

OTORHINOLARYNGOLOGY (ORL) SERVICE GUIDELINES DURING COVID-19 PANDEMIC

1. Introduction

COVID-19 is an infection caused by novel severe acute respiratory syndrome coronavirus 2 (SARS CoV-2). On March 11th, 2020, the World Health Organization (WHO) declared COVID-19 a global pandemic. Viral load is high in upper respiratory tract especially from nasopharynx and oropharynx. Any surgery, procedures or endoscopy involving the upper aerodigestive tracts as well as high-speed drilling procedures will put the surgeon and other healthcare workers at risk for exposure to aerosolized viral particles.

Otorhinolaryngology (ORL) services typically include inspection, examination and treatment of upper respiratory and upper aerodigestive tract, ear and head & neck area. Hence, health care workers (HCW) in ORL Department are at high risk due to proximity and potential aerosolization during routine and emergency ORL procedures. The steps listed below are recommendations; taking into account the local situations and needs within their respective departments and hospitals. These temporary measures will be carried out until further notice.

2. Outpatient Clinic Services

The following are the recommendations to minimize risk of exposure to both patients and HCW:

2.1 Patients:

- a. Triage of patients before entering the ORL clinic to be performed by medical staff.
- b. Patient and/or carer to scan My Sejahtera/ fill up screening and declaration form
- c. Ensuring patients to wear face mask.
- d. Ensuring patients to sanitize their hands using provided hand sanitizer.
- e. Temperature check.
- f. Suspected COVID-19 patients are directed to designated COVID-19 screening area.
- g. Practice of physical distancing of at least 1 metre among patients.

- h. Patients without any pending needs shall be given a new appointment and adequate medicine.
- i. Patients with existing appointment to be called and reschedule the appointment date.
- j. Minimize crowd in clinic by encouraging patients to come alone or only accompanied by 1 care person if needed.
- k. For patients who attend the ORL clinic for specific needs, such as post-op review, urgent review of HPE and radio imaging or other needs requiring immediate attention, due consultation and treatment are to be provided.
- l. Exceptions to the above, are made based on a case-to-case basis following discussion with the specialists.

2.2 Healthcare workers (HCW):

- a. Daily symptoms and temperature monitoring (ANNEX 21: Monitoring form for personnel potentially exposed to COVID -19). Mental health/status monitoring if indicated.
- b. Minimize the number of HCW working at clinic by rotation/shift work, or dividing into several teams to avoid disruption of service if many staffs are exposed.
- c. Physical distancing of at least 1 metre among staff should be practiced.
- d. Ensure adequate PPE are available for HCW use.

2.3 Clinic:

- a. All non-urgent clinical procedures should be postponed. Limit clinic procedures to urgent and emergency cases only.
- b. Limit the use of consultation and procedure rooms.
- c. Usage of disposable items and instruments are recommended if available and proper disposal of those items are done as per hospital protocol.
- d. Disinfection protocol for all clinic instruments should be paid strict attention. All instruments should be disinfected immediately after use and not left to the end of the day. Clinic area should be wiped and cleaned daily.

3. Inpatient Services

- a. All elective ward admission/surgery to be postponed and rescheduled to another date.
- b. Only emergency or semi-emergency cases to be admitted for treatment or surgery.
- c. Screening and declaration form of COVID-19 to be filled by patient and carer (if carer is allowed to be with patient) upon admission. Refer Appendix 1.
- d. All patients undergoing aerosol generating procedure (AGP) require thorough clinical assessment and COVID-19 diagnostic tests via RT-PCR for nasopharyngeal/ throat swabs as per local hospital protocols. Screening for other type of operation to be done if necessary.
- e. Appropriate PPE should be worn in the ward for examination or procedures as stated for outpatient services.
- f. In life saving emergency procedures in which COVID-19 PCR results are pending, patient must be isolated post operatively until proven COVID-19 negative.
- g. To use full PPE during operation.

4. Audiology and Speech Therapy

- a. Should 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.
- b. Only emergency cases requiring urgent diagnosis, specialized therapy and intervention procedures are attended.

5. 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.

6. Clinic Procedures

- a. Nasal endoscopy and laryngoscopy should not be performed during the COVID-19 pandemic unless there is an absolute need for it.
- b. Rigid and flexible scope should be done in a designated procedure room to limit exposure to other staffs and patients.
- c. Appropriate PPE is to be worn for all procedures.

- d. During an endoscopic nasopharyngeal examination, local anaesthetic and decongestants in spray form should be avoided and nasal pledgets are recommended.
- e. Non-disposable equipment used during this procedure should be appropriately wrapped and covered to avoid virus contaminations.
- f. Sterilization of instruments and equipment used during the procedure is done according to infection control protocol. Discard all disposables accordingly.

7. Recommendation For ORL Procedures

- a. Most of ORL procedures are considered high-risk procedures due to the aerosolization effect.
- b. It is recommended to assume that all patients are potential asymptomatic COVID-19 patient until proven otherwise.
- c. All patients undergoing aerosol generating procedures require thorough clinical assessment and COVID-19 diagnostic test via RT-PCR for nasopharyngeal/throat swabs as per local hospital protocols. COVID-19 test for other type of operation to be done if necessary.
- d. Special consideration should be taken before deciding for operation (refer Annex 22: Guidelines for Management of Surgery During COVID-19 Pandemic).
- e. Appropriate PPE should be worn by all staff present during the procedure (refer Annex 8: Infection Prevention and Control (IPC) Measures in Managing Person under Surveillance (PUS), Suspected, Probable or Confirmed Coronavirus Disease (COVID-19)).

8. Aerosol-Generating Procedures (AGPs)

The following procedures are currently considered to be potentially infectious AGPs for COVID-19:

- a. Intubation, extubation and related procedures, for example manual ventilation and open suctioning of the respiratory tract (including the upper respiratory tract)
- b. Tracheotomy or tracheostomy procedures (insertion or open suctioning or removal)
*refer to Tracheostomy Guidelines During Covid-19 Pandemic Period.

- c. Bronchoscopy and upper ENT airway procedures that involve suctioning.
- d. Upper gastro-intestinal endoscopy where there is open suctioning of the upper respiratory tract.
- e. Surgery and post-mortem procedures involving high-speed devices.
- f. Some dental procedures (for example, high-speed drilling).
- g. Non-Invasive Ventilation (NIV); Bi-level Positive Airway Pressure Ventilation (BiPAP) and Continuous Positive Airway Pressure Ventilation (CPAP).
- h. High Frequency Oscillatory Ventilation (HFOV).
- i. Induction of sputum (cough).
- j. High Flow Nasal Oxygen (HFNO).

9. Recommendation for Emergency/ Semi Emergency Procedures / Surgery

9.1 Objectives

- a. To limit exposure of patients and staff to COVID-19.
- b. To limit only essential ORL surgery and procedures due to close proximity of the healthcare provider with the patient's source of viral load in the nose and pharynx.

9.2 Operative Procedures

- a. All procedures and surgeries should be performed while observing appropriate protective measures (PPE) in line with universal airborne, droplet and contact precautions.
- b. Procedures to be performed in designated COVID-19 operating theatre (OT) and ideally with negative pressure OT.
- c. All patients undergoing AGP require thorough clinical assessment and COVID-19 diagnostic tests via RT-PCR for nasopharyngeal/ throat swabs as per local hospital protocols. COVID-19 test for other type of operation to be done if necessary.
- d. If patient is not intubated, a surgical mask should be offered to the patient to wear at all times.

- e. In life saving emergency procedures in which COVID-19 PCR results are pending, patient must be isolated post operatively until proven COVID-19 negative.
- f. Full PPE for all OT staff as per hospital protocol. If available, Powered Air Purifying Respirator (PAPR) should be used for confirmed COVID-19 patients.
- g. Intubation is ideally done in negative pressure room (either ICU or OT) prior to entry of ORL team into the designated OT.
- h. Use disposable equipment when available. Cleaning and disinfecting of instruments should be in accordance to hospital Infection control protocol.
- i. Experienced ORL team personnel should be present for a procedure to reduce operating time. The number of personnel in OT should be minimized including the movement of the staffs in OT.
- j. Donning and doffing should be done at the appropriate area as per hospital protocol.
- k. To maintain post-operative precautions during transfer to ward to avoid risk of disease dissemination.
- l. Drainage of abscess: drainage under local anaesthesia should always be considered first.
- m. Frequency of wound dressing should be minimized by using alternative dressing materials such as alginate dressing.
- n. Aspiration drainage should be considered to reduce the need for daily dressing in certain cases.
- o. 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.
- p. In dire emergent situations where the COVID-19 status cannot be ascertained within limited time, the surgery should be continued with Enhanced Airborne Precautions as per confirmed COVID-19 cases; point-of-care test kits should be utilized where feasible apart from the COVID-19 diagnostic tests using RT-PCR.
- q. Post-operatively, in all confirmed COVID-19 cases, **heightened post-operative care** should be provided. These include but not limited to:
 - i. Extubation in negative pressure room (where available).

- ii. Patient nursed in isolation ward with attending HCW in full PPE as per guidelines.
- iii. For tracheostomised patients, special tracheostomy care encompassing consideration of delaying tracheostomy tube cuff deflation, in-line closed suctioning system, Heat Moisture Exchanger (HME) attachment to tracheostomy tube, delaying tracheostomy tube change etc. (until discharge from COVID-19 care pathway).

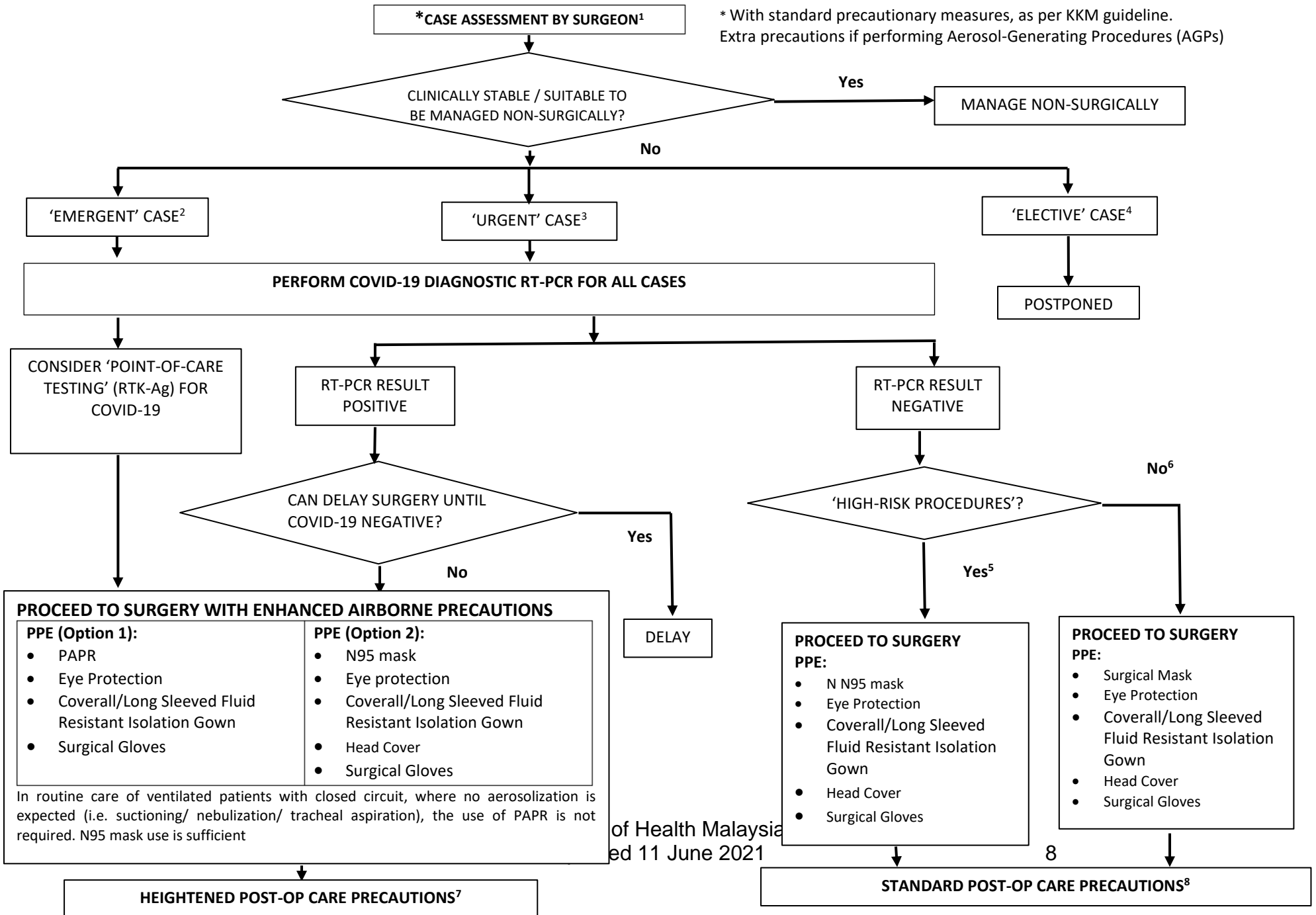
9.3 Factors to be considered as to whether the surgery should proceed¹:

- a. Urgency of the procedure.
- b. Collective decisions between the surgeon, anaesthetist, patient, and other related healthcare professionals.
- c. Availability and supply of Personal Protection Equipment (PPE) to the local healthcare facility.
- d. Staffing availability.
- e. Bed, ventilator and Intensive Care Unit (ICU) requirement of the post-operative patient versus the local COVID-19 pandemic needs.

9.4 Personal Preventive Equipment (PPE):

- a. Due to the nature of ORL examinations and procedures that puts HCW to high risk of exposure to COVID-19, the need of adequate PPE is paramount.
- b. HCW are recommended to change attire to surgical scrub suits at work in clinic/ward/Emergency Department. HCW to change to other attire before going home.
- c. Appropriate PPE should be worn by all staff present during the procedure (refer Annex 8: Infection Prevention and Control (IPC) Measures in Managing Person under Surveillance (PUS), Suspected, Probable or Confirmed Coronavirus Disease (COVID-19).

FLOW CHART FOR THE MANAGEMENT OF ORL SURGERY OR PROCEDURE



Level of Surgical Urgencies	Procedures/Surgery (Level of Risk)	Level of Post Op Care
<p>²EXAMPLES OF 'EMERGENT' CASES</p> <ul style="list-style-type: none"> • Acute upper airway obstruction • Life-threatening conditions such as bleeding, impending coning <p>³EXAMPLES OF 'URGENT' CASES</p> <ul style="list-style-type: none"> • Head and Neck Malignancy • Abscesses / Infective Conditions • Foreign body (not immediately life-threatening) • Failed medical management <p>⁴EXAMPLES OF 'ELECTIVE' CASES</p> <ul style="list-style-type: none"> • Other cases with non-urgent or time-sensitive conditions 	<p>⁵EXAMPLES OF 'HIGH-RISK PROCEDURES'</p> <ul style="list-style-type: none"> • All transoral surgery <ul style="list-style-type: none"> ○ Tonsillectomy ○ Laryngeal surgery • All intranasal surgery <ul style="list-style-type: none"> ○ Sinus surgery • All endolaryngeal or transtracheal surgery <ul style="list-style-type: none"> ○ Bronchoscopy ○ Tracheostomy ○ Laryngectomy • Mastoidectomy (and other high-speed bone-drilling procedures) <p>⁶EXAMPLES OF 'LOW-RISK PROCEDURES'</p> <ul style="list-style-type: none"> • Transcervical surgery <ul style="list-style-type: none"> ○ Neck dissection ○ Thyroidectomy • Skin / superficial procedures 	<p>⁷HEIGHTENED POST-OP PRECAUTIONS</p> <ul style="list-style-type: none"> • Patient extubated in negative pressure room • Patient nursed in isolation ward with attending nursing staff in full PPE as per guidelines • For tracheostomised patient, special tracheostomy care according to available guidelines <p>⁸STANDARD POST-OP PRECAUTIONS</p> <ul style="list-style-type: none"> • Patient receive standard post-operative care as per current institution protocols • Patient nursed in general ward with attending nursing staff following universal precautions



COVID-19 DECLARATION FORM (PATIENT/CARER)

(Individual facility may amend the form according to the need of local setting)

ANSWER ALL QUESTIONS (TICK \surd WHERE APPROPRIATE)

A. EPIDEMIOLOGICAL LINK		Yes	No
1	Residing or working in an area/locality with high risk of transmission of virus: closed residential settings, institutional settings such as prisons, immigration detention depots ; anytime within the 14 days prior to sign and symptom onset If yes, please specify the area: _____		
2	Residing or travel to an area with community transmission anytime within the 14 days prior to sign and symptom onset If yes, please specify the area: _____		
3	Working in any health care setting, including within health facilities or within the community; any time within the 14 days prior to sign and symptom onset. If yes, please specify the health care setting: _____		
4	Linked to a COVID-19 cluster within the past 14 days prior to sign and symptom onset.		
5	Close contact to a confirmed case of COVID-19, within 14 days before onset of illness. If yes, please answer questions a to c:		
	a. Working together in close proximity or sharing the same classroom environment with a with COVID-19 patient		
	b. Traveling together with COVID-19 patient in any kind of conveyance		
	c. Living in the same household as a COVID-19 patient		

B. SYMPTOMS							
		Yes	No			No	Yes
1	Fever			8	Dyspnea		
2	Cough			9	Anorexia / Nausea / Vomiting		
3	General weakness /Fatigue			10	Diarrhea		
4	Headache			11	Altered mental status		
5	Myalgia			12	Sudden loss of smell (Anosmia)		
6	Sore throat			13	Sudden loss of taste (Argeusia)		
7	Coryza				TEMPERATURE	_____°C	

Signature of Patient/Carer:

Signature of Screening Officer:

Name: _____

Name: _____

IC Number: _____

IC Number: _____

Date: _____

Date: _____

STOP COVID-19!
YOUR HONESTY CAN SAVE MANY LIVES INCLUDING HEALTH CARE WORKERS.
MAKE SURE YOU REGISTER IN MySejahtera



BORANG DEKLARASI SARINGAN PENYAKIT COVID-19 (PESAKIT/PENJAGA)
(Fasiliti kesihatan boleh membuat modifikasi yang bersesuaian, mengikut keperluan setempat)

SILA JAWAB SEMUA SOALAN (TANDAKAN MANA YANG BERKENAAN)

A. HUBUNGAN EPIDEMIOLOGI		Ya	Tidak
1	Adakah anda menetap / bekerja di kawasan dengan risiko tinggi penularan penyakit COVID-19: Kediaman tertutup, institusi seperti penjara, depot tahanan imigresen; dalam tempoh masa 14 hari sebelum gejala bermula. Jika YA, nyatakan nama kawasan tersebut: _____		
2	Adakah anda menetap / melawat ke kawasan dengan penularan komuniti dalam tempoh masa 14 hari sebelum gejala bermula. Jika YA, nyatakan nama tempat yang dilawati: _____		
3	Adakah anda bekerja di mana-mana fasiliti penjagaan kesihatan, termasuk fasiliti kesihatan atau di dalam komuniti; dalam tempoh masa 14 hari sebelum gejala bermula. Jika YA, nyatakan nama fasiliti kesihatan tersebut: _____		
4	Adakah anda mempunyai kaitan dengan mana-mana kluster COVID-19 dalam tempoh masa 14 hari sebelum gejala bermula?.		
5	Adakah anda merupakan kontak rapat kepada individu yang disahkan positif COVID-19 dalam masa 14 hari Jika YA, sila jawab soalan a hingga c :		
	a. Bekerja bersama dalam jarak dekat atau berkongsi persekitaran bilik/ ruang yang sama dengan pesakit COVID-19.		
	b. Menaiki kenderaan yang sama dengan individu yang disahkan positif COVID-19.		
	c. Tinggal serumah dengan individu yang disahkan positif COVID-19.		

B. GEJALA		Ya	Tidak
1	Demam (<i>fever</i>)		
2	Batuk (<i>cough</i>)		
3	Kelesuan (<i>general weakness</i>) /Keletihan (<i>fatigue</i>)		
4	Sakit kepala (<i>headache</i>)		
5	Sakit badan (<i>myalgia</i>)		
6	Sakit tekak (<i>sore throat</i>)		
7	<i>Coryza</i>		
8	Sesak nafas (<i>dyspnea</i>)		
9	Anorexia / Loya (<i>nausea</i>) / Muntah-muntah (<i>vomiting</i>)		
10	Cirit-birit (<i>diarrhea</i>)		
11	Perubahan status mental (<i>altered mental status</i>)		
12	Hilang deria bau secara tiba-tiba (<i>sudden loss of smell/anosmia</i>)		
13	Hilang deria rasa secara tiba-tiba (<i>sudden loss of taste/ argeusia</i>)		

SUHU: _____ °C

Tandatangan Anggota Kesihatan:

Nama: _____

No. Kad Pengenalan: _____

Tarikh: _____

Tandatangan Anggota Kesihatan Yg Menyaring:

Nama: _____

No. Kad Pengenalan: _____

Tarikh: _____

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