

**Interim Guidelines 2019 Coronavirus disease (COVID-19) Management
University Malaya Medical Centre (UMMC)**

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Objective:

This document provides a guide for UMMC on Coronavirus Disease (COVID-19). This document incorporates existing protocols and guidelines from Kementerian Kesihatan Malaysia (KKM), World Health Organization (WHO), Centers for Disease Control and Prevention (CDC), and Victoria Health Australia.

This guideline is a supplement of the KKM COVID-19 Management in Malaysia 04/2020 and it is adapted to be used in UMMC.

This document also provides a guide for UMMC Dental Department and UMSC Emergency Department referral of suspected COVID-19 to UMMC.

Introduction:

SARS-CoV-2 is a new coronavirus which is also known as Coronavirus disease 2019 (COVID-19) identified in Wuhan in December 2019. Source of infection is currently unknown. It causes illness ranging from the common cold to more severe respiratory diseases.

It is most commonly spread through respiratory droplets, but also can spread through close personal contact. Some aerosol-generating procedures have been associated with an increased risk of transmission of coronaviruses, such as tracheal intubation, non-invasive ventilation, tracheotomy, cardiopulmonary resuscitation, manual ventilation before intubation, and bronchoscopy.

Incubation period

The incubation period is not yet known. However, the interim view on the incubation period is that it is up to 14 days, based on the nature of previous coronavirus infections.

Infectious period

Evidence on the duration of infectivity for COVID-19 infection is evolving. The risk of pre-symptomatic transmission is thought to be low. However, as a precaution an infectious period of 24 hours prior to the onset of symptoms is being used to identify and manage close contacts. Infection control precautions should be applied throughout any admission and until the department has declared the confirmed case to be released from isolation.

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Case Definition of COVID-19

1. PUI of COVID-19

Fever **OR** 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

Travel or reside in affected countries¹ in the 14 days before the onset of illness

OR

close contact² in 14 days before illness onset with a confirmed case of COVID-19

2. Confirmed Case of COVID-19:

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

¹ affected Countries as for 26 February 2020:

- i. China (including Hong Kong, Macau and Taiwan)
- ii. South Korea
- iii. Japan
- iv. Italy
- v. Iran

² close contact defined as :

- Healthcare 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

Note:

1. Please note that **transit** in an airport located in affected countries is **not** considered as having travelled to that country.

Reference : KKM Guidelines on COVID-19 Management in Malaysia No. 04/2020 (Edisi Keempat)

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3. Probable case of COVID-19 based on current situation (February 2020) :

It is recommended that clinicians consider testing people with a clinically compatible illness who travelled to any of the following countriesⁱ in the 14 days before onset of symptoms:

- Singapore
- Thailand
- Indonesia

This list is based on the volume of travel between those countries, Malaysia and China, and/or the current epidemiology of COVID-19; however, clinical and public health judgement should be applied. The recommendation does not apply to passengers who have only been in transit through an airport in these countries.

If a clinician determines that probable case should be tested then that person must be managed as a PUI.

The medical assessment prior to notification should focus on the following:

- The date of onset of illness and especially whether there are symptoms or signs of pneumonia.
- Precise travel history, especially dates of travel in China or other countries of concern.
- History of contact with sick travellers or people, overseas health care facilities and outdoor markets.

If a clinician has high degree of suspicion, particularly of returned travellers with acute respiratory infection, then he/she may discuss with COVID-19 team regarding investigation for COVID-19

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INFECTION CONTROL MEASURES

Refer to KKM Guidelines on COVID-19 Management in Malaysia No. 04/2020 (Edisi Keempat)

1. Infection control procedures including administrative rules and engineering controls, environmental hygiene, correct work practices, and appropriate use of personal protective equipment (PPE) are all necessary to prevent infections from spreading during healthcare delivery.
2. Infection control measures for patients with PUI/ suspected COVID-19 before admission at point of entry (triage/ registration counter etc):
 - a. Give patient a **surgical mask** (facemask) to wear (NOT N95 mask).
 - b. If patient unable to tolerate (tachypneic, hypoxic) - avoid surgical mask. Instruct all patients to cover nose and mouth during coughing or sneezing with tissue or flexed elbow for others.
 - c. Separate PUI cases to a dedicated waiting areas away from other patients.
 - d. Keep **more than 1 meter** distance between suspected patients and other patients.
 - e. Emphasise on respiratory hygiene: provide tissues and no-touch receptacles for disposal of tissues/biohazard bag.
 - f. Emphasise on hand hygiene: ensure alcohol hand rub bottles available in the waiting area and at the point of care.
 - g. Adequate environmental ventilation and environmental cleaning at waiting and triage areas.
3. Infection control measures to be taken by healthcare workers (HCW)
 - a. When providing care for the patient adherence to STANDARD, CONTACT AND DOPLET precautions, including the use of EYE PROTECTION is essential to prevent unnecessary exposures among HCW (including radiographer, physiotherapy etc).
This includes use of the following PPE for HCW :
 - single-use surgical mask
 - eye protection (for example, safety glasses/goggles or face shield)
 - long-sleeved gown
 - gloves (non-sterile).Patient should be wearing a mask when HCW is in the room. If patient unable to wear a mask, HCW to use N95 mask instead of surgical mask.

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b. Airborne and contact precautions should be used routinely for AGPs
This include the following PPE:

- N95 respirator (mask) – fit-check with each use
- eye protection (for example, safety glasses/goggles or face shield)
- long-sleeved gown
- gloves (non-sterile).

All PPE should be single-use and disposed of into clinical waste when removed.

Examples of Aerosol-generating procedures (AGP):

- bronchoscopy
- tracheal intubation
- non-invasive ventilation (BiPAP, CPAP, HFOV)
- manual ventilation before intubation
- intubation
- cardiopulmonary resuscitation
- sputum induction
- suctioning
- NP/OP swab especially in someone who is coughing

c. **Standard precautions** include hand and respiratory hygiene, the use of appropriate personal protective equipment (PPE) according to risk assessment, injection safety practices, safe waste management, proper linens, environmental cleaning and sterilisation of patient-care equipment.

d. After patient care, appropriate doffing and disposal of all PPE's and hand hygiene should be carried out

e. Limit the number of persons present in the room to the absolute minimum required for the patient's care and support. Only essential personnel should enter patients' room.

f. Ensure a log of all HCW who care for or enter the rooms or care area of these patients is kept in the ward, ED and all areas where patient was cared for.

Table 1.0

REQUIREMENTS	
Placement	<p>An adequately ventilated single room and door kept closed is sufficient</p> <p>If available place in single negative pressure room</p> <p>Cohorting not recommended unless absolutely necessary (consultation with infection control professional, or infectious diseases physician).</p>
Signage	Place an isolation sign to all entry points to the patient's room
Hand Hygiene	<p>Apply the WHO's My 5 Moments for Hand Hygiene approach before touching a patient, before any clean or aseptic procedure is performed, after exposure to body fluid, after touching a patient, and after touching a patient's surroundings; and as per doffing protocol (Annex 5)</p> <p>HCWs should refrain from touching eyes, nose or mouth with potentially contaminated gloved or bare hands.</p> <p>alcohol-based hand rubs (ABHR) are preferred if hands are not visibly soiled;</p> <p>wash hands with soap and water when they are visibly soiled.</p>
Gloves	Non-sterile gloves (as per standard and contact precautions).
After patient care	<p>Appropriate doffing and disposal of all PPE's and hand hygiene should be carried out.</p> <p>A new set of PPE is needed, when care is given to a different patient</p>
Equipment	<p>Equipment should be either single-use and disposable or dedicated non-critical equipment (e.g., stethoscopes, blood pressure cuffs and thermometers. Stethoscopes should be kept in the anteroom and cleaned after each use).</p> <p>If equipment needs to be shared among patients, clean and disinfect it between use for each individual patient by using the hospital recommended disinfectant wipes.</p>

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Transport of patients	<p>Limit transport and movement of the patient from the room.</p> <p>If transport or movement is necessary use routes of transport that minimize the exposures of staff, other patients and visitors to potential infection</p> <p>When outside of the airborne isolation room, patient should wear a surgical mask if not in respiratory distress. Oxygen supplement using nasal prong can be safely used under a surgical mask. Patients on oxygen therapy must be changed to nasal prongs and have a surgical mask over the top of the nasal prongs for transport (if medical condition allows).</p> <p>Patient can remove surgical mask once in the isolation room and no one else is in the room.</p> <p>notify the receiving area of the patient's diagnosis and precautions that will be required before the patient's arrival.</p> <p>Clean and disinfect surfaces that the patient comes into contact with (e.g. bed/ wheelchair) after use</p>
Portable X-ray equipment	<p>Use designated the designated portable X-ray equipment and/or other designated diagnostic equipment. All equipment used must be cleaned and disinfected between use for each individual patient by using the hospital recommended disinfectant wipes.</p>
Transport via ambulance	<p>Refer section Annex 7: Protocol for Ambulance Transfer for PUI for COVID-19</p>
Linen	<p>Used or infected linen should be place directly in alginate plastic bag.</p> <p>Ensure wet linen is double bagged and will not leak</p>
Visitors	<p>No visitors allowed. If absolutely necessary, discuss with and obtain approval from the COVID-19 team before allowing visitors into the room.</p> <p>Staff must instruct and supervise all visitors on the donning and doffing of PPE (gown, gloves, face mask, eye protection) before entering the room.</p> <p>The visit time must be limited and avoid close contact (< 1 m).</p> <p>Perform hand hygiene on entering and before leaving the room.</p>

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	Also refer KKM Guidelines on COVID-19 Management in Malaysia No. 04/2020 (Edisi Keempat)
Room / environment Cleaning	Environmental cleaning and disinfection procedures are followed consistently and correctly as per (Refer to DS0954-E02 - Guidelines and Procedure for Cleaning of the Hospital Environment). Daily isolation cleaning of admitted patients' rooms Terminal cleaning upon patient discharge from room or waiting area.
Spillage	Use chlorine granules in the spillage kit to absorb the spill (DS0954-E02 - Guidelines and Procedure for Cleaning of the Hospital Environment).
Room Turnover	A good rule of thumb is 30 to 45 minutes. During that time the door should remain closed and respiratory protection is still required to enter the room. A new patient may not be placed in the room until it has been cleaned and the time stated above has elapsed.

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PPE For HCW based on risk assessment :

- **patient should always wear a surgical face mask** during transfer and in the presence of other people.
- **Limit the number and unnecessary of personal entering the a patient's room**
- Adapted from 'Rational use of personal protective equipment for coronavirus disease 2019 (COVID-19)' from WHO (<https://apps.who.int/iris/handle/10665/331215>)

Table 2.0

Setting	Target personnel or patients	Activity	Type of PPE or procedure
Healthcare facilities			
Inpatient facilities			
Patient room	Healthcare workers	Providing direct care to COVID-19 patients.	Medical mask Gown Gloves Eye protection (goggles or face shield).
		Aerosol-generating procedures performed on COVID-19 patients.	Respirator N95 or FFP2 standard, or equivalent. Gown Gloves Eye protection Apron
	Cleaners	Entering the room of COVID-19 patients.	Medical mask Gown Heavy duty gloves Eye protection (if risk of splash from organic material or chemicals). Boots or closed work shoes
Triage	Healthcare workers	Preliminary screening not involving direct contact ^c .	Maintain spatial distance of at least 1 m. No PPE required
Laboratory	Lab technician	Manipulation of respiratory samples.	Medical mask Gown Gloves Eye protection (if risk of splash)
Administrative areas	All staff, including healthcare workers.	Administrative tasks that do not involve contact with COVID-19 patients.	No PPE required
Outpatient facilities			
Consultation room	Healthcare workers	Physical examination of patient with respiratory symptoms.	Medical mask Gown Gloves Eye protection

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	Cleaners	After and between consultations with patients with respiratory symptoms.	Medical mask Gown Heavy duty gloves Eye protection (if risk of splash from organic material or chemicals). Boots or closed work shoes
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Staff category	Hand hygiene	Eye protection	N95 mask or equivalent	Surgical mask	Gown single layer	Gloves
Housekeeping staff when cleaning patients' rooms (while patient in room) & transfer lift	Yes	Yes (if risk of splash from organic material or chemicals).	No	Yes	Yes	Yes
Housekeeping staff when cleaning transfer lift	Yes	Yes (if risk of splash from organic material or chemicals).	No	Yes	Yes	Yes
Staff escorting patients (> 1 metre from patient and no direct patient contact)	Yes	No	No	No	No	No
Staff escorting patients (within 1 metre of patient)	Yes	Yes	No	Yes	Yes	Yes
Ambulance driver for suspect /confirmed cases	Yes	No	Yes	No	Yes	Yes
Staff At Forward/ 1st Triage Counters ³ (ensure >1 metre distance from patient and no direct contact with patient)	Yes	No	No	yes	No	No
Staff caring for patient in decon room (no AGP)	Yes	Yes	No	Yes	Yes	Yes

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Staff caring for patient in decon room (conducting AGP)	Yes	Yes	Yes	No	Yes	Yes
Security officers at ED entrance (advice 1 metre distance from patients/ clients)	Yes	No	No	No	No	No
Security officers escorting patient (no direct contact with patient and > 1 metre from patient) Security officer must not follow patient into the lift	Yes	No	No	No	No	No
Security officers escorting Aggressive patient (if patient not allowing to put on face mask)	Yes	Yes	Yes	No	Yes	Yes
Staff Transporting Specimens To Lab	Yes	No	No	No	No	No

Care of critically ill patients in ICU

- Patients who require admission to ICU with severe COVID-19 are likely to have a high viral load, particularly in the lower respiratory tract.
- Contact and airborne precautions are required for patient care and are adequate for most AGPs.
 - The risk of aerosol transmission is reduced once the patient is intubated with a closed ventilator circuit. There is a potential, but unknown, risk of transmission from other body fluids such as diarrhoeal stool or vomitus or inadvertent circuit disconnection.

If a health care professional is required to remain in the patient's room continuously for a long period (for example, more than one hour), because of the need to perform multiple procedures, the use of a powered air purifying respirator (PAPR) may be considered for additional comfort and visibility

Wearing PPE whilst undertaking cleaning and disinfection

Droplet and contact precautions should be used during any cleaning and disinfection of a room where there has not been an AGP or if more than 30 minutes has elapsed since the AGP was done.

Airborne and contact precautions should be used during any cleaning and disinfection of a room where there has been an AGP performed within the previous 30 minutes

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Steps for disinfection and cleaning of a patient consultation room or inpatient room

The patient consultation room should be cleaned at least once daily and following any AGPs or other potential contamination.

There is no need to leave a room to enable the air to clear after a patient has left the room unless there was an AGP performed. Nose and throat swabs are not considered AGPs unless performed on a patient who has pneumonia. If an AGP was performed, leave the room to clear for 30 minutes.

The patient consultation room (or inpatient room after discharge of the suspected case) should now be cleaned and disinfected using the agents listed above. In most cases this will mean a wipe down with a one-step detergent disinfectant as listed above. There is no requirement to wait before the next patient is seen. The room is now suitable for consultation for the next patient.

Training and assessment:

All front-line staff will have to undergo a respirator fit testing, training and assessment on PPE donning and doffing. This will be conducted by the infection control nurse and team leader

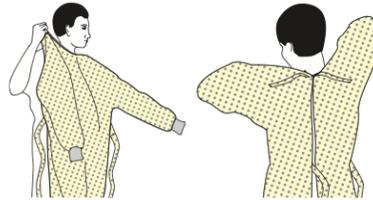
DONNING AND DOFFING OF PPE

SEQUENCE FOR PUTTING ON PERSONAL PROTECTIVE EQUIPMENT (PPE)

The type of PPE used will vary based on the level of precautions required, such as standard and contact, droplet or airborne infection isolation precautions. The procedure for putting on and removing PPE should be tailored to the specific type of PPE.

1. GOWN

- Fully cover torso from neck to knees, arms to end of wrists, and wrap around the back
- Fasten in back of neck and waist



2. MASK OR RESPIRATOR

- Secure ties or elastic bands at middle of head and neck
- Fit flexible band to nose bridge
- Fit snug to face and below chin
- Fit-check respirator



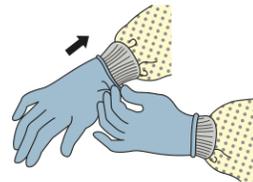
3. GOGGLES OR FACE SHIELD

- Place over face and eyes and adjust to fit



4. GLOVES

- Extend to cover wrist of isolation gown



USE SAFE WORK PRACTICES TO PROTECT YOURSELF AND LIMIT THE SPREAD OF CONTAMINATION

- Keep hands away from face
- Limit surfaces touched
- Change gloves when torn or heavily contaminated
- Perform hand hygiene



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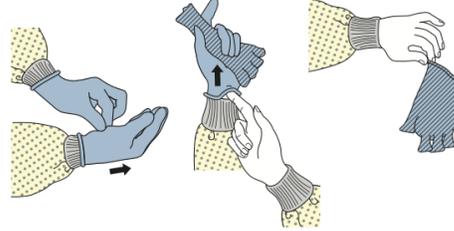
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HOW TO SAFELY REMOVE PERSONAL PROTECTIVE EQUIPMENT (PPE) EXAMPLE 1

There are a variety of ways to safely remove PPE without contaminating your clothing, skin, or mucous membranes with potentially infectious materials. Here is one example. **Remove all PPE before exiting the patient room** except a respirator, if worn. Remove the respirator **after** leaving the patient room and closing the door. Remove PPE in the following sequence:

1. GLOVES

- Outside of gloves are contaminated!
- If your hands get contaminated during glove removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Using a gloved hand, grasp the palm area of the other gloved hand and peel off first glove
- Hold removed glove in gloved hand
- Slide fingers of ungloved hand under remaining glove at wrist and peel off second glove over first glove
- Discard gloves in a waste container



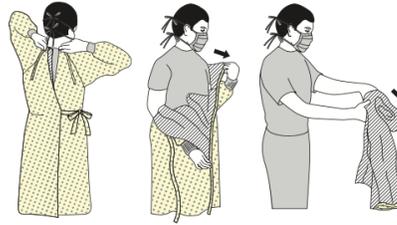
2. GOGGLES OR FACE SHIELD

- Outside of goggles or face shield are contaminated!
- If your hands get contaminated during goggle or face shield removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Remove goggles or face shield from the back by lifting head band or ear pieces
- If the item is reusable, place in designated receptacle for reprocessing. Otherwise, discard in a waste container



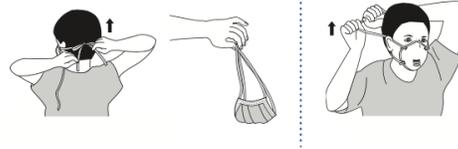
3. GOWN

- Gown front and sleeves are contaminated!
- If your hands get contaminated during gown removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Unfasten gown ties, taking care that sleeves don't contact your body when reaching for ties
- Pull gown away from neck and shoulders, touching inside of gown only
- Turn gown inside out
- Fold or roll into a bundle and discard in a waste container

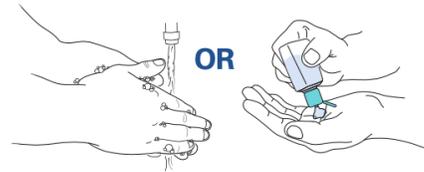


4. MASK OR RESPIRATOR

- Front of mask/respirator is contaminated — DO NOT TOUCH!
- If your hands get contaminated during mask/respirator removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Grasp bottom ties or elastics of the mask/respirator, then the ones at the top, and remove without touching the front
- Discard in a waste container



5. WASH HANDS OR USE AN ALCOHOL-BASED HAND SANITIZER IMMEDIATELY AFTER REMOVING ALL PPE



PERFORM HAND HYGIENE BETWEEN STEPS IF HANDS BECOME CONTAMINATED AND IMMEDIATELY AFTER REMOVING ALL PPE



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**PENYARINGAN
TRIAGE**

***Possible Jangkitan COVID-19
Possible COVID-19 Infection***

Telah melawat Negara- Negara berikut:

- China
- Republic Korea
- Japan
- Singapore
- Thailand
- Iran
- Italy
- Indonesia

dalam 14 hari yang lepas; atau berhubung rapat dengan kes kemungkinan/disahkan COVID-19 dalam 14 hari yang lepas.

Visited the listed countries below :

- China
- Republic Korea
- Japan
- Singapore
- Thailand
- Iran
- Italy
- Indonesia

within the last 14 days; or close contact with a probable/confirmed case of China within the last 14 days

**Dan mempunyai salah satu gejala seperti berikut:
*And Any of the Following:***

**Demam
*Fever***

**Batuk
*Cough***

Selesema

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Runny nose

**Susah bernafas
*Shortness of breath***

**JIKA YA
*IF YES***



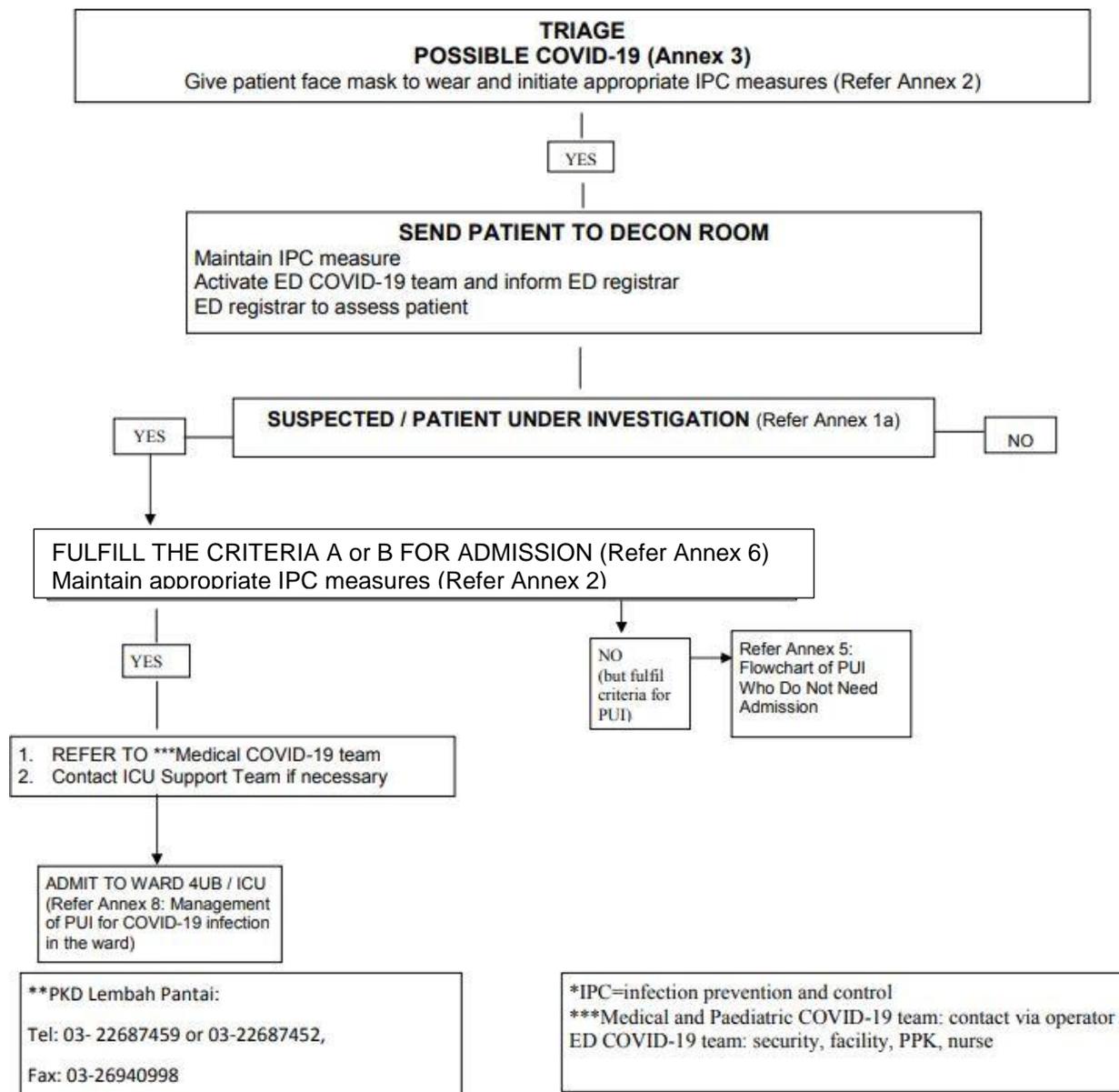
**PAKAIKAN
FACE MASK
KEPADA PESAKIT**



**SUHU BADAN
DIAMBIL DI
TELINGA**

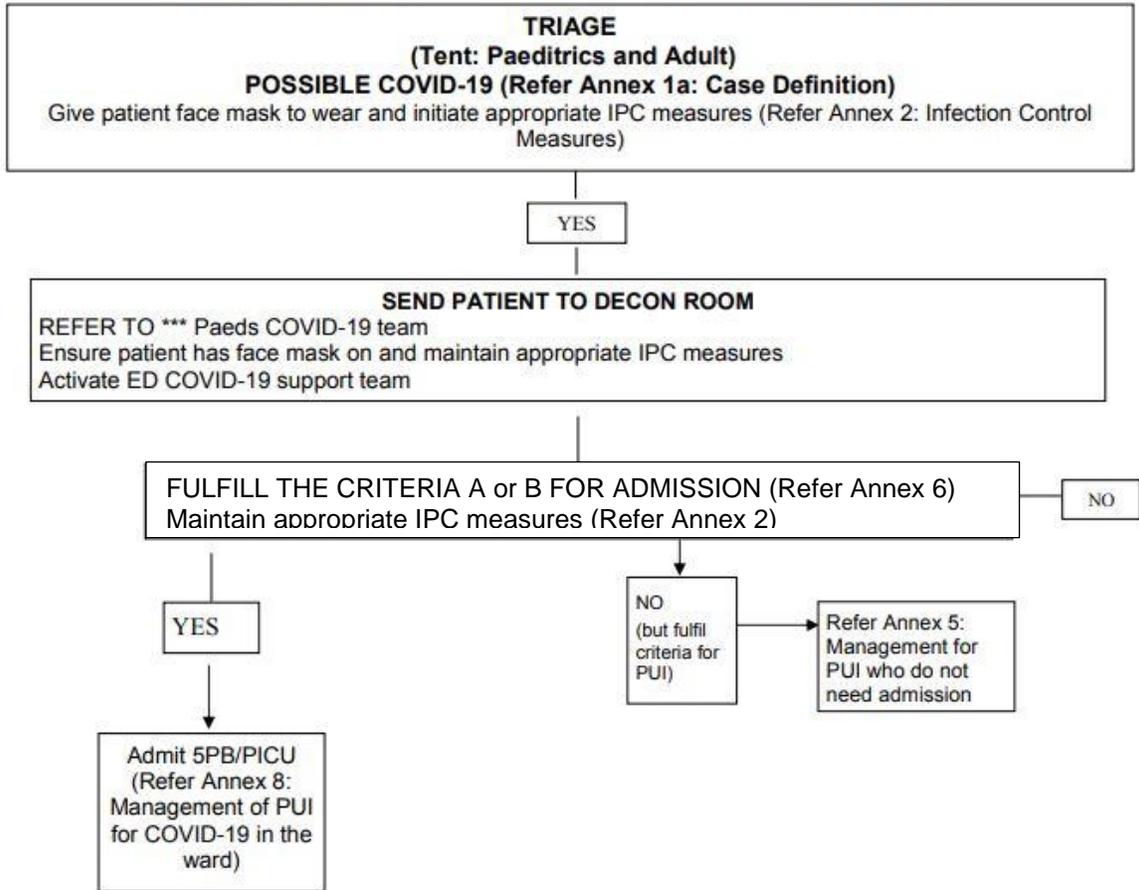
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FLOWCHART FOR SUSPECTED OR PATIENT UNDER INVESTIGATION (PUI) OF COVID-19 IN THE EMERGENCY DEPARTMENT, UMMC (ADULT)



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FLOWCHART FOR SUSPECTED OR PATIENT UNDER INVESTIGATION (PUI) OF COVID-19 IN THE EMERGENCY DEPARTMENT, UMMC (PAEDIATRICS)

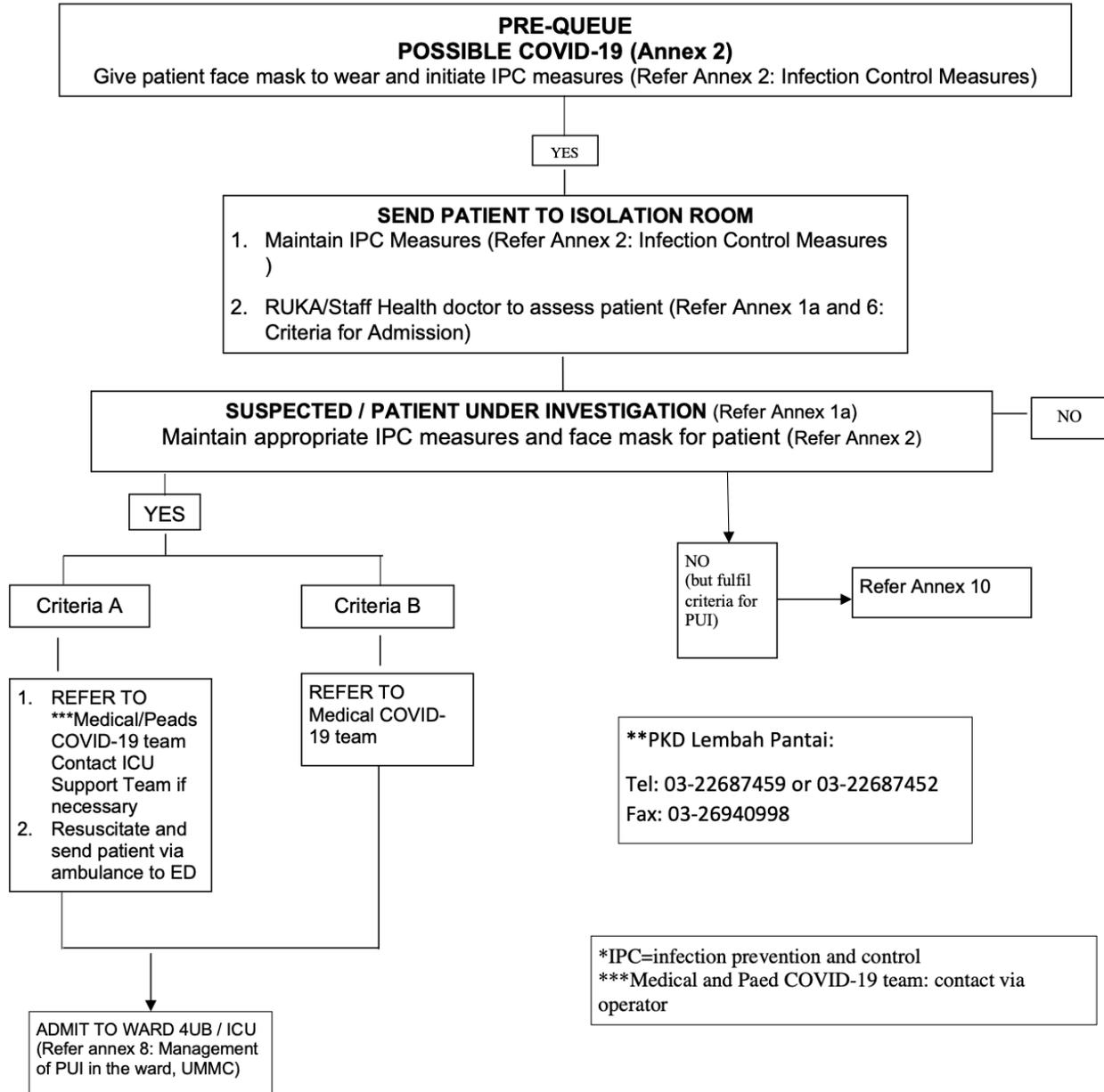


****PKD Lembah Pantai:**
Tel: 03-22687459 or 03-22687452 Fax: 03-26940998
Email: cdcpkdlp@gmail.com

IPC=infection prevention and control
***Paediatrics COVID-19 team: contact via operator

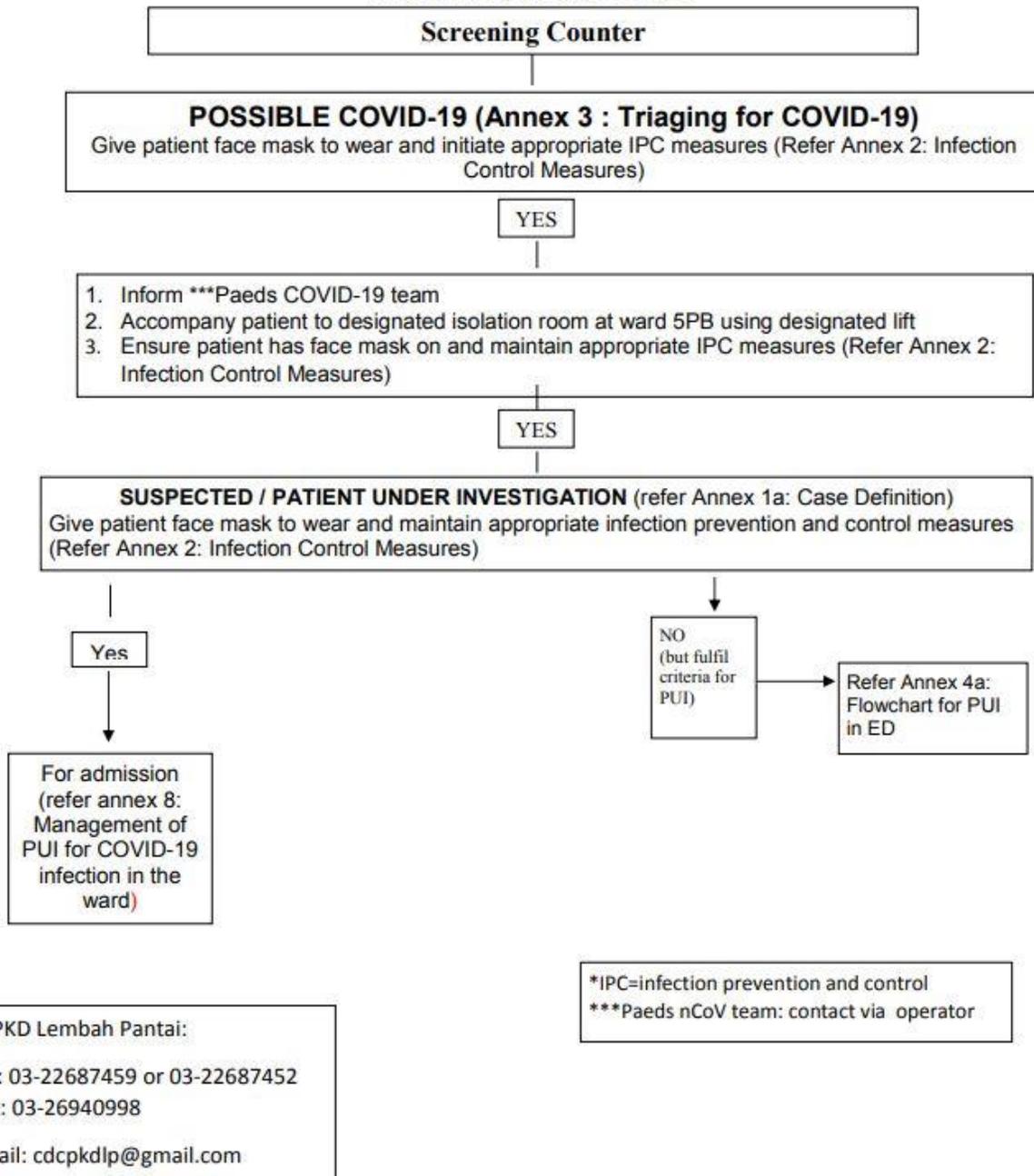
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FLOWCHART FOR SUSPECTED OR PATIENT UNDER INVESTIGATION (PUI) OF COVID-19 INFECTION IN RUKA, UMMC



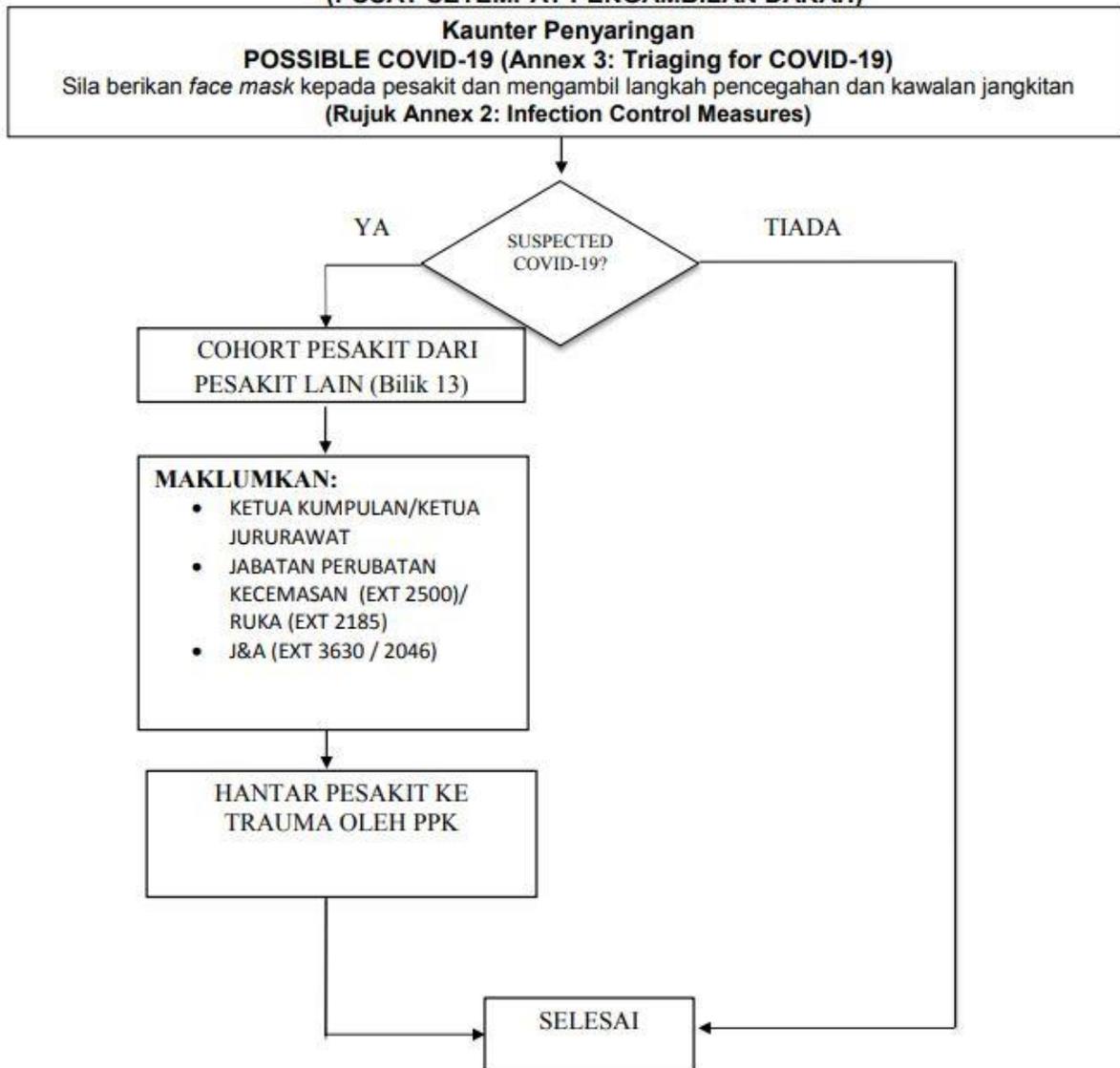
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FLOWCHART FOR SUSPECTED OR PATIENT UNDER INVESTIGATION (PUI) OF COVID-19 IN UMMC PAEDIATRIC CLINIC



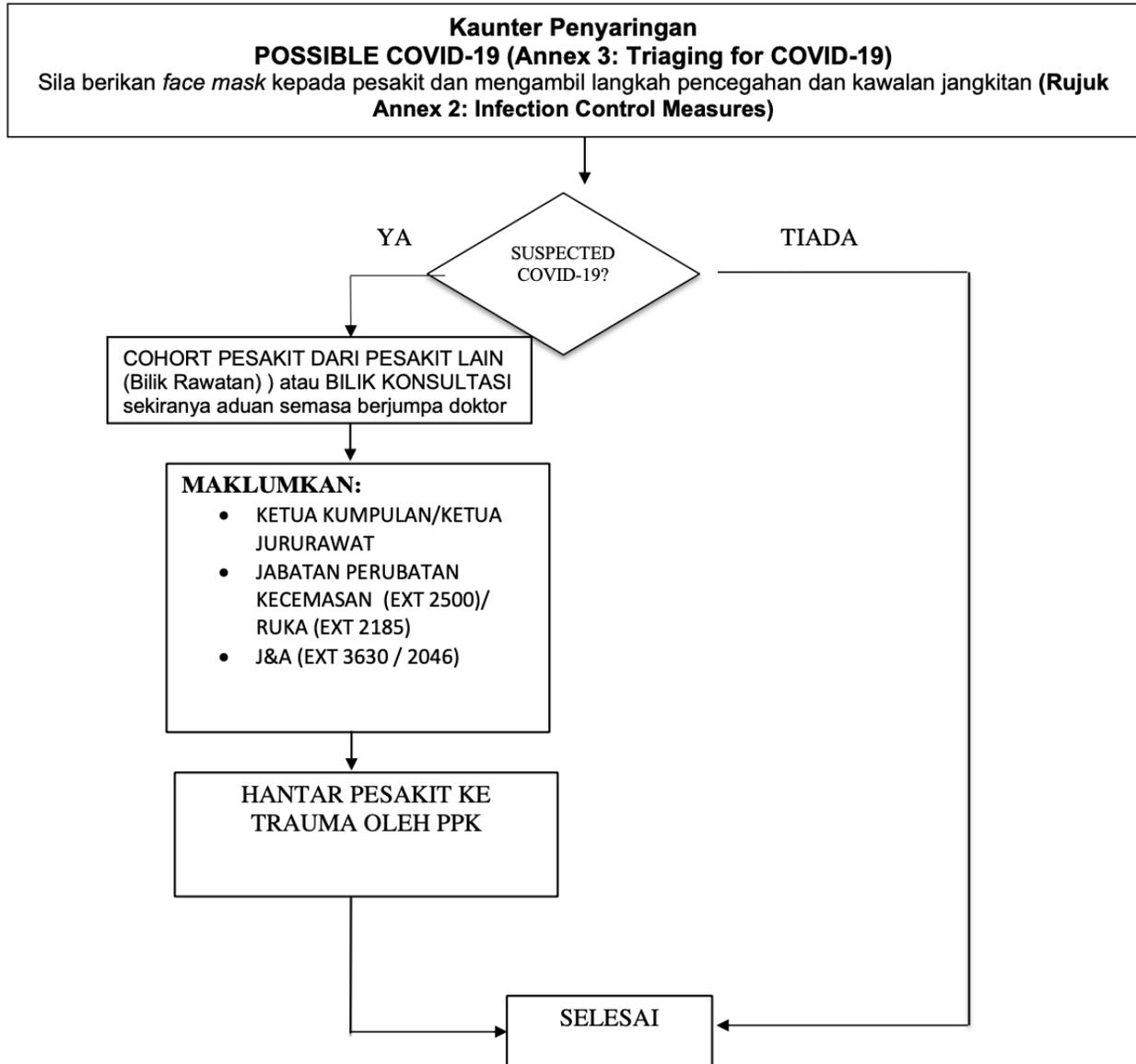
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**WORKFLOW FOR COVID-19 CASES DETECTED IN AMBULATORY CARE CLINICS
CARTA ALIRAN PESAKIT COVID-19
(PUSAT SETEMPAT PENGAMBILAN DARAH)**



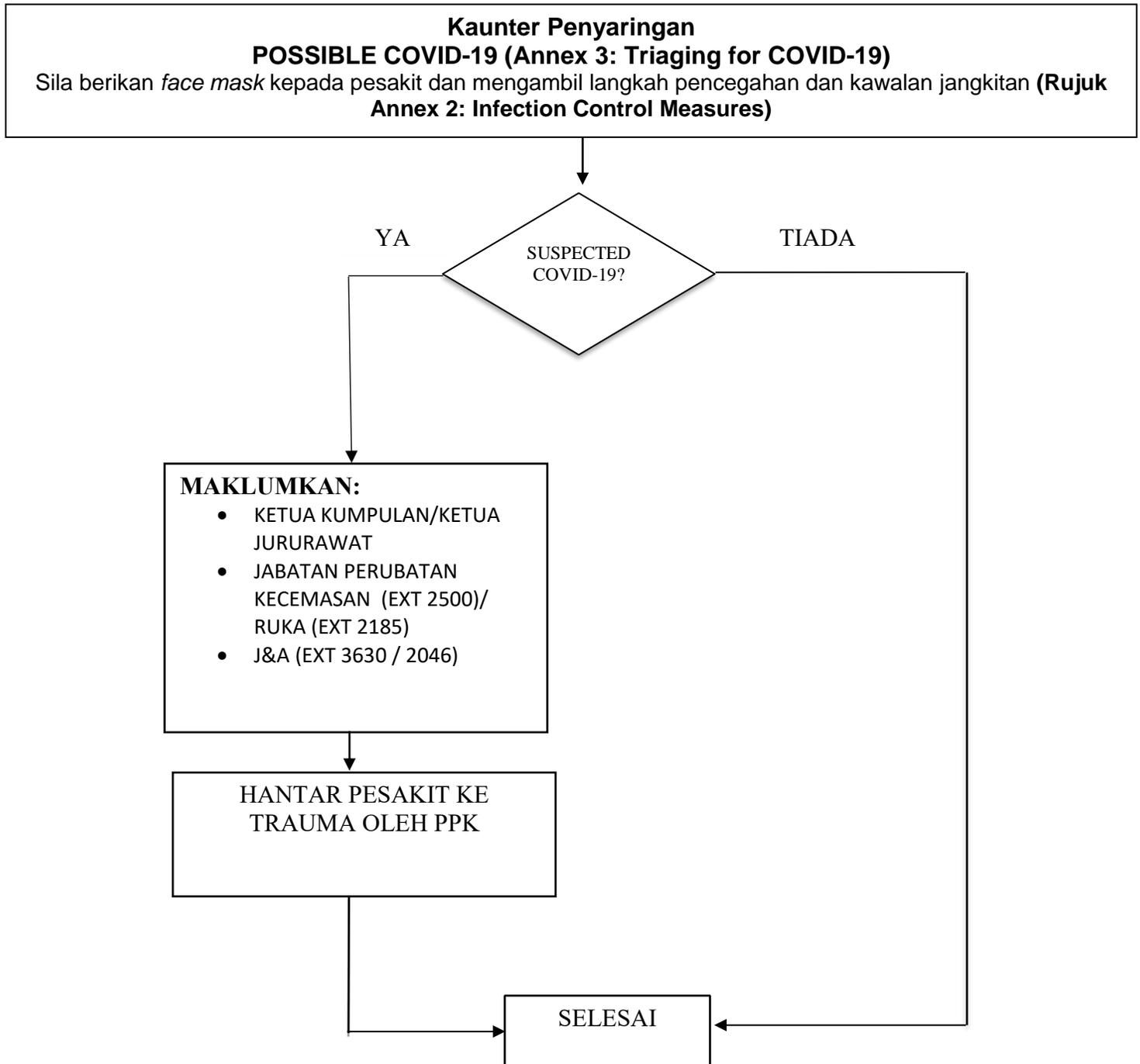
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**CARTA ALIRAN PESAKIT COVID-19
Staff Health Clinic**



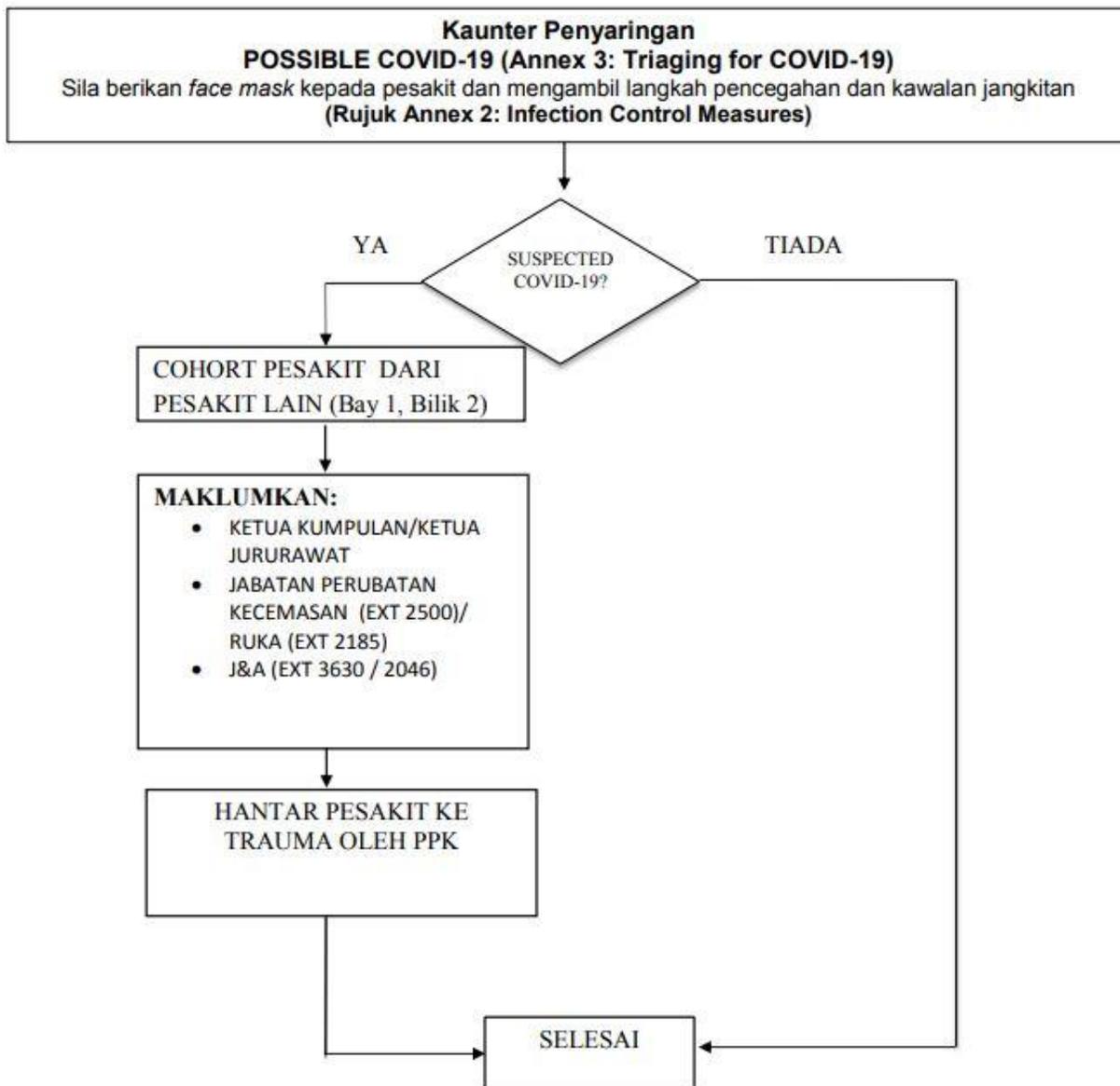
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CARTA ALIRAN PESAKIT COVID-19
Klinik Perubatan 1, 2, 3 & Ophthalmologi



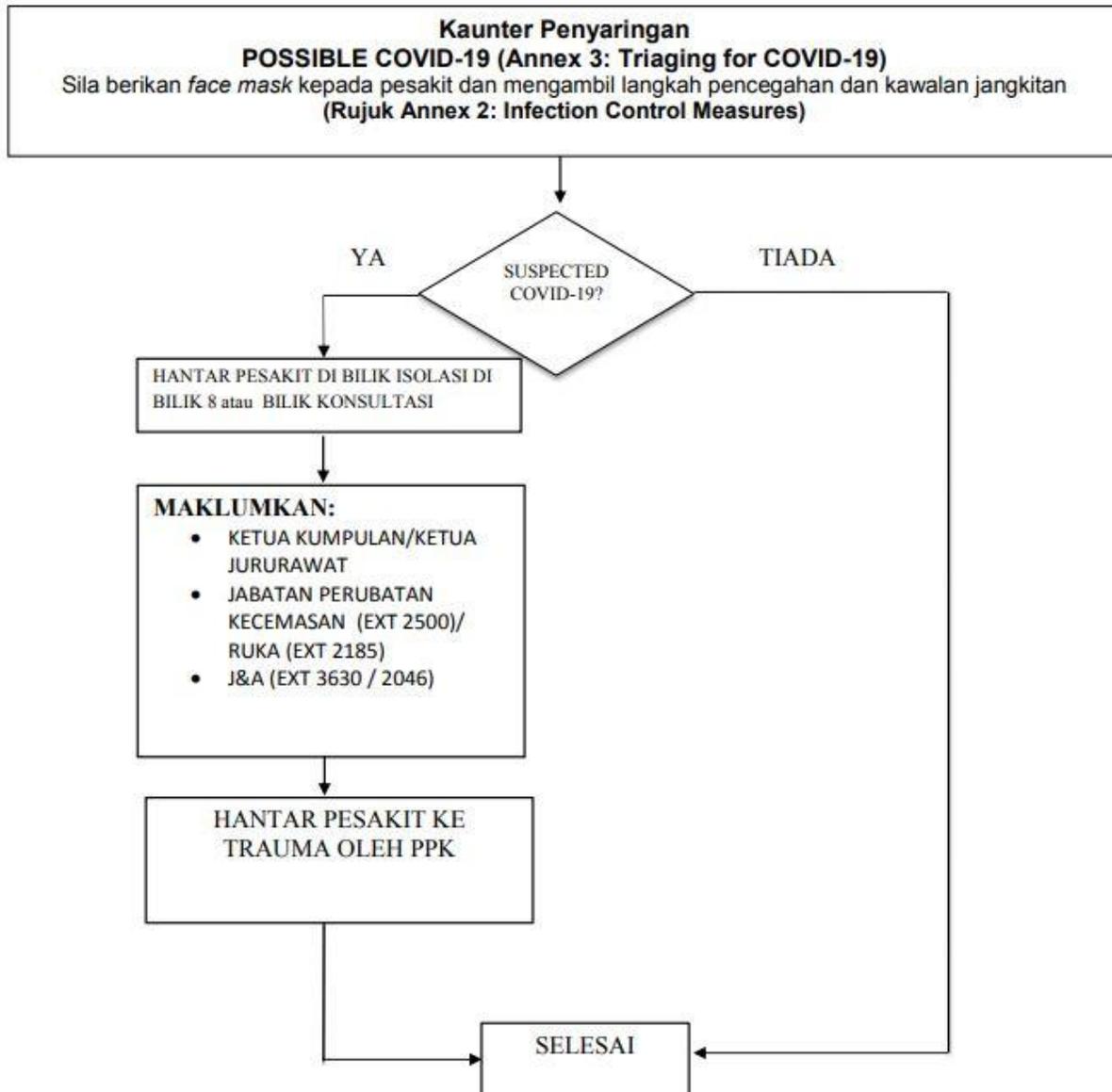
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**CARTA ALIRAN PESAKIT COVID-19
KLINIK LUKA**



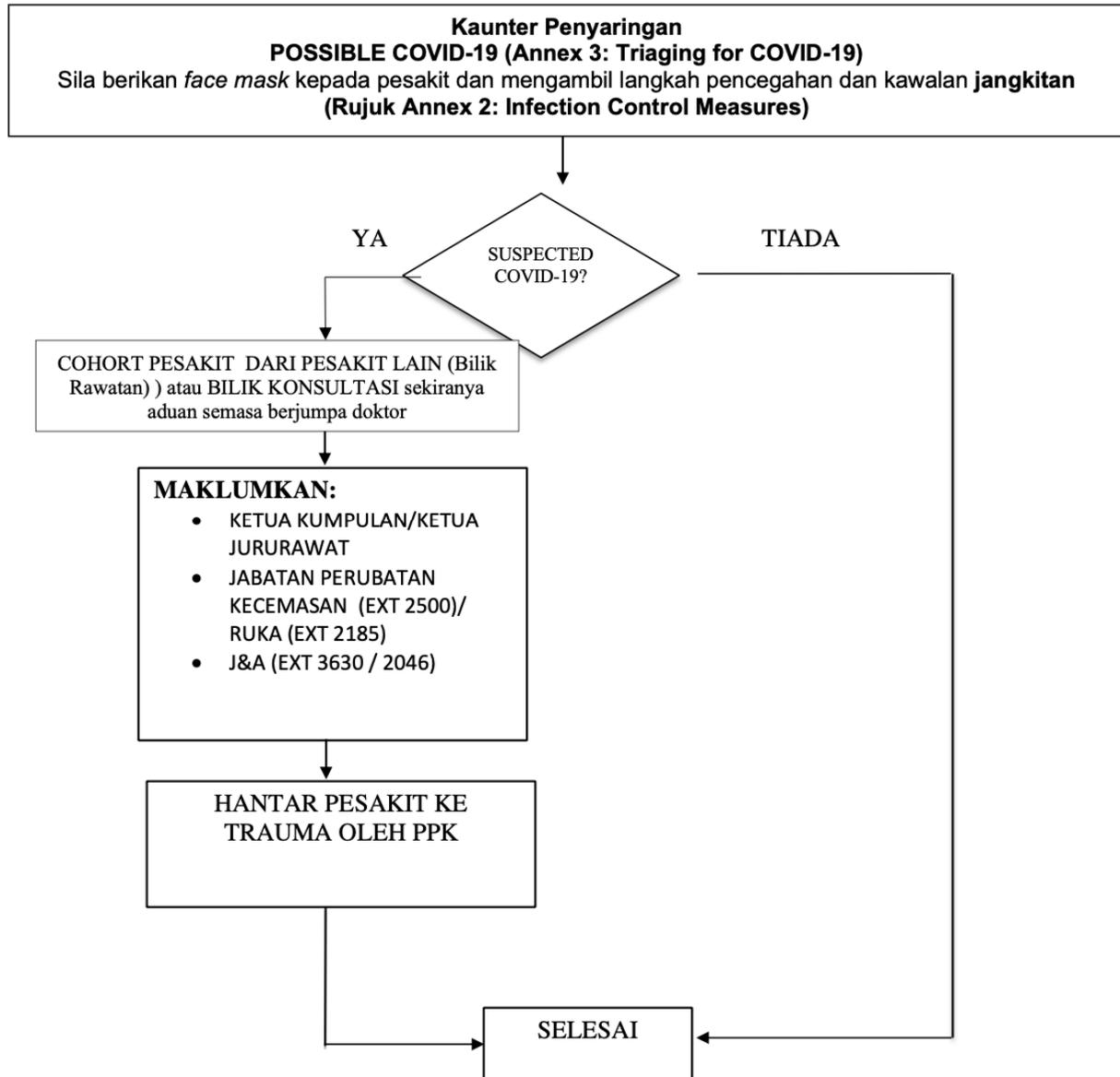
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**CARTA ALIRAN PESAKIT COVID-19
KLINIK ONKOLOGI**



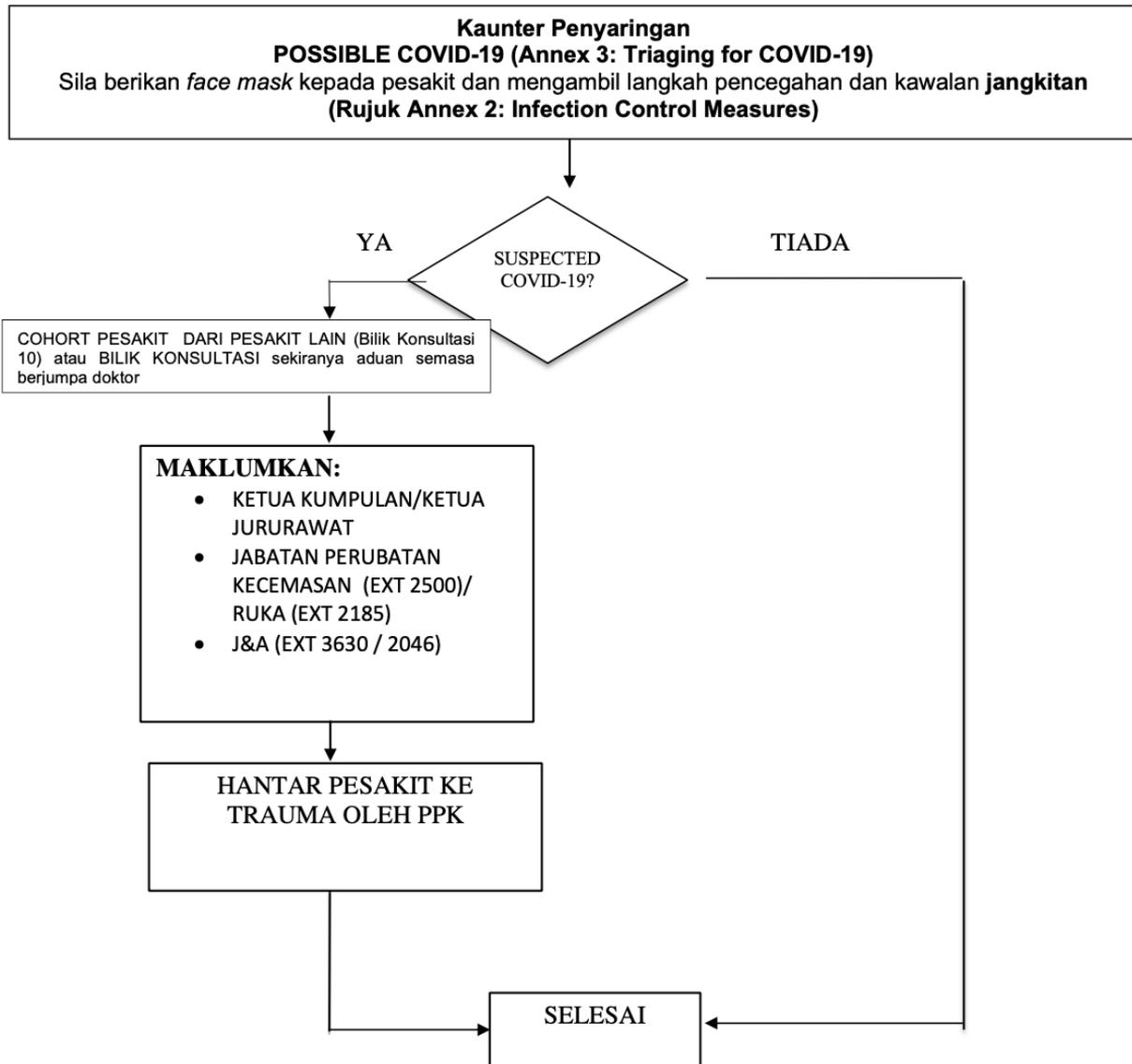
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**CARTA ALIRAN PESAKIT COVID-19
KLINIK SURGIKAL**



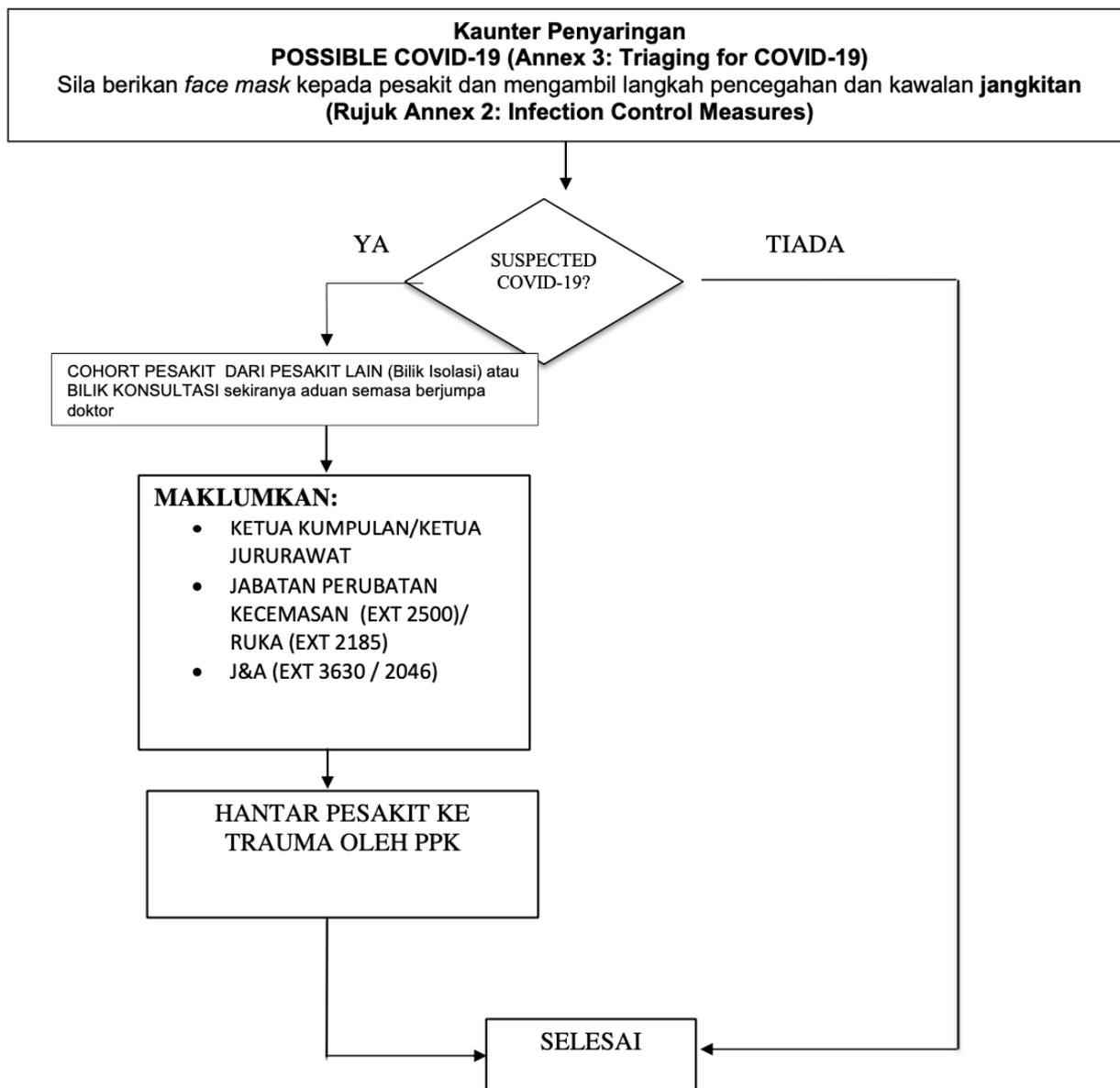
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**CARTA ALIRAN PESAKIT COVID-19
KLINIK ORTOPEDIK**



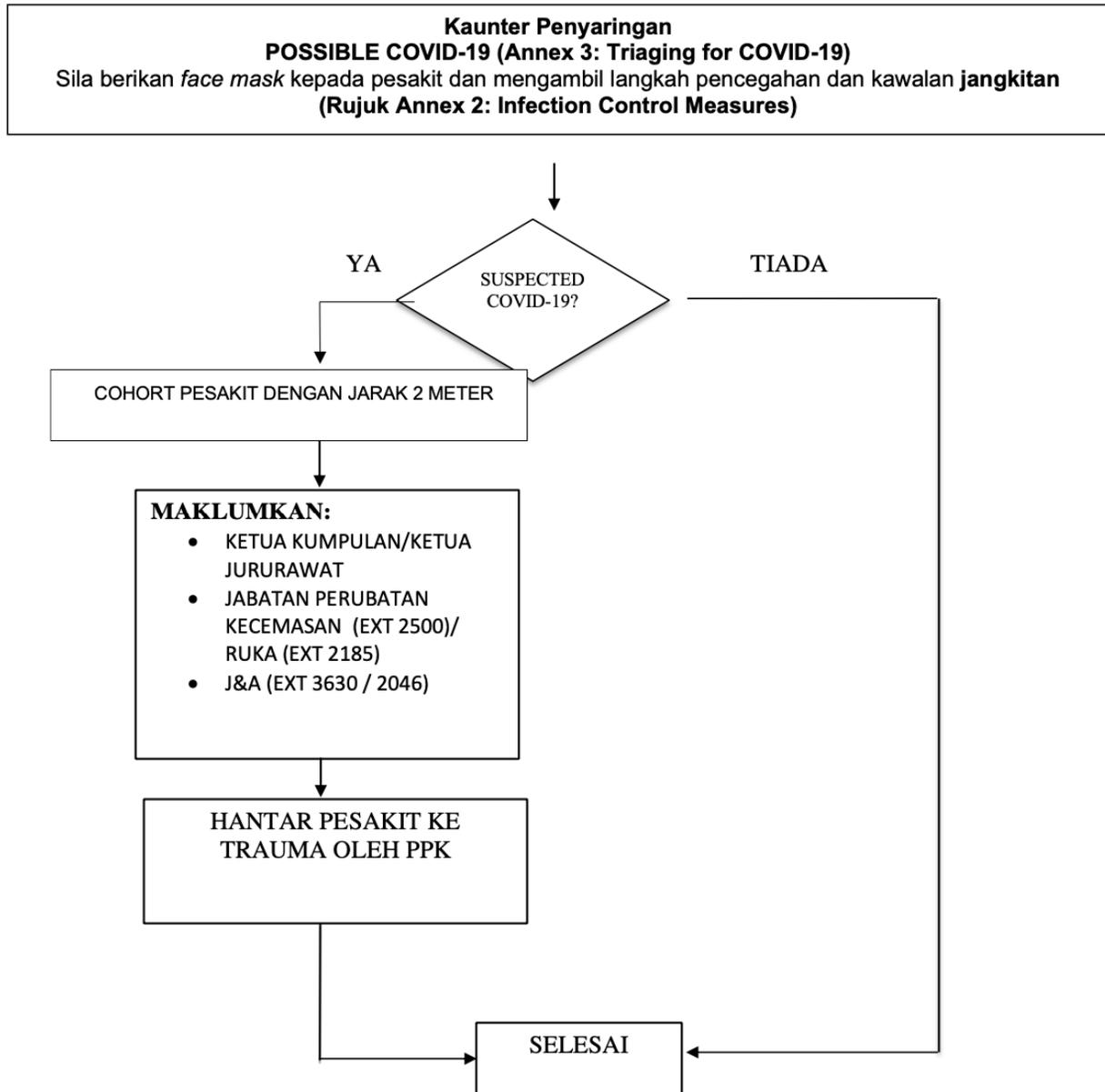
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**CARTA ALIRAN PESAKIT COVID-19
KLINIK ENT**

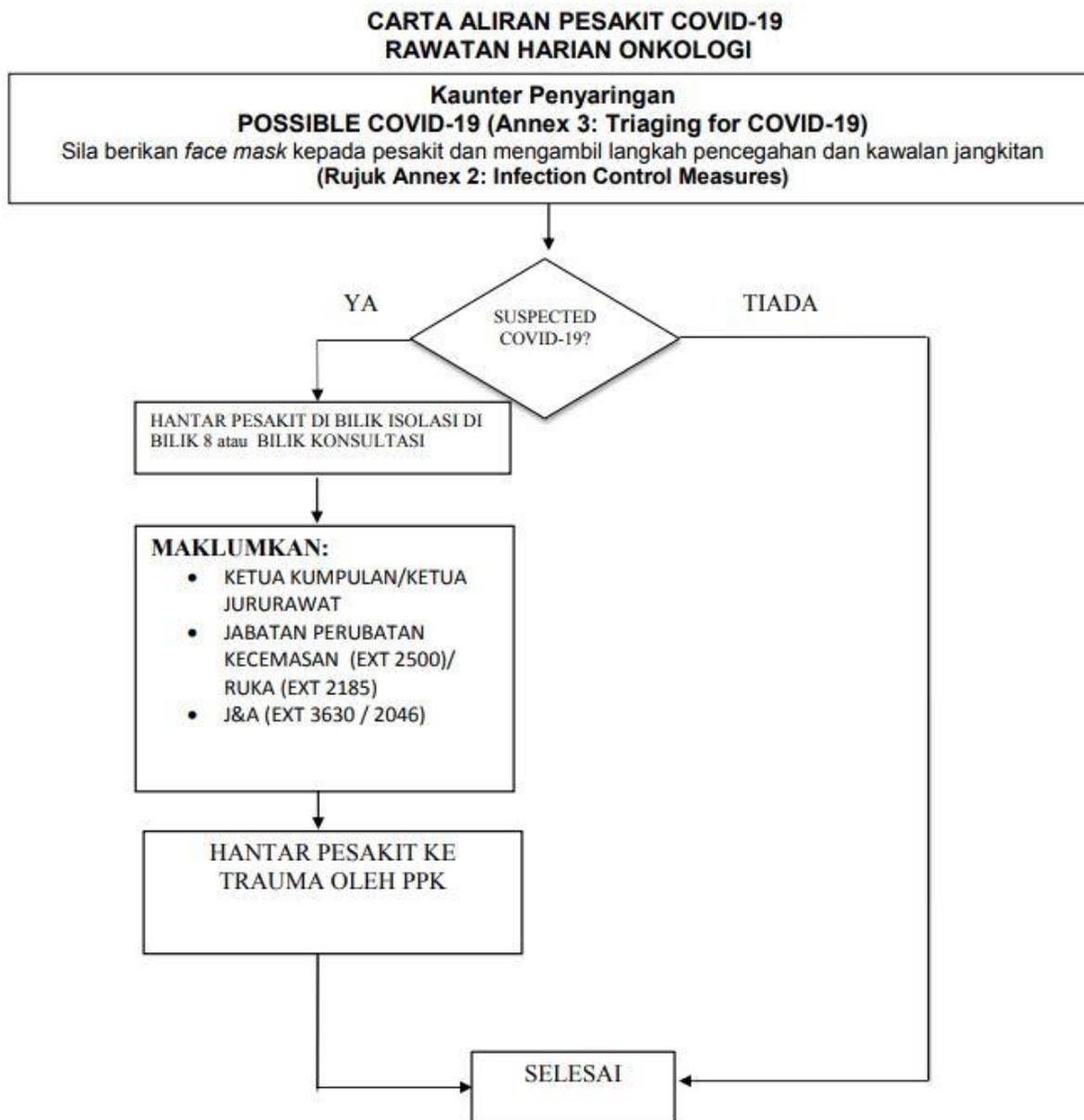


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**CARTA ALIRAN PESAKIT COVID-19
(Unit Penjagaan Diabetes)**



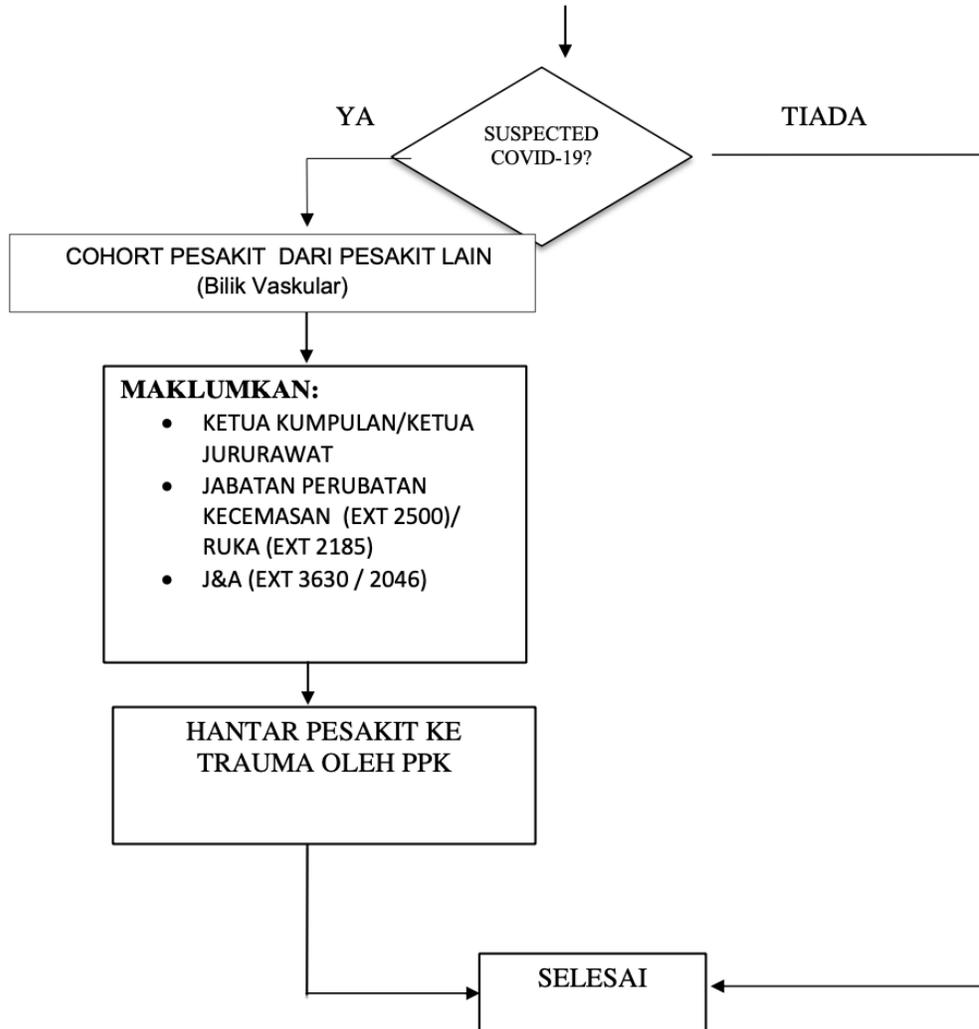
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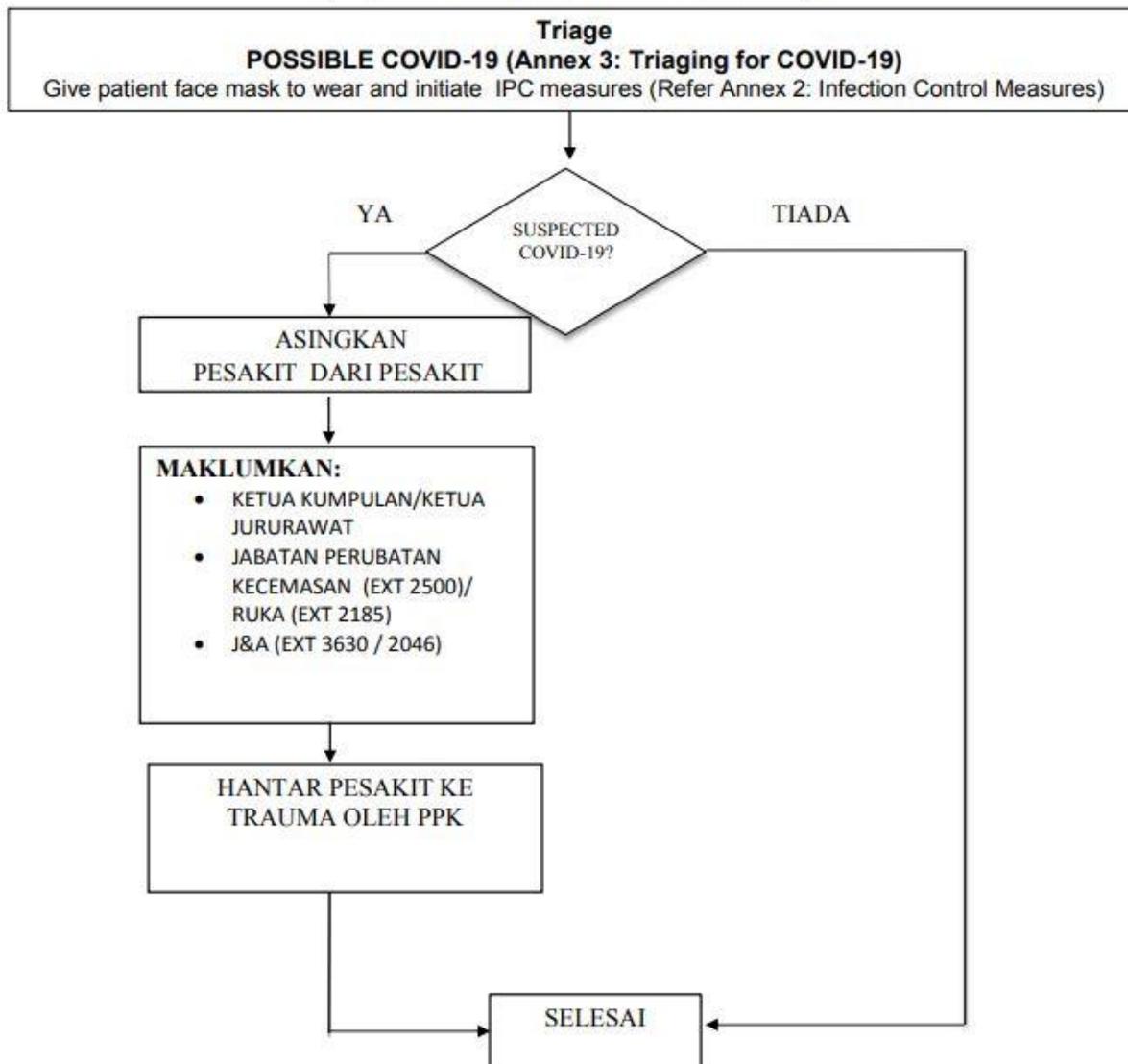
**CARTA ALIRAN PESAKIT COVID-19
(Rawatan Harian Dialisis & Nephrologi , 8TE)**

Kaunter Penyaringan
POSSIBLE COVID-19 (Annex 3: Triaging for COVID-19)
Sila berikan *face mask* kepada pesakit dan mengambil langkah pencegahan dan kawalan jangkitan
(Rujuk Annex 2: Infection Control Measures)

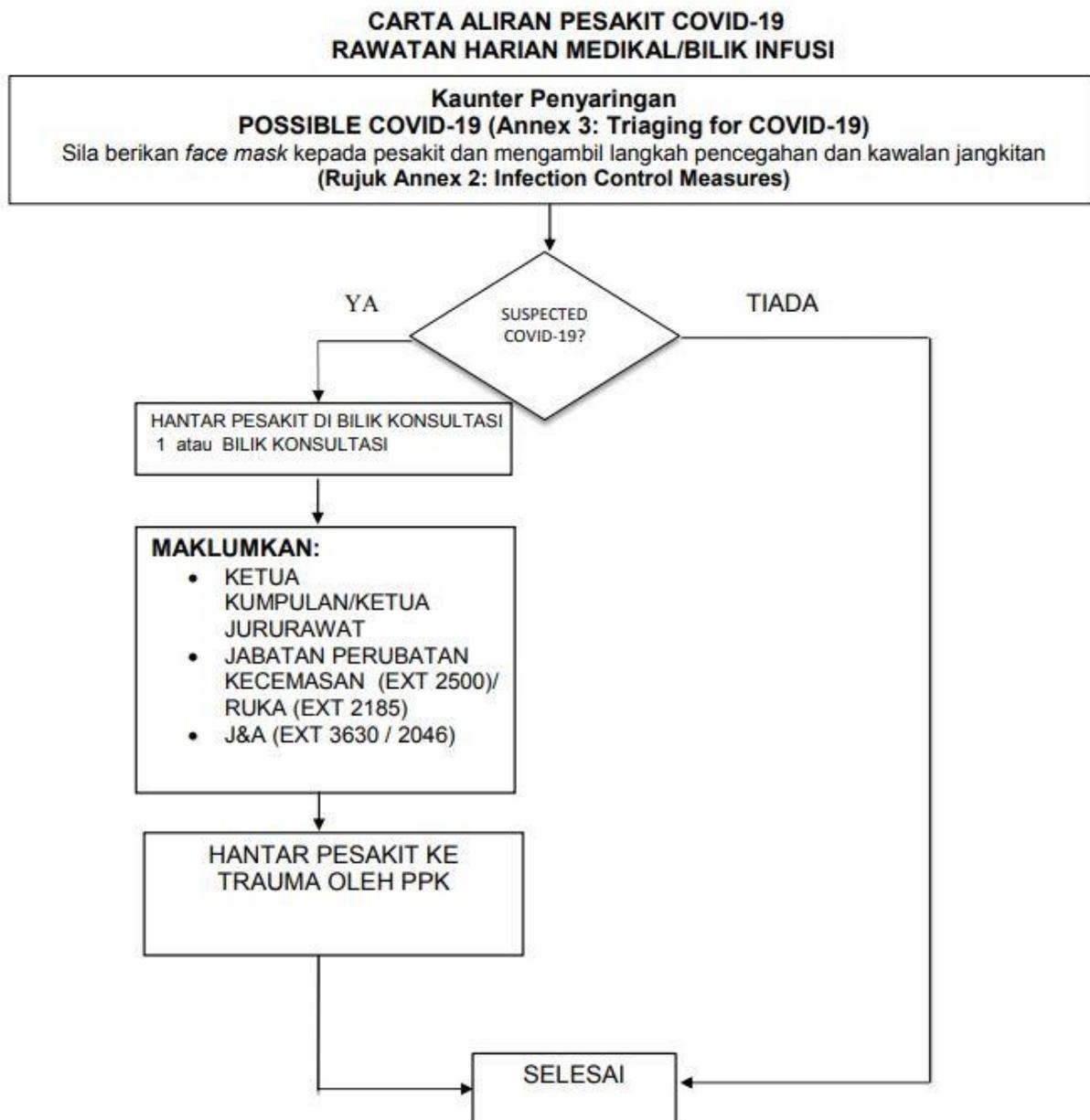


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**CARTA ALIRAN PESAKIT COVID-19
(KAUNTER KEMASUKKAN DAN DISCAJ)**

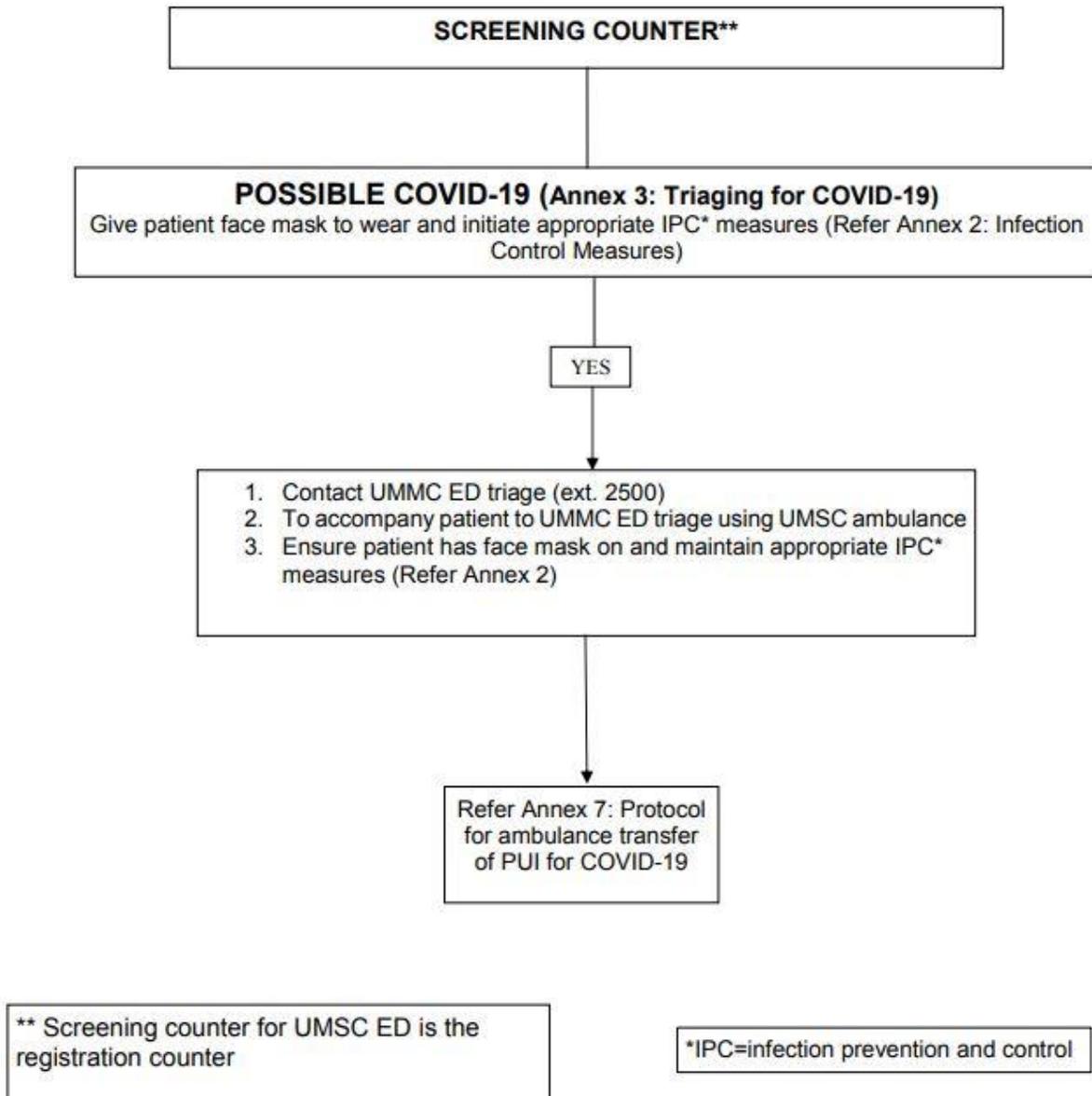


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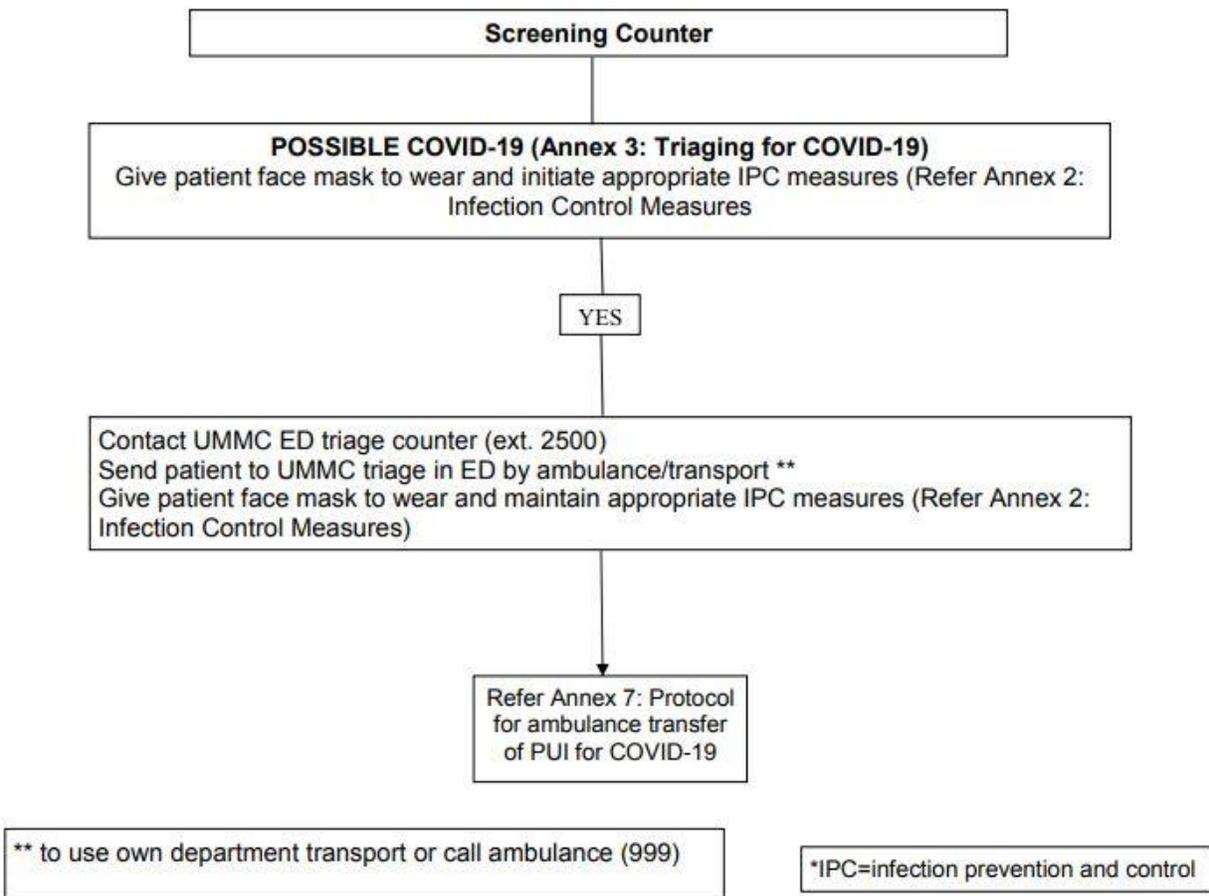
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FLOWCHART FOR SUSPECTED OR PATIENT UNDER INVESTIGATION (PUI) OF COVID-19 IN EMERGENCY DEPARTMENT UMSC



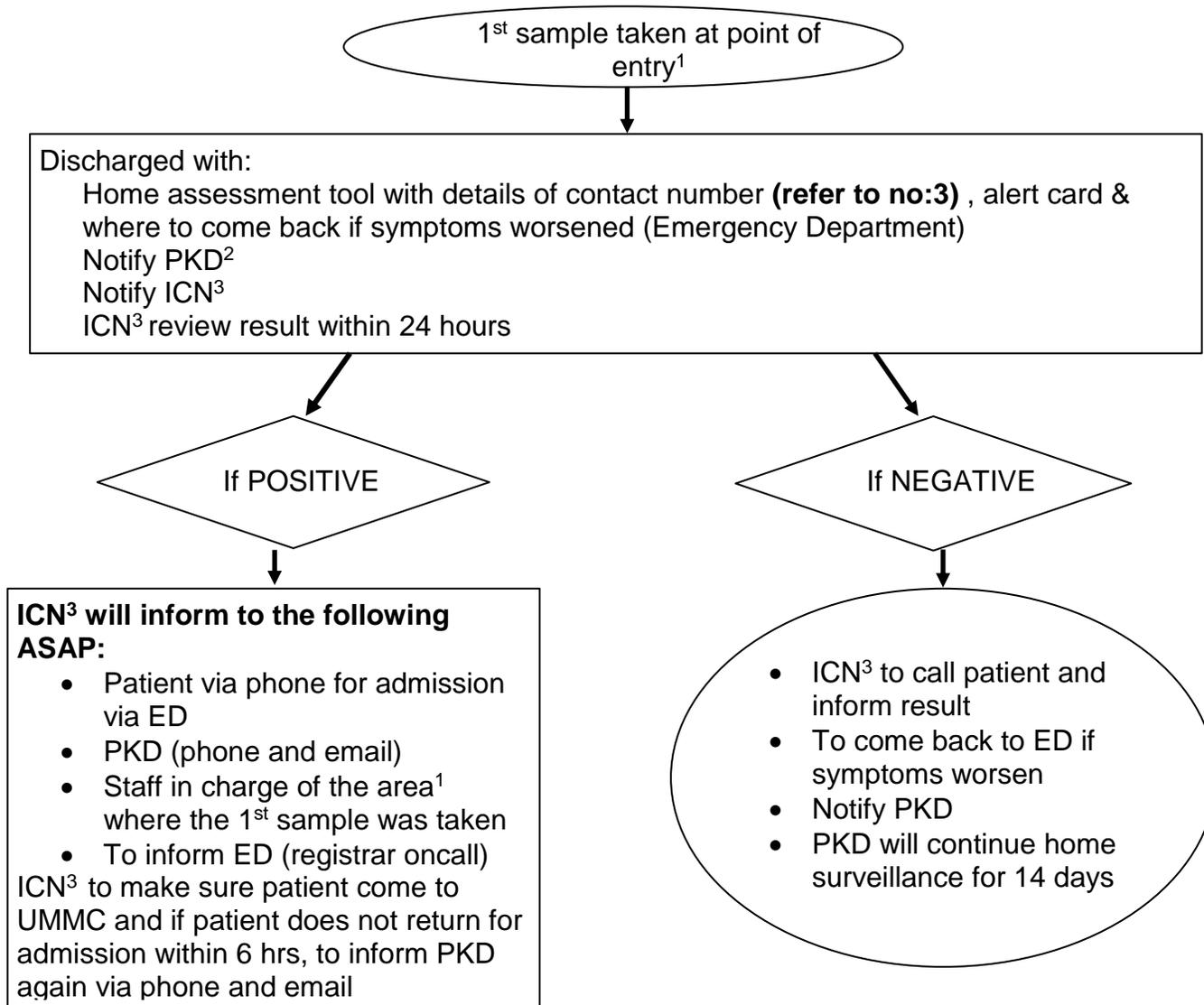
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FLOWCHART FOR SUSPECTED OR PATIENT UNDER INVESTIGATION (PUI) OF COVID-19
UM Dental Clinic/UMSC Dental Clinic /UMSC Outpatient clinic



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**FLOWCHART FOR SAMPLE TAKING OF PUI CASE WHO DO NOT NEED
ADMISSION IN UMMC
Version2: 1st of March 2020**



1. RUKA/ ED/ staff health/5PB
2. PKD Lembah Pantai:
Tel: 03- 22687459 or 03-22687452 AND Fax: 03-26940998
AND email: cdcpkdlp@gmail.com
3. ICN (Infection control nurse) contact:
Office hours (0800-1700H): 0379492576/4225
After working hours/PH/weekends: oncall ICN via operator

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Criteria for admission for PUI of COVID-19 (for adult patients)

Patients with any of the following signs will require admission:

CRITERIA A

- a) Respiratory impairment: any of the following
 - Tachypnoea, respiratory rate > 24/min
 - Inability to complete sentence in one breath
 - Use of accessory muscles of respiration, supraclavicular recession
 - Oxygen saturation \leq 92% on pulse oximetry
 - Decreased effort tolerance since onset of influenza like illness
 - Respiratory exhaustion
 - Evidence of pneumonia
 - Chest pains

- b) Evidence of clinical dehydration or clinical shock
 - Systolic BP < 90mmHg and/or diastolic BP < 60mmHg
 - Capillary refill time > 2 seconds, reduced skin turgor

- c) Altered conscious level (esp. in extremes of age)
 - New confusion, striking agitation or seizures

- d) Other clinical concerns:
 - Rapidly progressive (esp. high fever > 3 days) or serious atypical illness
 - Severe & persistent vomiting

- e) Symptomatic close contact of a confirmed case regardless of severity of illness. For Healthcare workers (see Annex 10a: Management of HCW who were exposed to patient with confirmed COVID-19)

CRITERIA B

- a) No evidence of CRITERIA A, but has other co morbidities that requires admission such as uncontrolled DM, uncontrolled HPT, immunocompromised, pregnant women and extremes of age etc.

- b) Not suitable for home surveillance* (i.e no carer, stays at a hotel/hostel/no private transport).

***Checklist for suitability of PUI to undergo home surveillance:**

1. Has a separate bedroom with en-suite bathroom (preferable),; if not, common bathroom with
2. Frequent disinfection
3. Has access to food and other necessities
4. Has access to face mask, glow and disinfectant at home

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5. Able to seek medical care if necessary and return with own private transport
6. Able to adhere to instruction to follow home surveillance order
7. Able to stay away (at least 2 meters 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)

COVID-19 referral teams

All COVID-19 cases for admission must be referred to either the **Paediatrics COVID-19** or the **Medical COVID-19** team.

The roster and the contact numbers of the persons to call is with the hospital operator. Please contact the team via the hospital operator. The oncall list will also be available in ED registration counter.

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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 (small) and clinical waste bin (small) ready to be used by responders.
- Use of disposable bed sheet is encouraged
- Soft surface seats should be pre-wrapped with easily removable plastic to minimise contamination and facilitate easier decontamination post-transfer of patients

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 COVID-19 case

Preparation of staff

- All staff accompanying patient at the rear of the ambulance must wear the recommended PPE:
 - Gloves
 - Full sleeve water resistant gown
 - N95 Masks with shield or goggles
- Patient must use face mask before transfer.

If spillage occurs in the ambulance

- Use chlorine granules in the spillage kit to absorb the spill.
- After 2 minutes or when the granules crystallise, 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.

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MANAGEMENT OF SUSPECTED OR PATIENT UNDER INVESTIGATION (PUI) OF COVID-19 IN THE WARD/ICU, UMMC

Admission to Ward 4UB/ICU/5PB/ PICU

In The Ward:

- Treat accordingly
- Maintain appropriate infection prevention and control measures (refer Annex 3).
- Notify using form Borang Notis: Rev/2010 to Lembah Pantai District Health Office (PKD)
- Fax the form and inform the PKD officer via phone and email immediately.
 - Tel: 03-22687452/03-22687459, Fax: 03-26940998
 - Email: cdcpkdlp@gmail.com
- Send copy of the notification form to Infection Control Department on the same day.
- Send the INDICATED specimen (refer Annex 9a: Clinical specimens to be Collected from Symptomatic Patients)

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Clinical Classification of Syndrome Associated With COVID-19

Severity	Symptoms and Signs
Mild to moderate	<ul style="list-style-type: none"> • Fever, respiratory symptoms with stable vital signs • Child with non-severe pneumonia has cough or difficulty in breathing+ fast breathing (define as below): <ul style="list-style-type: none"> • <2 months:>>60 breaths/min • 2-11months:>> 50 breaths/min • 1-5 years:>> 40 breaths/min
Severe	<ul style="list-style-type: none"> • Respiratory distress: <ul style="list-style-type: none"> • RR> 30/min; • SpO₂ ≤93% at rest; • PaO₂/FiO₂≤300mmHg • Child with cough or difficulty in breathing, plus at least one of the following: <ul style="list-style-type: none"> • central cyanosis or SpO₂<90% • severe respiratory distress (e.g. grunting, very severe chest indrawing) • sign of pneumonia with general danger sign (inability to breastfeed or drink, lethargy or unconsciousness or seizures (fit) • In very young child: respiratory exhaustion or apnoea <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> • In shock and/or multi-organ failure • Shock in children: any hypotension (SBP<5th centile for age) with 2-3 of the followings: <ul style="list-style-type: none"> • altered mental status • tachycardia or bradycardia (HR<90 bpm or >160 bpm for infants: HR<70 bpm or>150bpm in children • prolonged capillary refill time OR • Warm vasodilation with bounding pulses; tachypnoea; mottled skin or presence of petechiae/purpura; increased lactate; decrease urine output or temperature instability.

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1) 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/SpO₂) 12 hourly to 8hourly with increase in monitoring during intensive care.
 - c. Blood investigations, e.g. trend FBC, CRP, LFT, RP, coagulation, Blood culture according to clinical indications. ABG if needed according to severity of disease, inform laboratory staff before sending specimens.
 - d. Supplemental oxygen according to SpO₂.
 - 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.
- **If lab result negative:**
 - a. Repeat the collection of the indicated specimens after 48-72 hours, or sooner if patient deteriorates/clinically indicated.
 - b. Discharge if patient is afebrile and clinically improved in 24 hours AND 2 samples at least 24 hour apart are negative.
 - c. Continue home surveillance and to complete 14 days. Inform PKD once discharged from ward. PKD will monitor patient once discharged.
 - **If lab result positive:**
 - a) **IMMEDIATELY :**
 - i. re-notify the case using form Borang Notis: Rev/2010 to Lembaga Pantai District Health Office (PKD) via fax, phone and email (as above).
 - ii. Inform the Infection control department (ICD).
The IC nurse will inform :
 - a) all involved departments
 - b) inform JKA who will conduct contact tracing of exposed HCW in the hospital. All exposed staff will be assessed and monitored closely using the "**Monitoring form for Personnel Potentially Exposed to COVID 19**".
See Annex 10: Management of Healthcare Workers during COVID-19 Outbreak.
 - b) To send for NP/OP samples every 72 hours or as sooner if clinically indicated until negative.
 - c) Once one negative sample is obtained, repeat NP/OP samples after 24 hr.

De-Isolation and Discharge of a Confirmed Case of COVID-19

This will be actively considered when all of the following criteria are met:

- The patient has been afebrile (<37.5°C) for the previous ≥48 hours, and
- There is resolution of the acute illness for the ≥ 24 hours, and
- At least seven days have elapsed after the onset of the acute illness, and

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- The patient is RT-PCR negative on at least two consecutive specimens collected 24 hours apart after the acute illness has resolved, and
- A risk assessment has been conducted by the department and deemed no further criteria are needed.

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CLINICAL SPECIMENS AND MICROBIOLOGY

A. Clinical Specimens to be Collected from Symptomatic Patients who are admitted

Category	Test	Type of sample	Timing	Storage and transportation
Symptomatic patient	RT-PCR	<p>Lower respiratory tract specimen</p> <ul style="list-style-type: none"> - Sputum - Aspirate - Lavage <p>Upper respiratory tract specimen</p> <ul style="list-style-type: none"> -Nasopharyngeal and oropharyngeal swabs (NPS and OPS) -Nasopharyngeal wash/nasopharyngeal aspirate 	Collect on presentation	<p>If the specimen will reach the laboratory in less than 72 hours, store and transport at 2 – 8°C</p> <p>If the specimen will reach the laboratory in more than 72 hours, store at - 80°C and transport on dry ice.</p>
	Serology (only for confirmed cases)	<p>Serum (In serum separator tube)</p> 	Collect at day 5-8 or upon discharge from hospital	As above

Other routine testing, should be carried out using standard precautions:

- FBC, Renal profile, Liver function test, CRP, blood C&S, Sr for atypical pneumonia and others based on clinical findings and differential diagnosis

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B. Clinical Specimens to be Collected from asymptomatic contacts**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	RT-PCR	Nasopharyngeal AND oropharyngeal swabs	Within 14 days of last documented contact – to collect on first encounter.	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.

Labeling and Documentation

- Each specimen must be labeled with the patient's name, date of birth, R/N number and date collected. Patient's clinical history must be clearly documented on the request form

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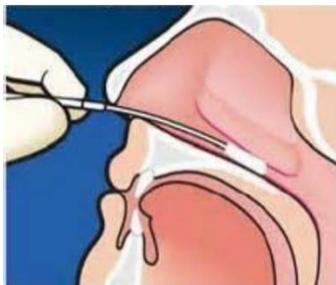
Collection of oropharyngeal and nasopharyngeal swabs

Tilt patient's head back 70 degrees

When collecting specimens, ensure that the operator stands at the side of patient and operator's face is not directly in front of the patient's

Use only sterile Dacron or rayon swabs with plastic shafts. DO NOT use calcium alginate swabs or swabs with wooden sticks, as they may contain substance that inactivate some viruses and inhibit PCR testing.

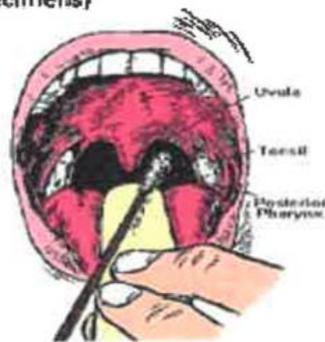
- Oropharyngeal swabs - Swab the posterior pharynx, avoiding the tongue.
- Nasopharyngeal swabs – insert swab into nostril parallel to the palate, back to the nasopharynx, and leave in place for a few seconds to absorb secretions. Swab both nostrils.



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

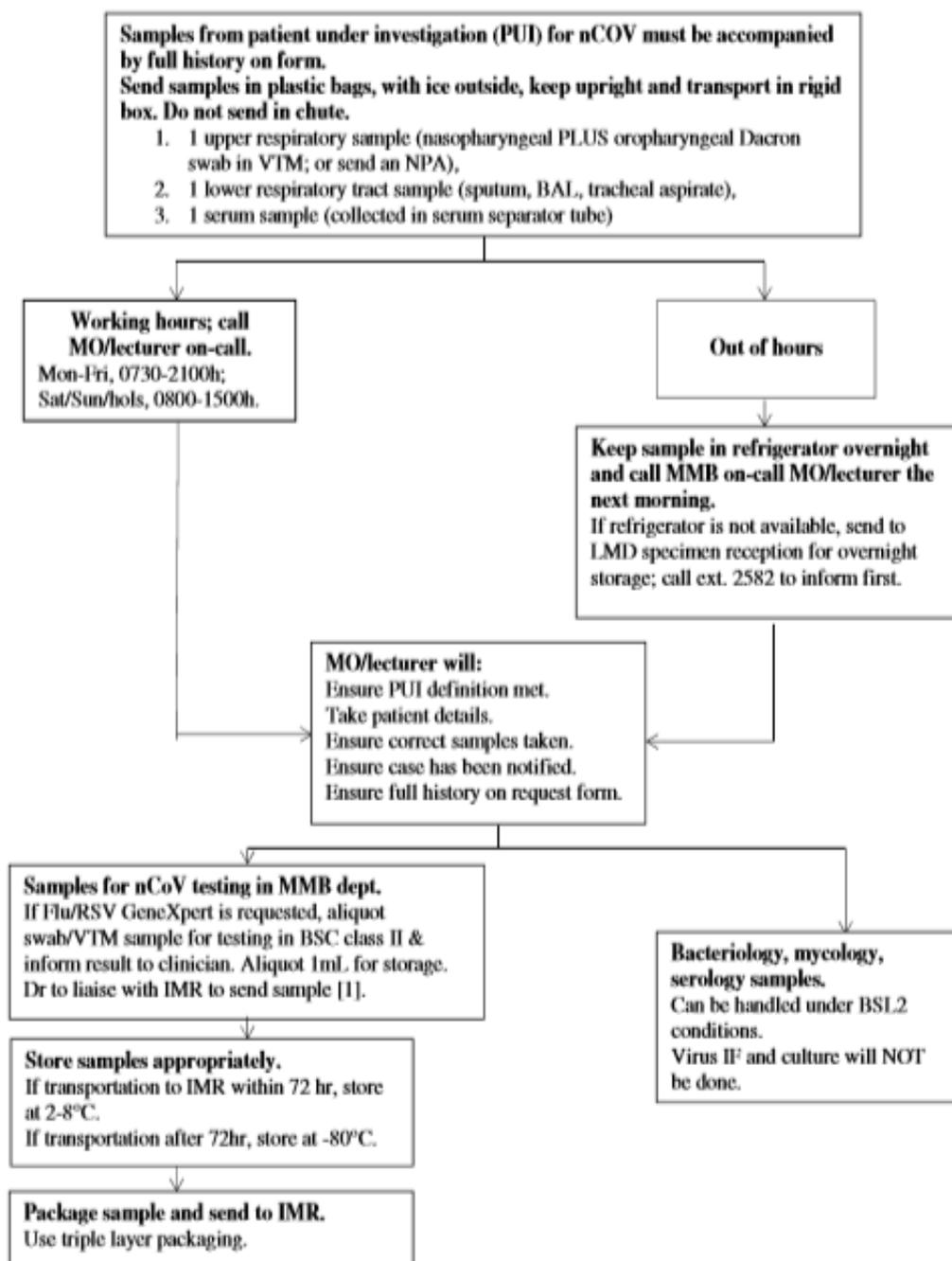


Place swabs immediately into vials containing 2 ml of viral transport media. Break applicator sticks off near the tip to permit tightening of the cap. These swabs are for viral culture. Transport immediately on wet ice. DO NOT FREEZE.

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Workflow for samples for COVID-19 after collection

v4, 28 Jan 2020; Prepared by Jamal Sam, Rozainah Kamarudin.



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TRANSPORTATION OF SAMPLES FROM PATIENTS WITH SUSPECTED COVID-19 TO MICROBIOLOGY LAB

1. Ward staff to collect the following items from Microbiology Lab Counter and keep stock in ward.
 - a) Styrofoam biohazard transport box
 - b) Dacron/Nylon flocked swab (not the same as calcium alginate swabs)
 - c) Viral transport media (VTM) (if needed, for swabs and tissues)



2. Ward staff should prepare the following:
 - 3 microbiology forms (green/ pink):
 - Respiratory sample for COVID-19
 - Respiratory sample for RT PCR for FLU/ RSV (if SARS-COV2 positive or clinically indicated)
 - Serology for COVID-19 (at day 5-8 or on discharge)
 - 1 serum separator tube (yellow top)
 - Dacron/Nylon flocked swab for OPS and NPS
 - Sterile bottle for sputum sample
 - Specimen tubes for FBC, RP, LFT, CRP, Atypical serology and others as indicated.
3. Once sample(s) collected, to label accordingly. Please ensure the full clinical history (including relevant dates) is written on the form.
4. The samples should be put in a biohazard bag first, and sealed. This bag should be put in a second biohazard bag containing ice/ice pack. Take care not to contaminate the outside of the bags.

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5. Packed samples must be put in the Styrofoam biohazard box. The samples should be kept upright to prevent spillage.
6. To inform microbiology lab before sending the samples.
7. The request form must be attached outside the box. **DO NOT PUT REQUEST FORM (VIROLOGY FORM) INTO THE BOX.**



**Either a green or pink form may be used*

8. The box must be delivered by hand to the Microbiology Lab. **DO NOT USE PNEUMATIC TUBE.**
9. The box should be carried upright with two hands to prevent risk of spill

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Management Of Closed Contacts of A Confirmed Case

Contact needs to have occurred during the period of 24 hours prior to onset of symptoms in the confirmed case until the confirmed case is no longer considered infectious to be deemed close contact.

1. Close contacts of confirmed case defined as: *(adapted from MoH, Victoria Health, ECDC)*

- a) A person living in the same household as a COVID-19 case;
- b) A person having had direct physical contact with a COVID-19 case (e.g. shaking hands);
- c) A person having unprotected direct contact with infectious secretions of a COVID-19 case (e.g. being coughed on, touching used paper tissues with a bare hand);
- d) A person having had face-to-face contact with a COVID-19 case within 2 metres and > 15 minutes;
- e) A person who was in a closed environment (e.g. classroom, meeting room, hospital waiting room, etc.) with a COVID-19 case for ≥ 15 minutes AND at a distance of ≤ 2 metres; OR for ≥ 2 hours and at a distance of ≥ 2 meters (*Vic Health*)
- g) A contact in an aircraft sitting within two seats (in any direction) of the COVID-19 case, travel companions or persons providing care, and crew members serving in the section of the aircraft where the index case was seated (if severity of symptoms or movement of the case indicate more extensive exposure, passengers seated in the entire section or all passengers on the aircraft may be considered close contacts).
- h) Travelling together with COVID-19 patient in any kind of conveyance
- i) A healthcare worker (HCW) or other person providing direct care for a COVID-19 case, or laboratory workers handling specimens from a COVID-19 case without recommended personal protective equipment (PPE) or with a possible breach of PPE;

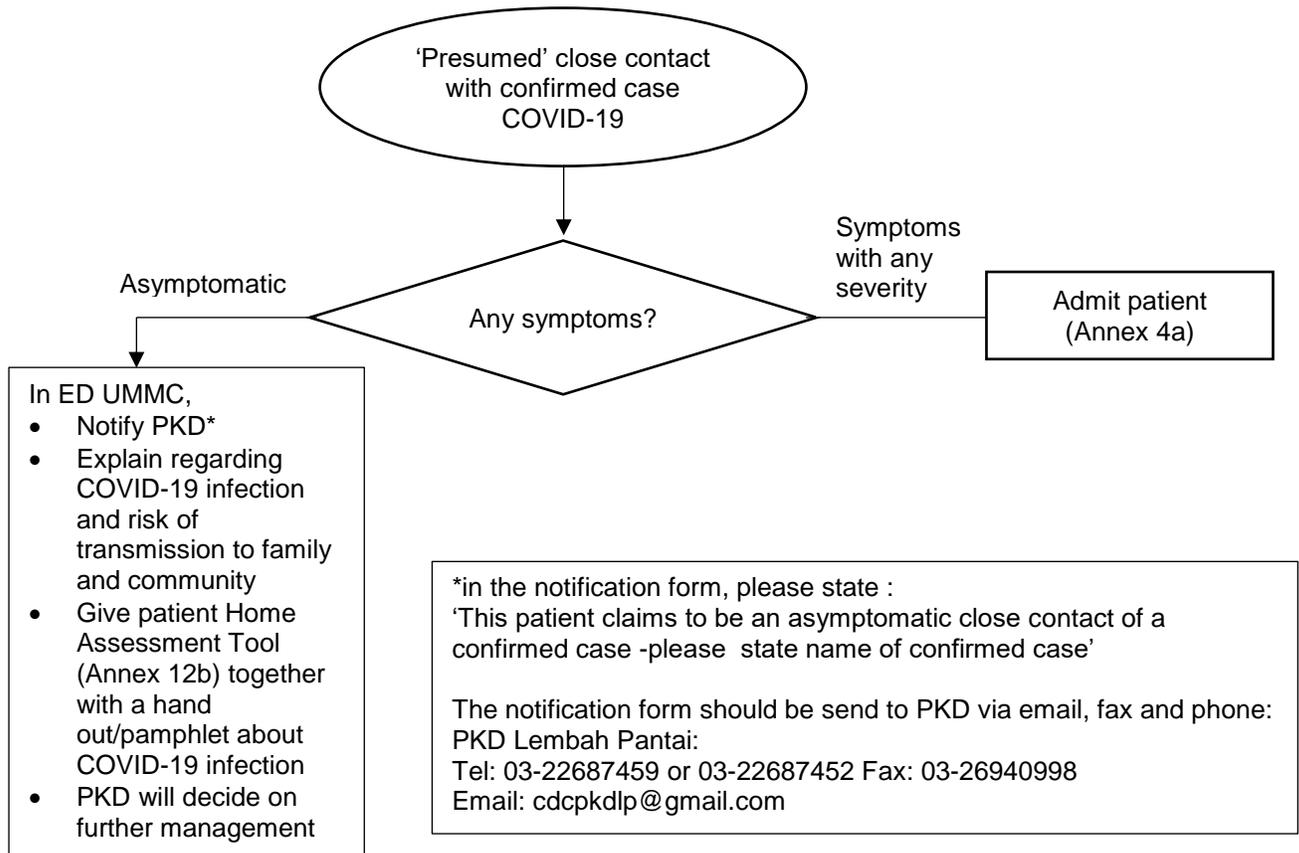
2. All close contacts of confirmed case shall be screened for COVID-19;

- a. For Non HCW (Refer Annex 10a (i))
- b. For HCW (Refer Annex 10a (ii))

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FLOWCHART FOR CLOSE CONTACT (Non Healthcare Worker) WITH CONFIRMED COVID-19

-this guideline is based on current guidance from Unit KPAS (Kesihatan Pekerjaan dan Alam Sekitar), Jabatan Kesihatan Wilayah Persekutuan Kuala Lumpur/Putrajaya



The term 'presumed close contact' is used since the health care worker in UMMC assessing the patient does not know the identity of actual close contact (this is information is only available to MOH staff) and is unable to determine conclusively that this is a true close contact

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MANAGEMENT OF HEALTHCARE WORKER (HCW) DURING COVID-19 OUTBREAK

General Considerations

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

HCW who are providing care for PUI/confirmed case will be monitored daily by JKA. HCW monitored must be recorded in a database for contact tracing purpose.

Assessment of mental health – by Mental Health and Psychosocial Support Team.

Reporting

All HCW who are positive for COVID-19 must be reported:

1. Communicable Diseases Notification using Communicable Diseases Notification Form
2. Occupational Health Notification (WEHU L1/L2 form from KPAS)

Risk Assessment and Management of Healthcare Worker (HCW) and 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 they could spread COVID-19.

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

- Not having high risk condition/immunocompromised illness – eg uncontrolled diabetes mellitus, chronic lung / liver / kidney disease, malignancy, HIV infection etc
- Not on prolonged steroids / immunosuppressant treatment
- Non-pregnant

Management of HCW with potential exposure in healthcare setting include:

- i) HCW with relevant travel history (countries that are affected)
- ii) HCW with household contact who are being investigated as PUI for COVID 19
- iii) HCW who were exposed to patient confirmed with COVID 19

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

When assigning risk, factors to consider include:

1. the duration of exposure (e.g., longer exposure time likely increases exposure risk)
2. clinical symptoms of the patient (e.g., coughing likely increases exposure risk)
3. whether the patient was wearing a facemask
4. whether an aerosol generating procedure was performed
5. the type of PPE used by the HCW

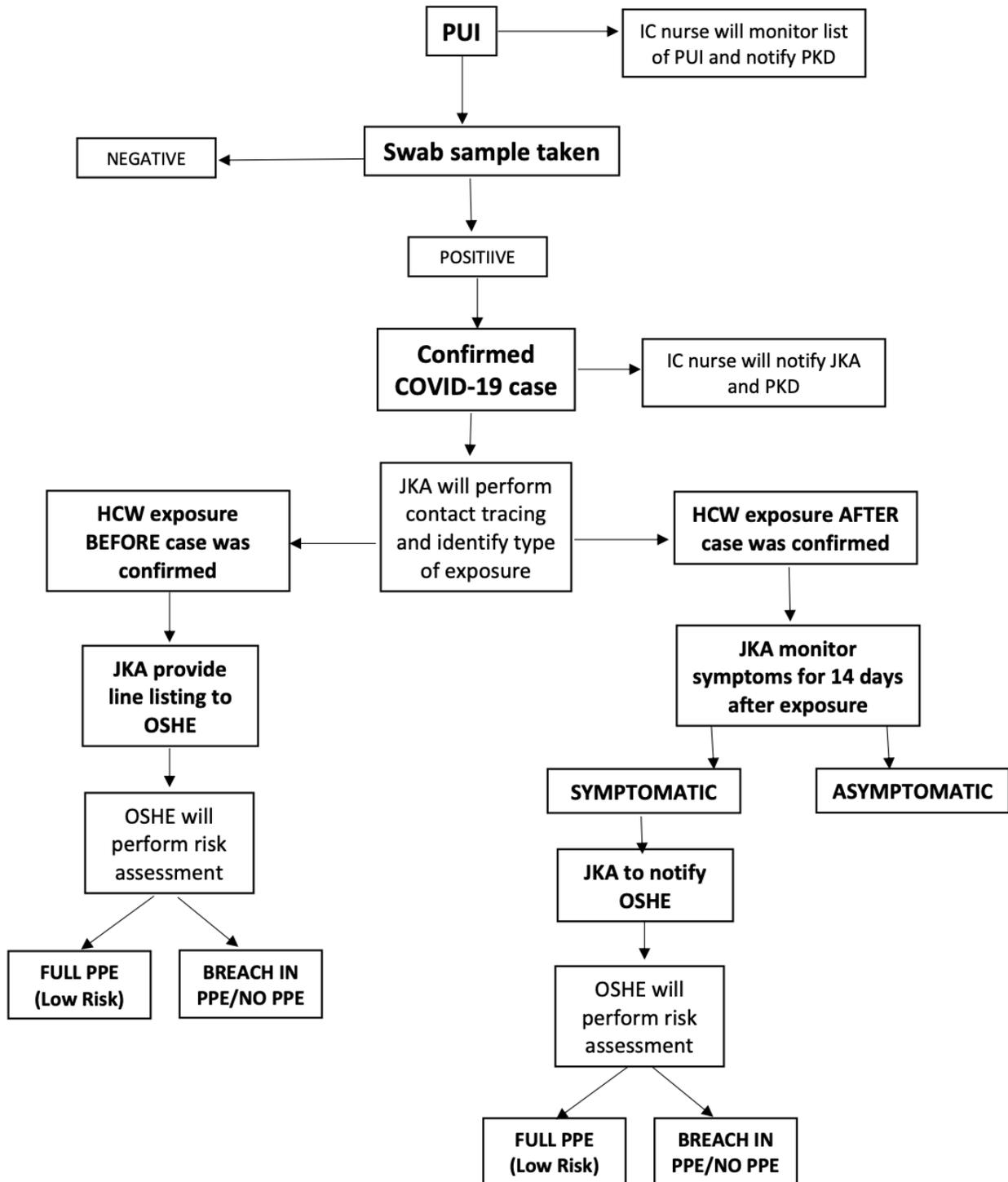
Psychosocial support and assistance should be given when the need arises.

Management : Refer to Appendix 1,2,3

- a) JKA should be informed immediately when there is a confirmed COVID 19 case.
- b) JKA will immediately conduct contact tracing (based on the HCW monitoring log book and other field investigations).
- c) JKA will inform OSHE. OSHE will do a risk assessment with Infection Control/Infectious Disease
- d) HCW is managed based on the risk assessment (see tables below)
- e) The linelisitng (by KKM) is filled in by JKA.
- f) HCW will be given a “ Monitoring form for Personnel Potentially Exposed To COVID-19” and health alert card (to contact JKA if symptomatic) to monitor for signs and symptoms twice a day. JKA will call exposed HCW daily.
- g) JKA will update the exposed HCW list daily and give HCW a “Monitoring form for Personnel Potentially Exposed To COVID-19” and health alert card (to contact JKA if symptomatic) to monitor for signs and symptoms twice a day. JKA will call exposed HCW daily to assess for presence of fever or respiratory symptoms (*e.g., cough, shortness of breath, sore throat).
- h) To notify PKD and Medical COVID team as soon as HCW developes symptoms for medical evaluation
- i) JKA will monitor the exposed HCW for 14 days from last exposure of the confirmed case

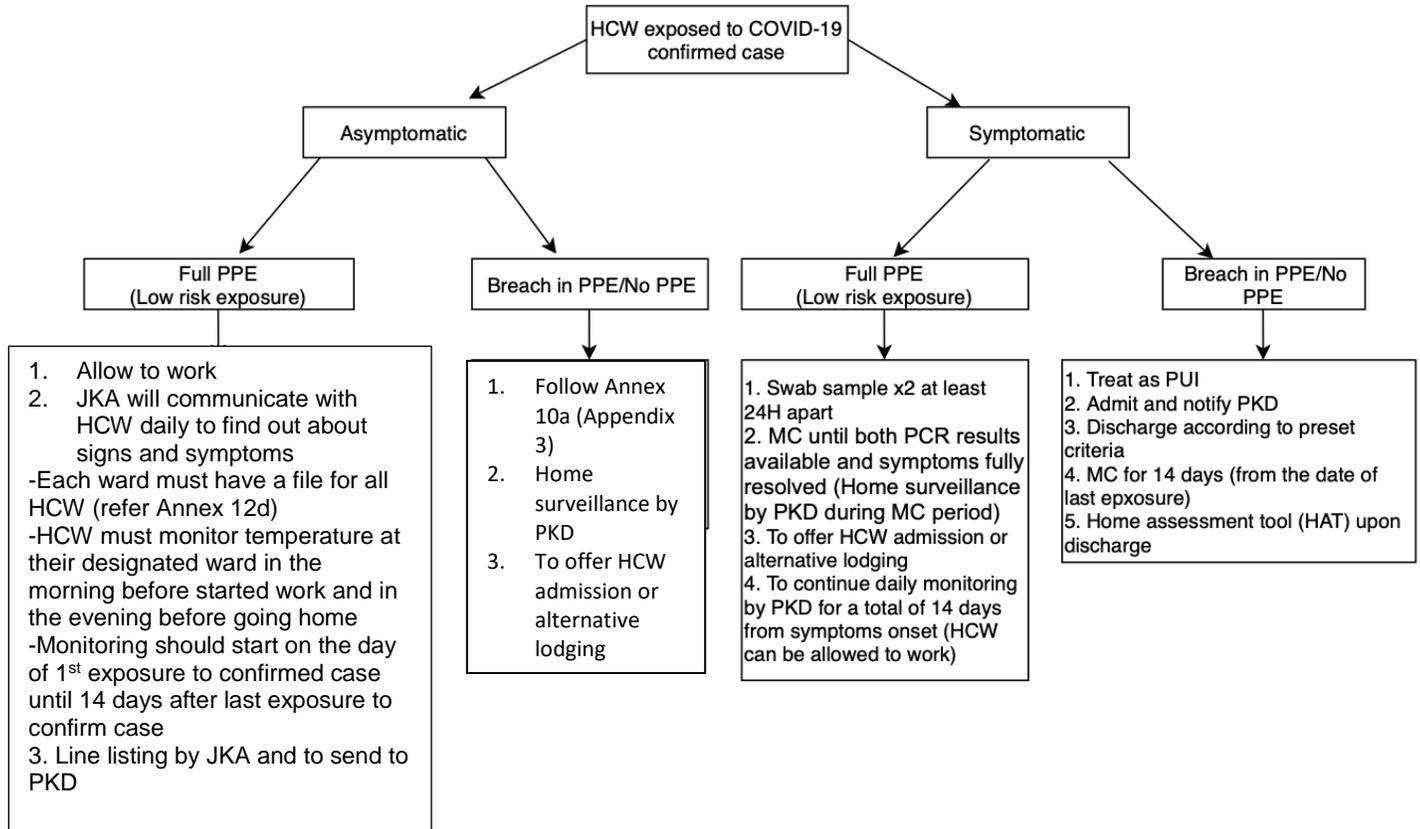
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Appendix 1



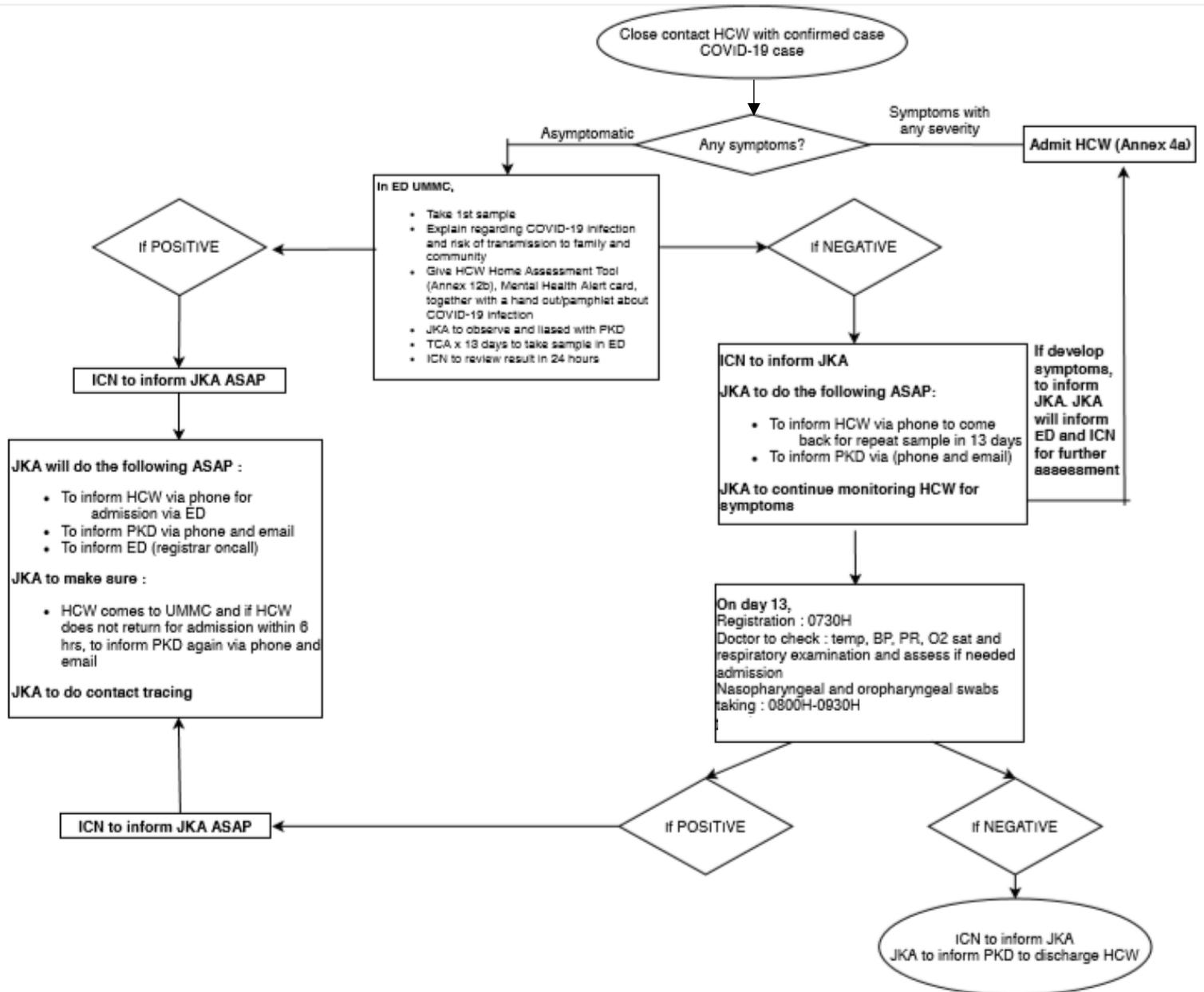
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Appendix 2



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**FLOWCHART FOR HCW IN CONTACT WITH CONFIRMED COVID-19
(Has breach in PPE/No PPE)**



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Exposure Risk Assessment

Category of risk exposure	Circumstances
High-risk exposures	<ul style="list-style-type: none"> - 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 AND - When the HCW's eyes, nose, or mouth were not protected
Medium-risk exposures	<ul style="list-style-type: none"> - HCW who had prolonged close contact with patients with COVID-19 - Where HCW mucous membranes or hands were exposed to potentially infectious materials for COVID-19
Low-risk exposures	<ul style="list-style-type: none"> - Proper adherence to infection control practices, all recommended PPE, should protect HCW having prolonged close contact with patients infected with COVID-19. HCW in this category are classified as having low-risk to account for any inconsistencies in use or adherence that could result in unrecognized exposures.
No identifiable risk	<ul style="list-style-type: none"> - HCW with no direct patient contact and - No entry into active patient management areas - Who adhere to routine safety precautions <p>These HCWs are not considered to have risk of exposure to COVID-19</p>

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*e.g., cardiopulmonary resuscitation, intubation, NIV, extubation, bronchoscopy, nebulizer therapy, sputum induction

Table: HCW risk of exposure and guide to work restrictions

Epidemiologic risk factor	Exposure category	Recommended monitoring	Work restrictions for asymptomatic HCW	Epidemiologic risk factor
HCW's PPE	Circumstances			
Unprotected eyes, nose, or mouth ¹	Who perform or are present in the room for a procedure likely to generate higher concentrations of respiratory secretions or aerosols*	High	Active [#]	Exclude from work and put on home surveillance for 14 days after last exposure
Not using a gown and gloves	Who perform or are present in the room for a procedure likely to generate higher concentrations of respiratory secretions or aerosols*	Medium <i>Note: If the HCW's eyes, nose or mouth were also unprotected, they would fall into the high-risk category</i>	Active [#]	Exclude from work and put on home surveillance for 14 days after last exposure
Unprotected eyes, nose, or mouth ¹ Note: a respirator (eg N95 mask) confers a higher level of protection than a facemask. However, they are	Who have **prolonged close contact with a patient who was not wearing a facemask	Medium	Active [#]	Exclude from work and put on home surveillance for 14 days after last exposure

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grouped together in this scenario because the eyes remain uncovered while having prolonged close contact with a patient who was not wearing a mask				
Unprotected eye, nose or mouth ¹	Who have **prolonged close contact with a patient who was wearing a facemask	Medium	Active [#]	Exclude from work and put on home surveillance for 14 days after last exposure
Not wearing gloves	Who have direct contact with secretions / excretions of a patient and the HCW failed to perform immediate hand hygiene	Medium <i>Note: If the HCW performed hand hygiene immediately after contact, this would be considered low risk</i>	Active [#]	Exclude from work and put on home surveillance for 14 days after last exposure
Wearing a mask or respirator only	Who have **prolonged contact with a patient who was wearing a facemask	Low	Active [#]	No work restrictions
Using all recommended PPE	While caring for or having contact with the secretions / excretions of a patient	Low	Active [#]	No work restrictions

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Not using all recommended PPE	Who have brief interactions with a confirmed COVID019 patient regardless of whether patient was wearing a facemask <i>(e.g., brief conversation at a triage desk, briefly entering a patient room but not having direct contact with the patient or their secretions/excretions, entering the patient room immediately after they have been discharged)</i>	Low	Active [#]	No work restrictions
No PPE	Who walked by a patient or who have no direct contact with the patient or their secretions / excretions and no entry into the patient room	No identifiable risk	None	No work restrictions

¹ Unprotected means not wearing any PPE over the specified body part e.g. unprotected eyes, nose and, mouth means the HCW are not wearing eye protection and either facemask or respirator

*e.g., cardiopulmonary resuscitation, intubation, NIV, extubation, bronchoscopy, nebulizer therapy, sputum induction

**Prolonged Close Contact refers to exposure more than 15 minutes and ≤ 1m

Active monitoring:

- The OSHE assumes responsibility for establishing regular communications with potentially exposed people to assess for presence of fever or respiratory symptoms (*e.g., cough, shortness of breath, sore throat).
- For HCW with high- ore medium-risk exposure, this communication occurs at least once a day

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Exposure category	Recommendations for monitoring
High- and Medium-risk	<ul style="list-style-type: none"> • should undergo active monitoring • restriction from work in any healthcare setting and put on home surveillance until 14 days after their last exposure for High and Medium Risk <p>If they develop any fever (<i>measured temperature $\geq 100.0^{\circ}F/37.8^{\circ}C$ or subjective fever</i>) OR respiratory symptoms consistent with COVID-19 (e.g., <i>cough, shortness of breath, sore throat</i>)</p> <ul style="list-style-type: none"> • they should immediately self-isolate (separate themselves from others) and • notify liaison officer and healthcare facility promptly so that they can be referred for further evaluation..
Low-risk	
No Identifiable risk	<ul style="list-style-type: none"> • do not require monitoring or work restriction

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Healthcare workers (HCW) with relevant travel history* (countries affected as per updated case definition)- **Guideline in progress**

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

HCWs are advised to reconsider their non essential travel plan to affected countries during the interim period.

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Severe acute respiratory infection (SARI) surveillance

Based on the current situation, MOH has proactively strengthened the COVID-19 surveillance system to detect local cases in the community.

Criteria for SARI:

CXR with the evidence of pneumonia

AND

WBC (or lymphocyte) count low or normal

All admitted patients who fulfill the SARI criteria must be notified to the Infection Control Department. The Infection Control Medical Officer and the Medical COVID-19 team or Pediatrician will review the case and take the samples for SARS-CoV-2 (sputum and NP/OP swabs).

PPE to be used :

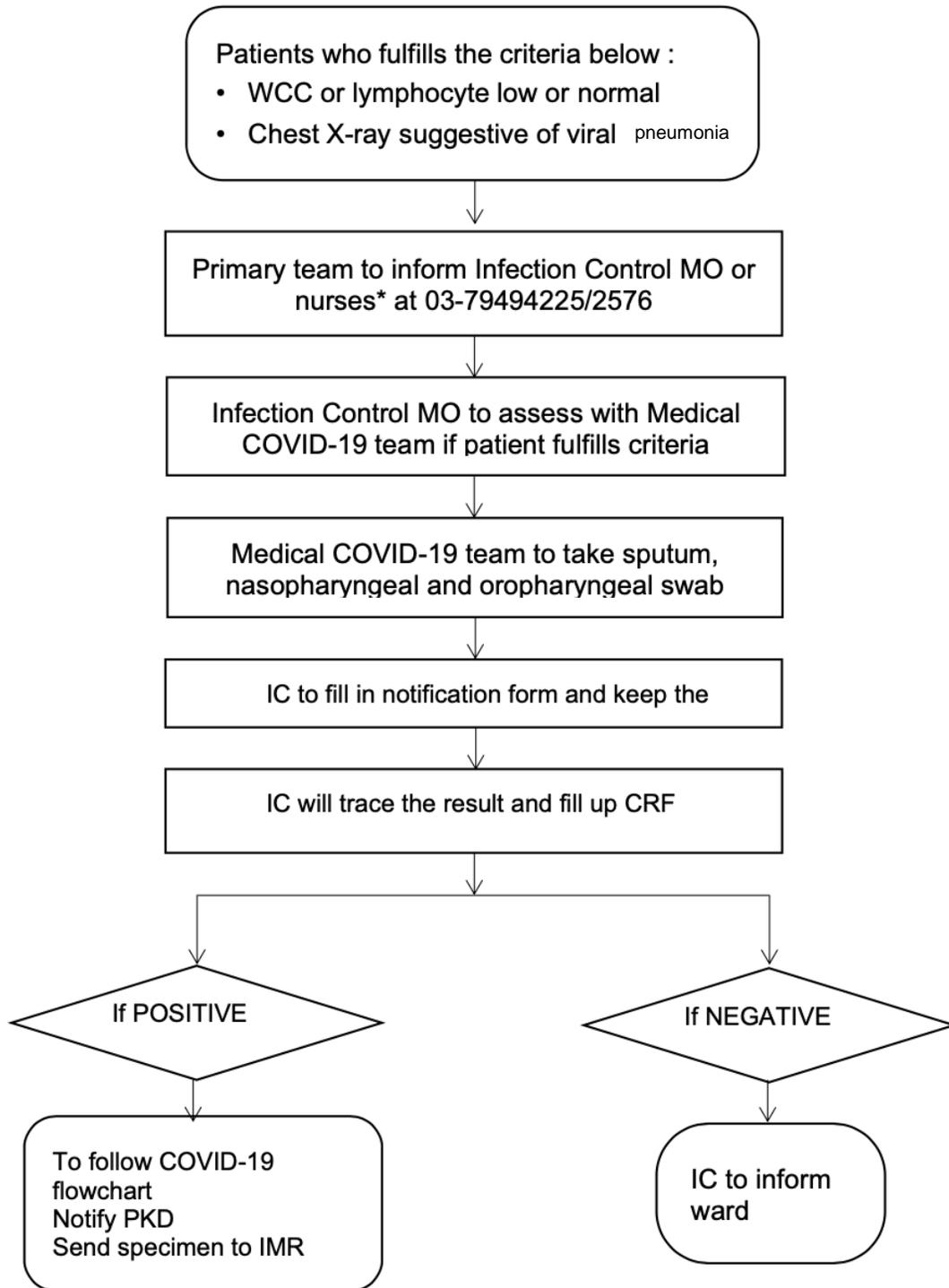
1. During routine care :
HCW to take droplet precaution (surgical face mask) + standard precaution.
Patient should wear a surgical face mask (if clinically possible) when there are other people in the room
2. During aerosol generating procedure (AGP) : HCW to use standard, airborne precaution and face/eye protection

Placement of patient : preferably single isolation room (keep door closed) until a droplet infection has been excluded

The Infection Control Medical Officer will trace the result and inform the ward staff and Medical COVID-19 team regarding the results. If sample is positive, further management of the patient will be as per confirmed case.

FLOWCHART SARI SURVEILLANCE IN UMMC

1st edition : 26/2/2020



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NOTIFICATION OF COMMUNICABLE DISEASES TO BE REPORTED

(Section 43, Prevention And Control Of Communicable Diseases Act, 1988)

I. PATIENT INFORMATION

1. Full Name (CAPITAL LETTERS):

Accompany by (Mother/Father/Guardian):
 (If under age/No/Not Notify Care)

2. Identity Card Number / Traveling Document: Self Accompany by

3. Hospital/Clinic Reg. Number: Ward: Date of Admission: / /

4. Citizenship: Citizen Non-Citizen

5. Gender: Male Female

6. Date of Birth: / /

7. Age: Year Month Day

8. Occupation:
 (If unemployed, please state self-reference)

9. Telephone No.: Resident Home Office -

10. Current Address:

11. Address of Employer/School/College/University:

II. DISEASE DIAGNOSIS

<input type="checkbox"/> 1. Polio	<input type="checkbox"/> 16. Hand, Foot and Mouth Disease	<input type="checkbox"/> 31. Tetanus Neonatorum
<input type="checkbox"/> 2. Viral Hepatitis A	<input type="checkbox"/> 17. Human Immunodeficiency Virus Infection	<input type="checkbox"/> 32. Tetanus (Others)
<input type="checkbox"/> 3. Viral Hepatitis B	<input type="checkbox"/> 18. Leprosy (Multibacillary)	<input type="checkbox"/> 33. Typhus - Scrub
<input type="checkbox"/> 4. Viral Hepatitis C	<input type="checkbox"/> 19. Leprosy (Paucibacillary)	<input type="checkbox"/> 34. Tuberculosis - PTB Smear Positive
<input type="checkbox"/> 5. Viral Hepatitis (Others)	<input type="checkbox"/> 20. Leptospirosis	<input type="checkbox"/> 35. Tuberculosis - PTB Smear Negative
<input type="checkbox"/> 6. AIDS	<input type="checkbox"/> 21. Malaria - Vivax	<input type="checkbox"/> 36. Tuberculosis - Extra Pulmonary
<input type="checkbox"/> 7. Chancroid	<input type="checkbox"/> 22. Malaria - Falciparum	<input type="checkbox"/> 37. Typhoid - Salmonella typhi
<input type="checkbox"/> 8. Chagas	<input type="checkbox"/> 23. Malaria - Malariae	<input type="checkbox"/> 38. Typhoid - Paratyphoid
<input type="checkbox"/> 9. Dengue Fever	<input type="checkbox"/> 24. Malaria - Ovale	<input type="checkbox"/> 39. Viral Encephalitis - Japanese
<input type="checkbox"/> 10. Dengue Haemorrhagic Fever	<input type="checkbox"/> 25. Measles	<input type="checkbox"/> 40. Viral Encephalitis - Herpes
<input type="checkbox"/> 11. Diphtheria	<input type="checkbox"/> 26. Plague	<input type="checkbox"/> 41. Viral Encephalitis - (Others)
<input type="checkbox"/> 12. Dysentery	<input type="checkbox"/> 27. Rabies	<input type="checkbox"/> 42. Whooping Cough / Pertussis
<input type="checkbox"/> 13. Stroke	<input type="checkbox"/> 28. Relapsing Fever	<input type="checkbox"/> 43. Yellow Fever
<input type="checkbox"/> 14. Food Poisoning	<input type="checkbox"/> 29. Syphilis - Congenital	<input type="checkbox"/> 44. Others: please specify: _____
<input type="checkbox"/> 15. Gonorrhoea	<input type="checkbox"/> 30. Syphilis - Acquired	

Incidents by written notification, the following diseases must be notified by telephone within 24 hours, such as: Acute Poliomyelitis, Cholera, Dengue, Diphtheria, Ebola, Food Poisoning, Plague, Rabies and Yellow Fever.

12. Case infection classification: Case Contact ICD/IMA Secondary Test

13. Status of subject: Suspected Dead - -

14. Date of onset: - -

15. Laboratory investigation: Serological (S) Microscopic (M) Culture (C) Other (O)

16. Laboratory investigation result: Positive Negative Pending

17. Diagnostic Status: Presumptive/Suspected Confirmed

18. Date of diagnosis: - -

19. Relevant Clinical Information:

20. Comments:

III. NOTIFIER

21. Name of Medical Practitioner:

22. Name and address of Hospital/Clinic:

23. Date of Notification: - -

Signature of Medical Practitioner

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Daily Self Monitoring Form

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:		Category (1) OR (2) (please circle an appropriate choice and fill the details below)
Home Address	:	
PATIENT UNDER INVESTIGATION (PUI)		
Date Arrival in Malaysia	:	
Flight No.		
Date of symptom onset	:	
CLOSE CONTACT OF POSITIVE COVID-19 CASE		
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:/...../.....						
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 ()
Day8	Day 9	Day 10	Day 11	Day 12	Day 13	Day 14
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 ()

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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 _____.**

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Borang Pemantauan Harian

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	: Kategori (1) ATAU (2) (bulatkan salah satu dan isi butiran di bawah)
Alamat Rumah	:
PATIENT UNDER INVESTIGATION (PUI)	
Tarikh Tiba di Malaysia	:
No. Penerbangan	:
Tarikh mula bergejala	:
KONTAK RAPAT KEPADA KES COVID-19	
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:						
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:						
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.

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Amalkan langkah-langkah berikut semasa anda diletak di bawah pengawasan dan pemantauan di rumah (*home surveillance*):

- Pastikan anda boleh dihubungi setiap masa.
- Sentiasa berada di rumah sepanjang dalam tempoh pengawasan ini.
- Hadkan pelawat atau tetamu yang datang ke rumah anda.
- Rekodkan pelawat yang menziarahi anda dan kemukakan kepada pihak kesihatan sekiranya diminta.
- Hadkan jarak anda dengan mereka yang sihat sekurang-kurangnya 1 meter.
- Sekiranya anda bergejala, sentiasa pakai topeng muka (*face mask*). Jika tidak memakai *face mask*, tutup mulut dan hidung anda menggunakan tisu apabila batuk atau bersin. Buang tisu yang telah digunakan ke dalam tong sampah dan **CUCI TANGAN serta merta** dengan sabun atau *hand sanitiser*.
- Sentiasa amalkan adab batuk yang baik.
- Sekiranya perlu keluar rumah, pakai *face mask* dan elakkan dari ke tempat-tempat yang sesak.
- Elakkan penggunaan kenderaan awam, sekiranya perlu gunakan memakai *face mask*.
- Elakkan perkongsian peralatan makanan dan penjagaan diri seperti berus gigi.
- Cuci peralatan makanan yang digunakan dengan air dan sabun sebelum digunakan semula.
- Pastikan pengudaraan rumah dalam keadaan baik dengan membuka tingkap.

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 dapatkan rawatan di klinik / hospital: _____
atau

Buat panggilan ke nombor: _____

- Sila bawa kad ini bersama anda semasa mendapatkan rawatan
- Dapatkan rawatan dengan menggunakan kenderaan persendirian; atau
- Jika perkhidmatan ambulan diperlukan, sila dial 999 untuk bantuan.

JIKA ANDA ADALAH KATEGORI 2: Kontak Rapat Kepada Kes Yang Berpotensi Dijangkiti *2019-Novel Coronavirus (2019-nCoV)*

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

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 :

- Amalkan adab batuk dan bersin yang baik ;
- Tutup mulut dan hidung anda menggunakan tisu apabila anda batuk dan bersin. Buang tisu yang telah digunakan ke dalam tong sampah.
- Cuci tangan dengan sabun dan air atau bahan pencuci tangan (hand sanitizer) selepas batuk atau bersin ;
- Pakai penutup mulut dan hidung (mask) apabila terpaksa berhubung/ berurusan dengan orang lain ;
- 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)

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• Demam



• Batuk



• Masalah Pernafasan

Jika anda mempunyai gejala tersebut :

- Amalkan adab batuk dan bersin yang baik ;
- Tutup mulut dan hidung anda menggunakan tisu apabila anda batuk dan bersin. Buang tisu yang telah digunakan ke dalam tong sampah.
- Cuci tangan dengan sabun dan air atau bahan pencuci tangan (hand sanitizer) selepas batuk atau bersin ;
- Pakai penutup mulut dan hidung (mask) apabila terpaksa berhubung/ berurusan dengan orang lain ;
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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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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，请立即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，请立即送往邻近医院。

健康警示卡

所有从中国入境的旅客和机组人员

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，请立即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，请立即送往邻近医院。



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

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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):

.....
.....

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Daily Monitoring Table

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

Day 8	Day 9	Day 10	Day 11	Day 12	Day 13	Day 14
Date/...../.....						
AM Temp. (°C):						
PM Temp. (°C):						
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.

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JABATAN KAWALAN JANGKITAN
PUSAT PERUBATAN UNIVERSITI MALAYA

**BORANG PEMANTAUAN HARIAN KAKITANGAN KESIHATAN BAGI KONTAK
RAPAT KEPADA KES YANG BERPOTENSI DIJANGKITI *CORONAVIRUS DISEASE*
(*COVID-19*)**

Nama Pesakit :
 Tarikh Keputusan : _____
 Nombor Pendaftaran : _____
 Keputusan Makmal COVID-19 : Positif/Negatif /Tidak Diketahui
 Wad : _____
 Tarikh Kemasukan : _____

Bil	Nama Staf	Jantina/Umur	Hari Pertama Pendedahan Kepada Kes	Hari Terakhir Pendedahan Kepada Kes	No. Telefon	Tarikh Status Pemantauan														
						D 1	D 2	D 3	D 4	D 5	D 6	D 7	D 8	D 9	D 10	D 11	D 12	D 13	D 14	D 15
1																				
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				

ARAHAN:

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1. Tandakan (/) sekiranya terdapat tanda gejala seperti **1) Demam 2) Batuk 3) Selesema 4) Sakit Tekak 5) Sesak Nafas**
2. Untuk kes yang disahkan positif, pemantauan adalah 14 hari selepas ujian kedua negatif
3. Untuk kes yang negatif, pemantauan diteruskan selama 14 hari dari hari terakhir terdedah kepada kes
4. Bagi kes keputusan tidak diketahui, pemantauan adalah 14 hari dari hari terakhir terdedah kepada kes

NOTIFICATION OF OCCUPATIONAL LUNG DISEASE		WEHU - LI (JKKP7)
<p style="margin: 0;">Send to Pengarah Kesihatan Negeri Jabatan Kesihatan Negeri _____</p>	Part B - Affected person	
<p style="margin: 0;">Part A - Notifier (Regulation 7(2) Registered Medical Practitioner)</p> <p>Name _____</p> <p>Designation _____</p> <p>Address of clinic / hospital _____</p> <p>Contact no. _____</p>	<p>Name _____</p> <p>Date of Birth _____ New IC/ Passport no. _____</p> <p style="font-size: small;">DD MM YY</p> <p>Nationality _____ Gender <input type="checkbox"/> Male <input type="checkbox"/> Female</p> <p>Ethnic Group _____ Occupation _____</p> <p>Name and address of organization _____</p> <p>District _____ State _____</p> <p>Location of incident _____</p>	
Part C - Occupational Lung Disease		
<p>Date of diagnosis _____</p> <p style="font-size: small;">DD MM YY</p> <p>Diagnosis/ Provisional diagnosis _____</p>		
Part D		
<p>a) What kind of work did the patient do which may be associated with the disease? (Describe the work activities)</p> <p>b) What was the hazard or agent been exposed to the patient?</p> <p>c) How long had the patient been exposed to the hazard or agent?</p> <p>d) How long had the patient been experiencing the symptoms?</p>		
<p>Signature of Notifier _____</p> <p>Date _____</p>	<p>Name and address of attending doctor (Official Stamp) _____</p>	

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Annex 13

**GUIDELINES ON MANAGEMENT OF CORONAVIRUS DISEASE 2019 (COVID-19) IN
SURGERY (To discuss)**

Annex 14

**GUIDELINES ON MANAGEMENT OF CORONAVIRUS DISEASE 2019 (COVID-19) IN
O&G (To discuss)**

Annex 15

**GUIDELINES ON MANAGEMENT OF CORONAVIRUS DISEASE 2019 (COVID-19) IN
RADIOLOGY (To discuss)**

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Important numbers:

Contact	Telephone Number
Infection Control Department	2576/4225
Emergency Department	2520
5PB	3626/3881
MMB	3163/3164
CDL	2582/2583
4UB	2910
JKA	03-79675773/3198
PKD Lembah Pantai	Tel: 03-22687453/03-22687452 Fax: 03-26940998 Email: cdcpkdlp@gmail.com
Security	Menara Utama -2403 Menara Timur-3055 Selatan – 4324/8505 KWKK -6806/6805
Facility	3060
Medical and Paediatric COVID-19 team	Operator
OSHE	3730

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References:

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2. Guidelines on 2019 Novel Coronavirus (2019-nCoV) Management in Malaysia No. 03/2020 (Edisi Ketiga)
3. Guidelines on COVID-19 Management in Malaysia No. 04/2020 (Edisi Keempat)
4. Guideline On Management of Patients With Suspected/Probable/Confirmed Middle East Respiratory Coronavirus (MERS-CoV);DS -1058
5. WHO Novel Coronavirus (2019-nCoV) technical guidance <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance>
6. [Infection prevention and control during health care when novel coronavirus \(nCoV\) infection is suspected. Interim guidance 25 January 2020 WHO/2019-CoV/IPC/v2020.2](#)
7. Infection prevention and control of epidemic- and pandemic-prone acute respiratory infections in health care: WHO guidelines. Geneva: World Health Organization; 2014 (<http://apps.who.int/iris/10665/112656/>)
8. Physical interventions to interrupt or reduce the spread of respiratory viruses. Cochrane Database Syst Rev. 2011 Jul 6;(7):CD006207. doi: 10.1002/14651858.CD006207.pub4.
9. <https://www.dhhs.vic.gov.au/coronavirus>
10. <https://apps.who.int/iris/handle/10665/331215>
11. <https://www.ecdc.europa.eu/en/case-definition-and-european-surveillance-human-infection-novel-coronavirus-2019-ncov>

Prepared by:

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Contribution from following departments:

Medical (ID and Respiratory), MMB, ED, RUKA, Pediatrics, Nursing, ICU, OSHE, JKA

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