelitis Akut, Rabies dan Zika Virus Infection.</b>		
11. Cara Pengesanan Kes: <input type="checkbox"/> Kes <input type="checkbox"/> Kontak <input type="checkbox"/> FOMEMA * <input type="checkbox"/> Ujian Saringan _____	12. Status Pesakit: <input type="checkbox"/> Hidup <table border="1" style="width: 100%; height: 20px;"></table> <input type="checkbox"/> Mati <table border="1" style="width: 100%; height: 20px;"></table> - <table border="1" style="width: 100%; height: 20px;"></table> - <table border="1" style="width: 100%; height: 20px;"></table>	13. Tarikh Onset: <table border="1" style="width: 100%; height: 20px;"></table> - <table border="1" style="width: 100%; height: 20px;"></table> - <table border="1" style="width: 100%; height: 20px;"></table>
14. Ujian Makmal: Nama Ujian: (i) _____ (ii) _____ (iii) _____ Tarikh Sampel Diambil: <table border="1" style="width: 100%; height: 20px;"></table> - <table border="1" style="width: 100%; height: 20px;"></table> - <table border="1" style="width: 100%; height: 20px;"></table>	15. Keputusan Ujian Makmal: <input type="checkbox"/> Positif ( _____ ) <input type="checkbox"/> Negatif <input type="checkbox"/> Belum Siap	16. Status Diagnosis: <input type="checkbox"/> Sementara (Provisional/Suspected) <input type="checkbox"/> Disahkan (Confirmed) Tarikh Diagnosis: <table border="1" style="width: 100%; height: 20px;"></table> - <table border="1" style="width: 100%; height: 20px;"></table> - <table border="1" style="width: 100%; height: 20px;"></table>
17. Maklumat Klinikal Yang Relevan: <table border="1" style="width: 100%; height: 40px;"></table>		18. Komen: <table border="1" style="width: 100%; height: 40px;"></table>
C. MAKLUMAT PEMBERITAHU		
19. Nama Pengamal Perubatan: <table border="1" style="width: 100%; height: 20px;"></table>		
20. Nama Hospital / Klinik dan Alamat: <table border="1" style="width: 100%; height: 40px;"></table>		
21. Tarikh Pemberitahuan: <table border="1" style="width: 100%; height: 20px;"></table> - <table border="1" style="width: 100%; height: 20px;"></table> - <table border="1" style="width: 100%; height: 20px;"></table>		
_____ Tandatangan Pengamal Perubatan		

# THE INFECTION PREVENTION AND CONTROL (IPC) MEASURES IN MANAGING PATIENT UNDER INVESTIGATION (PUI) OR CONFIRMED CORONA VIRUS DISEASE (COVID-19)

## THE INFECTION AND PREVENTION CONTROL GUIDING PRINCIPLES

The principles of IPC for Acute Respiratory Infection (ARI) patient care include:

- a) Early and rapid recognition AND source control that includes promotion of respiratory hygiene
  - Early recognition and investigation, prompt implementation of IPC precautions, reporting and surveillance, and supportive treatment to make patients non-infectious by strictly adhering to Interim definitions of the epidemiological AND Clinical Criteria in the case definition
  - Post visual alerts (in appropriate languages) at the entrance to outpatient facilities (e.g., emergency departments, physicians' offices, outpatient clinics) instructing patient and the persons who accompany them to inform healthcare personnel of symptoms of a respiratory infection when they first register for care, and practice respiratory hygiene/cough etiquette
- b) Application of routine IPC precautions (Standard Precautions) for all patients;
- c) Additional precautions (Transmission Based Precautions) in selected patients (i.e. contact, droplet, airborne)based on the presumptive diagnosis;
- d) Establishment of an IPC infrastructure for the healthcare facility, to supportIPC activities.
- e) Provision of adequate and regular supply of PPE and appropriate training of staff. Using the PPE help to further reduce the risks of transmission of respiratory pathogens to health-care workers and other people interacting with the patients in the health-care facility

*\* Refer to Table 2 for recommended PPE to be used when attending / treating ARI patient.*

## STANDARD PRECAUTIONS

Standards Precautions are routine IPC precautions that should apply to **ALL** patients,in **ALL** healthcare settings. The precautions, described in detail within Chapter 3 ofthe 'Policies and Procedures on Infection Prevention and Control – Ministry of Health Malaysia; 2018'are:

- a) Hand hygiene before touching a patient; before any clean or aseptic procedure; after body fluid exposure risk; after touching a patient; and after touching a patient's surroundings, including contaminated items or surfaces.
- b) Use of personal protective equipment (PPE) guided by risk assessment concerning anticipated contact with blood, body fluids, secretions and non-intact skin for routine patient care.
- c) Respiratory hygiene in anyone with respiratory symptoms.
- d) Environmental control (cleaning and disinfection) procedures according to standard procedures.
- e) Waste management according to safe routine practices.
- f) Packing and transporting patient-care equipment, linen, laundry and waste from the isolation areas.
- g) Prevention of needle-stick or sharps injuries.

## **INFECTION PREVENTION AND CONTROL (IPC) MEASURES IN MANAGING PATIENT UNDER INVESTIGATION (PUI) OR CONFIRMED CORONAVIRUS DISEASE (COVID-19)**

*This guideline is based on current information available regarding disease severity, transmission efficacy and shedding duration. This document will be updated as more information is made available.*

*\*Refer to Table 1 for recommended PPE to be used when managing PUI or confirmed COVID-19*

### **A. POINT OF ENTRY**

***(Applies to hospital emergency departments, health clinics / private GP clinics / fever centres / ambulatory care units and travellers screening points)***

#### **Clinical Triage**

- Use physical barriers to reduce exposure to the COVID-19 virus, such as glass or plastic windows.
- Rapid case identification of patients at risk by using visual aid, and proper travel history taking in patient presenting with fever and cough.
- Rapid triage of patients with acute febrile respiratory diseases is recommended.

- Must offer surgical mask (not N95 mask) if patient is able to tolerate (not tachypneic, not hypoxic). If patient is unable to tolerate, advise the patient to cover nose and mouth during coughing or sneezing with tissue or flexed elbow.
- Separate PUI to a dedicated waiting area which is well ventilated with spatial separation of at least 1 - 2m between patients in the waiting rooms.
- Provide tissues/ surgical mask with a no-touch bin for disposal of tissues/biohazard bag.
- Provide resources for performing hand hygiene (alcohol based hand rub made available).
- Cleaning of high touch areas (i.e. chair, table, couch) at waiting and triage areas after patient leaves the area or as required (i.e. spillage, soiling).

#### **Examination / isolation room**

- Examination/ isolation room should be in descending order of preference:
  - i. Single room (nursed with door closed) and en-suite bath
  - ii. Single room

### **B. PATIENT PLACEMENT ON ADMISSION**

- Patient placement should be in descending order of preference:
  - i. Single room (nursed with door closed) and en-suite bath OR
  - ii. Single room
- Cohorting confirmed COVID-19 patient is allowed. However, for PUI awaiting result should be placed in a single isolation room.
- Dedicate the use of non-critical patient-care equipment to avoid sharing between clients/patients/residents
  - E.g. stethoscope, sphygmomanometer, thermometer or bedside commode
  - If unavoidable, then adequately clean and disinfect them between use for each individual patient with hospital recommended disinfectant.



### **C. AEROSOL-GENERATING PROCEDURES (AGP)**

An aerosol-generating procedure (AGP) is defined as any medical procedure that can induce the production of aerosols of various sizes, including small (< 5µm) particles. The aerosol-generating procedures include:

- Intubation, extubation and related procedures;
- Tracheotomy/tracheostomy procedures;
- Manual ventilation;
- Suctioning;
- Bronchoscopy;
- Nebulization
- Non-invasive ventilation (NIV) e.g. Bi-level Positive Airway Pressure (BiPAP) and Continuous Positive Airway Pressure ventilation (CPAP);
- Surgery and post-mortem procedures in which high-speed devices are used;
- High-frequency oscillating ventilation (HFOV);
- High-flow Nasal Oxygen (HFNO)
- Induction of sputum
- Dental procedures

#### **Patient placement**

In descending order of preference:

- i. Negative pressure rooms/AIRR room
- ii. Adequately ventilated single room with at least natural ventilation with at least 160 l/s/patient air flow, with closed doors

### **D. PATIENT TRANSFER AND TRANSPORT**

- Avoid the movement of patients unless medically necessary.
- If movement of patient is required, use pre planned routes that minimize exposure to other staff, patients and visitors. Notify the receiving area before sending the patient.
- Clean and disinfect patient-contact surfaces (e.g. bed, wheelchair, incubators) after use.
- HCWs transporting patients must wear appropriate PPE. (Surgical Face Mask, Eye Protection, Isolation Gown, Gloves).

- When outside of the airborne isolation room, patient should wear a surgical mask (not N95 mask) if not in respiratory distress. Oxygen supplement using nasal prong can be safely used under a surgical mask. If patient is unable to tolerate surgical mask, advise the patient to cover nose and mouth during coughing or sneezing with tissue or flexed elbow during transport.

## **E. SPECIMEN COLLECTION AND TRANSPORT**

All specimens should be regarded as potentially infectious, and health-care workers who collect or transport clinical specimens should adhere rigorously to Standard Precautions, to minimize the possibility of exposure to pathogens.

- Deliver all specimens by hand whenever possible. Do not use pneumatic-tube systems to transport specimens.
- State the name of the PUI suspect of potential concern clearly on the accompanying request form. Notify the laboratory as soon as possible that the specimen is being transported.
- Ensure that health-care workers who collect respiratory specimens from PUI / confirmed COVID-19 patients wear appropriate PPE.
- Place specimens for transport in leak-proof specimen bags (please refer to Annex 5c for instructions on specimen packaging).
- Ensure that personnel who transport specimens are trained in safe handling practices and spill decontamination procedures. There are no special requirements for transport of samples to lab and they can be transported as routine samples for testing. However, personnel may wear gloves ± plastic apron during transfer.

## **F. DISINFECTION AND STERILIZATION**

- Ensure environmental cleaning and disinfection procedures are followed consistently and correctly as per hospital recommendation.
- Clean and disinfect surfaces that are likely to be contaminated with pathogens, including those that are in close proximity to the patient (e.g., bed rails, over bed tables) and frequently-touched surfaces in the patient care environment (e.g., door knobs, surfaces in and surrounding toilets in patients' rooms):

- The Minimum requirement of cleaning and disinfection recommended is at least once a day and more frequently if visibly soiled using standard hospital registered disinfectants, such as sodium hypochlorite 1000 ppm.
- If visible contamination or spills, it is recommended to use a higher dilution of EPA registered disinfection such as sodium hypochlorite at 10,000ppm.
- If equipment is reused, follow general protocols for disinfection and sterilization:
  - If not visibly soiled, wipe external surfaces of large portable equipment (e.g. X-ray machines and ultrasound machines) that has been used in the isolation room or area with an approved hospital disinfectant upon removal from the patient's room or area.
  - Proper cleaning and disinfection of reusable respiratory equipment is essential in patient care.
  - Follow the manufacturer's recommendations for use or dilution, contact time and handling of disinfectants.

## **G. TERMINAL CLEANING OF AN ISOLATION ROOM**

A terminal cleaning and disinfection should be done following discharge/transfer of a patient as per hospital guideline.

- Before entering the room, cleaning equipment should be assembled before applying PPE.
- PPE must be removed, placed in an appropriate receptacle and hands cleaned before moving to another room or task.
- PPE must not be worn or taken outside the patient room or bed space.
- Protocols for cleaning must include cleaning of portable carts or built-in holders for equipment.
- The room should be decontaminated from the highest to the lowest point and from the least contaminated to the most contaminated.
- Remove curtains and placed in red linen bag with alginate plastic after patient is discharged.
- Use disinfectants such as sodium hypochlorite. The surface being decontaminated must be free from organic soil. A neutral detergent solution should be used to clean the environment prior to disinfection or a combined detergent /disinfectant may be used.

- In addition to the above measures, the following additional measures must be taken when performing terminal cleaning for Airborne Infection Isolation Rooms (AIIR).
- The cleaner should wait for sufficient air changes to clear the air before cleaning the room.
- After patient/resident transfer or discharge, the door must be kept closed and the Airborne Precautions sign must remain on the door until sufficient time has elapsed to allow removal of airborne microorganisms. Duration depends on ACHR.
  - With ACHR of 12 or 15, the recommended duration is 23 to 35 minutes and 18 to 28 minutes with 99%-99.9% efficiency respectively.
  - When the ACHR cannot be determined it is recommended that the room is left for time interval of 45 minutes before the cleaning and disinfectant is commenced.

#### **H. DISHES AND EATING UTENSILS**

- Use disposable utensils as much as possible.

#### **I. LINEN MANAGEMENT**

- Contaminated linen should be handled as little as possible to prevent contamination of the air.
- Washing / disinfecting linen should be handled according to hospital protocol.

#### **J. HEALTHCARE WORKER (HCW)**

- Healthcare worker with high risk condition / immune-compromised should not be allowed managing and providing routine care for PUI/ confirmed COVID-19 cases.
- Ensure all health care workers who are managing these patients are up to date with their vaccination schedules.
- Healthcare worker who are managing and providing routine care for PUI cases with Acute Respiratory Infections need to be trained on proper use of PPE.
- Keep a register of health-care workers who have provided care for patients with ARIs of potential concern, for contact tracing.
- The creation of a dedicated team consisting of nurses, medical officers and specialist and other supportive staff from other areas are recommended.

- The HCWs/ support staff who are managing and providing routine care for PUI/ confirmed COVID-19 cases should be monitored for symptoms minimum daily. If HCWs become symptomatic, he / she need needs to report to the supervisor in the team and managed accordingly.

## **K. VISITORS**

- No visitor should be allowed.
- If absolutely necessary, discuss with the managing team.
  - All visitors should be screened for acute respiratory illness before allowing to enter.
  - Document and limit the number of visitors at scheduled time
  - Appropriate instruction on use of PPE and other precautions (e.g., hand hygiene, limiting surfaces touched) should be given while in the patient's room
  - Visitors should be advised to limit their movement in the healthcare facility.
  - Exposed visitors should report any signs of symptoms to their healthcare providers.
- Staff must instruct and supervise all visitors on the donning and doffing of PPE (gown, glove, N95 mask) before entering the room.
- The visit time must be limited and avoid close contact (< 1m).
- Perform hand hygiene on entering and leaving the room.
- Visitors who have been in contact with the patient before and during hospitalization (i.e. parents taking care of their children) are a possible source/ contact of the infection.
- PPE recommend for these long term carers may be limited to surgical mask. The use of plastic aprons and gloves are recommended when anticipating exposure to bodily fluids.

## **L. PATIENT RECORD / BED HEAD TICKET**

- Bed head ticket (BHT) of confirmed COVID-19 should be tagged.
- The patient record / bed head ticket should be kept outside the patient room.

## **TABLE 1: RECOMMENDED PPE TO BE USED WHEN MANAGING PUI OR CONFIRMED COVID-19**

**All healthcare workers in healthcare facilities should wear surgical mask when in direct contact with patient.**

SETTING	TARGET PERSONNEL	ACTIVITY	TYPE OF PPE
<b>EMERGENCY DEPARTMENT</b>			
Triage	HCW	Maintained 1-2m spatial distance at all time	<ul style="list-style-type: none"> <li>• Surgical mask</li> <li>• Frequent Hand hygiene</li> </ul> <p>*Full PPE set must be made available at the site in case of emergency</p> <p>* Use physical barriers (such as glass or plastic windows) to reduce exposure</p>
Patient Waiting Area	Patients	Patient With respiratory symptoms	<ul style="list-style-type: none"> <li>• Patient to wear a surgical mask. Should be seated at the designated area and to sit at least 1m apart</li> </ul>
Examination Room / Consultation Room	HCW	<p>History taking and Physical examination</p> <p>* patient should be reminded to wear a surgical mask when the HCW enters the room</p>	<ul style="list-style-type: none"> <li>• Surgical mask</li> <li>• Isolation Gown (fluid-repellent long-sleeved gown)</li> <li>• Gloves</li> <li>• Eye Protection (goggles / face shield)</li> </ul>
	Cleaners	<p>Cleaning in the outpatient consultation rooms</p> <p>*increase frequency of cleaning at areas with higher environmental contamination rates</p>	<ul style="list-style-type: none"> <li>• Surgical mask</li> <li>• Long sleeved plastic gown/ apron</li> <li>• Gloves</li> <li>• Eye Protection (goggles / face shield)</li> <li>• Boots or closed shoes</li> </ul>
		Decontamination of ambulances that transported PUI / confirmed COVID-19 patient	<ul style="list-style-type: none"> <li>• Surgical mask</li> <li>• Long sleeved plastic gown/ apron</li> <li>• Gloves</li> </ul>

			<ul style="list-style-type: none"> <li>• Eye Protection (goggles / face shield)</li> <li>• Boots or closed shoes</li> </ul>
Ambulance transfer vehicle	HCW	Transporting PUI / COVID-19 patient to the referral health care facility - distance to patient within 1m.	<ul style="list-style-type: none"> <li>• N95</li> <li>• Long sleeved plastic gown/ apron</li> <li>• Gloves</li> <li>• Eye Protection (goggles / face shield)</li> <li>• Head cover</li> </ul>
	Driver	Involved only in driving the patient with PUI / confirmed COVID-19 and the driver's compartment is separated from the PUI / confirmed COVID-19	<p>Maintained 1m spatial difference</p> <ul style="list-style-type: none"> <li>• Surgical mask</li> </ul> <p>*Windows should be kept open throughout the drive</p>
		Assisting with loading or unloading patients with PUI / confirmed COVID-19 from ambulance to wards	<ul style="list-style-type: none"> <li>• Surgical mask</li> <li>• Long sleeved plastic gown/ apron</li> <li>• Gloves</li> <li>• Eye protection (goggles / face shield)</li> </ul> <p>*Windows should be kept open throughout the drive</p>
		No direct contact with patient with PUI / confirmed COVID-19, but <b>NO separation</b> between driver's and patient's compartments.	<ul style="list-style-type: none"> <li>• Surgical mask</li> </ul> <p>*Windows should be kept open throughout the drive</p>
Specimen Collection Area	HCW	Performing oropharyngeal or nasopharyngeal swab	<ul style="list-style-type: none"> <li>• N95</li> <li>• Gloves</li> <li>• Isolation Gown (fluid-repellent long-sleeved gown)</li> <li>• Eye protection (goggles / face shield)</li> <li>• Head cover</li> </ul>

			*It is sufficient to change gloves and plastic apron between patients. Any soiled protective equipment's should also be changed
<b>INPATIENT FACILITIES</b>			
Patient Room	HCW	Providing care PUI / confirmed COVID-19 patients who are not intubated and able to wear surgical mask	<ul style="list-style-type: none"> <li>• Surgical mask</li> <li>• Isolation Gown (fluid-repellent long-sleeved gown)</li> <li>• Gloves</li> <li>• Eye Protection (goggles / face shield)</li> </ul> <p>*Shoe covers are not necessary</p>
		Providing care to PUI / confirmed COVID-19 patients who are not intubated but <b>NOT</b> able to wear surgical mask	<ul style="list-style-type: none"> <li>• N95 mask</li> <li>• Isolation Gown (fluid-repellent long-sleeved gown)</li> <li>• Gloves</li> <li>• Eye Protection (goggles / face shield)</li> <li>• Head cover</li> </ul>
		Performing oropharyngeal or nasopharyngeal swab to PUI / confirmed COVID-19 patients	<ul style="list-style-type: none"> <li>• N95 mask</li> <li>• Isolation Gown (fluid-repellent long-sleeved gown)</li> <li>• Gloves</li> <li>• Eye Protection (goggles / face shield)</li> <li>• Head cover</li> </ul>
		Providing care to PUI / confirmed COVID-19 patients who are ventilated in a closed circuit	<ul style="list-style-type: none"> <li>• N95 mask</li> <li>• Isolation Gown (fluid-repellent long-sleeved gown)</li> <li>• Gloves</li> </ul>



			<ul style="list-style-type: none"> <li>• Eye Protection (goggles / face shield)</li> <li>• Head cover</li> </ul>
		<p>Performing Aerosol Generating Procedures (AGP) on PUI / confirmed COVID-19 patients</p> <ul style="list-style-type: none"> <li>• Intubation, extubation and related procedures;</li> <li>• Tracheotomy/tracheostomy procedures;</li> <li>• Manual ventilation;</li> <li>• Suctioning;</li> <li>• Bronchoscopy;</li> <li>• Nebulization</li> <li>• Non-invasive ventilation (NIV) e.g. Bi-level Positive Airway Pressure (BiPAP) and Continuous Positive Airway Pressure ventilation (CPAP);</li> <li>• Surgery and post-mortem procedures in which high-speed devices are used;</li> <li>• High-frequency oscillating ventilation (HFOV);</li> <li>• High-flow Nasal Oxygen (HFNO)</li> <li>• Induction of sputum</li> <li>• Dental procedures</li> </ul> <p>*Detailed information, refer to Intensive care preparedness and management for COVID-19</p>	<p>Option 1 (Preferred):</p> <ul style="list-style-type: none"> <li>• PAPR</li> <li>• Isolation Gown (fluid-repellent long-sleeved gown) with plastic apron / Tyvec suit</li> <li>• Gloves</li> <li>• Eye Protection (goggles / face shield)</li> <li>• Shoe Cover</li> </ul>
			<p>Option 2:</p> <ul style="list-style-type: none"> <li>• Tyvec suit</li> <li>• N95</li> <li>• Eye Protection (goggles / face shield)</li> <li>• Gloves</li> <li>• Shoe Cover</li> </ul>
			<p>Option 3 (if Option 1 &amp; 2 not available):</p> <ul style="list-style-type: none"> <li>• N95</li> <li>• Isolation Gown (fluid-repellent long-sleeved gown) with plastic apron</li> <li>• Gloves</li> <li>• Eye Protection (goggles / face shield)</li> <li>• Shoe Cover</li> <li>• Head cover</li> </ul>
		Transporting specimen to lab	<ul style="list-style-type: none"> <li>• Gloves</li> <li>• ± Plastic Apron</li> </ul>
	Cleaners	PUI / confirmed COVID-19 patients who are not intubated and able to wear surgical mask	<ul style="list-style-type: none"> <li>• Surgical mask</li> <li>• Isolation Gown (fluid-repellent long-sleeved gown)</li> <li>• Gloves</li> </ul>

		<p>*If COVID-19 patient is discharge, it is recommended for cleaners to enter the room after about 45 minutes if the ACHR is not known</p>	<ul style="list-style-type: none"> <li>• Eye Protection (goggles / face shield)</li> <li>• Boots or closed shoes</li> </ul>
		<p>PUI / confirmed COVID-19 patients who are not intubated but <b>NOT</b> able to wear surgical mask</p> <p>*If COVID-19 patient is discharge, it is recommended for cleaners to enter the room after about 45 minutes if the ACHR is not known</p>	<ul style="list-style-type: none"> <li>• N95</li> <li>• Isolation Gown (fluid-repellent long-sleeved gown)</li> <li>• Gloves</li> <li>• Eye Protection (goggles / face shield)</li> <li>• Boots or closed shoes</li> <li>• Head cover</li> </ul>
<p>Outside patient room within 1-2 metres of patient room/ care areas YELLOW ZONE</p>	<p>All staff including HCW</p>	<p>Any activity that does not lead to contact with PUI / confirmed COVID-19</p>	<ul style="list-style-type: none"> <li>• Surgical Mask</li> </ul>
<p>Other areas of patient transit (wards / corridors) GREEN ZONE</p>	<p>All staff including HCW</p>	<p>Any activity that does not lead to contact with PUI / confirmed COVID-19</p>	<p>No PPE needed</p>
<b>ADMINISTRATIVE AREAS/ PUBLIC AREAS</b>			
<p>Any Areas</p>	<p>All staff and asymptomatic individuals</p>	<p>Any activities</p>	<p>No PPE Needed</p>
	<p>Security Officer</p>	<p>Security officers at ED entrance</p>	<ul style="list-style-type: none"> <li>• No PPE needed</li> <li>• Frequent Hand Hygiene</li> </ul> <p>* maintain spatial distance of 1 meter, if not able to achieve, use surgical mask</p>

		Security officers escorting patient (no direct contact with patient and > 1 metre from patient) Security officer must not follow patient into the lift	<ul style="list-style-type: none"> <li>• No PPE needed</li> <li>• Frequent Hand Hygiene</li> </ul> <p>* maintain spatial distance of 1 meter, if not able to achieve, use surgical mask</p>
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**TABLE 2: RECOMMENDED PPE TO BE USED WHEN ATTENDING / TREATING ARI PATIENT**

*All healthcare workers in healthcare facilities should wear surgical mask when in direct contact with patient.*

SETTING	TARGET PERSONNEL	ACTIVITY	TYPE OF PPE
Examination Room / Consultation Room	HCW	History taking / physical examination / providing care  *patient should be reminded to wear a surgical mask (if tolerable) If not tolerable, advise the patient to cover nose and mouth during coughing or sneezing with tissue or flexed elbow.	<ul style="list-style-type: none"> <li>• Surgical mask</li> </ul>
		Performing Aerosol Generating Procedures (AGP) <ul style="list-style-type: none"> <li>• Intubation, extubation and related procedures;</li> <li>• Tracheotomy/tracheostomy procedures;</li> <li>• Manual ventilation;</li> <li>• Suctioning;</li> </ul>	<ul style="list-style-type: none"> <li>• N95</li> <li>• Gloves</li> <li>• Isolation Gown (fluid-repellent long-sleeved gown)</li> <li>• Eye protection (goggles / face shield)</li> <li>• Head cover</li> </ul>

		<ul style="list-style-type: none"> <li>• Bronchoscopy;</li> <li>• Nebulization</li> <li>• Non-invasive ventilation (NIV) e.g. Bi-level Positive Airway Pressure (BiPAP) and Continuous Positive Airway Pressure ventilation (CPAP);</li> <li>• Surgery and post-mortem procedures in which high-speed devices are used;</li> <li>• High-frequency oscillating ventilation (HFOV);</li> <li>• High-flow Nasal Oxygen (HFNO)</li> <li>• Induction of sputum</li> <li>• Dental procedures</li> </ul>	
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2. Interim infection prevention and control recommendation for patients with confirmed 2019- Novel coronavirus or patient under investigation for nCoV in healthcare setting. Updated Feb 3 2020. CDC
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**GUIDELINES FOR ENTRY POINT SCREENING OF TRAVELLERS DURING  
MOVEMENT CONTROL ORDER (MCO)  
(SCREENING FOR CORONAVIRUS DISEASE-2019, COVID-19)**

**A. Screening On-Board of Aircraft Passengers and Cabin Crews from Affected Countries (as per the WHO website) for Suspected Coronavirus Disease 2019 (COVID-19)**

**1. MEASURES ON BOARD FLIGHT (for all flights from affected countries)**

**1.1. Distribution of Health Declaration Form**

- i. All international flights are required to distribute a Health Declaration Form (HDF) (Appendix 1) to all passengers on-board.
- ii. Crew and passengers are required to fill up the HDF.

**1.2 Announcements**

- i. The flight commander of the aircraft shall make in-flight announcements. These announcements shall be made, during the flight and just before landing.
- ii. These announcements shall include the following messages:

**(A) During flights**

The need for cabin crew to make an announcement of the requirement for passengers with symptoms to identify themselves to the crew, e.g. 'Any passenger with symptoms of COVID-19 infection i.e. fever, cough, sore throat and/or breathlessness to identify themselves to the crew'.

**(B) Upon Landing**

Passengers should also be informed that they will be subjected to undergo a thermal scanner upon arrival.

**1.3. Visual Assessment**

Crew members must be vigilance on passengers who have symptoms (e.g. fever, cough, sore throat and/or breathlessness) but they do not identify themselves.

**1.4. Management of passengers with symptoms of COVID-19 Infection**

- i. The commander of the aircraft is to inform the authorities of the destination airport with regards to the number of passengers with COVID-19 Infection symptoms as soon as possible.

- ii. The passengers identified are to be given appropriate protective masks (three-ply mask) and if possible, these passengers are to be shifted to an empty area of the aircraft. Otherwise vacate two rows in front and two rows at the back of the passenger with symptoms.
- iii. A separate toilet is to be identified for use of such passengers only.
- iv. The crew must wear protective masks and disposable gloves if they have to handle the suspected passengers or their utensils. These utensils are to be packed separately.
- v. The commander of the aircraft is to identify the contacts of the passengers.
- vi. The close contacts are passengers sitting in the same row or within two rows in front or behind the ill passenger, crew managing the case on-board, anyone having contact with respiratory secretions of the ill passenger, anyone on the flight living in the same household as the ill passenger.
- vii. If a crew is a suspect of COVID-19 Infection case, all the passengers are considered close contacts.
- viii. Contacts should provide their contact number and address for the next 14 days to the health authorities.
- ix. Crew have to fill up the Passenger Locator Form for PUI cases (Appendix 2).
- x. All measures are taken on-board to be written and recorded in the Report of Measures Taken On-board Form (Appendix 3).
- xi. Both Appendix 2 and Appendix 3 are to be submitted to health officials upon arriving.

**B. Suspected COVID-19 Infection case on-board flight**

- i. Public Health Team, consisting of a medical doctor, Nurse/Medical Assistant and Assistant Environmental Health Officer (AEHO) will be stationed at the arrival gates.
- ii. The Public Health Teams will go on-board to make an announcement on health inspection to be carried out. The team must also request for the passenger locator form (Appendix 2), report of measures taken on-board (Appendix 3), general declaration of health and flight manifest.
- iii. The crew will inform the team regarding suspected passengers. The suspected passengers will be tagging with red tags. The passengers identified are to be given appropriate protective masks (3-ply) and if possible, these passengers are to be shifted to the rear of the aircraft. Otherwise vacate two rows in front and two rows at the back of the passenger with symptoms.
- iv. All passengers except cases suspected of COVID-19 Infection will be allowed to disembark the aircraft to proceed for COVID-19 symptoms screening.

- v. The suspected case which has been identified by the crew will be interviewed and history taking and physical examination will be conducted.
- vi. Action to be taken for cases that do not fulfill the case definition of a suspected case of PUI for COVID-19 Infection and passengers/crew without symptoms:
  - a. For specific group (e.g. Tabligh): take sample COVID-19 and send to the quarantine station and placed under Home Surveillance Order (Annex 14a/b).
  - b. For other passengers: placed under Home Surveillance Order.
- vii. Cases suspected of PUI for COVID-19 infection will be referred to the nearest hospital for further management. The doctor in charge should call the Infectious Disease Physician for an opinion before referring the case to the nearest hospital.
- viii. If the passenger with symptoms becomes classified as a PUI case of COVID-19 Infection:
  - a. refer the case to the hospital for further management and COVID-19 test.
  - b. notify to health authorities in those areas in which the contacts reside (DHO and State CPRC).
- ix. The crew managing the PUI case on-board needs to wait for COVID-19 results before the next travel.
- x. If the result of the PUI case turned out positive COVID-19, all the close contact need to be referred for COVID-19 test including the crew who manage the PUI cases.
- xi. If the result of the PUI case turned out negative COVID-19:
  - a. all asymptomatic passengers and Malaysian crews will continue 14 days Home Surveillance Order
  - b. other crews (non- Malaysian) will be allowed to travel.
- xii. All international flights arriving Malaysian international Points of Entry (PoE) with PUI of COVID-19 infection are required to be disinfected.

### **C. Screening for Passengers and Cabin Crews at the Arrival of Points of Entry (Flow Chart - Appendix 4)**

- i. All non-Malaysian passengers are not allowed to enter Malaysia.
- ii. Airlines crews (including non-Malaysian) are required to go through health screening before immigration clearance. (as in Procedure On Implementation To Restrict Of Movement By The Immigration Department dated 17 March 2020)
- iii. Health officials must ensure all passengers and crews fill-up the HDF (Appendix 1) and identified any symptomatic passengers and crews.
- iv. Symptomatic passengers and crew will be screened further through history taking and examination as detailed in Appendix 5.
- v. Officer in charge will contact the nearest screening centre to consult whether the passenger/crew is fit the criteria of PUI.
- vi. If the passenger/crew fit the criteria of PUI, the officer in charge need to :
  - a. refer the case to the nearest admitting hospital,
  - b. initiate Infection Prevention and Control, and
  - c. notify DHO for surveillance and progress.
- vii. Action to be taken for cases that do not fulfill the case definition of a suspected case of PUI for COVID-19 Infection and asymptomatic passengers/crew:
  - a. For specific groups (e.g. Tabligh): take sample COVID-19 and send them to the quarantine station and placed under Home Surveillance Order (HSO) (Annex 14a/b).
  - b. For other passengers: placed under HSO.
  - c. An officer at the entry point has to fax/ e-mail the Daily Home Self-Monitoring Form (Annex 10a/b) to the nearest/responsible District Health Office (DHO) for monitoring of the passenger/crew under HSO.
  - d. The passenger/crew will be monitored by the DHO for approximately 14 days (incubation period). At any time, if the passenger has such symptoms fever, cough, runny nose, sore throat and shortness of breath, he/she will be referred to the nearest health centres immediately.

### **D. Screening of Passenger / Cruise Ships / Conventional Ships from Affected Countries or with Suspected PUI of COVID-19**

- i. All cruise ship are prohibiting from entering all port in Malaysia except in such conditions :
  - a. Disembarkation of crew or passenger which is seriously ill.



- b. To receive supplies (food, water, gas) and repair or maintenance work for the particular vessel.
- c. Disembarkation only for Malaysian crew or Malaysia Nationality and should undergo health screening by Port Health before disembarkation. Foreigners are not allowed to disembark.
- d. Cruise vessel has permission to dock at international water.
- ii. Assistant Environmental Health Officer (AEHO) receives information from Ship Captain or Shipping Agent on a ship.
- iii. Any ship from an affected country and/or there is a suspected case; the ship will be given quarantine status and to be anchored at the wharf.
- iv. Medical Officer/AEHO will go on-board and verify the health status of passengers or crew from the Captain/Medical Officer on-board. The team must also request a report of measures taken on-board, maritime declaration of health and other relevant documents.
- v. Health screening of passengers and crew who disembark is carried out by the Medical Team. Passengers and crew with PUI of COVID-19 infection will be referred to the nearest health facility for management and investigations. The ship will behold and all the passengers and crew not allow disembarking until the result of the COVID-19 test received.
  - a. If the result turned out to be positive, the close contact of the positive case will be referred for the COVID-19 test.
  - b. If the result turned out to be negative COVID-19, all asymptomatic passengers and crew will be placed under HSO.
- vi. AEHO will carry out an inspection of sanitation on the ship.
- vii. Free Pratique and Port Health Clearance will be issued to the Captain or Shipping Agent if the ship has a good sanitary condition and as Ship Sanitation Control Certificate (SSCC) and Ship Sanitation Control Exemption Certificate (SSCEC) is still valid.
- iv. Order of Ship Sanitation (OSS) will be issued to the Captain or Shipping Agent should there be an unsatisfactory sanitary condition. A re-inspection will be done by AEHO and Free Pratique and Port Health Clearance will be issued to the Captain or Shipping Agent if the Order of Ship Sanitation has complied.
- v. All cases of PUI COVID-19 infection are to be notified to the National and State CPRC and the nearest DHO.
- vi. All ships arriving Malaysian international Points of Entry (PoE) with PUI of COVID-19 infection are required to be disinfected.

**E. Awareness to public, passengers, crew and health staff on COVID-19 Infection**

Increase awareness of COVID-19 infection prevention and control measures such as:

- i. Distribution of educational materials such as pamphlets and posters to passengers, crew, airport workers.
- ii. Update information on social media – Website, Facebook (FB)
- iii. Providing talks and briefings about the disease, mode of transmission and prevention and control measures.
- iv. To make health announcements and messages focused on public and tourist areas, especially at international airports and seaports.
- v. Continuous updating information and training including environmental cleaning and disinfection at PoE for all health staff and ground handlers.

**F. Collaboration with other Agencies/Ministries**

- i. Ministry of Health (MoH) Malaysia collaborates with other relevant agencies such as The Immigration Department of Malaysia, Airport/Port/Ground crossing authorities and agencies, Airlines, Shipping companies, Ground handlers, etc.
- ii. Dissemination of information regarding COVID-19 infection to personnel and clients going to / coming from the affected countries thus increasing their awareness and to prevent the spread of disease into Malaysia.
- iii. Immigration Department of Malaysia to assist in referring travellers affected countries to Health Personnel, Health screening area/Health Quarantine Centre for assessment.
- iv. All aircraft/ships/vehicles are required to inform the health authorities at the points of entry if there are passengers from affected countries showing signs and symptoms of COVID-19 infection.
- v. To obtain assistance and cooperation as and when needed from all agencies/stakeholders in disease prevention and control activities.

## Appendix 1: Health Declaration Form



**Ministry of Health Malaysia**

### **HEALTH DECLARATION FORM FOR PASSENGERS ON BOARD**

Ladies and Gentlemen,

Welcome to Malaysia.

Malaysia is taking all the necessary precautionary measures against the spread of COVID-19 Infection into our country.

If you have travelled or stayed in affected countries over the past fourteen (14) days, you are kindly requested to declare your health status on the overleaf of this card as required under Section 15 of *Prevention and Control of Infectious Diseases Act 1988*. Any person who does not declare truthfully will be committing an offence under this Act and if found guilty shall be liable on conviction to imprisonment for a term not exceeding 2 years or to a fine or to both.

The Ministry of Health Malaysia values your sincere cooperation in this matter.

Thank You.

Director General of Health  
Ministry of Health Malaysia

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Disease Control Division, Ministry of Health Malaysia,  
Level 3, 4, 6, Block E10, Federal Government Administration Centre,  
Parcel E, 62590 Putrajaya  
Tel: 03-8000 8000 Fax no: 03-8888 0643

## HEALTH DECLARATION FORM

All person entering Malaysia shall finish all the information required in this Form

### PART A (General)

1. Full name: .....  
(Use block letters)

2. Gender:    Male        Female   

3. Age (year/month): .....

4. Passport Number: .....

5. Nationality: .....

6. Identity Card No:.....

7. Mode of Transport:    Air        Sea        Land   

8. Flight No./Vehicle Registration No./Name of Ship/Name of Train:

.....

9. Seat No. (if applicable): .....

10. Last Place of Embarkation: .....

11. Address in Malaysia: .....

.....

12. Telephone No.

House: .....

Office:.....

Mobile:.....

**PART B  
COVID-19**

1. Have you been to any area or countries of COVID-19 as indicated by WHO over the past 14 days?

Yes  No

2. Date of departure from the said country: .....

3. Have you had any of the following symptoms over the past 14 days? Please tick if yes

Fever	<input type="checkbox"/>
Cough	<input type="checkbox"/>
Difficulty in breathing	<input type="checkbox"/>
Sore throat	<input type="checkbox"/>

Other symptoms (please specify) :  
.....

Have you been in <sup>1</sup>close contact with person suspected to have COVID-19?

Yes  No

If the answer is yes to either of the question above, please report to the Health Screening Area.

<sup>1</sup>Definition close contact :

- Health care associated exposure, including providing direct care for COVID-19 patients, working with health care workers infected with COVID-19, visiting patients or staying in the same close environment of a COVID-19 patient.
- Working together in close proximity or sharing the same classroom environment with a with COVID-19 patient
- Traveling together with COVID-19 patient in any kind of conveyance
- Living in the same household as a COVID-19 patient

Signature:.....

Date :.....

## Passenger Locator Form (as per WHO/ICAO)

**Public Health Passenger Locator Form:** To protect your health, public health officers need you to complete this form whenever they suspect a communicable disease onboard a flight. Your information will help public health officers to contact you if you were exposed to a communicable disease. It is important to fill out this form completely and accurately. Your information is intended to be held in accordance with applicable laws and used only for public health purposes. *~Thank you for helping us to protect your health.*

*One form should be completed by an adult member of each family. Print in capital (UPPERCASE) letters. Leave blank boxes for spaces.*

**FLIGHT INFORMATION:** 1. Airline name  2. Flight number  3. Seat number  4. Date of arrival (yyyy/mm/dd)  2 0

**PERSONAL INFORMATION:** 5. Last (Family) Name  6. First (Given) Name  7. Middle Initial  8. Your sex Male  Female

**PHONE NUMBER(S) where you can be reached if needed. Include country code and city code.**

9. Mobile  10. Business

11. Home  12. Other

13. Email address

**PERMANENT ADDRESS:** 14. Number and street (Separate number and street with blank box)  15. Apartment number

16. City  17. State/Province

18. Country  19. ZIP/Postal code

**TEMPORARY ADDRESS:** If you are a visitor, write only the first place where you will be staying.

20. Hotel name (if any)  21. Number and street (Separate number and street with blank box)  22. Apartment number

23. City  24. State/Province

25. Country  26. ZIP/Postal code

**EMERGENCY CONTACT INFORMATION of someone who can reach you during the next 30 days**

27. Last (Family) Name  28. First (Given) Name  29. City

30. Country  31. Email

32. Mobile phone  33. Other phone

**34. TRAVEL COMPANIONS – FAMILY:** Only include age if younger than 18 years

	Last (Family) Name	First (Given) Name	Seat number	Age <18
(1)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
(2)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
(3)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
(4)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**35. TRAVEL COMPANIONS – NON-FAMILY:** Also include name of group (if any)

	Last (Family) Name	First (Given) Name	Group (tour, team, business, other)
(1)	<input type="text"/>	<input type="text"/>	<input type="text"/>
(2)	<input type="text"/>	<input type="text"/>	<input type="text"/>

**REPORT OF  
MEASURES TAKEN ON BOARD THE FLIGHT**

Name of Flight Commander:.....

Name of Airline:.....Flight Number:.....

Port of embarkation :.....Date of Arrival:.....

No. of passengers with symptoms of suspected Coronavirus Disease 2019 (COVID-19) Infection.....

Seat numbers of passengers with symptoms.....

Measures Taken Onboard :

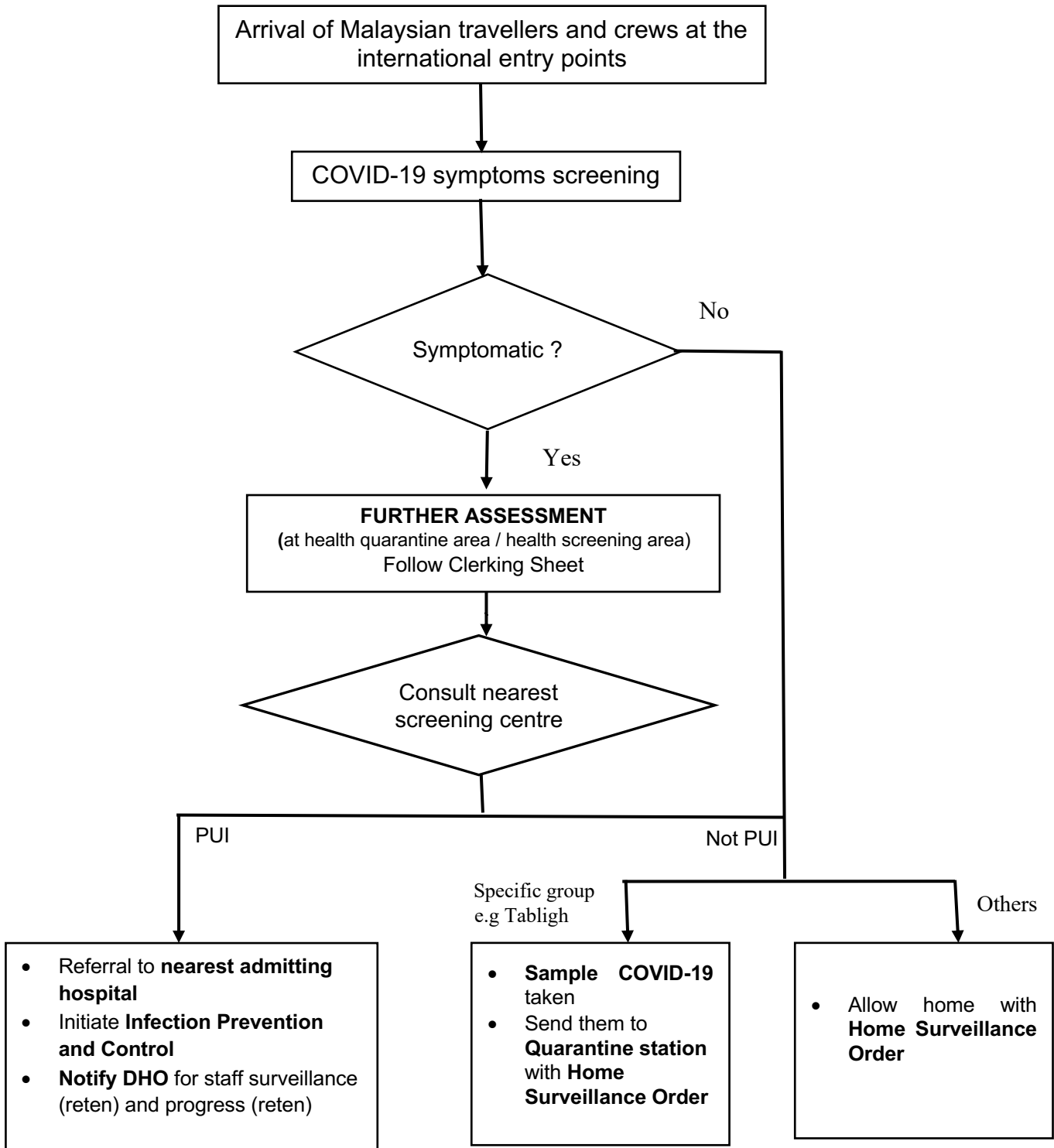
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....

Name of authorized airline representative:.....

Signature.....

Date .....

**FLOW CHART FOR SCREENING OF MALAYSIAN TRAVELLERS AND CREWS ARRIVING AT INTERNATIONAL POINT OF ENTRY**





## CLERKING SHEET TEMPLATE AT MALAYSIA POINT OF ENTRY

Date: \_\_\_\_\_ Interviewer's Name : \_\_\_\_\_

### A. Patient's Details

Patient's Name : \_\_\_\_\_

I/C / Passport No. : \_\_\_\_\_ Age : \_\_\_\_\_ Gender : M / F

Address in country of origin : \_\_\_\_\_

Address in Malaysia : \_\_\_\_\_

Contact number in Malaysia: \_\_\_\_\_

Nationality : Malaysian / Non – Malaysian \_\_\_\_\_

Next of Kin (Name & Contact) : \_\_\_\_\_

### B. Travel History

No.	Country/State/Province Visited	Duration of Stay		Name of Airline, Flight No. and Seat Number:
		From (dd/mm/yr)	To (dd/mm/yr)	
1.				
2.				
3.				
Date of return to Malaysia:		Entry Point:		

### C. Sign and Symptoms

i. Symptoms		ii. Vital Sign	
Date of Onset:		Temperature:	
Fever:		*Blood Pressure (mmHg)	
Cough:		*Pulse Rate (/ min):	
Breathlessness:		*Respiratory Rate (/min):	
		*SpO <sub>2</sub> (if available)	
Other symptoms:		*Other vitals:	
iii. *Respiratory Findings			
iv. *Other relevant clinical history and examination			

\* to be filled by paramedic or doctor

**D. Epidemiological Risk Assessment**

Within 14 days before onset of the illness, did you: *(Please tick the relevant answer)*

1. have close contact<sup>2</sup> with a confirmed or probable (hospitalized or under quarantine) suspected COVID-19 infection case in <sup>1</sup>affected countries?
2. Travel to or reside in country with known transmission of COVID-19 infection outbreak?  
(name the country: \_\_\_\_\_)
3. Any additional information:  
\_\_\_\_\_

<sup>1</sup> Affected Countries as per WHO website

<sup>2</sup>Close contact is defined as:

- a) Health care associated exposure without appropriate PPE (including providing direct care for COVID-19 patients, working with health care workers infected with COVID-19, visiting patients or staying in the same close environment of a COVID-19 patient).
- b) Working together in close proximity or sharing the same classroom environment with a with COVID-19 patient
- c) Traveling together with COVID-19 patient in any kind of conveyance
- d) Living in the same household as a COVID-19 patient

## HOME ASSESSMENT TOOL

1. *Patient Under Investigation (PUI) / Self Assessment* bagi yang bergejala jangkitan saluran pernafasan tetapi tidak dimasukkan ke wad
2. **Kontak Rapat Kepada Kes yang Dijangkiti COVID-19**

Nama	:	
No. Kad Pengenalan	:	
No. Telefon	:	Bimbit: ..... Rumah: .....
Jenis Pendedahan	:	<b>Kategori (1) ATAU (2)</b> (bulatkan salah satu dan isi butiran di bawah)
Alamat Rumah	:	:
<b>PATIENT UNDER INVESTIGATION (PUI)</b>		
Tarikh Tiba di Malaysia	:	
No. Penerbangan	:	
Tarikh mula bergejala	:	
<b>KONTAK RAPAT KEPADA KES COVID-19</b>		
Hubungan Kepada Kes	:	
Tarikh Pendedahan Kepada Kes*	:	

\* nyatakan tarikh pendedahan terawal

## JADUAL PEMANTAUAN HARIAN

**ARAHAN:** Bagi sebarang gejala yang dilaporkan oleh kontak, sila tandakan (√) pada ruangan yang berkenaan,

Hari 1	Hari 2	Hari 3	Hari 4	Hari 5	Hari 6	Hari 7
Tarikh: ...../...../.....	Tarikh: ...../...../.....	Tarikh: ...../...../.....	Tarikh: ...../...../.....	Tarikh: ...../...../.....	Tarikh: ...../...../.....	Tarikh: ...../...../.....
Gejala : Demam ( ) Batuk ( ) Sesak nafas ( )	Gejala : Demam ( ) Batuk ( ) Sesak nafas ( )	Gejala : Demam ( ) Batuk ( ) Sesak nafas ( )	Gejala : Demam ( ) Batuk ( ) Sesak nafas ( )	Gejala : Demam ( ) Batuk ( ) Sesak nafas ( )	Gejala : Demam ( ) Batuk ( ) Sesak nafas ( )	Gejala : Demam ( ) Batuk ( ) Sesak nafas ( )

Hari 8	Hari 9	Hari 10	Hari 11	Hari 12	Hari 13	Hari 14
Tarikh: ...../...../.....	Tarikh: ...../...../.....	Tarikh: ...../...../.....	Tarikh: ...../...../.....	Tarikh: ...../...../.....	Tarikh: ...../...../.....	Tarikh: ...../...../.....
Gejala : Demam ( ) Batuk ( ) Sesak nafas ( )	Gejala : Demam ( ) Batuk ( ) Sesak nafas ( )	Gejala : Demam ( ) Batuk ( ) Sesak nafas ( )	Gejala : Demam ( ) Batuk ( ) Sesak nafas ( )	Gejala : Demam ( ) Batuk ( ) Sesak nafas ( )	Gejala : Demam ( ) Batuk ( ) Sesak nafas ( )	Gejala : Demam ( ) Batuk ( ) Sesak nafas ( )

**NOTA:** Bilangan hari pemantauan perlu ditambah mengikut kesesuaian, terutama sekali jika individu terlibat mempunyai pendedahan yang berulang-ulang kepada kes terbabit.

**Amalkan langkah–langkah berikut semasa anda diletak di bawah pengawasandan pemantauan di rumah (*home surveillance*):**

- Perlu sentiasa boleh dihubungi pada setiap masa.
- Sentiasa berada di rumah sepanjang dalam tempoh pengawasan ini.
- Hadkan pelawat atau tetamu yang datang ke rumah anda.
- Senaraikan semua orang yang datang menziarahi anda.
- Sentiasa amalkan adab batuk yang baik.
- Sekiranya anda bergejala, sentiasa pakai *face mask*. Jika tidak memakai *face mask*, tutup mulut dan hidung anda menggunakan tisu apabila batuk dan bersin. Buang tisu yang telah digunakan ke dalam tong sampah dan **CUCI TANGAN serta merta** dengan sabun atau *hand sanitiser*.
- Hadkan jarak anda dengan mereka yang sihat sekurang-kurangnya 1 meter.
- Pakai *face mask* sekiranya keluar dari bilik dan elakkan bergaul dengan orang lain.
- Pastikan pengudaraan rumah dalam keadaan baik dengan membuka tingkap.
- Elakkan perkongsian peralatan makanan dan penjagaan diri.

**PANTAU DIRI ANDA UNTUK SEBARANG GEJALA ATAU GEJALA BERTAMBAH TERUK**

**JIKA ANDA ADALAH KATEGORI 1:** *Patient Under Investigation (PUI) / Self Assessment* bagi yang bergejala jangkitan saluran pernafasan tetapi tidak dimasukkan ke wad

Sekiranya gejala anda bertambah teruk seperti:

- Kesukaran bernafas – tercungap-cungap, pernafasan menjadi laju atau warna bibir bertukar menjadi kebiruan; ATAU
- Demam yang berpanjangan sehingga melebihi 3 hari

**SEGERA hubungi Pejabat Kesihatan Daerah di talian \_\_\_\_\_.**

**JIKA ANDA ADALAH KATEGORI 2:** **Kontak Rapat Kepada Kes Yang Berpotensi Dijangkiti COVID-19**

Sekiranya mengalami gejala demam atau batuk atau sakit tekak, **SEGERA hubungi Pejabat Kesihatan Daerah di talian \_\_\_\_\_.**

## HOME SURVEILLANCE TOOL

1. Patient Under Investigation (PUI) / Self Assessment for person with symptoms and signs of respiratory tract infection but is not warded.
2. Close contact of person infected and positive of COVID-19

Name	:	
No. Identity Card	:	
No. Telephone	:	Mobile: ..... Home: .....
Type of exposure:		<b>Category (1) OR (2)</b> (please circle an appropriate choice and fill the details below)
Home Address	:	:
<b>PATIENT UNDER INVESTIGATION (PUI)</b>		
Date Arrival in Malaysia	:	
Flight No.		
Date of symptom onset	:	
<b>CLOSE CONTACT OF POSITIVE COVID-19 CASE</b>		
Relationship with case	:	
Date of exposure to case *	:	

\* please state the date of first contact

## TABLE FOR DAILY MONITORING

**INSTRUCTION:** Please(√) the symptoms that you experience for each day.

Day 1	Day 2	Day 3	Day 4	Day 5	Day6	Day 7
Date: ...../...../.....	Date: ...../...../.....	Date: ...../...../.....	Date: ...../...../.....	Date: ...../...../.....	Date: ...../...../.....	Date: ...../...../.....
<b>Symptoms :</b> Fever ( ) Cough ( ) Shortness of breath ( )	<b>Symptoms :</b> Fever ( ) Cough ( ) Shortness of breath ( )	<b>Symptoms :</b> Fever ( ) Cough ( ) Shortness of breath ( )	<b>Symptoms :</b> Fever ( ) Cough ( ) Shortness of breath ( )	<b>Symptoms :</b> Fever ( ) Cough ( ) Shortness of breath ( )	<b>Symptoms :</b> Fever ( ) Cough ( ) Shortness of breath ( )	<b>Symptoms :</b> Fever ( ) Cough ( ) Shortness of breath ( )

Day8	Day 9	Day 10	Day 11	Day 12	Day 13	Day 14
Date: ...../...../.....	Date: ...../...../.....	Date: ...../...../.....	Date: ...../...../.....	Date: ...../...../.....	Date: ...../...../.....	Date: ...../...../.....
<b>Symptoms :</b> Fever ( ) Cough ( ) Shortness of breath ( )	<b>Symptoms :</b> Fever ( ) Cough ( ) Shortness of breath ( )	<b>Symptoms :</b> Fever ( ) Cough ( ) Shortness of breath ( )	<b>Symptoms :</b> Fever ( ) Cough ( ) Shortness of breath ( )	<b>Symptoms :</b> Fever ( ) Cough ( ) Shortness of breath ( )	<b>Symptoms :</b> Fever ( ) Cough ( ) Shortness of breath ( )	<b>Symptoms :</b> Fever ( ) Cough ( ) Shortness of breath ( )

**NOTE:** Days of self monitoring can be added to the instructed period IF a person has recurrent exposure to the risk of infection.

**Please do all the below while you are under *home surveillance*:**

- Be contactable at all time.
- Stay at home during the self-monitoring period.
- Limit visitors to your house.
- List the name of those visiting you.
- Always practice good cough etiquette.
- If you develop any symptom, always wear face mask. If you did not wear *face mask*, close your mouth and nose with tissues when coughing or sneezing. Throw the tissues into closed dustbin and **immediately WASH YOUR HANDS** with soap or hand sanitiser.
- Limit your distance with healthy person (s) to at least 1 meter.
- Wear face mask when you go out of your room and avoid contact with others.
- Open all windows in your house to ensure good ventilation.
- Do not share utensils, tableware and personal hygiene items.

**MONITOR YOURSELF FOR DEVELOPMENT OR WORSENING OF SYMPTOMS**

**IF YOU ARE CATEGORY 1: Patient Under Investigation (PUI) / Self Assessment for person with symptoms and signs of respiratory tract infection but is not warded.**

If your symptoms worsen, such as:

- Difficulty in breathing – shortness of breath, fast breathing or lips turning blue; OR
- Prolonged fever more than 3 days

**IMMEDIATELY contact the District Health Office at \_\_\_\_\_.**

**IF YOU ARE CATEGORY 2: Close contact of person infected and positive of COVID-19**

If you develop any fever or cough or sore throat, **IMMEDIATELY contact the District Health Office at \_\_\_\_\_.**

## HOME SURVEILLANCE TOOL

1. Patient Under Investigation (PUI) / Self Assessment for person with symptoms and signs of respiratory tract infection but is not warded.
2. Close contact of person infected and positive of COVID-19

Name	:	
No. Identity Card	:	
No. Telephone	:	Mobile: ..... Home: .....
Type of exposure:		<b>Category (1) OR (2)</b> (please circle an appropriate choice and fill the details below)
Home Address	:	:
<b>PATIENT UNDER INVESTIGATION (PUI)</b>		
Date Arrival in Malaysia	:	
Flight No.		
Date of symptom onset	:	
<b>CLOSE CONTACT OF POSITIVE COVID-19 CASE</b>		
Relationship with case	:	
Date of exposure to case *	:	

\* please state the date of first contact

## TABLE FOR DAILY MONITORING

**INSTRUCTION:** Please(√) the symptoms that you experience for each day.

Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
Date: ...../...../.....	Date: ...../...../.....	Date: ...../...../.....	Date: ...../...../.....	Date: ...../...../.....	Date: ...../...../.....	Date: ...../...../.....
Symptoms : Fever ( ) Cough ( ) Shortness of breath ( )	Symptoms : Fever ( ) Cough ( ) Shortness of breath ( )	Symptoms : Fever ( ) Cough ( ) Shortness of breath ( )	Symptoms : Fever ( ) Cough ( ) Shortness of breath ( )	Symptoms : Fever ( ) Cough ( ) Shortness of breath ( )	Symptoms : Fever ( ) Cough ( ) Shortness of breath ( )	Symptoms : Fever ( ) Cough ( ) Shortness of breath ( )

Day 8	Day 9	Day 10	Day 11	Day 12	Day 13	Day 14
Date: ...../...../.....	Date: ...../...../.....	Date: ...../...../.....	Date: ...../...../.....	Date: ...../...../.....	Date: ...../...../.....	Date: ...../...../.....
Symptoms : Fever ( ) Cough ( ) Shortness of breath ( )	Symptoms : Fever ( ) Cough ( ) Shortness of breath ( )	Symptoms : Fever ( ) Cough ( ) Shortness of breath ( )	Symptoms : Fever ( ) Cough ( ) Shortness of breath ( )	Symptoms : Fever ( ) Cough ( ) Shortness of breath ( )	Symptoms : Fever ( ) Cough ( ) Shortness of breath ( )	Symptoms : Fever ( ) Cough ( ) Shortness of breath ( )

**NOTE:** Days of self monitoring can be added to the instructed period IF a person has recurrent exposure to the risk of infection.

**Please do all the below while you are under *home surveillance*:**

- Be contactable at all time.
- Stay at home during the self-monitoring period.
- Limit visitors to your house.
- List the name of those visiting you.
- Always practice good cough etiquette.
- If you develop any symptom, always wear face mask. If you did not wear *face mask*, close your mouth and nose with tissues when coughing or sneezing. Throw the tissues into closed dustbin and **immediately WASH YOUR HANDS** with soap or hand sanitiser.
- Limit your distance with healthy person (s) to at least 1 meter.
- Wear face mask when you go out of your room and avoid contact with others.
- Open all windows in your house to ensure good ventilation.
- Do not share utensils, tableware and personal hygiene items.

## MONITOR YOURSELF FOR DEVELOPMENT OR WORSENING OF SYMPTOMS

**IF YOU ARE CATEGORY 1: Patient Under Investigation (PUI) / Self Assessment for person with symptoms and signs of respiratory tract infection but is not warded.**

If your symptoms worsen, such as:

- Difficulty in breathing – shortness of breath, fast breathing or lips turning blue; OR
- Prolonged fever more than 3 days

**IMMEDIATELY contact the District Health Office at \_\_\_\_\_.**

**IF YOU ARE CATEGORY 2: Close contact of person infected and positive of COVID-19**

If you develop any fever or cough or sore throat, **IMMEDIATELY contact the District Health Office at \_\_\_\_\_.**



## PROTOCOL FOR AMBULANCE TRANSFER FOR PATIENT UNDER INVESTIGATION (PUI) OF COVID-19

### PREPARATION OF THE AMBULANCE

- It is advisable to remove all non-essential equipment related to care of the intended patient.
- Ambulance must be equipped with spillage kits, disinfectant wipes, sharps bin and clinical waste ready to be used by responders.
- Use of disposable bed sheet is encouraged.

### NUMBER OF PATIENTS IN AN AMBULANCE

- It is advisable to only transport one patient in an ambulance.
- Medical direction from Emergency Physician can be obtained to allow transport of more than one patient with similar provisional diagnosis.
- There can be no mix of patient under investigation (PUI) with confirmed nCoV case.

### PREPARATION OF STAFF

- All staffs accompanying patient in the ambulance must wear the recommended PPE:
  - Gloves.
  - N95 mask with goggles.
  - Disposable apron or gown.

### CARE OF THE PATIENT DURING TRANSPORT

#### 1. Respiratory Hygiene

- In absence of respiratory distress, patients can be provided with surgical mask.
- Oxygen supplement using nasal prong can be safely used under a surgical mask.
- Placement surgical mask on other oxygen supplement delivery device require Medical Direction from Emergency Physician.

#### 2. Placement of patient

- Patient should be propped up in sitting position in stretcher unless clinically contraindicated.

### **3. Intervention in Pre-Hospital**

- Do not perform any procedures on the patient unless absolutely necessary.
- Medical Direction must be obtained for transportation of patient requiring more than nasal prong oxygen.

### **4. Communication with Medical Emergency Call Centre (MECC) and Receiving Facility (if relevant)**

- MECC must be informed regarding estimated time of arrival, patients' clinical condition or any updates in clinical status or transportation.
- It is the responsibility of MECC to inform and update receiving facility regarding estimated time of arrival and patients' clinical condition.

## **DECONTAMINATION**

- If spillage occurs in the ambulance
  - Use chlorine granules in the spillage kit to absorb the spill.
  - After 2 minutes or when the granules crystallize, cover the spillage with the absorbent material e.g. tissue or blue sheet.
  - Do not remove the spill while the patient or staff is in the ambulance. The decontamination of the spillage is to be done at the designated hospital.
- Decontamination of the ambulance
  - The ambulance is to be decontaminated at the designated ambulance decontamination area at receiving hospitals.
  - Decontamination agent to be used as per recommendation.
- Decontamination of staff
  - Staff from other health facility that accompany patient should undergo decontamination in the designated receiving hospital ED before returning to their respected base.

## **DISINFECTION OF REUSABLE UTENSILS & DISPOSAL OF WASTE**

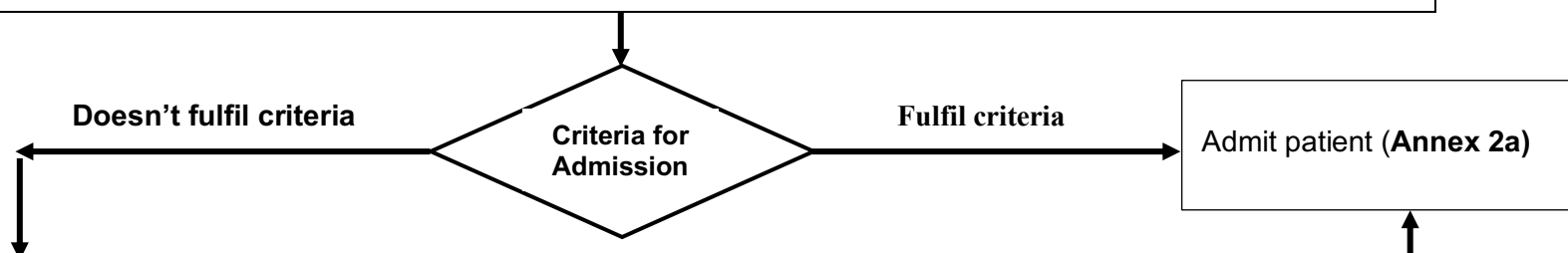
- All reusable patient care utensils should be put into the appropriate biohazard receptacles and labelled for cleaning and disinfecting later.
- All waste disposals from the affected patient should follow guidelines of Clinical Waste Management.

## Management Of Closed Contacts of Confirmed Case

1. Closed contacts of confirmed case were those as below:
  - a. Health care associated exposure, including providing direct care for COVID-19 patients without using appropriate PPE, working with health care workers infected with COVID-19, visiting patients or staying in the same close environment of a COVID-19 patient.
  - b. Working together in close proximity or sharing the same classroom environment with a with COVID-19 patient
  - c. Traveling together with COVID-19 patient in any kind of conveyance
  - d. Living in the same household as a COVID-19 patient
  
2. Close contacts can be detected through the following activities:
  - a. Contact tracing by the Rapid Assessment Team (RAT) and the Rapid Response Team (RRT) on the field;
  - b. Monitoring of personnel who were in close physical contact to the case or who were handling the relevant specimens;
  - c. Health screening at the point of entry (POE)
  - d. Person who came and declare themselves at either government and private hospital and clinic
  
3. All close contacts of confirmed case shall be screened for COVID-19 at designated hospitals and health centres as follows:
  - a. Fulfilled admission criteria
    - i. Admit case to admitting hospital (**Annex 2b**)
  - b. Doesn't fulfilled admission criteria:-
    - i. Screening Hospital/ Health Clinic
      - Taken first sample immediately (NP and OP)
      - Explain regarding COVID-19 infection and risk of transmission to family and community.
      - Allow patient to go home and put under home surveillance
      - Give patient Home Assessment Tool (**Annex 10**), health education materials
      - Notify case to PKD
      - Repeat sample if symptoms develop ( Annex 2a)
      - If first sample negative by PCR, do serology COVID19 IgM test at day 13.
      - If serology IgM test is positive; to proceed with OPS & NPS swab for PCR.
      - If PCR positive to admit patient
      - If serology IgM negative – discharge from home surveillance

- ii. District Health Office
  - Visit case at home (first day of home surveillance)
  - Ask for strict home surveillance, fill *Form for Supervision and Observation at Home (Annex 14)* and ask case to sign it.
  - Call case twice daily to ask for symptoms
  - Repeat sample by PCR if symptoms develop (Annex 2a)
  - If negative by PCR, to take serology test at day 13 of last exposure.
  - If serology positive (IgM only or both IgM & IgG); to proceed with OPS & NPS swab for PCR.
  - If PCR positive to admit patient
  - if serology IgM negative, he / she will be given *Release From Undergoing Supervision and Observation Order at Home (Annex 17)* by the authorized officer.
  
4. To consult ID Physician / Specialist On-Call of the identified hospital (**Annex 3**) for referral of the respective contact, if the following were to occur:
  - a. the contact become symptomatic; **or**
  - b. the result of RT-PCR positive

**Cases are Detected Through** contact tracing done by the Rapid Assessment Team (RAT) and the Rapid Response Team (RRT) during active case detection (ACD) OR daily monitoring for healthcare workers (Annex 21)



#### Screening hospital

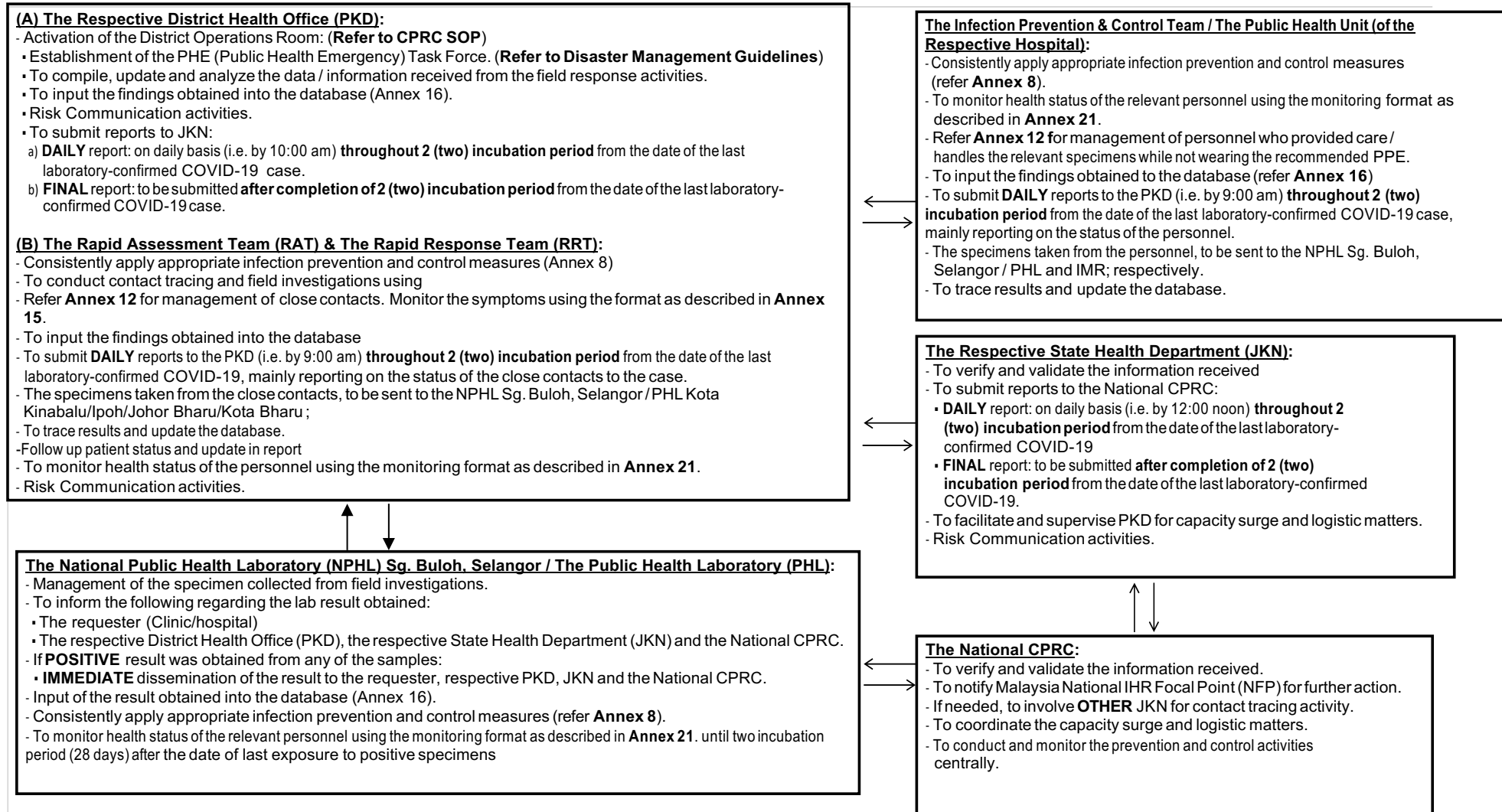
- Take 1<sup>st</sup> sample
- Explain regarding 2019-nCoV infection and risk of transmission to family and community.
- Give patient Home Assessment Tool (**Annex 10**) together hand-out / pamphlet about COVID-19 infection
- Notify case to PKD

#### Pejabat Kesihatan Daerah (PKD)

- Visit case.
- Serve home surveillance order
- Maintain IPC
- Conduct 14 days surveillance (i.e. from the date of last exposure to case using **Annex 15**) either through call or visit. Refer case if case develops symptom(s) OR worsening of symptoms.
- Trace result of 1<sup>st</sup> sample. Refer case to hospital if positive.
- If negative, to take serology test at day 13 of last exposure.
- If serology positive (IgM only or both IgM & IgG) – to proceed with OPS & NPS swab for PCR.
- **IF PCR POSITIVE TO ADMIT PATIENT**
- If serology IgM negative – discharge from quarantine centre.
- Serve release order (Annex 17a)

- PCR positive
- Develop symptoms

## A Laboratory-Confirmed COVID-19 Infection: Flow Chart For Field Response Activities





**MINISTRY OF HEALTH MALAYSIA**

**Our Ref.:**

District Health Office

.....  
 .....

Telephone No: .....

**To:**

Name: .....

Identification Card / Passport No: .....

Address: .....

.....  
 .....

**Order for Supervision and Observation for Contact of Corona Virus Disease (COVID-19) Under Section 15(1) Prevention and Control of Infectious Disease Act 1988 (Act 342)**

You have been identified as a contact to a confirmed case of Corona Virus Disease (COVID-19) OR likely to have been exposed to the risk of contracting COVID-19 infection when you were in a country or an area with COVID-19 outbreak. Under Section 15(1) Prevention and Control of Infectious Diseases Act 1988 (Act 342), an authorized officer may order you to be segregated in such place e.g. at your home for supervision and observation for a period of time until you are released from such order.

2. To carry out the order under section 15(1) Act 342, I ....., the authorized officer hereby place you under the order for supervision and observation at a place as per address above with conditions as stated in Home Assessment Tool, for ..... days, from ..... (date) to ..... (date).

3. While you're placed under supervision and observation during the specified duration, you are required to comply with the order prescribed and monitor your health status using the *Home Assessment Tool*., Failure to comply with this order, if convicted, you will subjected to imprisonment or fine or both, as stated under section 24 of the same Act.

<b>The Authorized Officer</b>	
<b>Name</b> :	
<b>Designation</b> :	
<b>Date &amp; Time</b> :	
<b>Confirmation On Receiving A Copy Of The Order By The Individual Placed Under Supervision</b>	
<b>Name</b> :	
<b>IC / Passport No</b> :	
<b>Date &amp; Time</b> :	
<b>Signature</b> :	



## **JABATAN TENAGA KERJA SEMENANJUNG MALAYSIA**

### **PANDUAN MENGENDALIKAN ISU-ISU BERHUBUNG WABAK BERJANGKIT TERMASUK NOVEL CORONAVIRUS DI TEMPAT KERJA**

#### **PENDAHULUAN**

Pada awal tahun ini negara kita turut terkesan dengan wabak berjangkit termasuk Novel Coronavirus (2019-nCoV). Kementerian Kesihatan Malaysia telah mengeluarkan kenyataan rasmi berhubung penularan wabak 2019-nCoV terkini di Malaysia dari semasa ke semasa bermula 23 Januari 2020. Situasi ini menimbulkan kebimbangan dalam kalangan majikan berhubung isu kebajikan pekerja disebabkan Perintah Kuarantin atau Perintah Pengawasan dan Pemerhatian Di Rumah Kediaman ("*home surveillance*") selain diarahkan majikan untuk tidak bekerja sebaik pulang dari negara-negara yang terkesan oleh 2019-nCoV seperti China, Thailand, Jepun, Hong Kong dan Singapura.

2. Dalam memelihara kebajikan pekerja dan persekitaran tempat kerja yang selamat, majikan dinasihat untuk melaksanakan langkah-langkah seperti yang berikut:
  - i. Mengarahkan pekerja untuk segera mendapatkan pemeriksaan kesihatan oleh pengamal perubatan berdaftar atau pegawai perubatan atas biaya majikan, seperti yang dinyatakan di bawah seksyen 60F Akta Kerja 1955.
  - ii. Membenarkan cuti sakit bergaji atau kelayakan hospitalisasi sepanjang tempoh rawatan di hospital bagi pekerja yang disahkan mempunyai simptom jangkitan wabak. Majikan digalakkan untuk membayar gaji pada kadar biasa semasa tempoh Perintah Kuarantin atau Perintah Pengawasan dan Pemerhatian Di Rumah Kediaman



- iii. Membayar gaji penuh kepada pekerja yang diberi Perintah Kuarantin atau Perintah Pengawasan dan Pemerhatian Di Rumah Kediaman oleh pengamal perubatan berdaftar sekembalinya dari negara-negara yang terkesan dengan wabak jangkitan,
- iv. Tidak melarang mana-mana pekerja untuk hadir bekerja sekiranya tiada Perintah Kuarantin atau Perintah Pengawasan dan Pemerhatian Di Rumah Kediaman dikeluarkan oleh pengamal perubatan berdaftar kepada pekerja; dan
- v. Tidak memaksa pekerja menggunakan kelayakan cuti tahunan mereka atau bercuti tanpa gaji sepanjang Perintah Kuarantin atau Perintah Pengawasan dan Pemerhatian Di Rumah Kediaman.

Sebarang pertanyaan mengenai “Panduan Mengendalikan Isu-Isu Berhubung Wabak Berjangkit Termasuk Novel Coronavirus Di Tempat Kerja” boleh hubungi mana-mana Jabatan Tenaga Kerja Semenanjung Malaysia.

Disediakan oleh:

JABATAN TENAGA KERJA SEMENANJUNG MALAYSIA  
PUTRAJAYA  
7 Februari 2020



**KEMENTERIAN KESIHATAN MALAYSIA**

**Fail Rujukan:**

Pejabat Kesihatan Daerah

.....  
 .....

No. Telefon: .....

**Kepada:**

Nama: .....

No. Kad Pengenalan: .....

Alamat: .....

.....  
 .....

**Perintah Pengawasan Dan Pemerhatian Bagi Kontak Jangkitan Penyakit Corona Virus 2019 (COVID-19) Di Bawah Seksyen 15(1) Akta Pencegahan Dan Pengawalan Penyakit Berjangkit 1988 [Akta 342]**

Bahawasanya Tuan/Puan telah dikenalpasti sebagai kontak Jangkitan Penyakit Corona Virus 2019 (COVID-19), sama ada kontak langsung dengan seorang yang telah disahkan dijangkiti COVID-19 atau berkemungkinan Tuan/Puan telah terdedah atau mungkin telah terdedah kepada risiko jangkitan itu semasa berada di negara yang dilanda wabak COVID-19. Maka, menurut seksyen 15(1) Akta Pencegahan dan Pengawalan Penyakit Berjangkit 1988 [Akta 342], mana-mana pegawai yang diberikuasa boleh memerintahkan Tuan/Puan untuk menjalani pengawasan dan pemerhatian di mana-mana tempat yang difikirkannya patut sehingga Tuan/Puan boleh dilepaskan dari pengawasan dan pemerhatian tanpa membahayakan orang ramai.

2. Bagi menjalankan kuasa di bawah Seksyen 15(1) Akta 342, saya ....., pegawai diberikuasa memerintahkan Tuan/Puan untuk berada di bawah pengawasan dan pemerhatian di rumah seperti alamat di atas dengan syarat-syarat yang dinyatakan dalam borang *Home Assessment Tool*; selama ..... hari daripada ..... (*tarikh*) sehingga ..... (*tarikh*).

3. Sepanjang tempoh Tuan/Puan diletakkan di bawah pengawasan dan pemerhatian, Tuan/Puan adalah dikehendaki mematuhi segala perintah yang ditetapkan dan memantau kesihatan diri menggunakan borang *Home Assessment Tool* yang diberi bersama ini. Kegagalan Tuan/Puan untuk mematuhi perintah ini, sekiranya disabitkan dengan kesalahan boleh dikenakan hukuman di bawah seksyen 24 Akta 342.

<b>Pegawai Yang Diberikuasa</b>	
<b>Nama</b>	:
<b>Jawatan</b>	:
<b>Tarikh &amp; Masa</b>	:
<b>Pengesahan Menerima Salinan Perintah oleh Kontak yang Diletakkan di bawah Pengawasan</b>	
<b>Nama</b>	:
<b>No.Kad Pengenalan</b>	:
<b>Tarikh &amp; Masa</b>	:
<b>Tandatangan</b>	:



## **JABATAN TENAGA KERJA SEMENANJUNG MALAYSIA**

### **PANDUAN MENGENDALIKAN ISU-ISU BERHUBUNG WABAK BERJANGKIT TERMASUK NOVEL CORONAVIRUS DI TEMPAT KERJA**

#### **PENDAHULUAN**

Pada awal tahun ini negara kita turut terkesan dengan wabak berjangkit termasuk Novel Coronavirus (2019-nCoV). Kementerian Kesihatan Malaysia telah mengeluarkan kenyataan rasmi berhubung penularan wabak 2019-nCoV terkini di Malaysia dari semasa ke semasa bermula 23 Januari 2020. Situasi ini menimbulkan kebimbangan dalam kalangan majikan berhubung isu kebajikan pekerja disebabkan Perintah Kuarantin atau Perintah Pengawasan dan Pemerhatian Di Rumah Kediaman ("*home surveillance*") selain diarahkan majikan untuk tidak bekerja sebaik pulang dari negara-negara yang terkesan oleh 2019-nCoV seperti China, Thailand, Jepun, Hong Kong dan Singapura.

2. Dalam memelihara kebajikan pekerja dan persekitaran tempat kerja yang selamat, majikan dinasihat untuk melaksanakan langkah-langkah seperti yang berikut:
  - i. Mengarahkan pekerja untuk segera mendapatkan pemeriksaan kesihatan oleh pengamal perubatan berdaftar atau pegawai perubatan atas biaya majikan, seperti yang dinyatakan di bawah seksyen 60F Akta Kerja 1955.
  - ii. Membenarkan cuti sakit bergaji atau kelayakan hospitalisasi sepanjang tempoh rawatan di hospital bagi pekerja yang disahkan mempunyai simptom jangkitan wabak. Majikan digalakkan untuk membayar gaji pada kadar biasa semasa tempoh Perintah Kuarantin atau Perintah Pengawasan dan Pemerhatian Di Rumah Kediaman

- iii. Membayar gaji penuh kepada pekerja yang diberi Perintah Kuarantin atau Perintah Pengawasan dan Pemerhatian Di Rumah Kediaman oleh pengamal perubatan berdaftar sekembalinya dari negara-negara yang terkesan dengan wabak jangkitan,
- iv. Tidak melarang mana-mana pekerja untuk hadir bekerja sekiranya tiada Perintah Kuarantin atau Perintah Pengawasan dan Pemerhatian Di Rumah Kediaman dikeluarkan oleh pengamal perubatan berdaftar kepada pekerja; dan
- v. Tidak memaksa pekerja menggunakan kelayakan cuti tahunan mereka atau bercuti tanpa gaji sepanjang Perintah Kuarantin atau Perintah Pengawasan dan Pemerhatian Di Rumah Kediaman.

Sebarang pertanyaan mengenai “Panduan Mengendalikan Isu-Isu Berhubung Wabak Berjangkit Termasuk Novel Coronavirus Di Tempat Kerja” boleh hubungi mana-mana Jabatan Tenaga Kerja Semenanjung Malaysia.

Disediakan oleh:

JABATAN TENAGA KERJA SEMENANJUNG MALAYSIA  
PUTRAJAYA  
7 Februari 2020

**Borang Pemantauan Harian Bagi Kontak Rapat Kepada Kes Yang Berpotensi Dijangkiti  
COVID-19**

Nama	:	
No. Kad Pengenalan	:	
No. Telefon	:	Bimbit: ..... Rumah: .....
Hubungan Kepada Kes	:	
Alamat Rumah	:	
Tarikh Pendedahan Terakhir Kepada Kes*	:	
Jenis Kontak Kepada Kes Yang Berpotensi Dijangkiti COVID-19		:

\* Senaraikan KESEMUANYA, gunakan mukasurat yang seterusnya – jika perlu

**JADUAL PEMANTAUAN HARIAN**

**ARAHAN:**

Bagi sebarang gejala yang dilaporkan oleh kontak, sila tandakan (√) pada ruangan yang berkenaan,

Hari 1	Hari 2	Hari 3	Hari 4	Hari 5	Hari 6	Hari 7
Tarikh: ...../...../.....	Tarikh: ...../...../.....	Tarikh: ...../...../.....	Tarikh: ...../...../.....	Tarikh: ...../...../.....	Tarikh: ...../...../.....	Tarikh: ...../...../.....
<b>Gejala :</b> Demam ( ) Batuk ( ) Sakit dada ( ) Sesak Nafas ( )	<b>Gejala :</b> Demam ( ) Batuk ( ) Sakit dada ( ) Sesak Nafas ( )	<b>Gejala :</b> Demam ( ) Batuk ( ) Sakit dada ( ) Sesak Nafas ( )	<b>Gejala :</b> Demam ( ) Batuk ( ) Sakit dada ( ) Sesak Nafas ( )	<b>Gejala :</b> Demam ( ) Batuk ( ) Sakit dada ( ) Sesak Nafas ( )	<b>Gejala :</b> Demam ( ) Batuk ( ) Sakit dada ( ) Sesak Nafas ( )	<b>Gejala :</b> Demam ( ) Batuk ( ) Sakit dada ( ) Sesak Nafas ( )

Hari 8	Hari 9	Hari 10	Hari 11	Hari 12	Hari 13	Hari 14
Tarikh: ...../...../.....	Tarikh: ...../...../.....	Tarikh: ...../...../.....	Tarikh: ...../...../.....	Tarikh: ...../...../.....	Tarikh: ...../...../.....	Tarikh: ...../...../.....
<b>Gejala :</b> Demam ( ) Batuk ( ) Sakit dada ( ) Sesak Nafas ( )	<b>Gejala :</b> Demam ( ) Batuk ( ) Sakit dada ( ) Sesak Nafas ( )	<b>Gejala :</b> Demam ( ) Batuk ( ) Sakit dada ( ) Sesak Nafas ( )	<b>Gejala :</b> Demam ( ) Batuk ( ) Sakit dada ( ) Sesak Nafas ( )	<b>Gejala :</b> Demam ( ) Batuk ( ) Sakit dada ( ) Sesak Nafas ( )	<b>Gejala :</b> Demam ( ) Batuk ( ) Sakit dada ( ) Sesak Nafas ( )	<b>Gejala :</b> Demam ( ) Batuk ( ) Sakit dada ( ) Sesak Nafas ( )

**NOTA:**

\* Hari 1 adalah sehari selepas tarikh pendedahan terakhir dengan kes.

\* Bilangan hari pemantauan perlu ditambah mengikut kesesuaian, terutama sekali jika individu terlibat mempunyai pendedahan yang berulang-ulang kepada kes terbabit.





**KEMENTERIAN KESIHATAN MALAYSIA**

**Fail Rujukan:**

**Kepada:**

Nama: .....

No. Kad Pengenalan: .....

Alamat: .....

.....

.....

**Pelepasan Dari Menjalani Perintah Pengawasan Dan Pemerhatian Di Rumah Kediaman Bagi Kontak Jangkitan COVID-19 Di Bawah Seksyen 15(1) Akta Pencegahan Dan Pengawalan Penyakit Berjangkit 1988 (Akta 342)**

Dengan segala hormatnya perkara di atas adalah dirujuk.

2. Terdahulu, Tuan/Puan telah dikenalpasti sebagai kontak terdekat kepada seorang yang telah disahkan menghidapi jangkitan COVID-19 dan Tuan/Puan telah dikenakan Perintah Pengawasan Dan Pemerhatian di rumah kediaman sebagaimana yang tertakluk di bawah Seksyen 15(1) Akta Pencegahan dan Pengawalan Penyakit Berjangkit 1988 (Akta 342) bermula dari ..... hingga .....

3. Hasil pemeriksaan yang dijalankan oleh pihak kami mendapati status kesihatan Tuan/Puan adalah memuaskan. Oleh itu, Tuan/Puan adalah diberikan pelepasan dari menjalani pemerhatian dan pengawasan di bawah Akta 342, bermula dari tarikh seperti tersebut di bawah. Perhatian dan kerjasama yang telah Tuan/Puan berikan berhubung perkara ini adalah amat dihargai.

Sekian, terima kasih.

<b>Pegawai Yang Diberikuasa</b>	
<b>Nama</b>	:
<b>Jawatan</b>	:
<b>Tempat Bertugas &amp; No. Telefon</b>	:
<b>Tarikh &amp; Masa</b>	:

## Borang Pemantauan Harian

- 1 **Patient Under Investigation (PUI) / Self Assessment** bagi yang bergejala jangkitan saluran pernafasan tetapi tidak dimasukkan ke wad ATAU
- 2 **Kontak Rapat Kepada Kes yang Dijangkiti COVID-19**

Nama	:	
No. Kad Pengenalan	:	
No. Telefon	:	Bimbit: ..... Rumah: .....
Jenis Pendedahan	:	<b>Kategori (1) ATAU (2)</b> (bulatkan salah satu dan isi butiran di bawah)
Alamat Rumah	:	:
<b>PATIENT UNDER INVESTIGATION (PUI)</b>		
Tarikh Tiba di Malaysia	:	
No. Penerbangan	:	
Tarikh mula bergejala	:	
<b>KONTAK RAPAT KEPADA KES COVID-19</b>		
Hubungan Kepada Kes	:	
Tarikh Pendedahan Kepada Kes*	:	

\* nyatakan tarikh pendedahan terawal

## JADUAL PEMANTAUAN HARIAN

**ARAHAN:** Bagi sebarang gejala yang dilaporkan oleh kontak, sila tandakan (√) pada ruangan yang berkenaan,

Hari 1	Hari 2	Hari 3	Hari 4	Hari 5	Hari 6	Hari 7
Tarikh: ...../...../.....	Tarikh: ...../...../.....	Tarikh: ...../...../.....	Tarikh: ...../...../.....	Tarikh: ...../...../.....	Tarikh: ...../...../.....	Tarikh: ...../...../.....
<b>Gejala :</b> Demam ( ) Batuk ( ) Sesak nafas ( )	<b>Gejala :</b> Demam ( ) Batuk ( ) Sesak nafas ( )	<b>Gejala :</b> Demam ( ) Batuk ( ) Sesak nafas ( )	<b>Gejala :</b> Demam ( ) Batuk ( ) Sesak nafas ( )	<b>Gejala :</b> Demam ( ) Batuk ( ) Sesak nafas ( )	<b>Gejala :</b> Demam ( ) Batuk ( ) Sesak nafas ( )	<b>Gejala :</b> Demam ( ) Batuk ( ) Sesak nafas ( )

Hari 8	Hari 9	Hari 10	Hari 11	Hari 12	Hari 13	Hari 14
Tarikh: ...../...../.....	Tarikh: ...../...../.....	Tarikh: ...../...../.....	Tarikh: ...../...../.....	Tarikh: ...../...../.....	Tarikh: ...../...../.....	Tarikh: ...../...../.....
<b>Gejala :</b> Demam ( ) Batuk ( ) Sesak nafas ( )	<b>Gejala :</b> Demam ( ) Batuk ( ) Sesak nafas ( )	<b>Gejala :</b> Demam ( ) Batuk ( ) Sesak nafas ( )	<b>Gejala :</b> Demam ( ) Batuk ( ) Sesak nafas ( )	<b>Gejala :</b> Demam ( ) Batuk ( ) Sesak nafas ( )	<b>Gejala :</b> Demam ( ) Batuk ( ) Sesak nafas ( )	<b>Gejala :</b> Demam ( ) Batuk ( ) Sesak nafas ( )

**NOTA:** Bilangan hari pemantauan perlu ditambah mengikut kesesuaian, terutama sekali jika individu terlibat mempunyai pendedahan yang berulang-ulang kepada kes terbabit.





**GUIDELINES FOR HANDLING DEAD BODIES OF  
SUSPECTED/PROBABLE/CONFIRMED COVID-19**

- A. GUIDELINES FOR TRANSPORT OF BODY WITH SUSPECTED/  
PROBABLE/ CONFIRMED COVID-19 INFECTION FROM EMERGENCY  
DEPARTMENT OR WARD TO MORTUARY.**
  
- B. GUIDELINES FOR MANAGEMENT OF BROUGHT IN DEAD CASES DUE  
TO SUSPECTED OR PROBABLE COVID-19 INFECTION.**
  
- C. GUIDELINES FOR THE DISPOSAL OF DECEASED IN CASES DUE TO  
SUSPECTED/ PROBABLE/ CONFIRMED COVID-19 INFECTION.**

**(A) GUIDELINES FOR TRANSPORT OF BODY WITH SUSPECTED/PROBABLE/CONFIRMED COVID-19 INFECTION FROM EMERGENCY DEPARTMENT OR WARD TO THE MORTUARY**

1. Bodies of suspected/probable/confirmed COVID-19 infection shall be sent from the Emergency Department or ward to the mortuary as soon as practicable.
2. Staff must wear the appropriate personal protective equipment and clothing (N95 masks, face shield, long sleeve fluid repellent disposable gown and gloves) while handling / preparing the body.
3. Relatives are **STRICTLY FORBIDDEN** to touch or kiss the body. The number of relatives allowed to view the body for identification must be minimized to **1 PERSON ONLY**. They must wear mask N95, face shield, gloves and protective aprons. They should only be allowed to stand at a minimum of 1 meter from the body.
4. Relatives are **STRICTLY FORBIDDEN** to handle the body at any circumstances.
5. Body shall be prepared in the ward (ie the Last Office) by the ward staff before conveying to the mortuary.
6. Body preparation:

The bodies must be placed in **2 layers body bag**

- 6.1. First layer : Wrap body with white cotton linen.
- 6.2. Second layer : Place body in body bag. It is optional to wipe or spray the bag especially at and around the zipper with disinfectant 0.5% sodium hypochlorite.
- 6.3. Third layer : Place body in body bag, then the body bag must be wiped or sprayed with disinfectant 0.5% sodium hypochlorite.
7. Body transfer from the ward / ED shall be carried out by 2 attendants (one each from the ED/ward and mortuary). Both attendants must wear appropriate personal protective equipment (N95, face shield, gloves and protective apron).
8. On arrival at the mortuary, the body must be immediately placed in a designated refrigerated body storage compartment.
9. Sampling for all suspected or probable COVID-19 cases shall be taken in Emergency Department or ward by respective team.

**(B) GUIDELINES FOR MANAGEMENT OF BROUGHT IN DEAD (BID) CASES DUE TO SUSPECTED OR PROBABLE COVID-19 INFECTION.**

1. Bodies of suspected or probable COVID-19 infection which are brought in dead shall be sent to the mortuary at the respective hospital.
2. The bodies must be placed in **2 layers body bag**.
  - 2.1. First layer : Place body in body bag. Its optional to wipe or spray the bag especially at and around the zipper with disinfectant 0.5% sodium hypochlorite.
  - 2.2. Second layer: Place body in body bag, then the body bag must be wiped or sprayed with disinfectant 0.5% sodium hypochlorite.
3. The receiving medical staff shall:
  - 3.1 Wear appropriate PPE.
  - 3.2 Obtain a police order (Polis 61) for post-mortem examination.
  - 3.3 Communicate/discuss the case with the forensic pathologist at the referral forensic centre to decide how to perform the post-mortem.
  - 3.4 Notify the case to the following **SIMULTANEOUSLY**:
    - 3.4.1. The National Crisis Preparedness and Response Centre.
    - 3.4.2 The respective State Health Department (JKN).
    - 3.4.3 The respective District Health Office (PKD).
4. Samplings for COVID-19 shall be taken in the Forensic Department. **PPE to be worn during sampling: scrub suit, N95 mask, face shield, long sleeve plastic apron, head cover and boots.**
5. The body will be kept in the Forensic Department Mortuary until the laboratory test on the body status of COVID-19 result arrived.

**(C) GUIDELINES FOR THE DISPOSAL OF DECEASED IN CASES DUE TO SUSPECTED/PROBABLE/CONFIRMED COVID-19 INFECTION**

1. It is recommended that bodies of suspected or probable COVID-19 infection (whether post mortem was done or not) shall be disposed of (burial or cremation) as soon as practicable.
2. All deaths of suspected / probable COVID-19 such as SARI or PUI cases, the body shall be prepared and managed as COVID-19 cases and sent to the Forensic Department until the result is available. If the body is confirmed COVID-19 positive, the following management below applies. If the result is COVID-19 negative the body shall be managed as any non-COVID-19 cases.
3. Religious body preparation must be conducted under supervision of the Environmental Health Officer.
4. Embalming must be avoided.
5. Confirmed COVID-19 Muslim body shall not be washed (*mandi mayat*). The procedure of *mandi mayat* shall be replaced by *tayammum* over the outermost body bag.
6. For confirmed COVID-19 non-muslim body, all bodies shall be disposed either by burial or cremation. If any ritual body preparation is to be conducted, the procedure shall be kept at minimum and done over the outermost body bag.
7. The release of the body to the relatives must be carried out with strict precautionary measures under the supervision of the Environmental Health Officer.
8. Relatives are prohibited from opening the sealed coffin/sealed body bag and the Environmental Health Officer must ensure this precaution is strictly adhered.
9. All suspected or probable infection with COVID-19 bodies are recommended to be taken for burial or cremation directly from the mortuary, preferably within the same day of the post-mortem examination.
10. Deaths occurring in private hospitals shall follow the same procedure as outlined above. The body to be released for burial/cremation from the Private Hospital.

**The Personal Protective Equipment (PPE) is the Protective Garments and the Respiratory Protection.**

**PROTECTIVE GARMENTS INCLUDE: -**

- Disposable Scrub suit or equivalent.
- Disposable waterproof Coverall / jump-suit with full feet cover.
- Knee length Boots.
- Disposable shoe covers.
- Impervious full-length sleeve disposable plastic apron.
- Cut-resistant gloves.
- Double gloves (with the outer layer is elbow length gloves) **ELBOW LENGTH GLOVES NOT REQUIRED IF LONG SLEEVE APRON IS WORN.**

**RESPIRATORY PROTECTION INCLUDE: -**

Full faced *Powered Air Purifying Respirators* (PAPR) with HEPA filter (A loose fitting type is recommended). This respirator consists of a hood or helmet, breathing tube, battery-operated blower, and HEPA filters. It meets the CDC guidelines.

## FORENSIC MEDICINE REFERRAL CENTER

Bil.	Hospital
1.	Hospital Kuala Lumpur
2.	Hospital Sultanah Bahiyah, Alor Setar, Kedah
3.	Hospital Pulau Pinang
4.	Hospital Raja Permaisuri Bainun, Ipoh, Perak
5.	Hospital Sungai Buloh, Selangor
6.	Hospital Serdang, Selangor
7.	Hospital Tengku Ampuan Rahimah, Klang, Selangor
8.	Hospital Seremban
9.	Hospital Melaka
10.	Hospital Sultan Ismail, Johor Bahru, Johor
11.	Hospital Sultanah Aminah, Johor Bahru, Johor
12.	Hospital Tengku Ampuan Afzan, Kuantan, Pahang
13.	Hospital Sultanah Nur Zahirah
14.	Hospital Raja Perempuan Zainab II, Kota Bharu, Kelantan
15.	Hospital Queen Elizabeth, Kota Kinabalu, Sabah
16.	Hospital Umum Sarawak, Kuching, Sarawak
17.	Hospital Miri, Sarawak

## **MANAGEMENT OF HEALTHCARE WORKER (HCW) DURING COVID-19 PANDEMIC**

### **General Considerations**

Healthcare workers should adhere to strict infection control procedures as per recommendations including the use of appropriate PPE.

Health-care workers who are providing care for confirmed COVID-19 or Patient Under Investigation (PUI) will be monitored daily by the OSH Unit or Safety and Health Committee of the healthcare facility. Healthcare workers monitored must be recorded in a database for contact tracing purpose. The format of the monitoring is as below.

Assessment and psychological of mental health first aid shall be conducted by the Mental Health and Psychosocial Support Team (such as counsellor).

### **Reporting**

All healthcare workers who are positive for COVID-19 must be reported to all these 3 reporting system:

1. Communicable Diseases Notification using the Communicable Diseases Notification Form Annex 7
2. Occupational Health Notification using WEHU L1/L2 form
3. Monitoring form for personnel exposed to COVID-19 at healthcare facility level and State Health Department level.



### Monitoring Form for Personnel Potentially Exposed To COVID-19

Name	:		
I/C number	:		
Telephone numbers	:	Mobile: .....	Home: .....
Job title	:		
Work location	:		
Date(s) of Exposure*	:		
Type of contact with patient with potential COVID-19 infection, with patient's environment or with virus / clinical specimen		:	

\* List ALL, use back of page if necessary

Was the following personal protective equipment (PPE) used during the encounter whereby the status of the respective patient is yet to be categorized confirmed for COVID-19?

Type of PPE	Yes	No	Don't Know
Gown			
Gloves			
Particulate respirator			
Medical mask			
Eye protection			
Other (please specify): .....			

List any possible non-occupational exposures (e.g. exposure to anyone with severe acute febrile respiratory illness, excluding the potential patient or the relevant clinical specimen):

.....

Daily Monitoring Table

Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
Date ...../...../ .....	Date ...../...../ .....	Date ...../...../ .....	Date ...../...../ .....	Date ...../...../ .....	Date ...../...../ .....	Date ...../...../ .....
AM Temp. (°C): ..... .....	AM Temp. (°C): ..... .....	AM Temp. (°C): ..... .....	AM Temp. (°C): ..... .....	AM Temp. (°C): ..... .....	AM Temp. (°C): ..... .....	AM Temp. (°C): ..... .....
PM Temp. (°C): ..... .....	PM Temp. (°C): ..... .....	PM Temp. (°C): ..... .....	PM Temp. (°C): ..... .....	PM Temp. (°C): ..... .....	PM Temp. (°C): ..... .....	PM Temp. (°C): ..... .....
ILI symptoms: No ( ) Yes ( )	ILI symptoms: No ( ) Yes ( )	ILI symptoms: No ( ) Yes ( )	ILI symptoms: No ( ) Yes ( )	ILI symptoms: No ( ) Yes ( )	ILI symptoms: No ( ) Yes ( )	ILI symptoms: No ( ) Yes ( )

Day 8	Day 9	Day 10	Day 11	Day 12	Day 13	Day 14
Date ...../...../ .....	Date ...../...../ .....	Date ...../...../ .....	Date ...../...../ .....	Date ...../...../ .....	Date ...../...../ .....	Date ...../...../ .....
AM Temp. (°C): ..... .....	AM Temp. (°C): ..... .....	AM Temp. (°C): ..... .....	AM Temp. (°C): ..... .....	AM Temp. (°C): ..... .....	AM Temp. (°C): ..... .....	AM Temp. (°C): ..... .....
PM Temp. (°C): ..... .....	PM Temp. (°C): ..... .....	PM Temp. (°C): ..... .....	PM Temp. (°C): ..... .....	PM Temp. (°C): ..... .....	PM Temp. (°C): ..... .....	PM Temp. (°C): ..... .....
ILI symptoms: No ( ) Yes ( )	ILI symptoms: No ( ) Yes ( )	ILI symptoms: No ( ) Yes ( )	ILI symptoms: No ( ) Yes ( )	ILI symptoms: No ( ) Yes ( )	ILI symptoms: No ( ) Yes ( )	ILI symptoms: No ( ) Yes ( )

**NOTE:**

- The influenza-like illness (ILI) symptoms include fever ( $\geq 38^{\circ}\text{C}$ ), cough, sore throat, arthralgia, myalgia, prostration and gastrointestinal symptoms (e.g. diarrhoea, vomiting, abdominal pain).
- The number of days needs to be increased if the personnel have repeated encounters / exposures to the respective patient.

**NOTIFICATION OF OCCUPATIONAL LUNG DISEASE**

**WEHU - LI  
(JKKP 7)**

Send to:  
Pengarah Kesihatan Negeri  
Jabatan Kesihatan Negeri \_\_\_\_\_

**Part A - Notifier**  
(Regulation 7(2) Registered Medical Practitioner)

Name \_\_\_\_\_

Designation \_\_\_\_\_

Address of clinic / hospital \_\_\_\_\_

Contact no. \_\_\_\_\_

**Part B - Affected person**

Name \_\_\_\_\_

Date of Birth \_\_\_\_\_ New IC/ Passport no. \_\_\_\_\_  
DD MM YY

Nationality \_\_\_\_\_ Gender  Male  Female

Ethnic Group \_\_\_\_\_ Occupation \_\_\_\_\_

Name and address of organization \_\_\_\_\_

District \_\_\_\_\_ State \_\_\_\_\_

Location of incident \_\_\_\_\_

**Part C - Occupational Lung Disease**

Date of diagnosis \_\_\_\_\_  
DD MM YY

Diagnosis/ Provisional diagnosis \_\_\_\_\_

**Part D**

a) What kind of work did the patient do which may be associated with the disease?  
(Describe the work activities)

b) What was the hazard or agent been exposed to the patient?

c) How long had the patient been exposed to the hazard or agent?

d) How long had the patient been experiencing the symptoms?

Signature of Notifier \_\_\_\_\_

Date \_\_\_\_\_

Name and address of attending doctor (Official Stamp)

\_\_\_\_\_







**RISK ASSESSMENT AND MANAGEMENT OF HEALTHCARE WORKER (HCW)  
WITH POTENTIAL EXPOSURE IN A HEALTHCARE SETTING TO PATIENTS  
WITH COVID-19**

It is important that the HCW should not attend a healthcare setting if there is a risk that they could spread COVID-19.

HCW involves in providing care to patient with confirmed COVID-19 should:

- not be having uncontrolled medical comorbidities / immunocompromised state
- not be pregnant

**A. Health care workers (HCW) with relevant international travel history**

HCW who intend to travel or have returned from affected countries, should declare to respective head of department/unit promptly.

HCWs are advised to reconsider their non-essential international travel plan during the interim period.

<b>Asymptomatic HCW with exposure within the past 14 days</b>	<b>Actions</b>
Travelled to affected countries within the last 14 days	<ul style="list-style-type: none"> <li>• HCW to inform OSH and respective head of department/unit</li> <li>• 1 sample of nasopharyngeal and oropharyngeal for RT-PCR shall be taken</li> <li>• OSH to provide home assessment tool</li> <li>• HCW shall be on home surveillance order for 72 hours pending result</li> <li>• HCW will update daily health status to OSH and respective head of department/unit</li> <li>• HCW will be referred and investigated further if he/she develop symptoms suggestive of COVID-19</li> <li>• Symptomatic HCW will be reviewed as per assessment of PUI</li> </ul>
<p><b>Return to work :</b></p> <p><b>If first swab sample is negative</b></p> <p><b>Refer to (E) Return to Work Practices and Work Restrictions</b></p>	

**B. Asymptomatic HCW with household contact who are being investigated as PUI for COVID-19**

For asymptomatic HCW who has a household member being investigated as PUI for COVID-19, the HCW should inform supervisor immediately and be excluded from work until first PCR result of the PUI is available. If the PCR result is negative, the HCW can return to work immediately.

**C. Management of HCW who were exposed to patient with confirmed COVID-19**

When assigning risk, factors to consider include:

- I. the duration of exposure (e.g., longer exposure time likely increases exposure risk)
- II. clinical symptoms of the patient (e.g., coughing likely increases exposure risk)
- III. whether the patient was wearing a facemask (which can efficiently block respiratory secretions from contaminating others and the environment)
- IV. whether an aerosol generating procedure was performed
- V. the type of PPE used by HCW

Psychological support and assistance are to be consider for HCW when needs arises.

**Exposure Risk Assessment**

<b>Category of risk exposure</b>	<b>Circumstances</b>
<b><i>High-risk exposures</i></b>	<ul style="list-style-type: none"><li>• HCW who performed or were present in the room for procedures that generate aerosols or during which respiratory secretions are likely to be poorly controlled* on patients with COVID-19 <b>AND</b></li><li>• when the healthcare providers' eyes, nose, or mouth were not protected.</li></ul>
<b><i>Medium-risk exposures</i></b>	<ul style="list-style-type: none"><li>• HCW who had prolonged close contact with a confirmed COVID-19 case, <b>AND</b></li><li>• where HCW mucous membranes or hands were exposed to potentially infectious materials for COVID-19</li></ul>



Category of risk exposure	Circumstances
<b>Low-risk exposures</b>	<ul style="list-style-type: none"> <li>Any inconsistencies in adherence to PPE while in close contact with a confirmed COVID-19 case</li> </ul>
<b>No identifiable risk</b>	<ul style="list-style-type: none"> <li>HCW without direct close contact with a confirmed COVID-19 case</li> <li>No entry into active patient's area</li> <li>HCW who adhere to recommended PPE</li> </ul>

*\*cardiopulmonary resuscitation, intubation, NIV, extubation, bronchoscopy, nebulizer therapy, sputum induction*

## **1. Management of HCW with high-risk exposures**

### **1.1. Symptomatic**

Exclude from work for at least 7 days with MC, home surveillance order and home assessment tool. Allow return to work once:

- at least 72 hours have passed since recovery defined as resolution of fever and improvement in respiratory symptoms (e.g., cough, shortness of breath), **AND**
- negative PCR for at least two consecutive nasopharyngeal (NP) and oropharyngeal(OP) swab specimens collected 48 hours apart

### **1.2. Asymptomatic**

Exclude from work for at least 1 week with home surveillance order and home assessment tool. Allow return to work once:

- Negative PCR for at least two consecutive NP and OP swab specimens collected 48 hours apart. Based on the data available on serial interval of the disease it is recommended to start the swab from day 3 after exposure.

## **2. Management of HCW with medium and low-risk exposures**

### **2.1 Symptomatic**

Exclude from work with MC for 3 days, home surveillance order and home assessment tool until:

- Negative PCR for at least two consecutive NP and OP swab specimens collected 48 hours apart,  
**AND**
- Resolution of fever and improvement in respiratory symptoms (e.g., cough, shortness of breath)

## **2.2 Asymptomatic**

Exclude from work with home surveillance order until:

- Negative PCR for at least two consecutive NP and OP swab specimens collected 48 hours apart. Based on the data available on serial interval of the disease it is recommended to start the swab from day 3 after exposure.

## **3. Management of HCW with no identifiable risk**

HCW in the no identifiable risk category do not require testing, monitoring or restriction from work.

### **D. Crisis Strategies to Mitigate Staffing Shortages**

In the event of staffing shortages the relevant authorities might determine that the recommended approaches cannot be followed. In such scenarios:

- i HCW should be evaluated by OSH officer to determine appropriateness of earlier return to work than recommended above. In hospitals or wards dealing with immunocompromised hosts such as cancer patients, patients on chemotherapy this has to be discussed with hospital director and relevant clinical discipline.
- ii However, if the HCW return to work earlier, they should still adhere to the **Return to Work Practices and Work Restrictions** recommendations.

### **E. Return to Work Practices and Work Restrictions**

HCW shall be allowed to return to work, however the following guideline should be adhered:

- i HCW must strictly wear a surgical mask at all time while in the healthcare facility until all symptoms are completely resolved or until 14 days after illness onset, whichever is longer
- ii HCW should adhere to hand hygiene, respiratory hygiene, and cough etiquette
- iii HCW shall be restricted from participating in the care of immunocompromised patients until 14 days after the last exposure or from illness onset.
- iv Strictly daily monitoring of temperature and respiratory symptoms by OSH Officer\*

- v If HCW develop new onset of symptoms (even mild) or worsening of symptoms and consistent with COVID-19, they must immediately stop patient care activities and notify their supervisor or OSH officer prior to leaving work.

*\*OSH assumes responsibility for establishing regular communication at least daily with potentially exposed people to assess for the presence of fever or respiratory symptoms (e.g., cough, shortness of breath, sore throat).*

*Adapted from Criteria for Return to Work for Healthcare Personnel with Confirmed or Suspected COVID-19 (Interim Guidance) US CDC, 16<sup>th</sup> March 2020*

# **GUIDELINES ON MANAGEMENT OF CORONA VIRUS DISEASE 2019 (COVID-19) IN SURGERY**

## **A. SCREENING**

This is based on MOH recommendations of screening for COVID-19 which is generic across all disciplines

### **a. How to screen (refer Annex 1)**

Ask 3 questions to all patients

- Do you have any fever or acute respiratory infection (sudden onset of respiratory infection with at least one of: shortness of breath, cough or sore throat)?
- Do you have any history of travelling to or residing in affected countries in the past 14 days?
- Do you have any contact with a confirmed COVID-19 case within the past 14days?

### **b. Where to screen**

All possible entry points

- i. Clinic
- ii. Patient Admission Centre

### **c. Who to screen?**

Every patient

### **d. If tested positive**

Kindly refer to the ID team as per MOH protocol

## **B. INFORMATION FOR SURGICAL UNITS**

### **a. SurgicalTeam**

Each Surgical unit should ideally have a core team to manage COVID-19 and the team should comprise of at least:

- One Specialist
- Two Medical Officers
- Two Staff Nurses

This identified team should be on standby for all suspected patients and should ideally be optimally trained in handling the personal protective equipment (PPE), sample-taking and packaging apart from the management COVID-19 patients.

## **b. Universal precautions**

- i. The number of staffs managing a suspected or confirmed patient should be kept to a minimum
- ii. These patients should wear a properly fitted N95 mask
- iii. If a patient is in distress, the medical personnel should be able to provide care but would have to wear PPE during treatment as long as they are in contact with the person
- iv. In cases requiring surgical intervention, a Medical Officer or a specialist should be involved and all staffs must use PPE
- v. It is of good clinical practice to treat the body fluids, tissues, mask and other apparatus in contact with the patient as having potential biohazard and should be disposed as per current available recommendations (as for RVD patients)
- vi. The operating theatre should be cleaned as per biohazard based on current available protocols.

<b>Steps to wear PPE</b>	<b>Steps to remove PPE</b>
Handrub	Remove gloves
Wear N95 mask (Should be fit checked)	Hand rub and hygiene
Wear face shield / goggle	Remove gown
Wear disposable gown (Ensure back is covered)	Hand rub and hygiene
Wear double gloves	Remove mask
	Hand rub and hygiene

## **c. Transfer and documentation**

- i. Any suspect patient under investigation (PUI) must first be given a mask.
- ii. All staffs managing a suspected or confirmed patient should wear PPE and these patients should be transferred based on the identified pathway.
- iii. The staffs involved in the screening and investigations performed should clearly be documented as per MOH standards.
- iv. It is important to shield patients and minimize exposure to others wards to avoid lockdown.

**d. Designated suite for suspected and confirmed patients**

- i. All Surgical units should have a fully equipped and a designated site within a specific ward for the management of patients with COVID-19. *\*Although a negative pressure environment is ideal for management of such patients, this should be reserved for those confirmed to be infected.*
- ii. The location of such wards should ideally be nearest to the point of entry which is either at the patient admission centre or the isolation ward but this should depend on the resources of the individual hospitals.
- iii. Each Surgical unit is recommended to have their own management pathways based on their own logistics and resources.

**e. Dedicated operation theatre**

- i. All tertiary hospitals should have a dedicated operating theatre for patients suspected with COVID-19. This theatre should ideally be fully equipped and although negative pressure ventilation is recommended, it is more essential for patients requiring general anaesthesia and hence this will depend on the resources and each individual hospital. Most operation theatres have its own air handling units.
- ii. The location of this theatre should ideally be easily accessible from the point of contact but this once again should depend on the individual logistics and resources of each hospital. The benefits of having this theatre nearby to the point of entry will also facilitate emergency surgery if required.

#### **f. Family and Visitors**

- i. If the patients are suspected or confirmed to have coronavirus, there should be minimal risk of exposure to others and hence the exposure to family in such exceptional circumstances are minimized.

#### **g. Elective surgeries**

- i. All elective surgeries should be postponed as to divert our available resources for those suspected or confirmed to have COVID-19.

### **C. EMERGENCY SURGERY**

#### **a. The evidence on how best to manage a surgical patient is still limited**

#### **b. Minimizing exposure to staff**

There commended number of staff to manage these patients during surgery is 6:

- One Specialist
- One Medical Officer
- One Anaesthetist
- One Anaesthetist Medical Officer
- One Scrub Nurse
- One Circulating Nurse

#### **c. Anaesthesia**

- i. If a patient requires a surgical intervention, regional anaesthesia is highly recommended as this will be a safer option as compared to general anaesthesia.
- ii. However, if the only possible option is general anaesthesia, this should ideally be performed in a negative pressure setting with the routine biohazard measures implemented during and post procedure. The patient can then be transferred via a portable ventilator. This however should be based on the individual logistics of each hospital.
- iii. Intubation and extubation should be done wearing full PPE which include PAPR or its equivalent (N95 well fitted and face shield / goggle) when PAPR is not available.
- iv. The extubation of such patients should also be done in a negative pressure setting as to minimize the risk of aerosol transmission.
- v. Post-operatively, these patients should be managed in the isolation ward as per protocol. Consider thrombo-prophylaxis throughout the hospital stay.

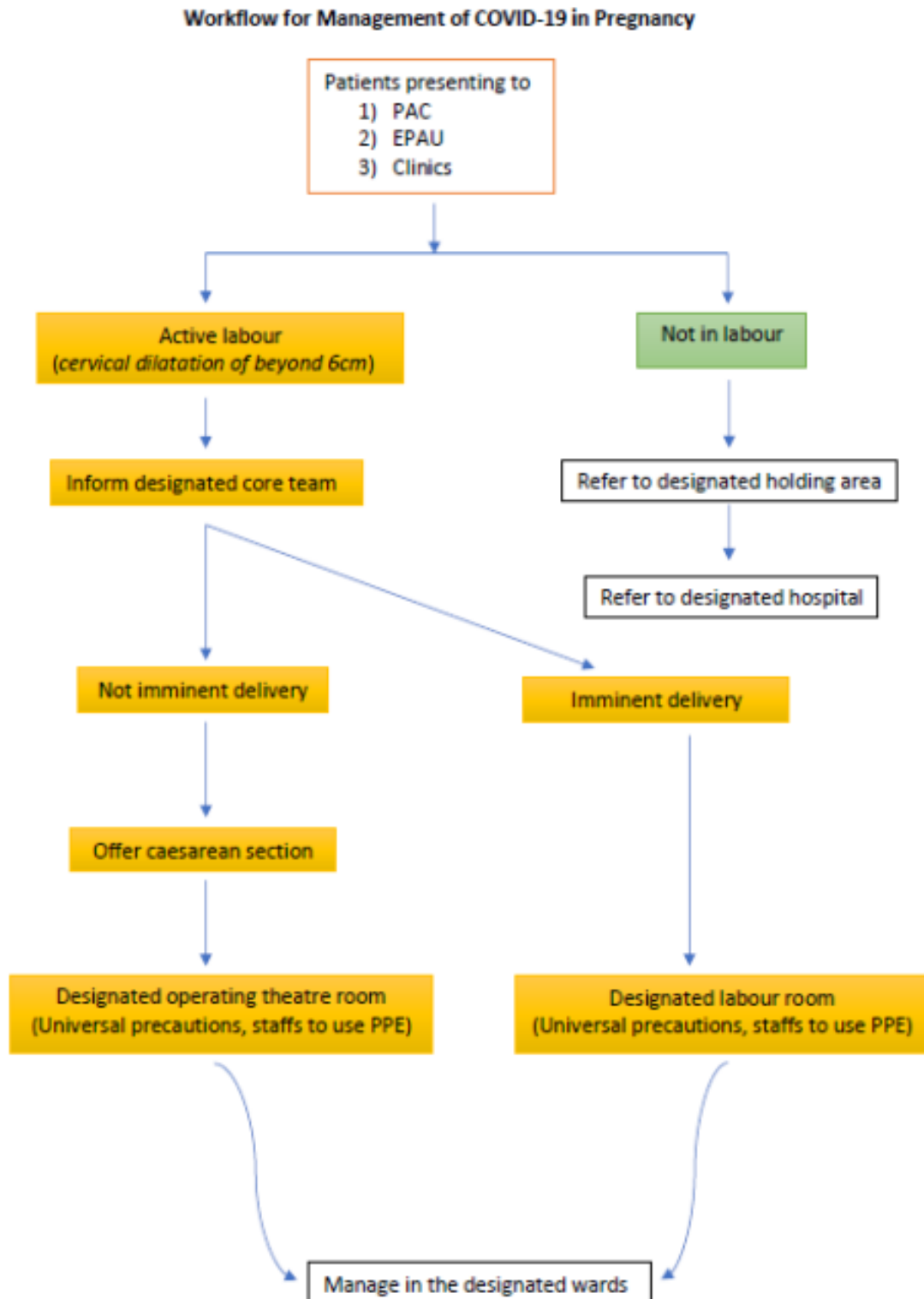
## GUIDELINE ON MANAGEMENT OF CORONAVIRUS DISEASE 2019 (COVID-19) IN PREGNANCY

### Key Recommendations

- 1) **All frontline O&G staffs should be trained** in “donning and doffing” of PPE which should be used at all times. This training initiative should be extended to the **concessionaire workers** as well.
- 2) Screening of PUI should be done as **per MOH guidelines**
- 3) All designated O&G hospitals should establish a dedicated **core team who are** responsible for the management of COVID-19 in pregnancy.
- 4) **Mother and baby friendly policies** for PUI at designated hospitals are **suspended** to reduce the risk of exposure.
- 5) Designated hospitals should have an **identified labour room (preferable negative pressure ventilation)** to manage PUI and confirmed patients. Designated hospitals should also have an **identified operating theatre** to manage PUI.
- 6) **Non-designated hospitals** should identify a **specific labour suite and operating theatre** to manage PUI who presents with **imminent delivery**. Pathways should be developed based on individual logistics and resources.
- 7) In the event of requiring a surgical intervention, **regional anaesthesia** is preferred. If **general anaesthesia** is required, induction and reversal should preferably be done in **negative pressure room**.
- 8) Patients in labour should be offered a **caesarean section as mode of delivery** until more evidence on safety of vaginal deliveries is established.
- 9) Handling of bodily fluids, specimens including **placentas and patient apparels** should be handled based on standard **universal precautions**.
- 10) **Breastfeeding** should ideally be **deferred until confirmatory diagnosis** excludes COVID-19 infection in the mother.



## Workflow for Management of COVID-19 in Pregnancy



## A. SCREENING

This is based on MOH recommendations of screening for Coronavirus which is generic across all disciplines

### a) How to screen (refer Annex 1)

Ask 3 questions to all patients

- i. Do you have any fever or acute respiratory infection (sudden onset of respiratory infection with at least one of: shortness of breath, cough or sore throat)?
- ii. Do you have any history of travelling to or residing in affected countries in the past 14 days?
- iii. Do you have any contact with a confirmed COVID-19 case within the past 14 days?

### b) Where to screen

At all possible entry points

- i. O&G Clinic
- ii. Patient Admission Centre (PAC)
- iii. Early Pregnancy Assessment Unit (EPAU)

### c) Who to screen?

Every patient

### d) If tested positive

Kindly refer to the ID team as per MOH protocol

## B. INFORMATION FOR O&G UNITS

### a) O&G Team

- i. Each O&G unit should establish have a core team to manage PUI and the team should comprise of at least
  - Two O&G Specialist
  - Two O&G Registrars
  - Two Midwives
- ii. This identified team should be on-standby for all suspected patients and should be optimally trained in management of COVID-19 patients apart from handling the personal protective equipment (PPE).

- iii. Training on “donning and doffing” of PPE is compulsory and they should also manage specimen collections and exercise universal precautions at all times.

#### **b) Universal precautions**

- i. The number of staffs managing a PUI should be kept to minimum.
- ii. The PUI should wear an appropriate mask (3-ply face mask) at all times.
- iii. The intrapartum management of PUI should be by the core team, both incorporating vaginal or caesarean deliveries.
- iv. Despite no evidence of vertical transmission, it is good clinical practice to treat the body fluids, tissues (placenta) and apparels as potentially biohazards.
- v. The labour suite and the operating theatre should be cleaned based on universal recommendations following a biohazard exposure.

<b>Steps to wear PPE</b>	<b>Steps to remove PPE</b>
Hand rub	Remove gloves
Wear N95 mask (Should be fit checked)	Hand rub and hygiene
Wear face shield / goggle	Remove gown
Wear disposable gown (Ensure back is covered)	Hand rub and hygiene
Wear double gloves	Remove mask
	Hand rub and hygiene

#### **c) Transfer and documentation**

- i. All PUI must first be given a 3-ply face mask to use at all times.
- ii. All staffs managing a PUI should wear a complete PPE and these patients should be transferred to the holding area (via passage of minimal exposure) where appropriate screening and investigations can be performed.
- iii. It is important to minimize exposure for patients and health care workers.
- iv. Documentation of all health care workers involved in managing PUI is essential.

#### **d) Designated labour suite**

- i. The location of such labour suites should ideally be nearest to the point of entry which is either at the Patient Admission Centre or the

isolation ward but this should depend on the resources of the individual hospitals.

- ii. Each O&G unit is recommended to have their own logistics based on their own resources.
- iii. Labour rooms should preferably have negative pressure ventilation.
- iv. Disposable equipments are preferred. Cleansing of the labour room should adhere to biohazard decontamination protocols.

**e) Non-designated labour suites**

- i. All non-designated O&G units should be prepared to manage PUI who presents in imminent labour.
- ii. A core team should be identified and the delivery should be conducted by HCW with PPE.
- iii. The location of this labour suite should ideally be located nearby the Patient Admission Centre or at a location with minimal exposure to other patients.
- iv. Each unit should ideally have their own written protocols in the event of having such patients presenting with imminent delivery.
- v. Post-delivery, the patient and the baby should be transferred to the designated admitting hospital.
- vi. Cleansing of the labour room should adhere to the biohazard decontamination protocol.

**f) Designated operation theatre**

- i. All tertiary hospitals should have a dedicated operating theatre for patients suspected with COVID-19.
- ii. This theatre should ideally be fully equipped and although a negative pressure ventilation is recommended, it is more essential for patients requiring general anaesthesia and hence this will depend on the resources and each individual hospital.
- iii. Most operation theatres have its own air handling units.
- iv. The location of this theatre should ideally be easily accessible from the point of contact but this should depend on the individual logistics and resources of each hospital.
- v. The benefits of having this theatre nearby to the point of entry will also facilitate crash caesarean sections if required.

**g) Non-designated operating theatre**

- i. Non-designated O&G hospitals should also have contingency plans in place to manage PUI who presents in active labour and requires a caesarean section.

- ii. A specific theatre with defined pathways should be created based on the local logistics to facilitate PUI requiring unscheduled surgical interventions

**h) Husband and baby friendly policies to be suspended for PUI**

- i. For PUI or confirmed patients, there should be minimal risk of exposure to others
- ii. Husband and baby friendly policies are suspended for these patients.

**i) Elective surgeries**

- i. Elective surgeries will be suspended if the COVID-19 situation warrants it.
- ii. If the patient is suspected to have COVID-19 and is due for an elective surgery, it is recommended that such procedures be deferred for at least 14 days.
- iii. This is applicable for full paying patients and day care surgeries as well.

**C. INTRAPARTUM MANAGEMENT OF PATIENTS SUSPECTED OR CONFIRMED TO HAVE COVID-19**

**a) Mode of delivery**

- i. The evidence on how best to manage a pregnant mother is still limited.  
*(The only available evidence with regards to intrapartum care comes from the recent Lancet paper of 9 patients where all of them had a caesarean section. This paper showed no evidence of vertical transmission)*
- ii. There are also concerns of prolonged exposure of staff during the entire intrapartum period and the risk of aerosol exposure is significant, especially in the second stage of labour when the patient strains or pushes.
- iii. Hence, in view of the above concerns coupled by the fact that almost all centres do not have negative pressure equipped labour suite, PUI should be offered a caesarean section as a mode of delivery unless delivery is imminent. This is at least until we have more concrete evidence with regards to the intrapartum management of patients with COVID-19.
- iv. If a PUI refuses a caesarean section despite counseling, the refusal

of treatment forms should be filled and this should be documented in the clinical notes.

**b) Foetal monitoring**

- i. The monitoring of such patients should follow standard obstetric care and most do not require continuous CTG monitoring.

**c) Analgesia**

- i. The use of Entonox is not to be used for PUI.
- ii. Other modalities of analgesia are not contraindicated.

**d) Anaesthesia**

- i. If a patient requires a surgical intervention, regional anaesthesia is highly recommended as this will be a safer option as compared to general anaesthesia.
- ii. However, if the only possible option is general anaesthesia, this should ideally be performed in a negative pressure setting with the routine biohazard measures implemented during and post procedure. The patient can then be transferred via a portable ventilator. This however should be based on the individual logistics of each hospital.
- iii. The extubation of such patients should also be done in a negative pressure setting as to minimize the risk of aerosol transmission.

**e) Vaccinations**

- i. No contraindications for routine neonatal vaccinations.

**f) Postnatal care**

- i. Following delivery, the PUI should be transferred to the dedicated wards for monitoring as per MOH guidelines.

**g) Minimizing exposure to staff**

- i. The management of PUI should be by the core team but the number of staffs should be kept to a minimum.
- ii. The recommended number of staffs during an imminent vaginal delivery are two midwives who are part of the core team.
- iii. The recommended number of staff to manage a patient during caesarean section is seven:
  - One Obstetrician

- One Assistant
  - One Anaesthetist
  - One GA Nurse
  - One Scrub Nurse
  - One Circulating Nurse
  - One Floating Nurse
- iv. Additional staff may be required, for example the paediatric team for resuscitation of baby.
- v. Routine neonatal examination and care can be performed outside the operating theatre to minimize exposure unless the neonate warrants urgent resuscitation.

#### h) Concessionaire workers

- i. The concessionaire workers should also be trained on appropriate “donning and doffing” of PPE as they may also be exposed to PUI.

### D. SCREENING QUESTIONNAIRE

#### History taking / 病历

Bil.	Questions
1.	Date of departure 出航日期
2.	Place of departure 出发地点
3.	Date of arrival to Malaysia 抵达马来西亚日期
4.	Airline / Flight number 航空公司/ 航班号码
5.	Flight transit
6.	Duration of visit in China
7.	Purpose of visit in China
8.	Date of onset of symptoms 症状发作日期
9.	<b>Fever?</b> Yes / No

	发烧？	有 / 没有 How many days? _____ 天
10.	<b>Cough?</b> 咳嗽？	Yes / No 有 / 没有 How many days? _____ 天
	Any phlegm? 有痰液？	Yes / No 有 / 没有
	Colour of phlegm? 痰液的颜色？	White / yellow / green 白 / 黄 / 青色？
	Blood stain in phlegm? 痰液里有血迹？	Yes / No 有 / 没有
11.	<b>Difficulty breathing?</b> 呼吸困难 / 气喘？	Yes / No 有 / 没有 On movement or at rest? 走动时 / 休息时？
	12.	<b>Chest pain?</b> 胸口痛？ Left / Right / Central 左边 / 右边 / 正中？ On movement or at rest? 走动时 / 休息时？
13.	<b>Vomiting?</b> 呕吐？	Yes / No 有 / 没有 How many days? _____ 天 How many times per day? 一天_____次？
	Any blood stains? 呕吐里有血迹？	Yes / No 有 / 没有
	14.	Other symptoms

## E. EQUIPMENTS

### a) Equipment list for vaginal deliveries

BIL	LIST	QUANTITY	DISPOSABLE	REUSEABLE
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1.	VE SET		√	
2.	AMNIOTIC HOOK	1	√	
3.	BABY TOILET	1	√	
4.	DELIVERY FORCEPS:			√
5.	ARTERY FORCEPS	2		√
6.	SPONGE FORCEP	1		√
7.	EPISIOTOMY SCISSORS	1	√	
8.	CORD SCISSORS	1	√	
9.	DELIVERY SETS		√	
10.	CORD CLAMP		√	
	EPISIOTOMY SET:		√	
11.	STITCH SCISSORS		√	
12.	NEEDLE HOLDER			√
13.	DISSECTING FORCEPS - TOOTH			√
14.	DISSECTING FORCEPS - NON-TOOTH		√	
15.	SPONGE HOLDER	1		√
16.	TRAY		√	

## b) Equipment list for caesarean sections

BIL	LIST	QUANTITY	DISPOSABLE	REUSEABLE
1.	LSCS SET	1		√
2.	WRIGGLEY'S FROCEPS	1		√
3.	GA STERILE GOWN	2	√	
4.	REINFORCE GOWN	4	√	
5.	3 METRE CONNECTING TUBBING	2	√	
6.	YAUNKER SUCKER	3	√	
7.	CORD CLAMP		√	
	GA SET:			√
8.	CLEANING SET (USE DRESSING SET)	1	√	
9.	ETT TUBE		√	
10.	LARYNGOSCOPE (SHORT BLADE & LONG BLADE)	1	√	
11.	LARYNGOSCOPE (SHORT & LONG HANDLE)	1	√	
12.	ISLAND DRESSING	1	√	
13.	KIDNEY DISH	1	√	

## WORKFLOW AND WORK PROCESS FOR RADIOLOGICAL EXAMINATION DURING COVID-19 OUTBREAK

### 1. Mobile X-ray

- Request made manually or online
- The ward staff shall call and inform the radiology personnel of the examination to be performed.
- An appropriate time is determined for the examination to be carried out.

#### 1.1.Registration

All request for radiological exam shall be pre-registered prior to receiving the patient.

#### 1.2.The Radiographer

- The radiographer has to abide by the precautions given in the Infection Prevention and Control measures (**Annex 8**) on the necessary steps to limit COVID-19 transmission.
- Recommended to have just a core number of radiographers trained for this exercise.

#### 1.3.Lead gown

- Clean on both sides (front and back).
- Lead gown to be worn before the radiographers donned the PPE for infection control.

#### 1.4.Mobile x-ray Machine

- Clean the mobile x-ray machine especially the wheels.
- Drape the machine with plastic wrap if available. Alternatively, use non-alcohol germicidal disposable wipes when resources are low.

#### 1.5.X-Ray cassettes

- Clean on both sides (front and back)
- Placed in two layers of disposable plastic bags.

#### 1.6.Anatomical Markers

- Clean on both sides
- Places in two layers of disposable biohazard plastic bags.

#### 1.7.Performing the examination

The radiographer shall be assisted by a ward staff namely a nurse in:

- opening of doors to the cubicles if patient is in cubicle/room

- positioning the patient for the x-ray examination

### **1.8. Post X-Ray exposure**

The radiographers shall be assisted by a ward staff in: -

- Removal of the imaging cassette from under the patient
- Removal of the imaging cassette from the contaminated plastic bags. (*These bags are disposed in the yellow clinical waste bin*)
- Opening of the doors of the cubicle/room if patient is in the cubicle/room.
- This is followed by decontamination of the mobile X-ray machine and the radiographers as per recommendation.

## **2. Mobile Ultrasound**

The hospital authorities shall assign one machine for mobile ultrasound examination purposes.

- The cleaning of the ultrasound machine before and after the procedure and the draping is similar to that of the mobile x-ray machine.
- The ultrasound probes must be cleaned and properly covered with disposable probe covers.
- Alternatively, when resources are low disposable sterile gloves and sterile green paper can be used to cover the probes and wrap the cables.

### **2.1.Assistance**

The Radiologist performing shall be assisted in a similar manner as the radiographer performing the Mobile X-Ray.

### **2.2.PPE**

The radiologist shall take all necessary infection control precaution in accordance to Infection Prevention and Control measures.

## **3. Special Examinations**

The case needs to be discussed with the Radiologist in charge of the modality.

### **3.1.Scheduling**

Cases requiring special examination shall be scheduled at a later part of day preferably after completion of elective list

#### **4. Workflow to the Radiology Department/ Unit**

- Wherever possible, access through a separate entrance.
- The ward staff has to wait for the call from radiology staff before sending the patient in order to minimize contact time in Imaging Department.
- The case shall be pre-registered before being called.
- The hospital authorities to recommend the flow of the patient from the ward to the Radiology Department.
- The security guards may be involved to manage the patient flow.
- The radiology personnel shall take all necessary infection control precaution in accordance to Infection Prevention and Control measures.
- The radiology personnel in charge of modality (CT/MRI/IR) shall allow adequate “time off” for disinfection of equipment in between the case.

## **COVID-19: MANAGEMENT GUIDELINES FOR WORKPLACES**

COVID-19 is a respiratory infection caused by a new corona virus first discovered in Hubei Province, China and deemed by the World Health Organization (WHO) to be a Public Health Emergency of International Concern. In view of this, many of your employees may have concerns regarding their potential for exposure to the flu at work and the steps you are taking to ensure their well-being. The Ministry of Health would like to recommend that employers and industry take the following steps:

### **(A) Acquire an understanding of COVID-19 to plan and act accordingly**

#### **Symptoms:**

Common symptoms include fever, dry cough and tiredness. Other symptoms include aches and pains, nasal congestion, runny nose, sore throat or diarrhoea.

1 in 6 people infected may become seriously ill and develop difficulty breathing.

#### **Transmission:**

Droplets from someone with COVID-19 who coughs or sneezes within a distance of 1 meter

Droplet contaminated surfaces and objects: by touching contaminated surfaces or objects and then touching their eyes, nose or mouth

#### **Incubation Period**

Incubation period is currently estimated to range between 1-14 days

**Vulnerable Employees:**

- Older persons
- Those with pre-existing medical conditions e.g. high blood pressure, heart disease, lung diseases, cancer or diabetes

**(B) All parties in any organization should take appropriate steps to ensure maximum protection of staffs and business.**

I. Action by Employers

a) Communicate to employees about COVID-19;

- i. Advise employees on preventive methods; including personal hygiene and respiratory etiquette. Refer Appendix 1.
- ii. Remind employees of the need to practice hand hygiene regularly e.g. via e mail, social media, gamification etc. Refer Appendix 2.
- iii. Provide regular updates on COVID-19 to employees
- iv. How to Use Surgical Masks refer Appendix 3
- v. Provide appropriate health education materials regarding COVID-19 to all employees

b) Instruct supervisors to monitor symptoms of employees at workplace

c) Encourage employees to take temperature regularly and monitor for respiratory symptoms

d) Consider obtaining travel declaration from employees on travel history.

e) If employee develops symptoms;

i. If at home:

- Wear a surgical mask and seek medical attention at the nearest health facility immediately.
- Avoid contact with family members
- Accompanying person should also wear a surgical mask.

ii. If at workplace:

- Relieve staff members from work if they are sick
- Wear a surgical mask and seek medical attention at the nearest health facility immediately
- Avoid contact with fellow employees
- Accompanying person should also wear a surgical mask

- f) Conduct mental health assessment among employees and carry out appropriate measures to reduce stress among employees.
- g) Monitor sick leave and absenteeism among employees. Keep a record of staff sick leave including reasons for leave, duration of leave and current status.

II. Action by Employees

- a. Always maintain good personal hygiene;
- i. Frequent hand washing with soap and water or hand sanitizer
  - ii. Practice respiratory etiquette
- b. Employees are encouraged to take their meals at their desk
- c. Limit food handling and sharing of food in the workplace
- d. Keep updated on COVID-19
- e. If develop symptoms;
- i. Need to alert supervisor immediately
  - ii. Wear surgical mask
  - iii. Seek medical treatment immediately
  - iv. Avoid contact with fellow employees

III. Action at the Workplace

- a. Ensure a clean and hygienic work environment through regular disinfection of the office and its equipment. Disinfection procedures: Refer Appendix 4.



- b. Consider a no handshaking policy
- c. Enforce hand sanitization at entrance for visitors
- d. Provide easy access to frequent hand washing for employees
- e. Proper maintenance of toilet facilities and floor drains.
- f. Provision of lidded rubbish bin, regular refuse disposal and adequate supply of liquid soap and disposable towels.
- g. Plan for contingency measures in case there are limited human resources e.g. working from home for those on home surveillance, mobilization of employees etc. This is also to avoid stress to employees who have to work during a period of human resource deficiency.
- h. Consider alternate communication methods e.g. virtual meetings in place of face to face meetings, group chats etc.
- i. Consider deferring large meetings or events
- j. Consider having meetings outside in open air if possible
- k. In case of indoor meetings or events, ensure all precautions are taken:
  - i. Informing participants not to attend if they are unwell and to join the meeting using a virtual platform
  - ii. Ensuring all relevant information is given to the participants such as the practice of hand hygiene and the use of surgical masks for those who develop respiratory symptoms
  - iii. Providing:
    - Hand sanitizers where necessary or ensuring availability of soap and water
    - Surgical masks and tissues for those who develop respiratory symptoms
  - iv. Consider opening windows for natural lighting and better ventilation
  - v. Monitor participants daily and provide support for isolating those with symptoms and transporting them to a health facility.

- vi. Keep in touch with participant on their health status after seeing the doctor.
  - vii. Keep contact details of all participants and organizers in case there is a need to contact them. Records should be kept for at least one month for the date of completion of the event.
  - viii. If any of the participants become positive, organizers are to assist the Ministry of Health who will carry out measures such as contact tracing and placing of close contacts under Home Surveillance.
- h) In the setting of public transport e.g. taxis, ride-hail services, trains and buses, drivers should ensure the following measures;
- i. Frequent hand washing using soap and water, or hand sanitizer and practice respiratory etiquette at all times.
  - ii. Wear mask and seek medical attention if develop symptoms
  - iii. Ensure passengers to wear mask if they have symptoms.
  - iv. Regularly disinfect the interior of the vehicle after alighting passengers or after each trip.
- i) Keep all employees informed of the latest developments in COVID-19

#### IV. Travel Considerations for the workplace

- a. Before traveling:
- i. Make sure your organization and its employees have the latest advisory on traveling from MOH
  - ii. Based on the latest information, your organization should assess the benefits and risks related to upcoming travel plans.
  - iii. Ensure employees travelling are not of high risk to develop COVID-19
  - iv. Consider issuing employees who are about to travel with small bottles hand rub. This can facilitate regular hand-washing.

- v. Consider providing employees with face mask in case there is a need to use it
- b. While traveling:
- i. Always bring along surgical mask and sanitizer for use when required
  - ii. Avoid crowded places and closed contact with people showing symptoms
  - iii. Avoid visiting animal farms, market, selling live animals, slaughterhouses or touching any animal
  - iv. Avoid eating raw or undercooked meat
  - v. Seek prompt medical treatment if developing symptoms
- c. When employees return from traveling:
- i. Observe home surveillance if necessary as per MOH advise
  - ii. Immediately seek medical attention if you have symptoms of respiratory tract infections such as fever, cough or difficulty breathing within 14 days after returning from the visit

This guideline may be used as a basis for managing employees during this period of time. Employers and employees are advised to keep up to date with the latest developments and advice issued by the Ministry of health.

Prepared by;

Occupational Health Unit  
Occupational and Environment Health Sector  
Ministry of Health.

Date: 11 March 2020



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(Accessed 6 Mac 2020)

**APPENDIX 1**

**Personal hygiene and respiratory etiquette**

- Good personal hygiene should be observed at all times. Regular hand hygiene by washing with soap and water or use hand sanitizer
- Maintain at least 1 meter (3 feet) distance between yourself and anyone who is coughing or sneezing.
- Avoid touching eyes, nose and mouth
- Cover nose and mouth with a tissue when sneezing or coughing
- Put used tissue in a waste basket
- If no tissue available, use upper sleeve or elbow instead of hands while sneezing and coughing.

## Guidelines for Hand Hygiene

- Wash hands with soap and water or alcohol-based hand sanitizer after any contact with respiratory secretions
- Remove jewelry before hand wash procedure.
- Rinse hands under warm running water
- Lather with soap; cover all surfaces of the hands and fingers using friction.
- Rinse under warm running water.
- Dry hands thoroughly with a disposable towel
- Turn off faucet without recontaminating hands.
- Keep fingernails short and do not use fingernail polish or artificial nails.
- Alcohol-based hand sanitizer may be used to decontaminate hands that are not visibly soiled
  - Apply alcohol-based hand sanitizer to palm of one hand and rub hands together, covering all surfaces of hands and finger, until hands are dry.

## Respiratory Etiquette

- Cover mouth and nose with bend of elbow or tissue if coughing or sneezing.
- Throw tissue in the trash after using it
- Wash hands with soap and water or use hand sanitizer



### **Guidelines on wearing surgical masks (3 Ply)**

1. If you have running nose or flu like symptoms, you are advised to stay at home. If you need to go out, make sure you wear a surgical mask.
2. Avoid crowded places. Wear a surgical mask if you cannot avoid them
3. Wash hands before wearing a surgical mask and after taking one off.
4. When wearing surgical mask, the following should be noted:
  - 4.1. The facemask should fit snugly over the face
  - 4.2. The coloured side of the mask should face outside
  - 4.3. Tie all the strings that keep the mask in place
  - 4.4. The mask should fully cover the nose, mouth as well as the chin.
  - 4.5. The metallic wire part of the mask should be fixed securely over the bridge of the nose to prevent leakage
  - 4.6. The surgical mask should not be used more than a day but if it is wet, damaged or soiled by secretions or body fluid at any time, change the mask immediately.
  - 4.7. Discard all used surgical masks into a plastic bag which should then be tied properly before disposing it into a rubbish bin.

## DISINFECTION PROCEDURES

### Surfaces

- If surfaces are dirty, they should be cleaned using a detergent or soap and water prior to disinfection.
- For disinfection, diluted household bleach solutions, alcohol solutions with at least 70% alcohol should be effective.
  - Diluted household bleach solutions can be used if appropriate for the surface. Follow manufacturer's instructions for application and proper ventilation. Check to ensure the product is not past its expiration date. Never mix household bleach with ammonia or any other cleanser. Unexpired household bleach will be effective against coronaviruses when properly diluted.
- Prepare a bleach solution by mixing:
  - 5 tablespoons (1/3<sup>rd</sup> cup) bleach per gallon of water\* or
  - 4 teaspoons bleach per quart of water \*\*
  - For soft (porous) surfaces such as carpeted floor, rugs, and drapes, remove visible contamination if present and clean with appropriate cleaners indicated for use on these surfaces. After cleaning:
    - If the items can be laundered, launder items in accordance with the manufacturer's instructions using the warmest appropriate water setting for the items and then dry items completely.

\* 1 Gallon = 3.8 Liters

\*\* 1 Quart = 0.95 Liters

## **COVID-19: SOCIAL DISTANCING GUIDELINES FOR WORKPLACE, HOMES AND INDIVIDUALS.**

The World Health Organization (WHO) has declared COVID-19 as a pandemic on 12<sup>th</sup> March 2020. This was due to the increase in the number of cases reported around the world. One of the measures to reduce the impact of this pandemic is to practice social distancing. In view of this MOH recommends social distancing measures as follows:

### **(A) Social Distancing for Workplaces**

#### **Workplace measures**

- Encourage employees to stay home and notify workplace administrators when sick
- If employees develop symptoms at work, avoid contact with fellow employees and inform employers (for screening/home surveillance)
- Encourage staff to telework when feasible
  - In between departments
  - Interstate
  - Inter organization
  - When employee is on home surveillance
- Encourage no handshake policy
- Increasing physical space between workers at the worksite (1 metre apart)
- Staggering work schedules

- Limit in-person meetings. If unavoidable, meeting should be short)
- Employees are encouraged to take their meals at their desk
- Avoid congregating in work and photocopier rooms
- Avoid large work-related gatherings (e.g., staff meetings, after-work functions).
- Avoid non-essential work travel.

*\* Note: refer Annex 25 Management Guidelines for workplaces*

## **(B) Social Distancing for Individuals and Families at Home**

- Those who have symptoms
  - Are advised to stay at home and self-isolate themselves
  - Avoid contact with family members (protective self separation)
  - Avoid going out unless absolutely necessary (following precautions)
  - Avoid public transport where possible
- Individuals at increased risk of severe illness (e.g. those with chronic diseases) should consider voluntary avoidance of crowded places e.g. large gatherings
- Limit recreational or other leisure classes, meetings and activities
- Stock up on food and medication to avoid frequent outings
- Consider getting home delivery food, medication or other essentials
- Limit visitors
- Establish ways to communicate with others (e.g., family, friends, co-workers) e.g. telecommunication
- Consider online payment methods for payment of utilities etc.

**(C) Social Distancing for Schools and Childcare**

- Reduce the frequency of large gatherings (e.g., assemblies), and limit the number of attendees per gathering.
- Alter schedules to reduce mixing (e.g., stagger recess, entry/dismissal times)
- Limit inter-school interactions
- Consider distance or e-learning in some settings or for students at increased risk of severe illness

**(D) Social Distancing for Assisted or Senior Living Facilities**

- Reduce large gatherings (e.g., group social events).
- Alter schedules to reduce mixing (e.g., stagger meal, activity, arrival/ departure times).
- Limit programs with external staff.
- Consider having residents stay in facility and limit exposure to the general community
- Limit visitors and screen them before allowing entry.

This guideline may be used as a basis for social distancing during this period of time. Everyone is advised to keep up to date with the latest developments and advice issued by the Ministry of health.

Prepared by;

Occupational Health Unit  
Occupational and Environment Health Sector  
Ministry of Health.

Date: 12 March 2020

**REFERENCES:**

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## **COVID-19: MANAGEMENT GUIDELINES FOR SPECIAL SETTINGS**

Covid-19 has spread at a rapid rate on a global scale. The spread has been particularly seen in closed and crowded areas such as cruise ships. Other areas of concern are nursing homes, jails, prisons and detention centres which may be the perfect breeding ground for the spread of such infectious diseases such as COVID-19.

### **Lockups, prisons and detention camps**

People in lockups have not been to trial, nor have they been sentenced or convicted of any crime where else individuals in prison have been convicted of a crime. Therefore, the period of time spent in lockups is shorter than the period of time spent in prison. There is a regular movement of people in and out of lockups and prisons including employees and visitors which increases the risk of spread of disease in such establishments. Many of the inmates also have chronic diseases such as Diabetes, Hypertension and Heart Disease which makes them vulnerable to contracting COVID-19.

#### Action to be taken:

- Information on COVID-19, its effects and preventive measures must be conveyed to employees and inmates including personal hygiene, respiratory etiquette. Refer Appendices 1 and 2
- Regular updates on COVID-19 must be given to employees and inmates.

- Every person entering a correctional facility should be screened for symptoms such as fever and cough, recent travel and exposure to COVID-19 positive patients. Symptom screening should be carried out every day for inmates.
- Inmates displaying symptoms should be given a mask, isolated and referred for medical advice. Similarly staff with symptoms should wear a mask and seek medical advice. Refer Appendix 3
- Those whose symptoms get worse need to be referred for further management.
- Visitors with symptoms should not be allowed in to visit the inmates.
- Prison management must ensure access to soap and water as well as masks for those who are sick. If access is difficult, non-alcohol sanitizers may be provided. (Alcohol sanitizers are considered contraband)
- Surfaces including jail cell beds, bars, kitchen tables and chairs all need to be cleaned and disinfected regularly. Refer appendix 4
- Limit food handling and sharing of food.
- Ensure all preventive measures are taken during transfer of sick inmates and taking inmates to hospitals for treatment



- Encourage mental health assessment among employees where possible and carry out appropriate measures to reduce stress among employees.
- Monitor sick leave and absenteeism among employees. Keep a record of staff sick leave including reasons for leave, duration of leave and current status.

### **Offshore platforms**

- Information on COVID-19, its' effects and preventive measures must be conveyed to employees such as personal hygiene, respiratory etiquette etc. Refer Appendices 1 and 2
- Regular updates on COVID-19 must be given to employees.
- Every person going offshore should be screened for symptoms such as fever and cough, recent travel and exposure to COVID-19 positive patients at embarkation points (e.g. through health declarations). Those with positive history should be denied from going off shore and should seek medical advice.
- Employees should be screened daily while off shore for symptoms (i.e. supervisor asking symptoms from employees, self-health declaration etc.) and those displaying symptoms should be given a mask, isolated and medical advice sought. Refer Appendix 3

- Regular cleaning and disinfection should be carried out on the platform. Refer Appendix 4.
- Employer should provide Employee Assistance Program (EAP) and carry out appropriate measures to reduce stress among employees.
- Employer should have name list of personal onboard to assist the relevant authority in identifying close contacts should there be suspected or confirmed case on platform.

This guideline may be used as a basis for managing employees during this period of time. Employers and employees are advised to keep up to date with the latest developments and advice issued by the Ministry of health.

### **Personal hygiene and respiratory etiquette**

- Good personal hygiene should be observed at all times. Regular hand hygiene by washing with soap and water or use hand sanitizer
- Maintain at least 1 meter (3 feet) distance between yourself and anyone who is coughing or sneezing.
- Avoid touching eyes, nose and mouth
- Cover nose and mouth with a tissue when sneezing or coughing
- Put used tissue in a waste basket
- If no tissue available, use upper sleeve or elbow instead of hands while sneezing and coughing.

### **Guidelines for Hand Hygiene**

- Wash hands with soap and water or alcohol-based hand sanitizer after any contact with respiratory secretions
- Remove jewelry before hand wash procedure.
- Rinse hands under warm running water
- Lather with soap; cover all surfaces of the hands and fingers using friction.
- Rinse under warm running water.
- Dry hands thoroughly with a disposable towel
- Turn off faucet without recontaminating hands.
- Keep fingernails short and do not use fingernail polish or artificial nails.
- Alcohol-based hand sanitizer may be used to decontaminate hands that are not visibly soiled
  - Apply alcohol-based hand sanitizer to palm of one hand and rub hands together, covering all surfaces of hands and finger, until hands are dry.

### **Respiratory Etiquette**

- Cover mouth and nose with bend of elbow or tissue if coughing or sneezing.
- Throw tissue in the trash after using it
- Wash hands with soap and water or use hand sanitizer

### **Guidelines on wearing surgical masks (3 Ply)**

1. If you have running nose or flu like symptoms, you are advised to stay at home. If you need to go out, make sure you wear a surgical mask.
2. Avoid crowded places. Wear a surgical mask if you cannot avoid them
3. Wash hands before wearing a surgical mask and after taking one off.
4. When wearing surgical mask, the following should be noted:
  - 4.1. The facemask should fit snugly over the face
  - 4.2. The coloured side of the mask should face outside
  - 4.3. Tie all the strings that keep the mask in place
  - 4.4. The mask should fully cover the nose, mouth as well as the chin.
  - 4.5. The metallic wire part of the mask should be fixed securely over the bridge of the nose to prevent leakage
  - 4.6. The surgical mask should not be used more than a day but if it is wet, damaged or soiled by secretions or body fluid at any time, change the mask immediately.
  - 4.7. Discard all used surgical masks into a plastic bag which should then be tied properly before disposing it into a rubbish bin.

### DISINFECTION PROCEDURES

#### Surfaces

- If surfaces are dirty, they should be cleaned using a detergent or soap and water prior to disinfection.
- For disinfection, diluted household bleach solutions, alcohol solutions with at least 70% alcohol should be effective.
  - Diluted household bleach solutions can be used if appropriate for the surface. Follow manufacturer's instructions for application and proper ventilation. Check to ensure the product is not past its expiration date. Never mix household bleach with ammonia or any other cleanser. Unexpired household bleach will be effective against coronaviruses when properly diluted.
- Prepare a bleach solution by mixing:
  - 5 tablespoons (1/3<sup>rd</sup> cup) bleach per gallon of water\* or
  - 4 teaspoons bleach per quart of water \*\*
  - For soft (porous) surfaces such as carpeted floor, rugs, and drapes, remove visible contamination if present and clean with appropriate cleaners indicated for use on these surfaces. After cleaning:
    - If the items can be laundered, launder items in accordance with the manufacturer's instructions using the warmest appropriate water setting for the items and then dry items completely.

\* 1 Gallon = 3.8 Liters

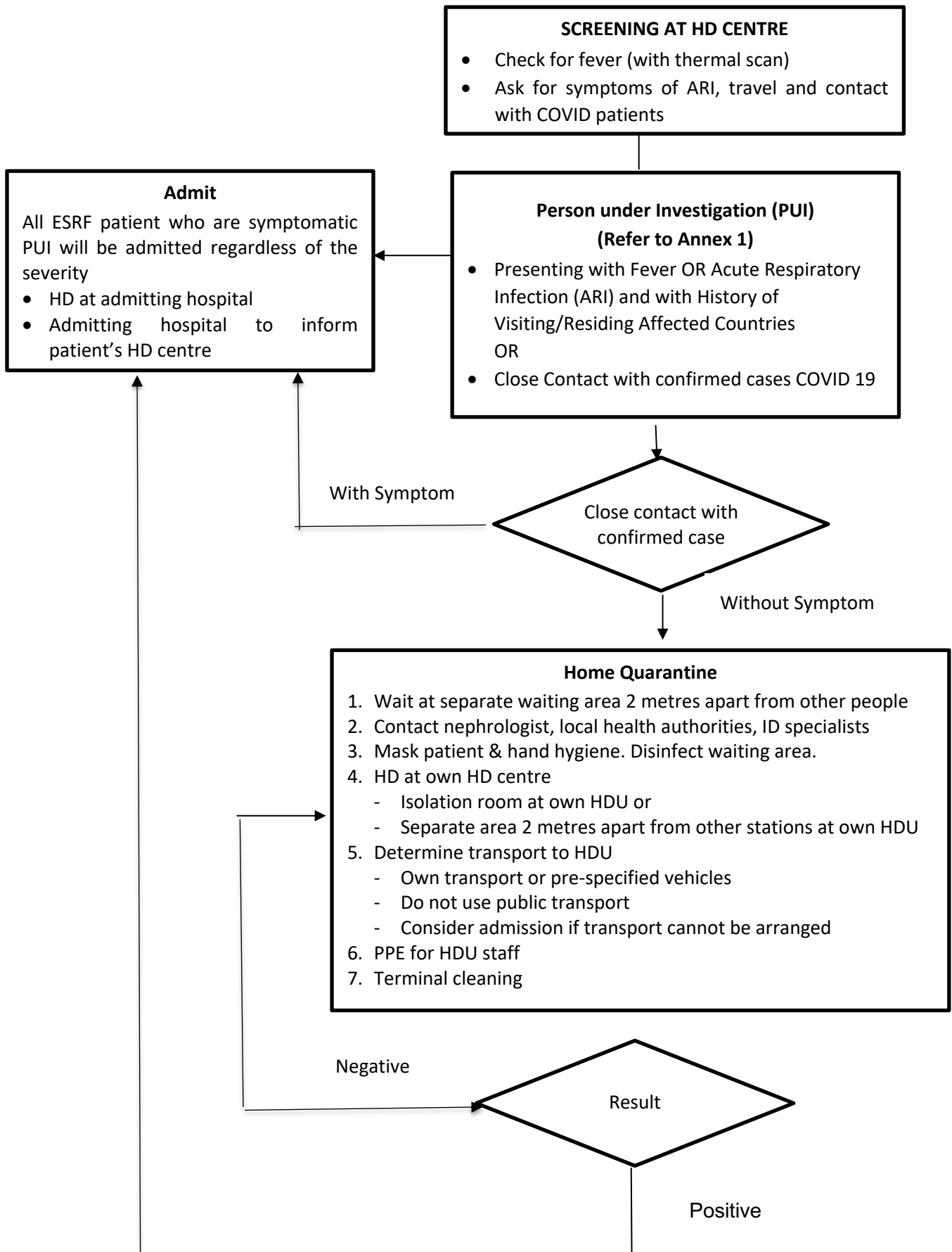
\*\* 1 Quart = 0.95 Liters

## GUIDELINE ON MANAGEMENT OF CORONAVIRUS DISEASE 2019 (COVID-19) IN DIALYSIS CENTRES & NEPHROLOGY UNITS

### Key Recommendations

- All haemodialysis (HD) centres and state authorities should have contingency plan for treating haemodialysis patients during the containment and mitigation phase of COVID-19 outbreak
- Designated hospitals should plan for the isolation and treatment of HD patients admitted to the ward. In-patient and out-patient facility for HD needs to be upgraded. Requests for additional resources including human resource and budget needs to be planned.
- Patients and staff should be provided with instructions on hand hygiene, respiratory hygiene and cough etiquette
- HD centres should implement measures to identify patients with fever and/or acute respiratory symptoms with either history of travel to high-risk areas (affected countries) or history of close contact with known (confirmed) COVID-19 positive individuals and screen these patients for COVID-19 infection
- HD centres should have plans for the isolation and transfer plans for patients with confirmed or suspected COVID-19 infection
- If the in-patient capacity of hospitals to provide HD has been exceeded, HD centres may need to treat patients in their own unit either in isolation rooms or in a separate area in the HD centres 2 metres apart from other patients
- All staff should be provided with full personal protective equipment and trained on these procedures
- HD centres should plan and coordinate with local health authorities on the isolation and treatment of cases, PUIs and their close contacts
- **Each HD centre is responsible for ensuring arrangements have been made if the centre is unable to provide treatment to their own patients.**

**Workflow for Screening and Treatment of COVID-19 in Haemodialysis Patients**





## INTRODUCTION

Haemodialysis is by far the commonest (90%) modality of dialysis for patients with end stage kidney failure. There are currently about 44,000 haemodialysis (HD) patients dialysing in 800 haemodialysis private and public centres. These centres may be standalone centres or located within hospitals. HD centres are available in almost all MOH hospitals. Most patients require HD 3 times weekly and require trained staff to deliver the treatment.

Thus, during an epidemic of acute respiratory tract infections, plan will need to be made to ensure that HD patients continue to receive their treatments. Most hospitals however have limited ability to dialyse acutely ill and admitted patients. Negative pressure isolation rooms equipped with haemodialysis are even more limited.

As more COVID-19 infections are detected, facilities will need to plan in the event HD patients are admitted to their facilities to prevent the facility from being overwhelmed. As such, preparedness and response coordination with local health authorities are necessary to ensure HD services are provided to these patients.

**This guideline is intended for use by both public and private HD centres. Each HD centre is responsible for ensuring arrangements have been made if the centre is unable to provide treatment to their own patients.**

### 1. PREPARATION OF HAEMODIALYSIS (HD) CENTRES

Stringent measure should be taken by all HD centres to prevent COVID-19 contamination of the unit as disruption to HD services can be severe due to limitations in human resource and facility to provide HD capable isolation and in-patient facilities and requirement of at least 2 metre separation between cases, PUIs and other HD patients.

- a. HD centre should control the flow of patients and visitors to the unit
- b. Screen all patients and visitors for fever at entrance to HDU. Thermal scan is preferred.
- c. Post signage
  - i. Signs should be posted at entrance to instruct patients to inform staff if they have signs of fever and/or acute respiratory symptoms with either history of travel to or reside in high-risk countries\* in the 14 days before the onset of illness or history of close contact in the past 14 days with a confirmed case of COVID-19  
\* list of countries will be updated from time to time **(please refer to latest updates from MOH)**
  - ii. Visitors should be discouraged from entering the HD centre
- d. Education of patients and health care workers (HCW):

Patients, their carer and HCW should be provided with instructions about hand hygiene, respiratory hygiene and cough etiquette. HCW should be given PPE training as well.

- e. Screening  
Refer to section below
- f. HD centre should ensure adequate supply of PPEs, hand sanitizers etc.
- g. Provide patients and carer with education on disposables for hand hygiene and respiratory hygiene
- h. Isolation rooms with negative pressure (or exhaust fan) with separate toilet facility should be made available if this is feasible.
- i. Separate area
- j. Place patient in pre-designated waiting area if patient is identified as PUI including close contact of a confirmed case,. After patient leaves disinfect waiting area. (Refer to Annex 2c)

## **2. SCREENING**

This is based on MOH recommendations of screening for COVID-19 which is generic across all disciplines

### **a. How to screen (refer Annex 1)**

- i. A screening counter should be set up for screening patients and a staff assigned for triaging
- ii. The screening staff should wear PPE according to guidelines
- iii. Thermal scanning should be used to screen patients and visitors for fever
- iv. The staff should ask 3 questions to all patients and visitors
  - 1. Do you have any fever or acute respiratory infection (sudden onset of respiratory infection with at least one of: shortness of breath, cough or sore throat)?
  - 2. Do you have any history of travelling to or residing in affected countries\* in the past 14 days?
  - 3. Do you have any contact with a confirmed COVID-19 case within the past 14 days?
- v. PUI (Person under investigation) is defined as the presence of 1 & 2 OR 3
- vi. Refer to step d) if anyone has the above symptoms

- vii. It is preferable to maintain a list of visitors should contact tracing be necessary

*\* list of countries will be updated from time to time but as of 10/3/20 include China, Hong Kong, Macau, Taiwan, South Korea, Japan, Italy and Iran*

**b. Where to screen**

At all possible entry points

- i. HD centres
- ii. PD units
- iii. Nephrology/Medical clinics
- iv. Nephrology/Medical wards

**c. Who to screen?**

Every patient and visitor

**d. What to do if the screening question(s) is/are positive?**

- i. Do not allow the person to enter the unit
- ii. The person should be given a 3-ply surgical face mask to wear immediately and instructed to use hand disinfectant.
- iii. The person should wait in designated area at least 2 metres away from other patients or visitors and identify a route for movement of PUI to the designated screening area for COVID19 in their institution
- iv. All centres including private centres should contact your nephrologist, local authorities and ID team (if available) if the person is identified as a PUI
- v. Contact the nearest designated screening or admitting centre/hospital for advice.
- vi. DO NOT SEND to the designated hospital or centres without making prior arrangements
- vii. All units should have a policy on the procedure for patients or visitors with symptoms (fever or sudden onset of respiratory infection with at least one of: shortness of breath, cough or sore throat) but no history of travel or close contact with confirmed COVID-19 in the past 14 days. A doctor's advice should be sought.

### 3. ISOLATION OF CASES, PUIs AND CLOSE CONTACTS

All hospitals & HD centres should have an isolation policy for patients with infectious respiratory infections.

During the current containment phase, designated hospitals have been identified to admit confirmed cases as well as PUIs. These patients should be dialysed at the designated hospitals but may have limited capacity to dialyse these people. HD centres should contact their local authorities on instructions where to send these patients.

During the mitigation phase, it may become necessary for PUI with mild symptoms or asymptomatic close contact to be placed on home quarantine monitoring, and to travel by private transport to continue dialysis at their usual HD facilities including private HD centres.

#### a. Admission:

- i. Contact the local infectious disease specialist/physician if the patient requires admission. The nephrologist in-charge should also be informed.
- ii. Currently all HD patients who have been confirmed to have Covid-19 infection and PUIs should be admitted but this may change from time to time. Refer to the Annex 2 for admission criteria for PUIs and close contacts and Annex 3 for the list of designated hospitals
- iii. However, before the patient is admitted to the designated hospital, the hospital should be contacted to ensure there is adequate facilities for in-patient dialysis.
- iv. If the capacity has been exceeded, an alternative plan needs to be made before the transfer.

#### b. HD patients who are admitted:

- i. should be dialysed in the wards in isolation rooms with negative pressure or if unavailable in isolation rooms without negative pressure
- ii. If isolation rooms are not available patients should be cohorted and dialysed in the ward.
- iii. Confirmed cases and PUIs should be dialysed in separate isolation rooms or wards and if this is not possible, in separate areas 2 metres apart
- iv. If the ward capacity has been exceeded, mild cases and PUIs may be dialysed in their own HD centre after the necessary arrangements and coordination with local authorities are made.

#### c. HD patients who are asymptomatic close contacts and quarantined at home:

- i. can dialysed in their own HD centres
- ii. should wear 3-ply surgical mask in the HD centre
- iii. appropriate transport arrangements should be made
  - arrangement after discussing with PKD OR

- own transport OR
- arrange for designated ambulance from MECC
- Public transport should not be used

iv. Isolation

- should not be placed in the same waiting area with other patients
- should be dialysed in isolation rooms with doors closed and equipped with exhaust fan (if available). If confirmed cases are also dialysed in the HD centre, they should also be dialysed in a separate isolation room or area.
- If isolation rooms are not available, patients should be masked and dialysed in a separate area 2 metres away from the nearest patient stations in all directions. The area should be located at the end of the unit away from the flow of traffic
- separate entrance pathway should be identified (if this is feasible)
- Dialysers should not be reprocessed
- Terminal cleaning should be made after use.
- Staff should wear appropriate PPE

#### 4. HAEMODIALYSIS STAFF

- a. HD staff should receive regular training in infection control and prevention protocol including droplets or airborne and contact precautions.
- b. HD staff should receive training on use of PPE in donning and doffing
- c. Separate HD staff should dialyse confirmed cases and PUIs and should not manage other patients in the same shift. PUIs should be placed in the last shift.
- d. Maintain list of staff for recording and monitor their health status in each HDU under OSH
- e. HDU staff roster may need to be adjusted to ensure adequate staff strength during peak periods
- f. Procedure for exposed staff
  - i. Staff who exposed if they become close contacts of confirmed cases (those exposed to confirmed cases without PPE) should be quarantined (refer to annex 21)
  - ii. In extreme circumstances with acute shortage of staff,
    - staff who are asymptomatic close contacts may be needed to work.
    - They need to self-monitor (refer to annex 21)
    - They are required to wear 3-ply surgical mask, apron and gloves until their screening tests are negative and 14-day incubation period has ended.

- if they become symptomatic should not work until COVID-19 has been excluded.

## 5. INFECTION CONTROL POLICY & TRAINING

- Universal precautions should be practised and should follow hospital wide policy
- All units should have an isolation policy for patients with infectious respiratory infections
- HD staff should wear appropriate attire as per recommendations in caring for confirmed cases, PUIs and asymptomatic contacts:
  - disposable gown with the back covered, (long sleeve water repellent isolation gown),
  - gloves,
  - N95 face mask (for confirmed cases and PUIs) or 3-ply surgical face mask for asymptomatic contacts
  - face shield covering the front and sides of the face.
- Dedicated blood pressure cuffs and equipment should be used. If the equipment needs to be shared, it must be clean and disinfected thoroughly before use on other patients.
- Terminal cleaning should be made between each shift of patients including medical and non-medical equipment and surfaces with recommended disinfectant.
- Dialysers of confirmed cases, PUIs and close contacts (within 14 days of contacts) should not be reused to avoid contaminating the reuse room
- The plan should be reviewed with all staff in the facility

## 6. PREPAREDNESS AND COORDINATION WITH LOCAL HEALTH AUTHORITIES

- Each hospital and HD centre should ensure there is adequate supply of PPE and hand sanitisers:
  - disposable gowns with the back covered, (long sleeve water repellent isolation gown)
  - Gloves
  - 3-ply surgical face masks and N95 face masks
  - face shields covering the front and sides of the face
  - hand sanitizers
- The designated hospital should prepare their facilities to treat confirmed cases, PUIs and close contacts:

- i. Establish and/or increase the availability of Isolation rooms preferably with negative pressure
  - ii. Equip isolation rooms with haemodialysis capabilities e.g. piping, modification of tap heads, dedicated haemodialysis machine, portable RO or RO systems for ICUs or high dependency areas (HDA), CRRT machines, dedicated automated vital signs and cardiac monitors and blood pressure cuffs etc
  - iii. Identify areas of isolation for dialysis of confirmed cases, PUIs and close contacts
- c. All HD centres should prepare their facility to treat asymptomatic close contacts (and/or PUIs and confirmed cases if this becomes necessary):
  - i. isolation rooms (with negative pressure if available)
  - ii. separate area 2 metres away from the nearest patient stations in all directions. The area should be located at the end of the unit away from the flow of traffic.
  - iii. separate entrance pathway should be identified (if this is feasible)
  - iv. Consider converting hepatitis C rooms into isolation rooms
- d. Each state should identify HD facilities prepared to treat confirmed cases, PUIs and close contacts. Plans should be made to scale up the availability of HD centres should the infection become more widespread. This may include identifying HD facilities dedicated to treat COVID-19 cases.
- e. HD centres should work with the local health authorities (PKDs, CPRC, infectious disease specialists etc) to identify, screen and isolate PUIs and contact of patients with COVID-19
- f. HD centres should plan and coordinate with local health authorities and state nephrologists on how to provide HD treatment to these patients.

## CHECK LIST FOR PREPARATION OF HAEMODIALYSIS CENTRES FOR COVID-19 INFECTION

<b>PREPAREDNESS</b>	
<input type="checkbox"/>	1. Adequate supply of hand sanitiser
<input type="checkbox"/>	2. Adequate supply of PPE
<input type="checkbox"/>	(a) Water repellent disposable isolation gowns with long sleeve
<input type="checkbox"/>	(b) Gloves
<input type="checkbox"/>	(c) 3-ply surgical face masks and N95 masks
<input type="checkbox"/>	(d) Face shields covering front and sides of the face
<input type="checkbox"/>	3. Dedicated haemodialysis machine
<input type="checkbox"/>	4. Dedicated vital sign monitors
<input type="checkbox"/>	5. Dedicated blood pressure cuffs
<input type="checkbox"/>	6. Prepare separate waiting area for COVID-19, PUI and asymptomatic contacts
<input type="checkbox"/>	7. Identify isolation rooms or isolation area 2 metres away from other patients
<input type="checkbox"/>	8. Identify separate entrance pathway (if possible)
<input type="checkbox"/>	9. Identify staff to dialyse COVID-19 patients
<input type="checkbox"/>	10. Train staff on donning and doffing of PPE
<input type="checkbox"/>	11. Train staff of infectious control measures
<input type="checkbox"/>	12. Educate patients and their carers
<b>SCREENING OF PATIENTS &amp; VISITORS</b>	
<input type="checkbox"/>	1. Signages
<input type="checkbox"/>	2. Screening counter at entrance
<input type="checkbox"/>	3. Thermal scanner
<input type="checkbox"/>	4. Limit visitors
<b>MAINTAIN LIST OF CONTACTS</b>	
<input type="checkbox"/>	1. Phone number of designated screening and admitting hospitals
<input type="checkbox"/>	2. Phone number of the infectious disease specialist or physician (if available)



**INTENSIVE CARE PREPAREDNESS AND MANAGEMENT FOR COVID-19**

1. Patients suspected or confirmed with COVID-19 needing intensive care shall be cared for in designated isolation rooms identified in the individual hospital as most existing intensive care units in the Ministry of Health hospitals do not have appropriate isolation facilities
2. Ideally use airborne infection isolation room (AIIR) i.e. negative pressure isolation room with anteroom for confirmed or possible cases. In the event an AIIR is not available the patient should be placed in a single room with closed doors.
3. In an outbreak, where AIIR or single room capacity is exceeded, ICU beds may need to be closed to non COVID-19 cases to accommodate the increase in COVID-19 patients
4. Coordinate with hospital management and other healthcare professionals to ensure care of other critically ill patients are not compromised
5. Nursing staff from the intensive care units or those with formal intensive care training or experience shall be deployed to nurse patients who are mechanically ventilated

**Infection prevention and control in intensive care setting for COVID-19****A. Personal Protective equipment( PPE)**

- All healthcare workers (HCW) to wear designated scrubs.
- Alcohol-based hand rubs and disinfectants, gloves, gowns and mask shall be readily available.
- HCW must adhere to standard, contact and airborne precautions including the use of eye protection.
- Practice appropriate hand hygiene before and after all procedures.
- Personal protective equipment (PPE) shall be used before entering the room. This includes:
  - Fit-tested particulate respirator i.e. N-95 or higher level of protection
  - Head cover
  - Long sleeve, fluid resistant gown
  - Eye protection with face shield or goggles
  - Gloves
- Personal items are not allowed into the room. This includes rings, watches hand phones, pens etc.

**B. Healthcare workers (HCW)**

- All HCW should receive education on the appropriate use of PPE
- HCW should strictly follow the procedures for the wearing (donning) and the safe removal (doffing) of PPE in correct sequence
- Limit the number of HCW present in the room to the minimum required without compromising care of the patient
- HCW providing care to COVID-19 cases, to be actively followed-up for development of symptoms and provided the appropriate care from occupational safety and health administration (OSHA)
- Hospitals should maintain a record of all HCW providing care for confirmed COVID-19 cases.

**C. Patient care equipment**

- Use disposable respiratory equipment wherever possible
- Reusable equipment shall be disinfected in accordance with local policy and manufacturers guidelines
- Items that cannot be appropriately cleaned and disinfected should be discarded upon patient transfer or discharge

**D. Oxygen delivery devices and humidifiers**

- For non-intubated patients requiring oxygen therapy, non-humidified oxygen can be delivered via nasal prongs or simple face mask. These low flow oxygen systems do not need to be humidified
- Generally higher the flow rate, greater the risk of aerosolisation.
- The use of non-invasive ventilator or high flow nasal cannula is discouraged. If used, place patient in a negative pressure isolation room

**E. Tracheal intubation**

- Should be performed in a negative pressure isolation room whenever feasible. If this is not available, then a single room should be used.
- Strictly adhere to the use of PPE.

- Whenever possible, only experienced doctors shall attempt intubation. (spread of infection at the time of intubation appears to be associated with difficult intubation and prolonged manual ventilation).
- Rapid sequence induction shall be used. Avoid awake fiberoptic intubation. Ensure the patient is adequately paralysed before attempting laryngoscopy
- Use of video laryngoscopy may avoid placing the operator's face close to the patient
- A viral filter shall be fitted between the facemask and manual resuscitator bag
- Minimise manual ventilation. If essential, it shall be carried out by two personnel; one holds the mask tightly against the patient's face while the other squeezes the bag gently
- Inflate the cuff of endotracheal tube before ventilating the patient
- Turn on the ventilator only when it is connected to the endotracheal tube
- Re-sheath the laryngoscope immediately post intubation (double glove technique). Use disposable laryngoscope blades if available.
- Clean and disinfect procedure room immediately after the procedure

**F. Invasive ventilation**

- Ventilators shall be identified only for use of patients with COVID- 19
- All ventilators shall be fitted with viral filter. The filter is to be placed between the distal end of the expiratory tubing and the ventilator
- Use disposable breathing circuits
- The ventilatory circuit shall not be disconnected unless absolutely necessary. If there is a need to disconnect the circuit, ventilators shall be put on either on standby mode or turned off temporarily. ETT may be clamped temporarily during disconnection
- Do not change ventilatory circuits on a routine basis
- Mechanical ventilation creates high gas flows. Tracheal cuff pressures should be checked frequently and kept inflated at pressures of 25- 30 cmH<sub>2</sub>O to create a good seal against the tracheal wall
- Avoid water humidification

- Use a heat and moisture exchanger with viral filter (HMEF) at the Y-piece of the breathing circuit
- HMEF will need to be changed periodically. Each change results in patient circuit disconnection for a short period of time where expired airborne particles will not be filtered
- Use closed in-line tracheal suctioning systems. Do not disconnect from ventilator and manually ventilate patients during suctioning. Instead apply 100% oxygen on the ventilator during suctioning
- Use metered dose inhalers (MDI) instead of small volume nebuliser if nebulisation is required
- Consider paralysing patients during bronchoscopy to minimise coughing

**G. Aerosol-generating procedures (AGP)**

*(this includes tracheal intubation, extubation, open tracheal suctioning, tracheostomy care, bronchoscopy and CPR)*

- Avoid or minimise the performance of AGP without compromising patient care
- Limit the number of HCW present during the procedure to only those essential for patient care and procedural support
- AGP should ideally take place in a negative pressure isolation room.
- Clean and disinfect procedure room surfaces promptly after the procedure

**H. Environmental cleaning**

- Staff engaged in environmental cleaning and waste management should wear the appropriate PPE
- Increase frequency of cleaning high touch surfaces to at least every nursing shift
- Cleaning and disinfection procedures must be followed consistently and correctly
- Adhere to the terminal cleaning protocol in accordance to local policy for cleaning of the patient's room after discharge.

**I. Transport of patients**

- Transport outside the ICU should be avoided as much as possible and discussed on a case-by-case basis

**J. Visitors**

- Visitors should be kept to the absolute minimum
- A register for visitors should be maintained

**PPE used during aerosol generating procedures**

Procedure	PPE
Open tracheal suctioning Tracheostomy care Extubation	<ul style="list-style-type: none"> <li>• Fit tested particulate respirator i.e. N-95</li> <li>• Head cover</li> <li>• Long sleeve fluid resistant gown</li> <li>• Eye protection: goggles or eye shield</li> <li>• Gloves</li> </ul>
Tracheal intubation Bronchoscopy CPR	<ul style="list-style-type: none"> <li>• Fit tested particulate respirator i.e. N-95 or Powered air purifying respirator (PAPR) if one is adequately trained</li> <li>• Head cover</li> <li>• Long sleeve fluid resistant gown</li> <li>• Eye protection: goggles or eye shield</li> <li>• Gloves</li> </ul>

**COVID 19 :  
OTORHINOLARYNGOLOGY SERVICES, MINISTRY OF HEALTH  
MALAYSIA.**

**JUSTIFICATION:**

- ORL services typically include inspection, examination and treatment of upper respiratory and upper aerodigestive tract.
- The additional risk of direct exposure of staff to COVID-19 should be considered in the current critical situation.
- The steps listed below are recommendations, taking into account the local situations and needs within their respective departments and hospitals.
- This temporary measure will be carried out until further notice.

**1. OUTPATIENT SERVICES:**

- A. A triage is performed by the Medical Officer **for all patients** attending the ORL clinic TO FILTER THE FOLLOWING:
- i) Temperature check upon entry to the specialist clinic complex
  - ii) Who have made overseas visits in the last 14 days
  - iii) Who have attended the ijtimak rally
  - iv) Fever, cough, sore throat or shortness of breath
  - v) Had close contact with COVID-19 patients
- If any of the above is present, the patient is referred directly to the CPRC as per the MOH's instructions
- B. For scheduled outpatients who attended the ORL clinic without any pressing needs, new appointments are provided with sufficient drug prescribed.
- C. For patients who attend the ORL clinic for specific needs, such as post-op review, urgent review of HPE and radioimaging or other needs requiring immediate attention, due consultation and treatment are to be provided.
- D. All ORL Clinical procedures including any form examination, endoscopy, microscopy and endoscopic evaluation of swallowing etc, should be put on hold and rescheduled.
- E. Exceptions to the above, are made based on a case-to-case basis following discussion with the specialists.

**2. INPATIENTS:**

- All elective ward admissions including elective / daycare cases are to be put on hold and rescheduled to another date.
- Exceptions are to be considered for cases related to acute infections and upper airway obstruction secondary to any causes.
- All existing Patients in the ward should be discharged as soon as possible following optimal treatment rendered.
- Exceptions to the above, are made based on case-to-case basis following discussion with the specialists.

**3. AUDIOLOGY AND SPEECH THERAPY:**

- Will adhere to the filtering principles as above, except in certain cases assessed on a case-by-case basis after consulting with the Head of Unit/Specialist.
- Only emergency cases requiring urgent diagnosis, specialized therapy and intervention procedures are attended.

**4. VISITS TO THE DISTRICT AND CLUSTER HOSPITALS**

It is advisable to postpone all hospital visits under your supervision to reduce movement and exposure to both staff and patients. If there is an emergency case, it should be sent immediately to the referral hospital.

**5. ORL CONTINGENCY TEAM FOR POSITIVE COVID-19 PATIENTS REQUIRING EMERGENCY ORL PROCEDURES / SURGERY**

The HOD of the ORL Department is responsible to establish a COVID-19 contingency team to handle procedures / emergency surgeries should the need arise. This include the following: -

- PPE adoption procedures.
- Identify the special COVID-19 transfer lane as per decided by the hospital administration.
- Identify locations for 'intubation', 'tracheostomy' and surgical procedures taking into account the specific requirements of the 'negative pressure isolation room' etc.
- List of disposables/ non disposable surgical instruments required.

- Methods of sterilization of non-disposable instruments as per guided by the protocols and guidelines.
- This workprocess should follow the guidelines provided by their respective hospitals.
- ORL emergency procedures, especially 'aerosol-generating procedures' such as 'tracheostomy', 'bronchoscopy', should be done with careful planning including full PPE and negative pressure room application by all participating ORL team members.
- Minimum number of personnel is to be ensured so as to minimize exposure and PPE requirement.
- Perioperative management planning of COVID-19 patients requiring surgery and anaesthesia should be thoroughly discussed between the ORL and anaesthesia team prior the procedure or surgery.



## **GUIDELINES ON MANAGEMENT OF CORONAVIRUS DISEASE 2019 (COVID 19) IN NEONATES**

### **Introduction**

There is little information regarding vertical transmission to the fetus and on outcomes of neonates born to pregnant women with COVID-19. This protocol is subject to change as new information regarding the coronavirus COVID-19 becomes more available.

### **1. Definition**

#### **1.1 Definition for neonates suspected of COVID-19 infection:**

- a) Neonates born to the mothers who are PUI or confirmed COVID-19 infection between 14 days before delivery and 28 days after delivery, or
- b) Neonates directly exposed to those who are PUI or confirmed COVID-19 infection (including family members, caregivers, medical staff, and visitors).

All suspected neonates are under consideration in this guideline regardless of whether they are symptomatic or asymptomatic.

#### **1.2 Definition for neonates with confirmed COVID-19 infection:**

A neonate with laboratory confirmation of infection with the COVID-19

Refer COVID-19 (Garispanduan) - Guidelines COVID-19 Management in Malaysia No 04/2020 (Edisi Keempat) Annex 5a. Guidelines on Laboratory Testing for COVID-19 for Patients Under Investigations  
<http://www.moh.gov.my/index.php/pages/view/2019-ncov-wuhan-guidelines>

### **2. Neonatal unit COVID-19 plan outline:**

#### **2.1 Organisation of Care**

##### **2.1.1 Possible categories of infection in the neonates:**

- 1) Neonates born to mothers who are PUI or confirmed cases of COVID-19
  - a) Asymptomatic
  - b) Symptomatic
- 2) Neonates referred as PUI or confirmed COVID-19 infection

#### **2.2 Neonatal Unit COVID-19 Action Plan**

##### **2.2.1 Neonates born to mothers with PUI COVID-19 or confirmed COVID-19**

### A. Preparation prior to delivery

1. Referral to the specialist of NICU.
2. The number of health care workers handling the neonate should be kept to a minimum
3. Neonatal team for resuscitation should be identified and prepared with adequate time given to don personal protective equipment (PPE)
4. Neonatal team must put on personal protective equipment (PPE) before entering Delivery Room. COVID-19 (Garispanduan) *Annex 8C: The Infection Prevention and Control Measures*  
<http://www.moh.gov.my/index.php/pages/view/2019-ncov-wuhan-guidelines>
5. A designated resuscitaire, transport incubator and single use equipment (preferable) should be used.

### B. Immediate care of the neonate after delivery

1. The Obstetric nurse should hand the neonate to the Neonatal team.
2. Stabilization of the neonate should be according to Neonatal Resuscitation Program (NRP) Guidelines.
3. Delayed cord clamping (DCC) is not recommended
4. Post stabilization, the neonate should be transferred into the designated transport incubator without undergoing any non-urgent neonatal care.
5. The transporting of neonate should follow *Annex 8E: The Infection Prevention and Control Measures*  
<http://www.moh.gov.my/index.php/pages/view/2019-ncov-wuhan-guidelines>
6. All non-urgent neonatal care and examination should be carried out in the isolation room e.g. weighing, immunization.
7. All neonates should be separated from their mothers with **NO SKIN TO SKIN** contact.
8. If the neonate is delivered in an undesignated hospital, the neonate should be transferred to the designated hospital from the delivery room
9. The equipment used should undergo terminal cleaning or disposed of based on universal recommendations following a biohazard decontamination protocol.

### C. Postnatal care of the neonate in the isolation room

1. PPE must be worn by all attending healthcare workers.
2. All body fluids and linens are treated as potential biohazards.
3. If the same neonatal team who attended the delivery are also attending to the neonate in the isolation room, they should perform hand hygiene, doff the PPE used during the transfer and don new PPE
4. In the isolation room, the neonate should be cleaned, weighed and immunized including given Vitamin K injection. There is no contraindication to vaccination
5. Soiled linen should be disposed of according to COVID-19 (Garis panduan) *Annex 8J: The Infection Prevention and Control Measures*. <http://www.moh.gov.my/index.php/pages/view/2019-ncov-wuhan-guidelines>
6. An incubator is not required for isolation unless indicated
7. Promptly notify infection control team
8. Complete the Communicable Diseases Notification Form. COVID-19 (Garis panduan) *Annex 7: Notification Form* <http://www.moh.gov.my/index.php/pages/view/2019-ncov-wuhan-guidelines>
9. The neonate should not receive breastmilk until mother status has been confirmed to be negative of COVID-19
10. If the mother is still keen on breastfeeding prior to confirmation of COVID-19 infection despite counseling, it should be documented in the clinical notes
11. Terminal cleaning and disinfection of the isolation room should be done following discharge of the neonate. COVID-19 (Garis panduan) *Annex 8H: The Infection Prevention and Control Measures*. <http://www.moh.gov.my/index.php/pages/view/2019-ncov-wuhan-guidelines>

#### 2.2.2 Neonates referred as PUI or confirmed case of COVID-19

These neonates should be admitted to the isolation room regardless of whether they are symptomatic or asymptomatic.

### 3. Clinical Manifestation

#### 3.1 Clinical Findings

- 3.1.1 Neonates with COVID-19 infection are classified according to the presence or absence of apparent symptoms and signs
- 3.1.2 The clinical manifestations may be asymptomatic, mild, or severe

- 3.1.3 Clinical findings, especially in premature infants, are non-specific
- 3.1.4 Therefore, it is important to closely monitor vital signs, respiratory and gastrointestinal symptoms and signs.
- 3.1.5 The signs may include:
- a) Temperature instability: the temperature of an infected infant may be elevated, depressed, or normal.
  - b) Respiratory and cardiovascular signs may include tachypnea, grunting, nasal flaring, increased work of breathing (WOB), apnea, cough, or tachycardia.
  - c) Other findings may include poor feeding, lethargy, vomiting, loose stools, and abdominal distension.

### **3.2 Laboratory finding**

- 3.2.1 Laboratory examinations may be non-specific
- 3.2.2 Full blood count (FBC) may show normal or decreased leukocyte counts, or decreased lymphocyte counts.
- 3.2.3 Other findings may include:
- a) mild thrombocytopenia, and
  - b) elevated levels of creatine kinase, alkaline phosphatase, alanine aminotransferase, aspartate aminotransferase, and lactate dehydrogenase
- 3.2.4 COVID-19 can be detected in the:
- a) Upper respiratory tract (URT; nasopharyngeal and oropharyngeal),
  - b) Lower respiratory tract (LRT; endotracheal aspirate, or bronchoalveolar lavage)
  - c) The blood
  - d) The stool

### **3.3 Radiography findings**

- 3.3.1 Chest radiograph or lung ultrasound is likely to show pneumonia
- 3.3.2 Abdominal radiograph may show the characteristic radiographic features of intestinal ileus.

## **4. Guidelines for Management of Neonates with Suspected or Confirmed COVID-19 Infection**

### **4.1 Suspected asymptomatic neonates**

- 4.1.1 Laboratory tests

- a) FBC, C-reactive protein (CRP), and
  - b) COVID-19 detection by RT-PCR. It is recommended that samples are collected from the URT (nasopharyngeal and oropharyngeal)
- 4.1.2 Close monitoring and supportive care are essential
- 4.1.3 If both the neonate and mother who is a PUI are tested negative for COVID-19 infection (fulfill COVID -19 Garispanduan Annex 2b Management of PUI Admitted), breast feeding and rooming in with mother is allowed <http://www.moh.gov.my/index.php/pages/view/2019-ncov-wuhan-guidelines>
- 4.1.4 If the neonate is a confirmed case of COVID- 19 infection, the neonate should be managed as per Diagnosed Confirmed Asymptomatic Neonates pathway (refer no 4.3)
- 4.1.5 If the mother is a confirmed case of COVID-19 infection, the neonate can be discharged after tested negative for COVID-19 two consecutive specimens (72 hours apart). The neonate must be monitored under home surveillance until Day 28 of life (refer no 5)

## 4.2 Suspected symptomatic neonates

- 4.2.1 Laboratory and radiography investigations
- a) FBC, CRP, Blood Culture
  - b) COVID-19 detection by RT-PCR
  - c) Chest radiograph ± lung ultrasound (recommended). COVID -19 (Garispanduan) Annex 24: Workflow and Work Process for Radiological Examination During COVID -19 Outbreak. <http://www.moh.gov.my/index.php/pages/view/2019-ncov-wuhan-guidelines>
  - d) Other tests should be considered if necessary e.g. liver and kidney function tests.
- 4.2.2 Medical management according to neonatal unit guidelines. Antibiotics to treat presumed sepsis should be considered until results are available
- 4.2.3 If both the neonate and mother who is a PUI are tested negative for COVID-19 (fulfill COVID -19 Garispanduan Annex 2b Management of PUI Admitted), the neonate should be managed based on the individual unit guidelines for neonatal sepsis.
- 4.2.4 If the neonate is a confirmed case for COVID-19 infection, the neonate should be managed as per '**Diagnosed Confirmed Symptomatic Neonates**' pathway (refer no 4.4)

4.2.5 If the mother is a confirmed case of COVID-19 infection, the neonate can be discharged after tested (nasopharyngeal and oropharyngeal swabs) negative for COVID -19 two consecutive specimens (72 hours apart) and clinical signs have improved. The neonate must be monitored under home surveillance until Day 28 of life (refer no 5).

### **4.3 Diagnosed confirmed asymptomatic neonates**

4.3.1 Laboratory and radiography investigations:

- a) FBC, C-reactive protein (CRP), and
- b) COVID-19 detection by RT-PCR
- c) Chest radiograph. COVID-19 (Garispenduan) Annex 24: Workflow and Work Process for Radiological Examination During COVID -19 Outbreak <http://www.moh.gov.my/index.php/pages/view/2019-ncov-wuhan-guidelines>

4.3.2 Close monitoring and supportive care are essential

4.3.3 Consult pediatric infectious disease team

4.3.4 Upper airway specimens (nasopharyngeal and oropharyngeal swabs) should be collected and tested every 72 hours until 2 consecutive specimens show negative for COVID-19

4.3.5 Discharge Criteria: Upper airway specimens (nasopharyngeal and oropharyngeal swabs) are negative for COVID-19 two consecutive specimens

4.3.6 The neonate must be monitored under home surveillance until Day 28 of life (refer no 5).

### **4.4 Diagnosed confirmed symptomatic neonates**

4.4.1 Laboratory and Radiological tests

- a) FBC, CRP, Blood Culture
- b) Blood gas analysis, acid-base studies
- c) Serum electrolytes, liver and kidney function with cardiac biomarkers
- d) COVID-19 detection by RT-PCR
- e) Chest radiograph. Lung ultrasound is recommended
- f) Other investigations as needed

- 4.4.2 Medical management is according to neonatal unit guidelines in consultation with pediatric infectious disease team. Antibiotics to treat presumed sepsis should be considered until results are available
- 4.4.3 Currently, there is no effective anti-coronavirus drug
- 4.4.4 Inappropriate use of broad-spectrum antibiotics should be avoided. If there is evidence of secondary bacterial infection, follow unit antibiotic guidelines
- 4.4.5 There is no evidence supporting the effectiveness of intravenous gamma globulin
- 4.4.6 Discharge Criteria:
- a) The temperature of the patient should be normal for more than 72 hours, symptoms should improve, and chest radiograph should show improvement AND
  - b) Upper airway specimens (nasopharyngeal and oropharyngeal swabs) are negative for COVID-19 two consecutive specimens
- 4.4.7 The neonate must be monitored under home surveillance until Day 28 of life (refer no 5).

## 5. Care after discharged: Home surveillance

### 5.1 Criteria for home surveillance:

- a) Neonates with confirmed COVID -19 infection
- b) Neonates born to mothers with confirmed COVID -19 infection
- c) Neonates who are directly exposed to contacts (including family members, caregivers, medical staff and visitors) with confirmed COVID-19 infection

5.2 Notify the nearest Maternal Child Health Clinic (MCHC) and 'Pejabat Kesehatan Daerah (PKD)' for home surveillance until the neonate is 28 days of life

5.3 Parents/caregivers should be given a '**Borang Pemantauan Harian Bagi Bayi Yang Dijangkiti COVID-19**' for home surveillance of the neonate's condition

5.4 Parents/caregivers should be given instructions to seek medical attention should the neonate develop any symptoms or signs of disease within 28 days after delivery

## 6. Visiting Restrictions

6.1 Parents can visit once they have been screened and confirmed not to have COVID-19 infection

- 6.2 If the neonate is diagnosed to be a confirmed case of COVID-19 infection and parents are tested negative for COVID -19 infection, the parents are not allowed to visit until the neonate has been confirmed negative

**References:**

1. COVID-19 (*Garis Panduan*). Guidelines 2019 Novel Coronavirus (COVID-19) Management In Malaysia No. 4/2020 <http://www.moh.gov.my/index.php/pages/view/2019-ncov-wuhan-guidelines>
2. Chinese expert consensus on the perinatal and neonatal management for the prevention and control of the 2019 novel coronavirus infection (First edition). *Laishuan Wang, Yuan Shi et al. on behalf of the Working Committee on Perinatal and Neonatal management for the Prevention and Control of the 2019 Novel Coronavirus Infection. Ann Trans Med 2020;8(3):47*
3. American College of Obstetricians and Gynecologists. Practice Advisory: Novel Coronavirus 2019 (COVID-2019). <https://www.acog.org/Clinical-Guidance-and-Publications/Practice-Advisories/Practice-Advisory-Novel-Coronavirus2019>

Appendix:

**A: Borang Pemantauan Harian Bagi Bayi Yang Dijangkiti COVID-19**

**FLOWCHART 1: Management of Asymptomatic Neonate Admitted to the Ward**

**FLOWCHART 2: Management of Symptomatic Neonate Admitted to the Ward**

**APPENDIX A:**



### Borang Pemantauan Harian Bagi Bayi Yang Dijangkiti COVID-19

Nama	:	
No. Kad Pengenalan Ibu/ MyKid	:	
No. Telefon	:	Bimbit: ..... Rumah: .....
Alamat Rumah	:	
Tarikh Pendedahan Terakhir Kepada: Kes*	:	

- Senaraikan KESEMUANYA, gunakan mukasurat yang seterusnya – jika perlu

### JADUAL PEMANTAUAN HARIAN

#### ARAHAN:

Bagi sebarang gejala yang dilaporkan oleh kontak, sila tandakan (√) pada ruangan yang berkenaan,

Hari 1	Hari 2	Hari 3	Hari 4	Hari 5	Hari 6
<b>Tarikh:</b> ...../...../..... ..	<b>Tarikh:</b> ...../...../..... ..	<b>Tarikh:</b> ...../...../..... ..	<b>Tarikh:</b> ...../...../..... ..	<b>Tarikh:</b> ...../...../..... ..	<b>Tarikh:</b> ...../...../..... ..
<b>Gejala :</b> Demam ( ) Batuk ( ) Nafas Laju ( ) Kurang Menyusu ( ) Kurang Aktif ( )	<b>Gejala :</b> Demam ( ) Batuk ( ) Nafas Laju ( ) Kurang Menyusu ( ) Kurang Aktif ( )	<b>Gejala :</b> Demam ( ) Batuk ( ) Nafas Laju ( ) Kurang Menyusu ( ) Kurang Aktif ( )	<b>Gejala :</b> Demam ( ) Batuk ( ) Nafas Laju ( ) Kurang Menyusu ( ) Kurang Aktif ( )	<b>Gejala :</b> Demam ( ) Batuk ( ) Nafas Laju ( ) Kurang Menyusu ( ) Kurang Aktif ( )	<b>Gejala :</b> Demam ( ) Batuk ( ) Nafas Laju ( ) Kurang Menyusu ( ) Kurang Aktif ( )

Hari 7	Hari 8	Hari 9	Hari 10	Hari 11	Hari 12
<b>Tarikh:</b> ...../...../..... ...	<b>Tarikh:</b> ...../...../..... ...	<b>Tarikh:</b> ...../...../..... ...	<b>Tarikh:</b> ...../...../..... ...	<b>Tarikh:</b> ...../...../..... ...	<b>Tarikh:</b> ...../...../..... ...
<b>Gejala :</b> Demam ( ) Batuk ( ) Nafas Laju ( ) Kurang Menyusu ( ) Kurang Aktif ( )	<b>Gejala :</b> Demam ( ) Batuk ( ) Nafas Laju ( ) Kurang Menyusu ( ) Kurang Aktif ( )	<b>Gejala :</b> Demam ( ) Batuk ( ) Nafas Laju ( ) Kurang Menyusu ( ) Kurang Aktif ( )	<b>Gejala :</b> Demam ( ) Batuk ( ) Nafas Laju ( ) Kurang Menyusu ( ) Kurang Aktif ( )	<b>Gejala :</b> Demam ( ) Batuk ( ) Nafas Laju ( ) Kurang Menyusu ( ) Kurang Aktif ( )	<b>Gejala :</b> Demam ( ) Batuk ( ) Nafas Laju ( ) Kurang Menyusu ( ) Kurang Aktif ( )
Hari 13	Hari 14	Hari 15	Hari 16	Hari 17	Hari 18
<b>Tarikh:</b> ...../...../..... ...	<b>Tarikh:</b> ...../...../..... ...	<b>Tarikh:</b> ...../...../..... ...	<b>Tarikh:</b> ...../...../..... ...	<b>Tarikh:</b> ...../...../..... ...	<b>Tarikh:</b> ...../...../..... ...

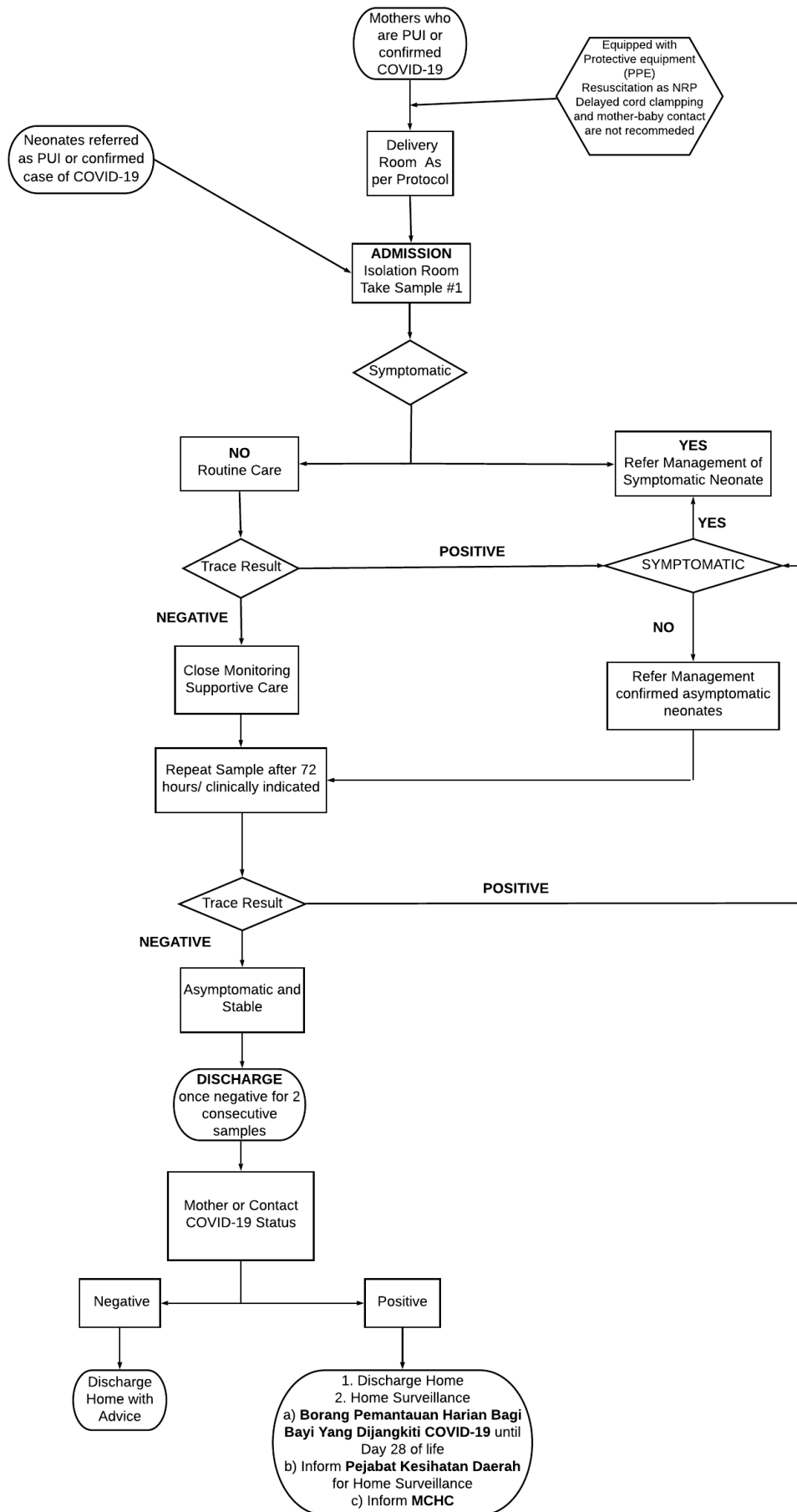
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Hari 19	Hari 20	Hari 21	Hari 22	Hari 23	Hari 24
<b>Tarikh:</b> ...../...../..... ...	<b>Tarikh:</b> ...../...../..... ...	<b>Tarikh:</b> ...../...../..... ...	<b>Tarikh:</b> ...../...../..... ...	<b>Tarikh:</b> ...../...../..... ...	<b>Tarikh:</b> ...../...../..... ...
<b>Gejala :</b> Demam ( ) Batuk ( ) Nafas Laju ( ) Kurang Menyusu ( ) Kurang Aktif ( )	<b>Gejala :</b> Demam ( ) Batuk ( ) Nafas Laju ( ) Kurang Menyusu ( ) Kurang Aktif ( )	<b>Gejala :</b> Demam ( ) Batuk ( ) Nafas Laju ( ) Kurang Menyusu ( ) Kurang Aktif ( )	<b>Gejala :</b> Demam ( ) Batuk ( ) Nafas Laju ( ) Kurang Menyusu ( ) Kurang Aktif ( )	<b>Gejala :</b> Demam ( ) Batuk ( ) Nafas Laju ( ) Kurang Menyusu ( ) Kurang Aktif ( )	<b>Gejala :</b> Demam ( ) Batuk ( ) Nafas Laju ( ) Kurang Menyusu ( ) Kurang Aktif ( )

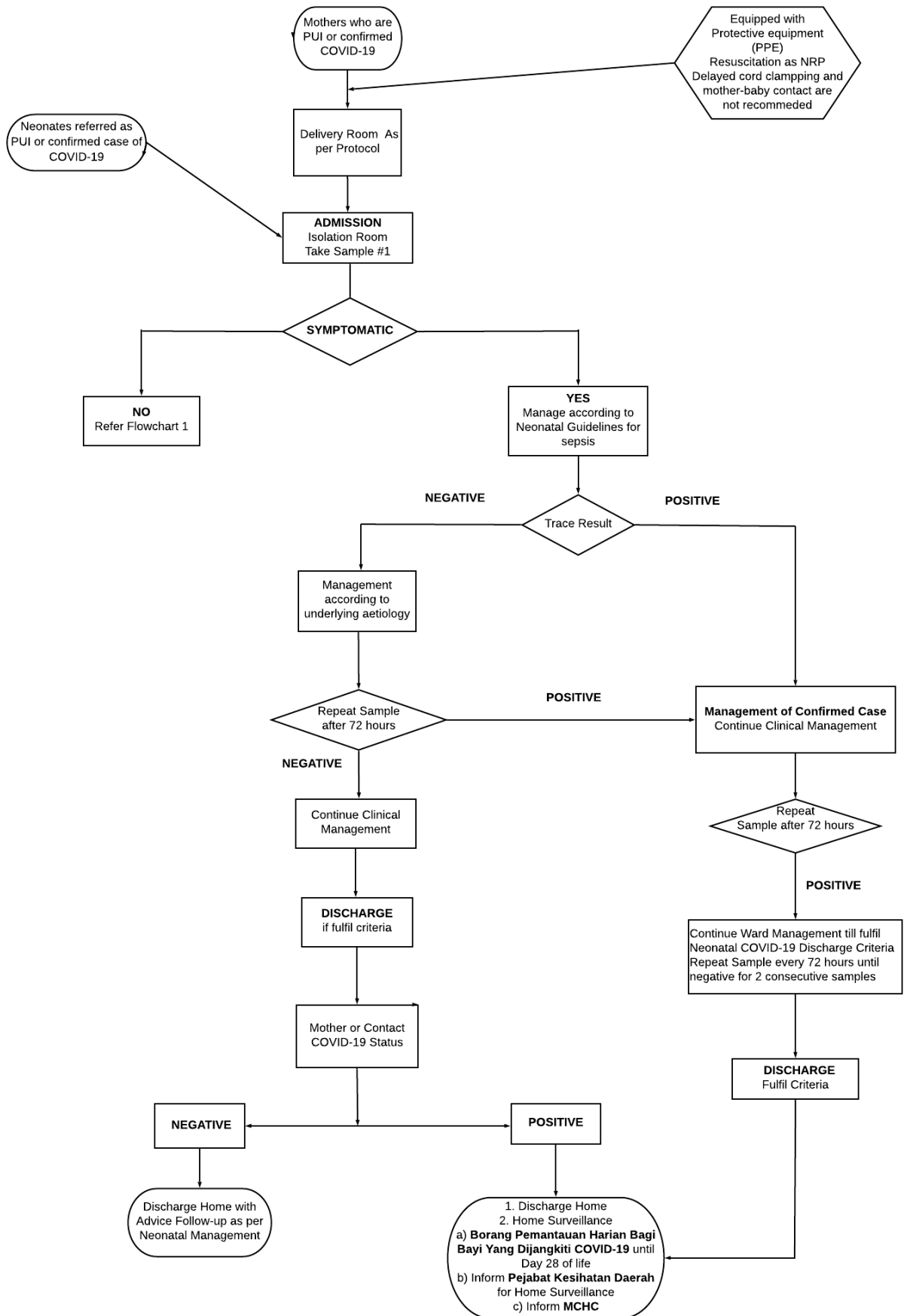
**NOTA:**

- *Hari 1 bermula pada tarikh bayi dibenarkan pulang*
- *Dipantau sehingga bayi berumur 28 hari*

FLOWCHART 1: MANAGEMENT OF ASYMPTOMATIC NEONATE ADMITTED TO THE WARD



FLOWCHART 2: MANAGEMENT OF SYMPTOMATIC NEONATE ADMITTED TO THE WARD



# QUARANTINE STATION

## 1.0 Introduction

Establishment of quarantine station is a requirement under section 14 of Prevention and Control of Infectious Disease Act 1988 (Act 342). It is to be used for isolation or observation on any persons who is infected or whom the Authorised Officer has reason to believe that a person is infected, to be removed to a quarantine station for treatment and may detain the person at the quarantine station until the person can be discharged without posing any danger to the public.

Quarantine station can be hospitals or non-hospital facility which is declared and gazetted by the Minister of Health.

## 2.0 Objective of Isolation of a Person at Quarantine Station

- i. To separate infected or potentially infected person from healthy people (isolation/quarantine).
- ii. To restrict movement of infected person in order to stop the spread of SAR-CoV-2.

## 3.0 Criteria of premises for quarantine

Pre-requisite requirement of a gazetted premise for quarantine of suspected and confirmed COVID-19 is as below:

- i. Single room with good ventilation, preferably for all cases BUT compulsory for all PUI;
- ii. If shared room is unavoidable, the distance between each bed must be at least 1 metre apart. This cohorting procedure is applicable to positive cases only;
- iii. Preferably, each room must have attached bathroom and toilet;
- iv. There must be a room for keeping medication, consumable items, linen and PPE; and
- v. There must be a room for clinical examination.

## 4.0 Criteria for admission

### Hospital

- i. Symptomatic and asymptomatic close contact
- ii. Positive cases with mild symptoms or asymptomatic.

### Non-hospital premises

- i. Confirmed COVID-19 cases referred by hospital (**Annex 2**).

- ii. PUI with mild symptoms, while waiting for laboratory result and unable to do self-isolation at home.
- iii. Other groups based on current situation e.g. asymptomatic close contact.

## **5.0 Activities conducted**

### **i. At Hospital Based Quarantine Centre**

Management of persons admitted into hospitals (based on the above criteria), will be based on current guidelines on COVID-19 Management in Malaysia.

### **ii. At non-hospital Quarantine Centre**

1. Serve Home Surveillance order.
2. Daily update of the list of persons under quarantine, laboratory results and to update list of contacts.
3. Provision of food and other daily necessities during the quarantine period.
4. Daily screening of symptoms and maintain its records.
5. Provision of medical services.
6. Refer case to hospital if symptoms develop or worsening of symptoms.

## **6.0 Management of Quarantine Centre**

### **6.1 Hospital-based Quarantine Centre**

The hospital management is responsible for the operation of this type of quarantine centre.

### **6.2 non-Hospital Quarantine Centre**

At the national level, the National Security Council is in-charge, the State Secretary at the state level and the District Officer at the district level in overall management of the centre. However, it involves the cooperation of multiple agencies which include District Health Office, District Welfare Department, Malaysian Royal Police, Army, Local Council and RELA, PGA etc.

#### **i. General Cleanliness**

Local Council is responsible for the general cleanliness.

#### **ii. Clinical waste**

Collection and disposal of clinical waste at the centre is the responsibility of District Health Office

#### **iii. General waste**

Collection and disposal of general waste is the responsibility of Local Council.

#### **i.v Food**

Food supply will be dealt by the District Welfare Department and the food quality and safety aspect will be coordinated by the District Health Officer.

#### **vi. Water Supply**

Water supply to the centre should be managed by the Work Department (JKR).

#### **vi. Security**

The centre will be guarded by PGA or RELA or PDRM, depending on local arrangement. It is to ensure that the place is secured and preventing escape of the individual from custody.

#### **vii. Staff duty**

Staff on duty shall be coordinated by the Incidence Commander of that centre.

#### **viii. Linen**

The management of linen and clinical waste should be managed by the concession, extended from the hospital services.

### **7.0 Clinical Management of Person in Quarantine Centre**

Management of patients in hospitals in under the jurisdiction of the doctor in the hospitals.

Meanwhile, those in the non-hospital quarantine centre will be managed by the health team selected by the District Health Officers.

#### **Pre-entry:**

- i. Fulfilled criteria as above.
- ii. Serve Home Surveillance Order.
- iii. Take sample based on the criteria set at that particular time.
- iv. Send patient to the centre using a transport coordinated by MKN / APM.
- v. Phone call or message to the District Health Officer in-charge of the centre.

#### **During the stay:**

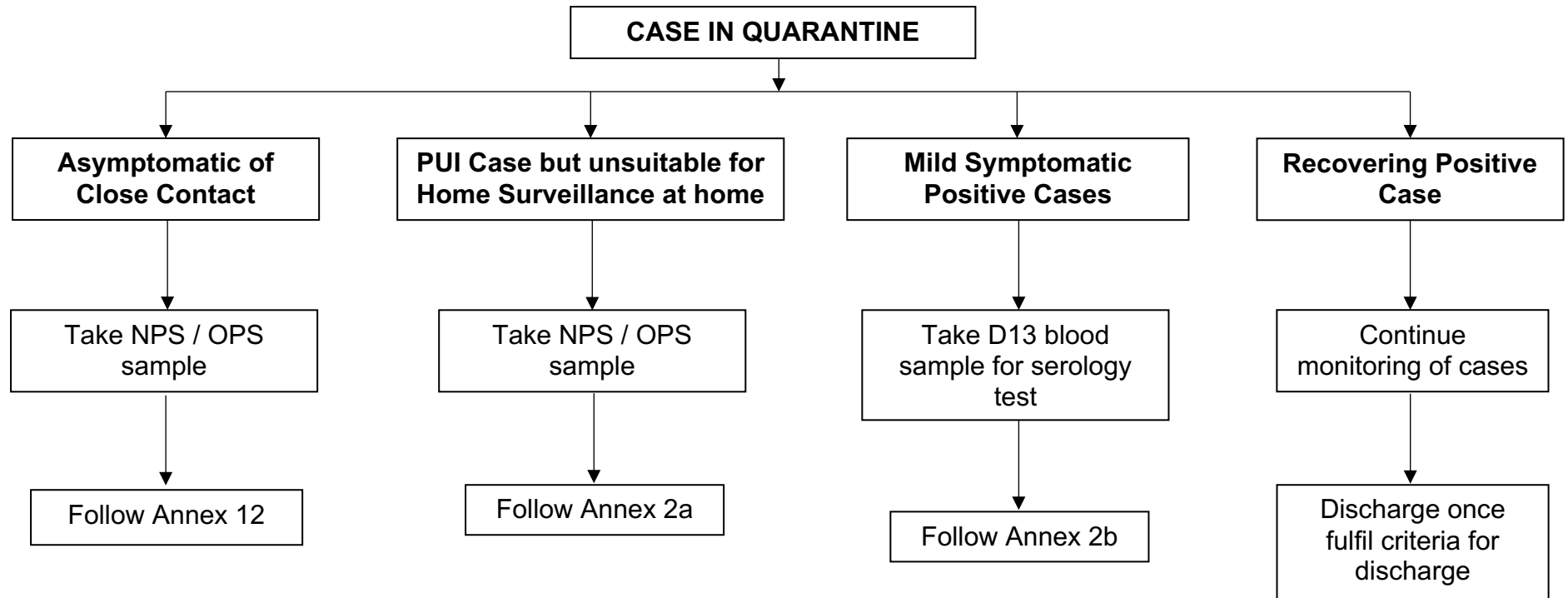
- i. Daily assessment of the clinical status of the person.
- ii. Consult physician for advice if ARI symptoms are detected.
- iii. Sample taken on day-13 (D13) of quarantine for those required.
- iv. Serve discharge order once the result obtained and negative.
- v. Refer case to hospital if laboratory result is positive.

## **Discharge Criteria from Quarantine Station**

- i. Asymptomatic at D14 of last contact with positive case.
- ii. Negative D13 serology for asymptomatic close contact.
- iii. Positive case step down from acute hospital and fulfil discharge criteria (**Annex 2**)



## Summary on Management of Cases in Quarantine Centre









## MENTAL HEALTH AND PSYCHOSOCIAL SUPPORT IN COVID-19

### i. Mental Health in a Crisis Situation

During crisis / disasters / outbreaks, any individual may be affected emotionally as is happening during the COVID-19 crisis. Everyone reacts or responds differently to stressful situations. How a person responds to the crisis / disasters / outbreaks is influenced by individual background, the differences compared to others, and the community they live in. It is common for individuals to feel stressed, worried and anxious. Fear and anxiety about COVID-19 can be overwhelming and cause strong emotions in an individual.

Common responses of people that may be affected varies from one person to the other.

These include:

- Worry of possibility that their family members are infected
- Fear of falling ill and dying and losing loved ones
- Feeling helpless – not able to protect loved ones
- Stress and anxiety especially due to separation (from loved ones and caregivers) because of being quarantined
- Fear of being placed under home surveillance because of the disease
- Avoiding health facilities due to fear of becoming infected while in care
- Fear of not being able to work during isolation, and of being dismissed from work
- Feelings of helplessness, boredom, loneliness and depression due to being isolated

**During the COVID-19 outbreak, a person can experience anxiety and panic symptoms due to:**

- Lack of information or facts
- Rumours and fake news being spread
- Influence by social media

Fear and anxiety about a disease can be overwhelming and cause strong emotions in adults and children. Coping with stress will make the individual, the people they care about, and the whole community stronger. These feelings can be normal in view of the outbreak, however, how you respond makes a difference

### **Psychological Impact Encountered When Staying Indoors**

Spending time indoors can cause a different psychological impact depending on how a person reacts and responds to the situation. On a positive note, some can have a positive psychological impact such as improving social connectedness with family members staying in the same indoor environment. However, for some, negative psychological impact are as follows:

- Increased stress due to not being able to perform outdoor routines and activities, not being able to see friends
- Worry and anxiety about not being able to be physically present eg; to help loved ones
- Helplessness, boredom, loneliness, and depression can also set in

### **Signs that indicate that your mental health is affected and you need psychosocial support**

Mental health is part of an individual overall health. You can keep track of your mental health. These are the signs to look for:

- Drastic changes in sleeping pattern eg- insomnia
- Changes in appetite
- Extreme mood changes - Easily angry, agitated or irritable  
- Feeling extremely sad
- Severe tiredness and feeling easily fatigued
- Losing interest on the things you loved to do
- Withdrawal from family members and friends
- Difficulty in focusing or concentrating
- Losing interest in the things you love to do
- Withdrawal from family members and friends
- Desire to increase alcohol or tobacco use

#### **ii. Definition of Mental Health and Psychosocial Support (MHPSS)**

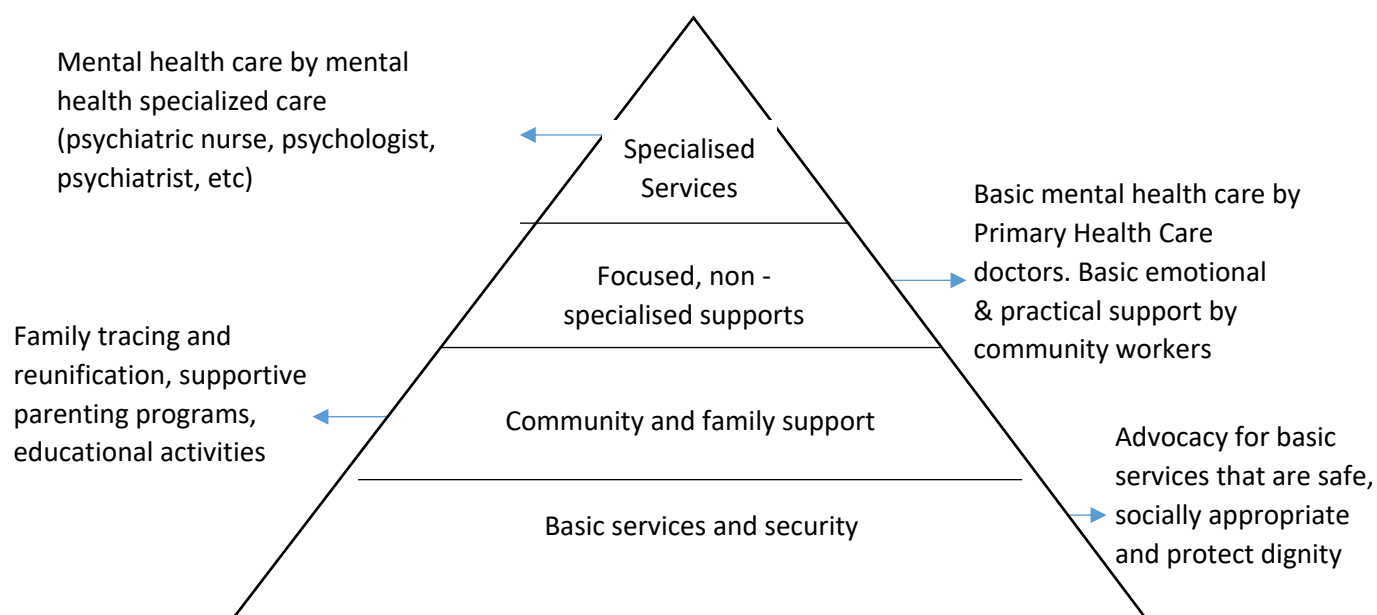
The composite term 'Mental Health and Psychosocial Support' (MHPSS) refers to any type of local or outside support that aims to protect or promote psychosocial well-being or prevent or treat mental disorders. Support may include interventions in health, education, or interventions that are community-based. The term 'MHPSS Problems'

covers social problems, emotional distress, common mental disorders (such as depression and post traumatic stress disorder), severe mental disorders (such as psychosis), alcohol and substance abuse, and intellectual disability. It is widely used to describe the range of activities that used to improve the well-being of individuals in their worries or COVID-19 and to treat mental disorders.

MHPSS in disasters includes any support that people receive to protect or promote their mental health and psychosocial wellbeing during disasters/ crises/ epidemics/ pandemics or outbreaks and to treat mental disorders. Psychosocial support also helps individuals and communities to heal the psychological effect and rebuild social structures after a crisis or disaster. The term psychosocial refers to the close relationship between the individual and the collective aspects of any social entity especially for the healthcare workers (HCW). One of the components of MHPSS is prevention and treatment of psychiatric disorders such as depression, anxiety and post-traumatic stress disorder (PTSD).

#### **iv. Principles of Mental Health and Psychosocial Support to COVID-19**

The delivery of MHPSS services to all level of victims involved in Disaster in general and specifically during COVID-19 follows the principle that basic needs shall be provided to all victims, followed by restoration of community and family support and followed by focused and specialized services to a smaller subgroup within those affected by crisis. Below explains the model of MHPSS role in each level of need.



**FIGURE 1: INTERVENTION PYRAMID FOR MENTAL HEALTH AND PSYCHOSOCIAL SUPPORT IN EMERGENCIES (INTER-AGENCY STANDING COMMITTEE (IASC), FIGURE 1 (2010))**

- All layers of the Intervention Pyramid are important and should ideally be implemented concurrently
- During the initial response, attention will also be given to those who are in need of MHPSS including Psychological First Aid (PFA).
- Referrals for further intervention of HCW and Persons Under Investigation (PUI) to Family Medicine Specialists, Psychiatrists or Psychologists is to be done when necessary

**v. Action Plan of Mental Health and Psychosocial Support Services of Ministry of Health (MOH)**

The action plan of MHPSS during disasters is carried out at national, state and district levels. At each level, there will be MHPSS coordinators (national, state and district) that coordinate MHPSS implementation.

**(a) National level**

At the national level, the Mental Health, Substance Abuse and Violence Injury Prevention Sector, Disease Control Division, Ministry of Health shall be responsible as the focal point in coordinating the MHPSS activities. The National Coordinator shall also liaise with the State Psychiatrist and Counsellor in the delivery of the MHPSS services

The scope is as follows:



- Assess and plan MHPSS needs (e.g funding, logistic, facilities) during a crisis situation
- Coordinate necessary resources to provide psychosocial support
- Coordinate the mobilization of MHPSS teams
- Provide training to response worker / volunteers on psychosocial response
- Compile and analyse data on MHPSS activities
- Collaborate and liaise with other agencies
- Provide reports to Higher Management level of MOH - Director General of Health, Deputy Director General (Public Health), Director of Disease Control Division.

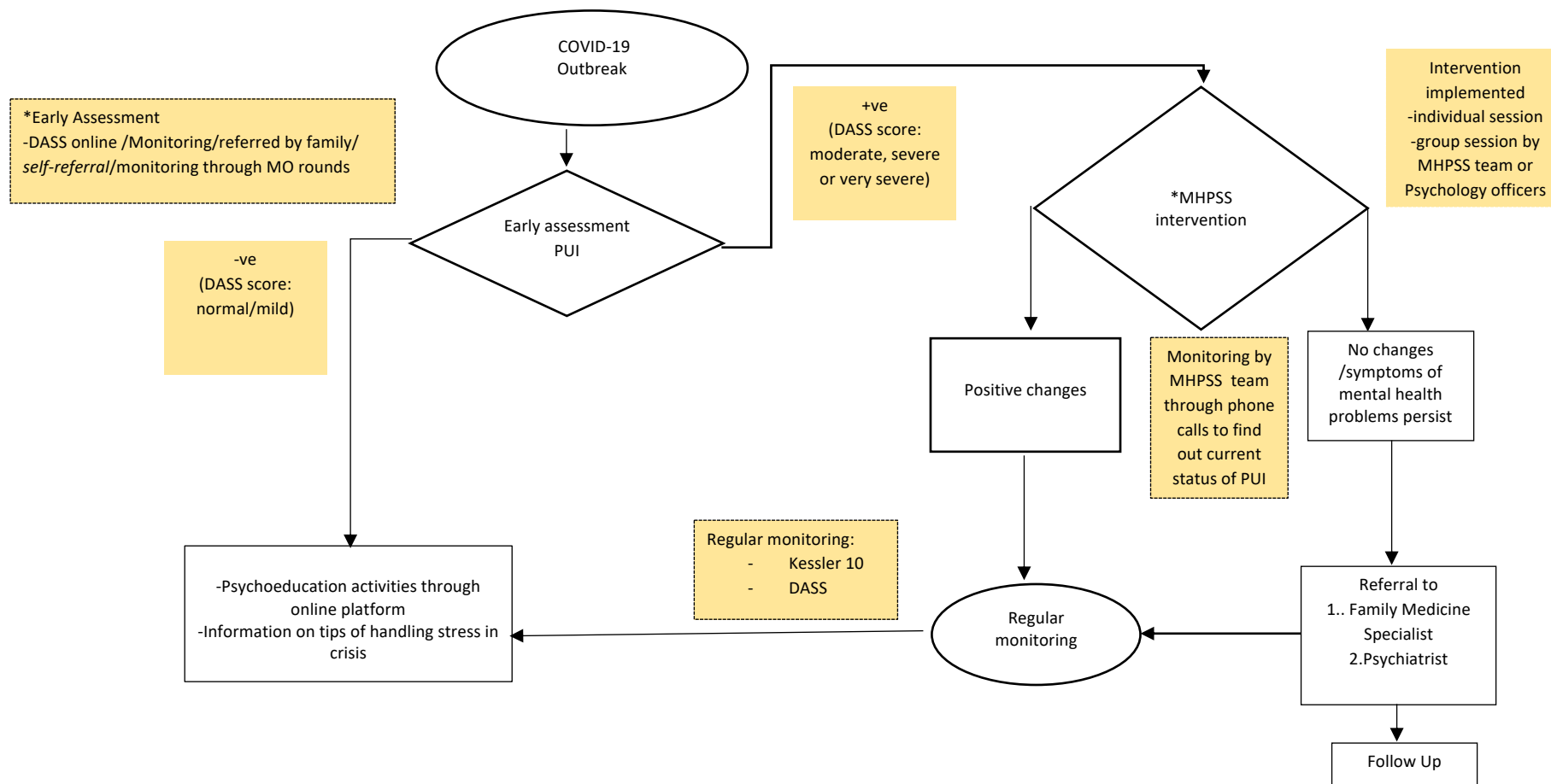
**(b) State level**

At state level, the Non-Communicable Disease (NCD) Unit, State Health Department shall coordinate the MHPSS activities. The State NCD coordinator will also liaise with the State Psychiatrist and Counsellor in the delivery of the MHPSS services.

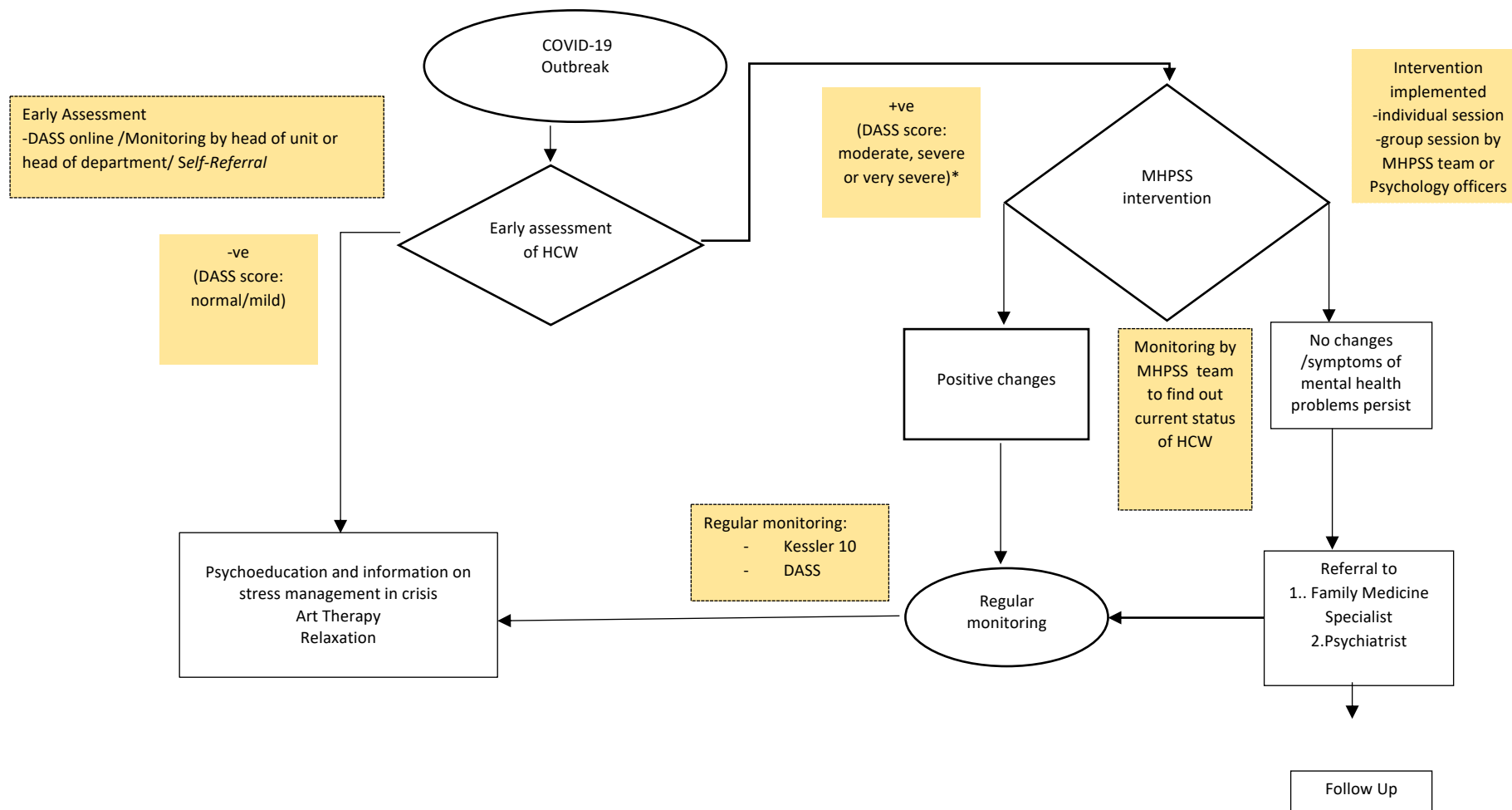
The scope is as follows:

- Plan and evaluate MHPSS needs (e.g funding, logistic, facilities)
- Coordinate the MHPSS activities
- Determine the type of MHPSS services required
- Plan and provide training for MHPSS support team at state level
- Liaise with the Mental Health Unit, Disease Control Division of MOH
- Provide technical advice to State Health Director on matters / issues related to MHPSS
- Collaborate and coordinate with other agencies in providing MHPSS services at state / district level.
- Compile and analyse data on MHPSS activities and report to National CPRC.
- Maintain directory of personnel trained in providing MHPSS
- Coordinate provision of MHPSS upon request from other agencies

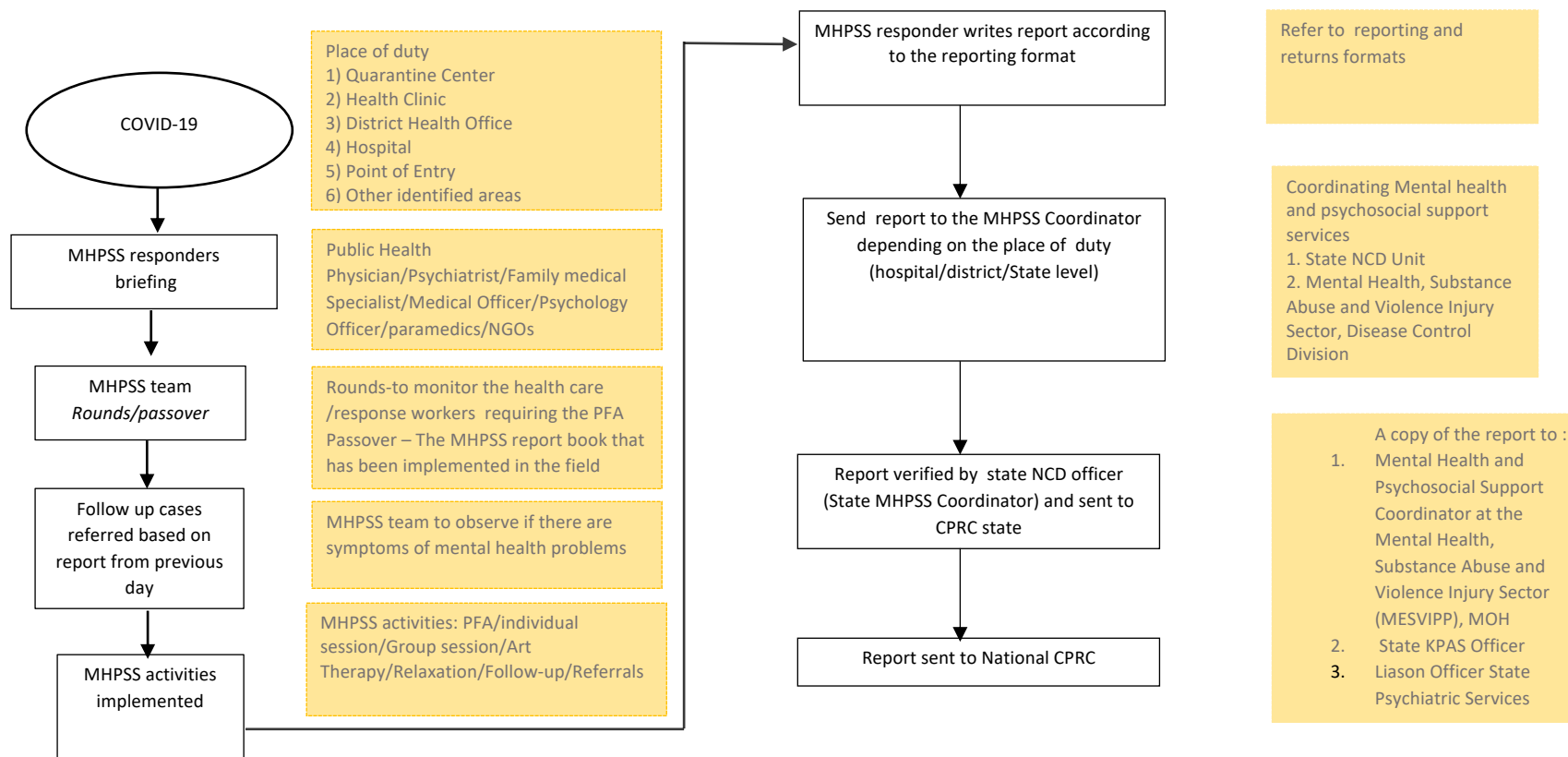
## FLOW CHART OF MENTAL HEALTH AND PSYCHOSOCIAL SUPPORT SERVICES FOR PERSONS UNDER INVESTIGATION - COVID-19



## FLOW CHART OF MENTAL HEALTH AND PSYCHOSOCIAL SUPPORT SERVICES FOR HEALTH CARE WORKERS (HCW) /RESPONSE WORKERS - COVID-19



## FLOW CHART OF REPORTING MENTAL HEALTH AND PSYCHOSOCIAL SUPPORT ACTIVITIES - COVID 19



## vi. **Mental Health And Psychosocial Support Services**

This topic outlines role of MHPSS coordinator, the service coverage and activities that are possibly delivered during crisis.

### **Role of MHPSS Coordinator**

1. Get line listing of PUI quarantined in homes in their respective states
2. Get line listing of HCW involved with COVID-19 in hospitals and District Health Offices
3. Briefing / coordination meeting with stakeholders  
(State Psychiatrist, State Psychology Officer, State Family Medicine Specialist)
4. Mapping out services
5. Duty Schedule

### **MHPSS Providers**

- Public Health Physician
- Family Medicine Specialist
- Psychiatrist
- Medical Officer
- Clinical Psychologist
- Psychology Officer
- Paramedics (Assistant Medical Officers, Nurses)
- Medical Social Worker
- NGOs

### **Service Coverage: Target Group for MHPSS**

1. PUI (Persons Under Investigation) undergoing home surveillance/quarantine
2. HCW (frontliners) taking care of patients in COVID-19 wards / hospitals
3. HCW (frontliners) who perform screening and swab collection
4. HCW performing contact tracing at State and District levels
5. HCW in Crisis Preparedness and Response Centre (CPRC) at National, State and District levels who are involved in COVID-19
6. Other responders from other agencies involved in COVID-19 eg Cleaning services and waste management service workers

**Activities**

1. Initial mental health assessment
  - Screening using Depression, Anxiety and Stress Scale (DASS) through Google Form
2. Psychological First Aid
3. Psychological Intervention
  - a) Group session
  - b) Individual Session
4. Outreach posters / flyers – physical and online
5. Distribution of Mental Health Alert Card
6. Art Therapy
7. Consultation and Treatment
8. Referrals to Specialized services in hospitals
9. Collaboration and coordination of all providers of psychosocial support from various agencies. (Other Government Agencies, NGO's)
10. Training of all response personnel
11. Documentation (reports)

**vii. General Tips for Mental Health Care**

- 1) Eat and drink mindfully.
- 2) Reduce stressors (causes of stress). Many people find that life is filled with various demands and limited time or resources. Try to reduce your expectations and prioritize immediate issues to be addressed. Control what you can within your capacity and leave behind issues beyond your control.
- 3) Exercise regularly. Choose non-competitive exercise and set reasonable goals. Aerobic exercise has been shown to release endorphins (natural substances that help you feel better and maintain a positive attitude).
- 4) Practice relaxation techniques. Choose from a variety of different techniques. Combine opposites; Relax and Exercise: a time for deep relaxation and a time for aerobic exercise is a sure way to protect your body from the effects of stress.
- 5) Effective stress management skills involve setting priorities, pacing yourself, taking time out for yourself and asking for help when appropriate
- 6) Set realistic goals and expectations. It's okay, and healthy, to realize you cannot be 100% successful at everything at once.
- 7) Assert yourself. You do not have to meet others' expectations or demands. It's okay to say "No." Remember, being assertive allows you to stand up for your rights and beliefs while respecting those of others.
- 8) Restrain yourself from smoking or vaping or other unhealthy activities. Aside from the obvious health risks of cigarettes, nicotine acts as a stimulant and brings on more stress symptoms. Alcohol and emotional eating do not reduce stress, but it actually adds to it.
- 9) When you are feeling overwhelmed, remind yourself of what you do well. Have a **healthy** sense of **self-esteem**.

**Several methods you can use to relax or reduce stress including:**

- Deep breathing exercises
- Meditation / Yoga
- Progressive muscle relaxation
- Mental imagery relaxation
- Sensory relaxation eg: listening to music
- Art and expressive technique

- Talk to someone you trust
- Stay connected with team members

viii. **Activities to support mental wellbeing during home surveillance or quarantine**

While at home, with the, it is important that you maintain safe communication with your loved ones, friends and social network through existing social media channels to reduce loneliness and psychosocial isolation.

- If health authorities have recommended limiting your physical social contact to contain the outbreak eg Movement Control Order, you can stay connected via e-mail, social media (WhatsApp, WeChat, Skype, Messenger, Instagram), video conference, telephone and others
- Try as much as possible to keep your personal daily routines or create new routines
- Practise relaxation exercise (deep breathing, progressive muscle relaxation)
- Reduce time looking for information in the internet in a day, only search from reliable source, reduce time listening to rumours
- Do physical indoor exercise for example exercise on a yoga mat, stretching, yoga
- Reading and listening to music
- Spend more time physically with your children and family members for example
  - ✓ listen and talk to them about their likes and hobbies,
  - ✓ helping them with their tasks,
  - ✓ eating together,
  - ✓ for Muslims perform *solat Jemaah* with family members
- Find new hobbies you can do indoors with family members for example playing carom, chess, board games
- Look into new food recipes and try them out
- Learn about positive coping skills



**ix. Managing Anxiety and Panic**

Worry and feeling anxious is a common reaction upon perceived danger. These are some techniques to be implemented to manage fear and anxiety.

**a) Normalize Anxiety**

- Anxiety can be healthy but not all people know that it typically acts as a useful and protective emotion.
- Adults can help young people appreciate that healthy anxiety has a purpose: It alerts us to potential threats and helps us move toward safety. “Feeling some anxiety,” we might say calmly, “makes sense right now. You’re having the right reaction to the emerging news about the coronavirus.”
- From there, we can encourage teenagers to channel their discomfort into useful actions, such as learning about and following the recommended health guidelines

**b) Offer Perspectives**

- Anxiety is unhealthy only when it occurs in the absence of a real threat — when there is nothing to be worried about at all or when it reaches heights that are grossly out of proportion to the threat involved, such as when an individual experiences a panic attack over a minor quiz.
- Help peoples keep their worries about the COVID-19 at an appropriate level by making sure they don’t overestimate the dangers or underestimate their ability to protect themselves from those dangers.

**c) Shift the Spotlight- basic needs (food and care)**

- During difficult times, research suggests the better approach is when we turn our attention to supporting one another. Highlight and remind that we need to wash our hands and follow other health recommendations not only to protect ourselves, but also to help to ease the strain on local medical systems. This also helps to reduce the chance of carrying illness into our own communities.
- If you are stocking up on groceries in case of being asked to stay at home or self-quarantined, take the opportunity to talk to your family about the challenges faced by people in need and consider donating non-perishables to a local food bank.

**d) Encourage Distraction**

- When we fixate on dangers, anxiety grows, and when we turn our attention elsewhere, it shrinks. That said, it might be hard for some peoples not to be obsess about COVID-19 given that the topic pervades headlines and social media. Concerns about disease spread has led to loss of income, closure of schools and caused the cancellation of long-scheduled events.
- Constant availability of the latest information about COVID-19 may spur some individuals to compulsively check for news updates. This, however, may offer little emotional relief.
- Clear information about a potential threat helps people feel better, but ambiguous information does nothing to reduce anxiety or the urge to seek reassurance.
- Remind them not to rely on rumours or unreliable sources.

**e) Managing parents' anxiety**

- Anxious parents are more likely to have anxious children. As a parent, they need to reduce their own anxiety before trying to support a fretful family member. Tense adults should take steps to calm their own nerves.
- To do so, they can use the same strategies outlined above.

**x. Recommended Interventions for Mental Health Care**

- a) General Population : Appendix 1
- b) Health Care Workers : Appendix 2
- c) Team Leaders and Managers in Health Facilities : Appendix 3
- d) Care Providers for Children : Appendix 4

***Appendix 1*****GENERAL POPULATION**

1. COVID-19 has and is likely to affect people from many countries, in many geographical locations. Do not attach it to any ethnicity or nationality. Be empathetic to all those who are affected, in and from any country. People who are affected by Covid-19 have not done anything wrong, and they deserve our support, compassion and kindness.
2. Do not refer to people with the disease as “COVID-19 cases”, “victims” “COVID-19 families” or the “diseased”. They are “people who have COVID-19”, “people who are being treated for COVID19”, “people who are recovering from COVID-19” and after recovering from COVID-19 their life will go on with their jobs, families and loved ones. It is important to separate a person from having an identity defined by COVID-19, to reduce stigma.
3. Minimize watching, reading or listening to news that causes you to feel anxious or distressed; seek information only from trusted sources and mainly to take practical steps to prepare your plans and protect yourself and loved ones. Seek information updates at specific times during the day, once or twice. The sudden and near-constant stream of news reports about an outbreak can cause anyone to feel worried. Get the facts; not the rumours and misinformation. Gather information at regular intervals, from Ministry of Health (MOH) website and local health authorities’ platforms, in order to help you distinguish facts from rumours. Facts can help to minimize fears.
4. Protect yourself and be supportive to others. Assisting others in their time of need can benefit the person receiving support as well as the helper. For example, check in on your neighbours or people in your community who may need some extra assistance by phone. Working together as one community can help to create solidarity in addressing COVID-19 together.
5. Find opportunities to amplify positive and hopeful stories and positive images of local people who have experienced COVID-19. For example, stories of people who have recovered or who have supported a loved one and are willing to share their experience.

6. Honour caretakers and healthcare workers supporting people affected with COVID-19 in your community. Acknowledge the role they play to save lives and keep your loved ones safe.

For Healthcare Workers, feeling under pressure is a likely experience for you and many of your Health Care Worker colleagues. It is quite normal to be feeling this way in the current situation. Stress and the feelings associated with it are by no means a reflection that you cannot do your job or that you are weak. Managing your mental health and psychosocial wellbeing during this time is as important as managing your physical health. You are most likely to know how to de-stress and you should not be hesitant in keeping yourself psychologically well. This is not a sprint; it's a marathon.

1. Take care of yourself at this time. Try and use helpful coping strategies such as ensuring sufficient rest and respite during work or between shifts, eat sufficient and healthy food, engage in physical activity, and stay in contact with family and friends.
2. Avoid using unhelpful coping strategies such as tobacco, alcohol or other drugs. In the long term, these can worsen your mental and physical wellbeing.
3. Some HCW may unfortunately experience avoidance by their family or community due to stigma or fear. This can make an already challenging situation far more difficult. If possible, staying connected with your loved ones including through digital methods is one way to maintain contact. Turn to your colleagues, your manager or other trusted persons for social support - your colleagues may be having similar experiences to you.
4. Use understandable ways to share messages with people with intellectual, cognitive and psychosocial disabilities. Forms of communication that do not rely solely on written information should be utilized if you are a team leader or manager in a health facility.
5. Know how to provide support to, for people who are affected with COVID-19 and know how to link them with available resources. This is especially important for those who require mental health and psychosocial support. The stigma associated with mental health problems may cause reluctance to seek support for both COVID-19 and mental health conditions.

***Appendix 3***

## **TEAM LEADERS OR MANAGERS IN HEALTH FACILITY**

Keeping all staff protected from chronic stress and poor mental health during this response means that they will have a better capacity to fulfil their roles. Be sure to keep in mind that the current situation will not go away overnight and you should focus on longer term occupational capacity rather than repeated short-term crisis responses.

1. Ensure good quality communication and accurate information updates are provided to all staff. Rotate workers from higher-stress to lower-stress functions. Partner inexperienced workers with their more experienced colleagues. The buddy system helps to provide support, monitor stress and reinforce safety procedures. Ensure that outreach personnel enter the community in pairs.
2. Initiate, encourage and monitor work breaks. Implement flexible schedules for workers who are directly impacted or have a family member impacted by a stressful event. Ensure you build in time for colleagues to provide social support to each other.
3. If you are a team leader or manager in a health facility, facilitate access to, and ensure staff are aware of where they can access mental health and psychosocial support services. Managers and team leaders are also facing similar stressors as their staff, and potentially additional pressure in the level of responsibility of their role. It is important that the above provisions and strategies are in place for both workers and managers, and that managers can be a role-model of self-care strategies to mitigate stress.
4. Orient responders, including nurses, ambulance drivers, volunteers, case identifiers and workers in quarantine sites, on how to provide basic emotional and practical support to affected people using psychological first aid
5. Manage urgent mental health and neurological complaints (e.g. delirium, psychosis, severe anxiety or depression) within emergency or general health care facilities. Ensure availability of essential, generic psychotropic medications at all levels of health care. People living with chronic mental health conditions or epileptic seizures will need uninterrupted access to their medication, and sudden discontinuation should be avoided.

**Appendix 4****CARE PROVIDERS FOR CHILDREN**

Help children find positive ways to express feelings such as fear and sadness. Every child has their own way to express emotions. Sometimes engaging in a creative activity, such as playing, and drawing can facilitate this process. Children feel relieved if they can express and communicate their feelings in a safe and supportive environment.

1. Keep children close to their parents and family, if considered safe for the child, and avoid separating children and their caregivers as much as possible. If a child needs to be separated from their primary caregiver, ensure that appropriate alternative care is provided and that a social worker, or equivalent, will regularly follow up on the child.
2. Ensure that during periods of separation, regular contact with parents and caregivers is maintained, such as twice-daily scheduled phone or video calls or other age-appropriate communication (e.g., social media depending on the age of the child).
3. Maintain familiar routines in daily life as much as possible, or create new routines, especially if children must stay at home. Provide engaging age appropriate activities for children, including activities for their learning. As much as possible, encourage children to continue to play and socialize with others, even if only within the family when advised to restrict social contract.
4. During times of stress and crisis, it is common for children to seek more attachment and be more demanding on parents. Discuss COVID-19 with your children using honest and age appropriate way. If your children have concerns, addressing those together may ease their anxiety. Children will observe adults' behaviours and emotions for cues on how to manage their own emotions during difficult times.

***Appendix 5*****OLDER ADULTS, CARE PROVIDERS AND PEOPLE WITH UNDERLYING HEALTH CONDITIONS**

Older adults, especially in isolation / quarantine and those with cognitive decline / dementia, may become more anxious, angry, stressed, agitated, and withdrawn during the outbreak / while in quarantine. Provide practical and emotional support through informal networks (families) and health professionals.

1. Share simple facts about what is going on and give clear information about how to reduce risk of infection in words older people with/without cognitive impairment can understand. Repeat the information whenever necessary. Instructions need to be communicated in a clear, concise, respectful and patient way. It may also be helpful for information to be displayed in writing or pictures. Engage their family and other support networks in providing information and helping them practice prevention measures (e.g. handwashing etc.)
2. If you have an underlying health condition, make sure to have access to any medications that you are currently using. Activate your social contacts to provide you with assistance, if needed.
3. Be prepared and know in advance where and how to get practical help if needed, like calling a taxi, having food delivered and requesting medical care. Make sure you have adequate supply of all your regular medicines that you may require.
4. Learn simple daily physical exercises to perform at home, in quarantine or isolation to maintain mobility and reduce boredom.
5. Keep regular routines and schedules as much as possible or help create new ones in a new environment, including regular exercising, cleaning, daily chores, singing, painting or other activities. Help others, through peer support and checking in on your neighbours. Keep regular contact with loved ones (e.g. via phone or other accesses).
6. Prepare a personal safety pack. The pack may include a summary of basic personal information, available contacts, medical information, regular medicines for two weeks, storable preferred snacks, a bottle of water, and some personal clothes.

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2. National Guideline and Standard Operating Procedure on Mental Health and Psychosocial Support in Disaster Edition 2, 2019
3. Mental Health Considerations during COVID-19 Outbreak – World Health Organization
4. IASC Guidelines for Mental Health and Psychosocial Support In Emergency Settings WHO

## **Abbreviations**

MOH- Ministry of Health

MHPSS- Mental Health and Psychosocial Support

PFA- Psychological First Aid

PUI– Person Under Investigation

HCW– Health Care Worker

MCO- Movement Control Order

PKD- District Health Office (Pejabat Kesihatan Daerah)

DASS- Depression, Anxiety Stress Scale

K10- Kessler Psychological Distress Scale

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