

ANNEX 21: MANAGEMENT OF HEALTHCARE WORKERS (HCW) DURING THE COVID-19 PANDEMIC

A) GENERAL CONSIDERATION

Healthcare workers (HCW) play a vital role in management of the COVID-19 pandemic such as testing, patient care, field investigations, data management, administrative measures etc. Patient care involves management of cases in the health clinics, hospitals, Pusat Kuarantin dan Rawatan COVID-19 Berisiko Rendah (PKRC) and COVID-19 Assessment Centres (CAC) as well as follow-up of positive cases who are being managed at home.

Generally, **60% of the possible source of COVID-19 infection among HCW was due to exposure from the community** which included family members and friends, 20% of the transmission occurred among HCW at the workplace, 10% contracted the illness from patients and 10% linked to other causes.

B) UPDATES ON SARS COV-2 VIRUS

Viruses constantly change and mutate due to evolution and adaptation processes. Consequently, the emergence of new variants to be expected. This could result in an increase in transmissibility, or virulence, or a decrease in the effectiveness of vaccines, treatments, diagnostic assays or other public health measures. These variants have been categorized into variants of concern (VOC) or variants of interest (VOI) based on variant characteristics and public health risks by the World Health Organization (WHO). On 26th November 2021, the WHO technical advisory group declared the emergence of SARS-CoV-2 variant Omicron, (B.1.1.529) as a variant of concern (VOC). Based on the data as of 25th January 2022, the cumulative number of COVID-19 positive cases detected by Omicron in Malaysia were 601 cases. Out of these, 545 cases were imported infections from abroad while another 56 were locally transmitted.

C. VACCINE EFFECTIVENESS

Given the evidence of ongoing COVID-19 infections among HCW and the critical role they play in caring for others, their continued protection at work, home and in the community remains a priority. Therefore, vaccination is a critical addition to ensuring the health and safety of this essential workforce, protecting not only them but also their patients, families and communities. As of the 26th December 2021, 99% of the MOH health workers have been fully vaccinated. This does not mean that individuals are immune from SARS-CoV-2 once vaccinated and might still be able to transmit SARS-CoV-2 infection to susceptible contacts. The available evidence currently regarding real world vaccine effectiveness and duration of protection shows that all vaccines are currently highly protective against hospitalization, severe disease, and death for a variety of strains of COVID-19. A recent study from the New England Journal of Medicine indicated that immunity against the delta variant of SARS-CoV-2 waned in all age groups a few months after receiving the second dose of vaccine. Therefore, the booster dose was implemented nationwide starting from 13th October 2021. As of 25th January 2022, about 78% of HCW in Ministry of Health (MOH) have received booster dose.

D. PREVENTION OF COVID-19 TRANSMISSION IN HEALTHCARE FACILITIES

It is pertinent for all HCWs to strictly follow the Standard Operating Procedure (SOP) as highlighted in this document despite being fully vaccinated. Adherence to SOP must be practiced at the workplace and outside the workplace. These principles of management of HCW apply to all MOH facilities and may also be used by non-MOH medical and health facilities.

In general, the new norms at workplace and out of the workplace for HCW include the following:

1. Practice 3C, 3W and additional measures

- i) Avoid crowded places
- ii) Avoid confined spaces

- iii) Avoid close conversations
- iv) Wash your hands with soap and water or use hand sanitizer
- v) Practice physical distancing
- vi) Wear a mask
- vii) Warn others on adherence to SOPs
- viii) Do not shake hands and avoid physical contact
- ix) Practice cough and sneezing etiquette
- x) Regular disinfection
- xi) Get treatment if symptoms occur

2. The Practice of Physical Distancing (at least 1 meter apart)

- i) By limiting the number of personnel at counters at any one time
- ii) While taking history or when talking to a patient or family member
- iii) While at the nurse's station/ registration counter
- iv) While on break, purchasing food or having a meal at the pantry
- v) While at the waiting or common area
- vi) While at a workstation or in the on-call room
- vii) While praying at the designated room or prayer room
- viii) While in the washroom
- ix) During group discussion, training or meeting including when gathered to participating in virtual session/ seminar.
- ix) While on home visits or contact tracing

3. Hand Hygiene:

- i) Practice the 5 Moments of Hand Hygiene in patient management
 - Before touching a patient
 - Before clean/aseptic procedures
 - After body fluid exposure/risk
 - After touching a patient
 - After touching patient's surroundings

- ii) Frequent hand hygiene while at the workplace
 - Upon entering the workplace
 - After coughing and sneezing
 - After coming in contact with high touch surfaces (door handle, railing, elevator buttons, IV drips stand, trays etc.)
 - After using the washroom

4. Use of 3 Ply Surgical Mask or Respirators (e.g. N95, approved KN95)

Masks such as 3-ply surgical mask, and respirators such as N95 or KN95 masks protect both the wearer and others by providing a physical barrier to help contain the spread of respiratory droplets and aerosols.

- i) Use of well fitted 3 ply-surgical masks and eye protection in non-clinical and common areas as far as practicable, e.g. pantry, prayer room, canteen, rest areas. HCW should minimize the time being unmask in shared areas.
- ii) Masks must be properly worn and well fitted (covering mouth and nose with no gaps at the edges) to be efficient to achieve protection.
- iii) If using 3-ply surgical mask in non-clinical settings, HCW may include additional measure of double masking (fabric mask on top of 3 ply surgical mask) to achieve better fit and extra protection.
- iv) If doing additional work shifts, the masks should be changed at the beginning of the shift.
- v) A respirator such as N95 or approved KN95 provides better protection than 3-ply surgical masks and should be considered by individuals with higher risk of getting severe COVID, or when working in high risk environment e.g. confined and poorly ventilated spaces, or when there is high frequency of direct close interactions with public/patients/colleagues.
- vi) HCWs should do a risk assessment to decide the best type of mask for themselves, however most importantly they should select a well fitted mask that they are able to wear consistently at work.

5. Use of Personal Protective Equipment (PPE) In Clinical Area

In the clinical setting, PPE usage is based according to the clinical circumstances and risk assessment. The general advice is as follows:

- i) Use of appropriate PPE as per recommendation based on the required transmission based precaution. *Refer to Annex 8 for further elaboration on Infection Prevention and Control Practice*
- ii) Use of respirators (eg: N95, KN95) in clinical areas where AGP activities takes place or when anticipating encounter with patients having aerosol generating behaviors (AGB) e.g., coughing, vomiting, sneezing etc.
- iii) Use gloves only when required e.g., during clinical procedures, handling clinical waste etc. Gloves should be changed in between patients and disinfection of gloved hands with alcohol hand rub is not recommended.
- iv) Ensure proper donning and doffing methods are followed
- v) Emphasis on fit testing and seal check for respirator use e.g., N95, KN95 etc.
- vi) Avoid unnecessary use of full PPE

6. Risk Assessment & Risk Reduction Practices during Patient Encounter in Clinical Areas

All HCW should do a risk assessment prior to each patient encounter to determine their risk of exposure for the specific patient, the specific interaction, the specific task, the environment and its conditions. Doing a risk assessment will help determine the appropriate PPE and risk reduction measures/actions needed.

In clinical areas, the following risk reduction practice should be applied:

- i) Practice airborne precaution (use N95 and face-shield) in the following clinical areas or situation: -
 - a. In a closed, confined area with poor ventilation e.g. a small air-conditioned clinic area with closed windows
 - b. In wards/cubicles/rooms where AGP takes place continuously e.g., in a medical ward with patient on high flow oxygen or nebulizer
 - c. When anticipating patients with Aerosol Generating Behaviour (AGB) e.g., coughing, sneezing or vomiting

- ii) Ensure to keep 1 to 2 meter distance from patient's face during history taking or clinical review except during physical examination. Whenever there is no contraindication, patients should be advised to wear a 3-ply surgical mask in any clinical areas especially during any encounter with HCW.
- iii) Minimize a close face to face encounter with patient to <15 minutes unless deemed necessary.
- iv) Avoid doing clinical rounds or patient's review in big groups of people.

7. Screening, Testing and Follow-Up of Healthcare Workers

Strict gatekeeping should be practices at entrance to the premise with:

- i) MySejahtera QR code must be scanned before entering the premise.
- ii) HCW Declaration Form for COVID-19 must be filled up (Refer Appendix 6).
- iii) HCW with acute symptoms compatible with COVID-19 should inform their supervisor and get tested.
 - iv) Priority for testing should be given to HCW with COVID-19 compatible symptoms or close contact to COVID-19 confirmed cases

8. Risk Communication

- i) Daily compulsory 10-minute risk communication session by supervisor (**Health Toolbox Sessions**) for HCW should be done before starting work. This health toolbox session will include the following components:
 - a) Provide updated information or policies, information on incidences
 - b) Reminders of precautions as well as safety and health measures:
 - 1. Adherence to SOP among HCW at all times and all areas of the workplace (including pantry, canteen, prayer room, rest areas) as well as out of the workplace (when interacting with family and friends) even though they have been fully vaccinated.
 - 2. Importance of maintaining their health status on an optimal level especially for those with chronic diseases.
 - c) Information on early signs and symptoms of mental distress and burnout and coping mechanism (Refer Appendix 1):

1. Using the mental health self-check for HCW from the Mental Health and Psychosocial Support (MHSPSS) Guideline- Annex 9.
 2. Advocacy of the buddy system according to work sections for the support and monitoring of mental distress among co-workers.
 3. Encourage deep breathing techniques for the management of stress using the 4-4-8 technique.
- ii) Regular technical update sessions for staff e.g. Continuous Medical Education, Continuous Nursing Education, online notification, notice board, etc.
 - iii) Consultation daily by Occupational Safety and Health (OSH)/ liaison officer should be readily available.

9. Integrated Services Strategy

- i) Identify Liaison Officers for Hospital and District Health Office (PKD) for daily communication of cases.
- ii) Integrated contact tracing and investigations of HCWs exposed or infected with COVID-19 by the OSH and PKD surveillance teams.

10. Specific Needs of Healthcare workers (OSH in coordination with supervisors)

- i) OSH to identify HCW with pre-existing illnesses/ comorbid conditions (e.g. chronic diseases), high-risk HCW (e.g. immunocompromised).
- ii) Reschedule/ reorganize work tasks of the above groups according to the risk assessment and needs.
- iii) For pregnant HCW, refer Annex 23a (Guidelines on the Management of COVID-19 in Obstetrics) for pregnant HCW providing essential services.

11. HCW compliance with SOP

- i) Adherence to SOP is mandatory and applies to all HCW regardless of their job position and irrespective of their vaccination status.
- ii) Healthcare workers with uncontrolled co-morbidities or are immunocompromised should take extra precautions.
- iii) If there is any violation or non-compliance, further action can be taken under the Prevention and Control of Infectious Disease Act 1988 (Act 342).

12. Safe workplace environment

- i) The management must ensure that cleaning and disinfection is carried out frequently and regularly especially for high touch areas (eg, door handles, railings, counter tops).
- ii) There is evidence that COVID-19 outbreaks are more commonly associated with crowded indoor spaces, and that poor ventilation may increase the risk of transmission in such settings by facilitating the spread of liquid respiratory particles over longer distances.
- iii) Ideally, natural ventilation is recommended, however wherever not possible, it should follow the Guidelines on Ventilation in the Healthcare Setting to Reduce The Transmission of Respiratory Pathogens available at: https://covid-19.moh.gov.my/garis-panduan/garis-panduan-kkm/ANNEX_52_GUIDELINES_ON_VENTILATION_IN_HEALTHCARE_SETTING_TO_REDUCE_THE_TRANSMISSION_OF_RESPIRATORY_PATHOGENS_05082021.pdf. Use of portable air cleaners such as high-efficiency particulate air (HEPA) and ultraviolet germicidal irradiation (UVGI) may be considered as an **additional measure** taken to improve indoor air quality.

E) SPECIFIC ACTIONS TO BE TAKEN

1. HCW Providing Care to Patients with ILI/ SARI/ Suspected/ Probable/ Confirmed COVID-19

- i) HCW who are providing care to patients with ILI/ SARI/ Suspected/ Probable/ Confirmed COVID-19 should be monitored daily for symptoms by the OSH Unit or Safety and Health Committee of the healthcare facility.
- ii) HCW with uncontrolled chronic diseases/ severely immunocompromised conditions should not be allowed to manage and provide care for SARI/ Suspected/ Probable/ Confirmed COVID-19 cases.

2. HCW confirmed positive COVID-19

2.1. All HCW confirmed to be positive COVID-19 must be reported using 3 reporting systems:

- i) Communicable Diseases Notification using the Communicable Diseases Notification Form (Annex 7: Notification form)
- ii) Occupational Health Notification using WEHU L1/L2 (Refer Appendix 2 & 3) for all the cases of work-related COVID-19 infections irrespective of symptoms and systems (respiratory or non- respiratory).
- iii) Investigation Form of Healthcare Worker with COVID-19 Infection (Refer Appendix 4)

2.2. The list of COVID-19 positive HCW should be kept in one register (Refer Appendix 5) which should be sent to State KPAS as per instructions. KPAS JKN should send this appendix to the Occupational and Environmental Health Sector, Disease Control Division, MOH.

2.3. Contact Tracing Purpose and Responsibility

- i) Once a HCW becomes positive, identification of close contacts should be initiated immediately.
- ii) The purpose of contact tracing is to identify and monitor those who have been in close contact with the COVID-19 case.
- iii) This will lead to early identification and management of close contacts who themselves may become cases and thereby leading to better clinical outcomes and to prevent onward transmission to others.
- iv) Contact tracing is carried out in the following way:
 - a. Contacts of HCW out of the workplace - by the Public Health team from PKD.
 - b. Contacts of HCW at the workplace - by OSH Unit and Public Health team together.
 - c. Contacts of HCW who hospital in-patients are - by infection prevention and control personnel in collaboration with Public Health team.

2.4. Positive HCW who are under home isolation/ monitoring will be issued a Home Surveillance Order (HSO) with wrist band or digital HSO by the relevant authority. They should follow the order strictly and stay at home until they are given a release order. They should avoid direct contact with other individuals and maintain good hygiene practices. The HCW should conduct their daily health assessment using the MySejahtera app. OSH should monitor the HCW who are under HSO daily and keep track of HCW who are admitted or released from HSO. If there is worsening of symptoms, the HCW should seek treatment immediately.

3. HCW with Exposure to a Patient with COVID-19 in a Healthcare Facility

The OSH unit or the Safety and Health Committee should conduct an Exposure Risk Assessment on HCW where breach in infection prevention and control measures is suspected on contact/ managing confirmed COVID-19 cases.

3.1. Exposure Risk Assessment

When assigning the risk status, factors to be considered include:

i) Whether the HCW involved had an **Unprotected Exposure**.

- a. An **Unprotected Exposure** is considered when the HCW was not using the recommended PPE* for the activity or situation when the exposure occurred.
- b. **Refer Annex 8: The Infection Prevention and Control (IPC) Measures in Managing PUS/ Suspected/ Probable/ Confirmed COVID-19*

ii) Whether the HCW was in **Close Contact** with the case (refer below: Close Contact Definition)

Close Contact Definition:

- a. HCW who are exposed to positive patients:
 - Have any unprotected exposure of their eyes or mouth or mucous membranes, to the bodily fluid (mainly respiratory secretions e.g. coughing, but also includes blood, stools, vomit and urine) of a case,

OR

- Have a cumulative unprotected exposure during one work shift (i.e. any breach of PPE) for more than 15 minutes face to face (<1 meter distance) to a case

OR

- Have any unprotected exposure (i.e., any breach in the appropriate PPE) while present in the same room when an Aerosol Generating Procedure (AGP) is undertaken on the case
- Laboratory workers who have not fully adhered to good laboratory practice for cumulatively more than 15 minutes in one work shift, while testing positive patients' samples.
 - 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, traveling together with COVID-19 patient in any kind of conveyance.
 - HCWs who are living in the same household as a COVID-19 patient household contact. Household contact defines as living or sleeping in the same home, individual in shared accommodation sharing kitchen or bathroom facilities and sexual partners.
- Whether an **aerosol generating procedure (AGP)** was performed, such as cardiopulmonary resuscitation, intubation, non-invasive ventilation, extubation, bronchoscopy, nebulizer therapy, dental procedures and sputum induction.
 - Whether an **aerosol generating behavior (AGB)** occurred. AGB are behaviors that generate aerosols including but not limited to coughing, sneezing, vomiting, screaming, shouting, crying out, and singing.
 - Source patient's control (e.g., whether patient was on 3-ply surgical mask during the exposure which can efficiently reduce risk of droplet transmission).
 - The place where exposure occurred (e.g., a closed room with poor ventilation such as an on - call or meeting room will increase the exposure risk).

vii) Whether the exposure occurred while the case was in the Infectious Period (an exposure during the infectious period is more likely to result in transmission).

Infectious Period is defined as:

- from 48 hours before the onset of symptoms until 10 days after the onset of symptoms for symptomatic cases, **OR**
- 48 hours before the first positive test date until 10 days after the first positive test date for asymptomatic cases

viii) **Incubation period** of COVID-19 is 14 days from the last exposure date to onset of symptoms. This period can be taken into consideration for the purpose of symptoms monitoring and contact tracing.

3.2 Management

3.2.1 Risk Category

Depending on the exposure risk assessment, an exposed HCW shall be categorized as follows:

i) High-risk close contact

- HCW is not wearing PPE according to the Infection Prevention Control guideline and household contacts.

ii) Low-risk close contact

- HCW is wearing a mask and source person is wearing a mask

3.2.2 Recommended monitoring

i) HCW with high-risk close contact will undergo Active Follow-up by the OSH Unit or Safety and Health Committee as well as passive follow-up:

- a. Daily surveillance by OSH unit or Safety and Health Committee.
- b. On home surveillance order.
- c. To inform during active follow up if any symptoms develop.
- d. Continue self-monitoring of symptoms until 14 days after exposure and inform if any symptoms develop.

- ii) HCW with low-risk close contact will undergo Passive Follow-up where they will monitor themselves for symptoms:
 - a. Self-monitoring of symptoms for 14 days after exposure
 - b. If develop symptoms, re-evaluate risk and consider testing

3.2.3 Risk Assessment and Management of Healthcare workers With Exposure to A Person with Confirmed COVID-19 (Refer ANNEX 21a)

Annex 21a summarizes the risk categories, recommended monitoring and outline of management for HCW at a healthcare facility.

4. Return to Work (RTW) Practices and Work Restrictions

The following RTW practise and work restrictions should be adhered to by HCW returning to work after completion of the HSO period:

- i) OSH should be notified upon returning to work.
- ii) Staff Declaration Form should be filled upon returning to work (Appendix 6).
- iii) Staff should wear appropriate PPE at all clinical areas and strictly adhere to hand hygiene, respiratory hygiene, and cough etiquette.
- iv) Staff should be restricted from taking care of immunocompromised patients for the period of monitoring.
- v) Staff should not share same confined closed area while unmasked such as pantry, on-call room or prayer room with other colleagues.
- vi) Staff should strictly wear well fitted 3-ply surgical mask and face shield when in close contact with other colleagues if physical distancing is not permissible.
- vii) Movement should be restricted, while at work and outside of work. Staff should continue self-isolation at home upon returning from work, avoid 3C and practice 3W.
- viii) Staff should not attend public events or social gatherings during the period of RTW & work restriction monitoring.
- ix) Staff should undergo RTK-Ag Test as directed before starting work daily.
- x) Authorized personnel e.g. ward sister should monitor and supervise staff who are on RTW & work restriction while at work.
- xi) Strict twice daily (before and at end of work shift) monitoring of temperature and symptoms compatible with COVID-19 by OSH Officer/authorized personnel.
- xii) Staff should continue self-monitoring up to Day 14 post exposure
- xiii) If develop new onset of symptoms (even mild) or worsening of symptoms consistent with COVID-19, immediately stop patient care activities and notify supervisor or and OSH officer.

5. HCW who are identified as close contacts and issued Home Surveillance Order (HSO)

HCW who are issued with a Home Surveillance Order (HSO), should follow the order strictly be it at home or at a quarantine station until they are given a release order. They should avoid direct contact with other individuals and maintain good hygiene practices. They **should conduct the daily health assessment using the MySejahtera app**. OSH or the Safety and Health Committee should monitor the HCW who are under HSO daily and keep track of HCW who are admitted or released from HSO by using the format as in Appendix 7. KPAS JKN should send Appendix 7 to the Occupational and Environmental Health Sector, Disease Control Division, MOH

6. Asymptomatic HCW Having Close Contact with A Suspected/ Probable Case or Person Under Surveillance (PUS)

Asymptomatic HCW **having close contact with a suspected/probable case or person under surveillance (PUS)** may continue working. However, the HCW need to follow the instructions below:

- i) Strictly always wear a surgical mask and eye protection or recommended PPE in clinical areas
- ii) Adhere to hand hygiene, respiratory hygiene, and cough etiquette
- iii) Movement should be restricted, continue self-isolation at home upon returning from work, avoid 3C and practice 3W
- iv) Ensure physical distancing while in closed and confined areas such as the pantry, on-call room or prayer room
- v) **If symptoms (even mild) develop and are consistent with COVID-19**, immediately stop patient care activities and notify the supervisor. HCW should be tested and managed accordingly.

7. HCW with Acute Symptoms that are Compatible with COVID-19 without any Identifiable Cause

An HCW with new onset of acute respiratory infection (ARI) or other symptoms compatible with COVID-19 **without any identifiable** exposure to suspected or confirmed COVID-19 patients, should be screened.

8. Additional Testing under Special Circumstances

HCW are also recommended to test using the COVID-19 self-test kit under special circumstances such as after traveling across state borders, attending large gatherings/ social functions, attending work related matters involving large groups of people, participating in large sports events.

9. HCW with History of Recovered COVID-19 Infection

i) HCW infected with SARS-CoV-2 and remain asymptomatic.

- For HCW previously diagnosed with symptomatic COVID-19 and who remain asymptomatic after recovery, retesting is not recommended within 90 days (3 months) after the date of onset of illness.

ii) HCW infected with SARS-CoV-2 and develops new symptoms.

- For HCW who have recovered from symptomatic COVID-19 and develop new symptoms within 90 days, it is recommended that investigations be done to look for other causes for the symptoms. If alternative causes cannot be found, isolate HCW and test for SARS-CoV-2 infection.

10. HCW with Relevant Travel History

HCW who intend to travel internationally or have returned from overseas, should declare their travel to their respective Heads of Departments promptly. All current policies related to travelers during COVID- 19 pandemic are applicable (Refer Annex 6). Meanwhile all domestic travels are subject to current state policies.

11. Psychosocial Support and Counseling

Psychological support and counseling are to be provided for HCW when needs arise. Mental health assessment and psychological first aid shall be conducted by the Mental Health and Psychosocial Support Team. Counseling services are to be provided upon request. All HCW should be given a mental health preparedness briefing including pre-deployment and post-deployment.

12. COVID-19 Vaccination among HCW

All healthcare workers need to get their booster dose as soon as possible.

- i) Healthcare workers who are temporarily unfit to be vaccinated will be managed according to national vaccination guideline (refer to Clinical Guidelines on COVID-19 Vaccination In Malaysia).
- ii) Fully vaccinated for COVID-19 is defined as:
 - ≥ 14 days after they have received the second dose of a 2-dose series: or
 - ≥ 28 days after they have received a single dose vaccine
 - For those who took Sinovac for primary doses, need to get their booster dose to be considered as fully vaccinated
- iii) Vaccination among pregnant healthcare workers will follow recommendations in Guidelines on COVID-19 Vaccination In Pregnancy And Breastfeeding.
- iv) Management of HCW who are exposed to a person with COVID-19 follows management as stated in Annex 21a.

Appendix 1

Information on early signs and symptoms of mental distress and burnout:

| | |
|--|--|
| <p>Symptoms of mental distress:</p> <ul style="list-style-type: none"> • Easily anxious/excessively anxious • Feeling extremely sad/hopeless/helpless • Feeling guilt • Easily irritated/angry • Extremely tired • Difficulty in sleeping • Crying without any specific reasons | <p>Signs of burnout:</p> <ul style="list-style-type: none"> • Frequent mistakes • Easily upset/ irritable • Difficulty in sleeping • Hopelessness • Being skeptical to others/organization • Poor work performance |
|--|--|

Coping mechanisms for mental distress and burnout:

- a) Create a buddy system according to work sections for support and monitoring of mental distress among co-workers. The buddy system should be made up of a minimum of two persons teams and they are responsible for looking out for mental distress symptoms among co-workers. If any HCW experiences any of the signs and symptoms listed above, they should be advised to talk to MHPSS Team Members for further evaluation and action. Co-worker from the buddy system should also alert the MHPSS team member if any prolonged condition is observed.
- b) Practice deep breathing technique for management of stress using the 4-4-8 technique following the steps below:
 - i. Breathe in through your nose for a count of 4, taking the breath into your stomach.
 - ii. Hold your breath for a count of 4.
 - iii. Release your breath through your mouth with a whooshing sound for a count of 8.
 - iv. Without a break, breathe in again for a count of 4, repeating the entire technique 3-4 times in a row.
 - v. Focus on counting when breathing in, holding the breath, and breathing out.

Appendix 2

| NOTIFICATION OF OCCUPATIONAL LUNG DISEASE | | WEHU - L1 (JKKP 7) |
|--|---|-----------------------|
| Send to: Pengarah Kesihatan Negeri Jabatan Kesihatan Negeri _____ | Part B - Affected person | |
| Part A - Notifier (Regulation 7(2) Registered Medical Practitioner) | Name _____ Date of Birth _____ / _____ / _____ New IC/ Passport no. _____ <small>DD MM YY</small> Nationality. _____ Gender <input type="checkbox"/> Male <input type="checkbox"/> Female Ethnic Group _____ Occupation _____ Name and address of organization _____ District _____ State _____ Location of incident _____ | |
| Name _____ Designation _____ Address of clinic / hospital _____ Contact no. _____ | Part C - Occupational Lung Disease | |
| | Date of diagnosis _____ / _____ / _____ <small>DD MM YY</small> Diagnosis/ Provisional diagnosis _____ | |
| Part D | | |
| a) What kind of work did the patient do which may be associated with the disease? (Describe the work activities) b) What was the hazard or agent been exposed to the patient? c) How long had the patient been exposed to the hazard or agent? d) How long had the patient been experiencing the symptoms? | | |
| Signature of Notifier _____ Date _____ | Name and address of attending doctor (Official Stamp) _____ | |

* Softcopy is available online at: <https://www.moh.gov.my/index.php/pages/view/994>

Appendix 3

WEHU - L2

1 Duration of symptoms (by years, months or days)

2 Type of occupational lung disease

| | |
|---|---|
| <input type="checkbox"/> Occupational asthma | <input type="checkbox"/> Lung cancer |
| <input type="checkbox"/> Inhalation incident | <input type="checkbox"/> Mesothelioma |
| <input type="checkbox"/> Hypersensitivity pneumonitis | <input type="checkbox"/> Non - malignant pleural disease |
| <input type="checkbox"/> Bronchitis/ Emphysema | <input type="checkbox"/> Byssinosis |
| <input type="checkbox"/> Infectious diseases (e.g. TB) | <input type="checkbox"/> Building related respiratory illness |
| <input type="checkbox"/> Pneumoconiosis (incl. asbestosis, silicosis) | <input type="checkbox"/> Fibrotic lung disease |
| <input type="checkbox"/> Other occupational lung disease (please specify) : _____ | |

Suspected causal agent : _____

3 Source of case

| |
|---|
| <input type="checkbox"/> Chest clinic |
| <input type="checkbox"/> Occupational Health Clinic |
| <input type="checkbox"/> Health Clinic (<i>Klinik Kesihatan</i>) |
| <input type="checkbox"/> Other Specialist Clinic (please specify) : _____ |
| <input type="checkbox"/> Others (please specify) : _____ |

4 Is patient a smoker ?

| | | |
|----------------------------------|------------------------------------|---------------------------------------|
| <input type="checkbox"/> Current | <input type="checkbox"/> Ex-smoker | <input type="checkbox"/> Never smoked |
|----------------------------------|------------------------------------|---------------------------------------|

5 Is patient atopic ?

| | | |
|------------------------------|-----------------------------|---------------------------------|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Unsure |
|------------------------------|-----------------------------|---------------------------------|

6 Relevant job(s)

| Type of work/ industry | Job title | Duration of employment (by years, months or days) |
|------------------------|-----------|--|
| | | |
| | | |
| | | |
| | | |
| | | |

7 Outcome on DD - MM - YY

| |
|---|
| <input type="checkbox"/> Still expose to the agent at the workplace but using personal protective equipment |
| <input type="checkbox"/> Still expose to the agent at the workplace but not using personal protective equipment |
| <input type="checkbox"/> Same place of work but no longer expose to agent |
| <input type="checkbox"/> Changed job/ alternative employment |
| <input type="checkbox"/> Away from work due to illness |
| <input type="checkbox"/> Early retirement |
| <input type="checkbox"/> Unemployed |

8 Existing control

| |
|--|
| <input type="checkbox"/> Engineering Control |
| <input type="checkbox"/> Standard Operating Procedure (SOP) |
| <input type="checkbox"/> Training / Education / Work Schedule / Rotation |
| <input type="checkbox"/> Personal Protective Equipment (PPE) |
| <input type="checkbox"/> Other (please specify) : _____ |

* Softcopy is available online at: <https://www.moh.gov.my/index.php/pages/view/994>

Appendix 4

INVESTIGATION FORM OF HEALTHCARE WORKER WITH COVID-19 INFECTION

1. Name:
2. IC Number:
3. Contact Number: Home: _____ Mobile: _____
4. COVID-19 ID (case number): _____
5. Age: _____
6. Gender: _____
7. Race: _____
8. Job Designation: _____
9. Job description: _____
10. Department: _____
11. Institution/ Hospital: _____
12. Vaccination status:
 - a. Non-vaccinated/ 1st Dose: date received _____/ 2nd dose: date received _____
 - b. Type of Vaccine received: _____
 - c. Vaccine batch number: _____
 - d. Vaccination center (SPV/PPV) : _____
 - e. Booster dose received: date received _____
13. Risk Factors: YES / NO (if yes please specify):
 Hypertension/ Diabetes / Pregnancy / Obesity / Smoker / Vape / COPD Heart Disease / Asthma / Malignancy / HIV / CKD / Chronic Liver Disease Bed bound / Others _____
14. Reason for COVID-19 screening (tick where appropriate)
 - a. Close contact with positive COVID-19 (patient/other staff/family/friends)
 - b. Attended an event which was related to a cluster
 - c. Screening at work
 - d. Traveled from foreign countries/ identified red zones
 - e. Acute symptoms compatible with COVID-19 without identifiable cause
 - f. Pre-procedure/ pre-operation/ pre-transfer
 - g. Self-initiative
15. Date of exposure (if known): _____

16. If symptomatic, date of onset of symptoms:

17. Specify the symptoms at presentation: (v)

| | |
|--|--|
| <i>Fever</i> | |
| <i>Chills</i> | |
| <i>Rigors</i> | |
| <i>Myalgia</i> | |
| <i>Headache</i> | |
| <i>Sore throat</i> | |
| <i>Nausea or vomiting</i> | |
| <i>Diarrhea</i> | |
| <i>Fatigue</i> | |
| <i>Nasal Congestion / Running Nose</i> | |
| <i>Cough</i> | |
| <i>Shortness of Breath</i> | |
| <i>Difficulty in Breathing</i> | |
| <i>Anosmia (loss of smell)</i> | |
| <i>Ageusia (loss of taste)</i> | |

18. COVID-19 Test:

| No. | Date (sampling date) | Day from Exposure | Type of Test (RT-PCR/RTK-Ag) | Result |
|-----|-------------------------|----------------------|---------------------------------|--------|
| 1. | | | | |
| 2. | | | | |
| 3. | | | | |

19. Date of diagnosis (sampling date of first positive result):
20. Duration (in days) of exposure/ symptoms before date of diagnosis:
21. Source of infection, (select the appropriate answer)
- a. Healthcare associated (most likely from patients)
 - i. Work/ activity during exposure:
 - ii. PPE used during exposure:
Head cover / Nursing cap / 3-ply surgical mask / N95 / Eye protection Isolation gown / Apron / Gloves / Boot cover / Shoe cover
 - iii. Is PPE used appropriate for the work or activity conducted: YES / NO
 - iv. Level of exposure risk: High / Medium / Low
 - b. Staff to staff transmission (close contact)
 - i. Possible reason/activity for transmission of COVID-19 (please specify): pantry / prayer room / on-call room / rest room / others
 - ii. Was PPE (3-ply surgical mask) used by both HCWs during interaction:
YES / NO
 - iii. Level of exposure risk: High / Medium / Low
 - c. Community acquired: family members / housemates / social interaction
22. Is the source of infection related to any cluster: YES / NO
23. If yes, which cluster:
24. Actions taken immediately after screening, while waiting for the result (tick where appropriate)
- a. Exclude from work and home quarantined - duration in days:
(Start and end dates):
 - b. Exclude from work and quarantined at quarantine center - duration in days:
(Start and end dates):
 - c. Allowed return to work with "Return to Work Practices and Work Restriction" (date):
25. Actions taken following positive COVID-19 result:
26. Treatment received:
27. Risk reduction strategies at workplace:

Signature:

Stamp of OSH Officer:

Date:

Please complete the details as below:

Details of Case Movement

| | DATE | DAILY ACTIVITIES/ PLACE VISITED Describe as detailed as possible, including adherence to SOP, wearing suitable PPE or any other related matters. | CONTACT DETAILS (NAME & HP NO) |
|----------------------|------|--|-----------------------------------|
| 14 days before onset | | | |
| 13 days before onset | | | |
| 12 days before onset | | | |
| 11 days before onset | | | |
| 10 days before onset | | | |
| 9 days before onset | | | |
| 8 days before onset | | | |
| 7 days before onset | | | |
| 6 days before onset | | | |

| | | | |
|----------------------------|--|--|--|
| 5 days before onset | | | |
| 4 days before onset | | | |
| 3 days before onset | | | |
| 2 days before onset | | | |
| 1 day before onset | | | |
| ONSET OF SYMPTOMS | | | |
| 1 day after onset | | | |
| 2 day after onset | | | |
| 3 day after onset | | | |
| 4 day after onset | | | |
| 5 day after onset | | | |
| 6 day after onset | | | |
| 7 day after onset | | | |

Close Contact Details

| NO | NAME | RELATION | DATE OF SWAB TEST | SWAB TEST RESULT |
|-----------|-------------|-----------------|--------------------------|-------------------------|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Signature:

Stamp of OSH Officer:

Date:

* Softcopy is available online at:

https://drive.google.com/drive/folders/1tfetPYf4TSmKXWwpt00RpsdiLJ3M_DVz

Appendix 5

FORMAT PEMANTAUAN PETUGAS KESIHATAN POSITIF COVID-19 DI FASILITI KEMENTERIAN KESIHATAN MALAYSIA

| DATE REPORTED | BI | Negeri | Program | Nama | No. Kad Pengenalan | Umur | Jantina | Bangsa | Co-morbid | Jawatan | Jabatan | Nama Fasiliti | Tarikh Onset (Gejala) | Tarikh Mendapat Rawatan | Tarikh Positif | Hospital Tempat Rawatan | Jenis (Ward, ICU dll) | Status (Stabil/ VentilMask/ Nasal Prong/ Ventilator dll) | Rawatan AntiViral (Ya/nyatakan Jenis/ Tidak) | Hasil Rawatan (Dalam Rawatan/kritikal/Sembuh/ Meninggal) | Kemungkinan Punca Jangkitan (Work Related/ Non-work Related) | Catatan (kaitan dengan kluster, sejarah perjalanan ke kawasan berisiko tinggi dan lain-lain) | Total | |
|---------------|----|--------|---------|------|--------------------|------|---------|--------|-----------|---------|---------|---------------|-----------------------|-------------------------|----------------|-------------------------|-----------------------|--|--|--|--|--|-------|--|
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |

| ve | ve | pending | Kesan kepada jayk/kemestaran (servis dibuay/buka) | Tarikh dekontaminasi | Klasifikasi Kontak | KAITAN | COMMUNITY/ WORKPLACE | KAITAN DENGAN TABLIGH | KAITAN DENGAN PESAKIT SARU/WJ/STATUS | KAITAN HCW, PESAKIT, PENDONG, LAIN-LAIN detail | KAITAN HCW, PESAKIT, PENDONG, Homundi | Epid week | Month | Tarikh Dicala/Meninggal | Epid Week Death | Bilangan Episod Rawatan | COO I | STATE CLASSIFICATION | Symptoms | Kategori Perjawatan | contact with +ve case | PCR/ RTK Ag | CT Value | Days difference Reporting & Positive | YEAR | Received Vaccine (Yes/ No) | Complete Dose for Two Doses or Single Dose (Yes/No) | DATE OF LAST VACCINATION | | |
|----|----|---------|---|----------------------|--------------------|--------|----------------------|-----------------------|--------------------------------------|--|---------------------------------------|-----------|-------|-------------------------|-----------------|-------------------------|-------|----------------------|----------|---------------------|-----------------------|-------------|----------|--------------------------------------|------|----------------------------|---|--------------------------|--|--|
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Age Category | NUMBER OF DAYS VACCINE TO POSITIVE | Date of 1st dose | PLACE OF TREATMENT CATEGORY | Fully Vaccinated | REMARKS | Date Onset Proper | DIFF DATE ONSET TO VACCINE | EXPOSURE HISTORY | Vaccine classification 4 levels | DATE OF EXPOSURE | DURATION OF EXPOSURE TO 2ND DOSE VACCINE (DAYS) | DATE OF SAMPLE TAKEN | DURATION DATE OF SAMPLE TAKEN TO DATE OF VACCINE | Classification of CT value | NOTE | POST VACCINE ERA | WES | NEUTRALISING ANTIBODY | Vaccine Type | Vac Batch No. (1st dose) | Vac Batch No. (2nd dose) | Cat Level | PREGNANCY | Hypertension | Diabetes Mellus | Obesity | Bronchial Asthma | carcinoma | Renal Failure | | |
|--------------|------------------------------------|------------------|-----------------------------|------------------|---------|-------------------|----------------------------|------------------|---------------------------------|------------------|---|----------------------|--|----------------------------|------|------------------|-----|-----------------------|--------------|--------------------------|--------------------------|-----------|-----------|--------------|-----------------|---------|------------------|-----------|---------------|--|--|
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| SLE/RA | Hyperlipidaemia | Injury Requires Surgical Intervention | Heart Disease | CONCOMITANT INFECTION (LEPTO) | Post natal | GOUTY ARTHRITIS | IMMUNOCOMPROMISED | BID | TOTAL CO-MORBID | IC PROPER | Ig G | index Ig G | wgs 2 | Class Index Ig G | Date of IgG sampling | Duration Ig G sampling to Last dose of Vaccine | BOOSTER DOSE (YES/NO) | DATE | VACCINE TYPE | Duration (days) date of +ve to booster dose | |
|--------|-----------------|---------------------------------------|---------------|-------------------------------|------------|-----------------|-------------------|-----|-----------------|-----------|------|------------|-------|------------------|----------------------|--|-----------------------|------|--------------|---|--|
| | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |



COVID-19 DECLARATION FORM (HEALTHCARE WORKER)

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

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

| B. SYMPTOMS | | | | | | | |
|--------------------|---------------------------|------------|-----------|----|---------------------------------|------------|-----------|
| | | Yes | No | | | Yes | No |
| 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 Healthcare Worker:

Signature of Screening Officer:

Name: _____
IC Number: _____
Date: _____

Name: _____
IC Number: _____
Date: _____

STOP COVID-19!

**YOUR HONESTY CAN SAVE MANY LIVES INCLUDING HEALTHCARE WORKERS.
MAKE SURE YOU REGISTER IN MySejahtera**

*** Softcopy is available online at:**

https://drive.google.com/drive/folders/1tfetPYf4TSmKXWwpt00RpsdiL3M_DVz

References:

1. Health Protection Surveillance Centre (HPSC) Interim Guidance for Coronavirus - Healthcare Worker Management by Occupational Health Version 10.6, updated 22nd December 2021
2. US CDC: Criteria for Return to Work for Healthcare Personnel with Suspected or Confirmed COVID-19 (Interim Guidance), updated December 23, 2021
3. US CDC: Interim U.S. Guidance for Risk Assessment and Public Health Management of Healthcare Personnel with Potential Exposure in a Healthcare Setting to Patients with Coronavirus Disease 2019 (COVID-19) updated December 23, 2021
4. US CDC: Strategies to Mitigate Healthcare Personnel Staffing Shortages, update December 23, 2021
5. NSW GOVERNMENT: Health Care Worker COVID-19 Exposure Risk Assessment Matrix, dated 31st December 2021
6. Annex 8; Infection Prevention And Control (IPC) Measures In Managing Person Under Surveillance (PUS), Suspected, Probable Or Confirmed Coronavirus Disease (COVID-19)
7. Annex 23a; Guidelines of COVID-19 in Obstetrics
8. National COVID-19 Testing Strategy
9. Clinical Guidelines on COVID-19 Vaccination In Malaysia 4th Edition
10. Guidelines on COVID-19 Vaccination In Pregnancy And Breastfeeding