



NATIONAL HEALTH  
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NATIONAL INSTITUTE FOR  
OCCUPATIONAL HEALTH

Division of the National Health Laboratory Service



NATIONAL INSTITUTE FOR  
COMMUNICABLE DISEASES

Division of the National Health Laboratory Service



# Preparing the Workplace for Coronavirus

## Medical surveillance and fitness for duty in the time of COVID-19

**Dr Odette Volmink**  
**Occupational Medicine Specialist**  
**NIOH**

Office: + 27 (0) 11 712 6400

Email: [info@nioh.ac.za](mailto:info@nioh.ac.za)

Website: <http://www.nhls.ac.za>; <http://www.nioh.ac.za>; <http://www.nicd.ac.za>

# Hazardous Biological Regulation

- (iii) Group 3 HBA, which means a HBA that may cause severe human disease, which presents a serious hazard to exposed persons and which may present a risk of spreading to the community, but for which effective prophylaxis and/or treatment is available;
- (iv) Group 4 HBA, which means a HBA that causes severe human disease and is a serious hazard to exposed persons and which may present a high risk of spreading to the community, but for which no effective prophylaxis and/or treatment is available.

## Scope of application

- 2.(1) Subject to the provisions of subregulation (2), these regulations shall apply to every employer and self-employed person at a workplace where –
  - (a) HBA is deliberately produced, processed, used, handled, stored or transported; or
  - (b) an incident, for which an indicative list is given in Annexure II, occurs that does not involve a deliberate intention to work with a hazardous biological agent but may result in persons being exposed to a hazardous biological agent in the performance of work.

# What is medical surveillance?



- Medical surveillance describes activities that targets health changes of an exposed person
- Medical screening is designed to detect early signs of work-related illness by administering tests to apparently healthy persons
  - Testing modalities may include such tools as questionnaires, physical examinations, and medical investigations
- Secondary prevention strategy
- Behind the implementation of engineering, administrative, and work practice controls (including personal protective equipment).
- Used as a mechanisms to determine whether the usual prevention activities in the hierarchy of controls are effective.

# Elements of a medical surveillance program



- Identification of the group(s) of workers for which medical surveillance will be appropriate as determined by the risk groups
- An initial medical examination and collection of medical and occupational histories
- Periodic medical examinations/testing at regularly scheduled intervals
- Post-incident examinations and medical screening after uncontrolled or non-routine increases in exposures
- Ongoing data analyses to evaluate collected information for surveillance and/or screening purposes
- Worker training to recognize symptoms of exposure
- A written protocol and appropriate record keeping
- Employer actions in response to the identification of potential hazards and risks to health

# Medical surveillance in line COVID-19 risk

- Risk-based
- Determined at the guidance of the OMP
- Early detection of infected employees
  - Removal of infected individual and isolated
  - Early referral for appropriate treatment, care and timeous return to work of affected workers
- Prevent spread to other unaffected staff, consumers, visitors and clients
  - Prompt identification and isolation of potentially infectious individuals
  - Quarantining
  - Contact tracing
  - Effective return to work practices
  - Workplace restrictions



# Potential sources of exposure in the workplace



# Workers at increased risk for workplace/occupationally acquired COVID-19

- Healthcare workers
- Emergency response and public safety workers
- Post mortem care
- Laboratory workers
- Airline operators
- Retail workers
- Border protection and transport security workers
- Correctional facility workers
- Solid waste and wastewater management workers
- Environmental health workers
- In home repair workers
- Travel to high risk places



# Risk categorization



## High Risk

Have frequent and/or close contact with (i.e. within 2 meters of) people have **COVID-19**

Having unprotected direct contact with infectious secretions or excretions of a COVID-19 infected person

- HWs
- Laboratory
- Mortuary workers

## Medium Risk

Have frequent and/or close contact with (i.e. within 2 meters of) people who may be infected with SARS-CoV-2, but who are **not known or suspected COVID-19**

Close contact with the general public

- Airline staff
- Retail staff
- Border protection
- Public transport industry
- Correctional facility operations

## Low Risk

**Do not require contact with people** known to be or suspected of being infected with SARS-CoV-2

Nor frequent close contact with (i.e. within 2 meter of) the general public



# Medical surveillance tools for COVID-19



- Self-monitoring
  - Employees monitor themselves for fever by taking their temperature twice a day and symptoms of COVID-19 (e.g., fever, cough, shortness of breath, sore throat, myalgia, malaise)
  - They should be provided with a plan for whom to contact if they develop fever or respiratory symptoms
- Active monitoring
  - Regular communication with potentially exposed employee to assess for the presence of fever or symptoms of COVID-19
  - For employees with high exposure in the workplace
  - Communication should occur at least once each day
  - Can be delegated by occupational health or infection control program
- Self-Monitoring with delegated supervision
  - employee perform self-monitoring with oversight by occupational health or infection control program
  - On days employees are scheduled to work, facilities could consider measuring temperature and assessing symptoms prior to starting work.

# Example of a screening tool



Surname			First Name			Date of Birth	
Contact Cell number			E-mail address		Category of Essential Worker (Select from addendum 1)		
Alternative contact number					Job Title		
Next of Kin or Alternative Contact (Please provide name, relationship and contact details)							
Work address & details:							
Home address:							
Days post exposure	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
Date: DD/MM							
Document morning + evening	<b>AM / PM</b>	<b>AM / PM</b>	<b>AM / PM</b>	<b>AM / PM</b>	<b>AM / PM</b>	<b>AM / PM</b>	<b>AM / PM</b>
Temperature (no meds)							
Respiratory rate							
Pulse rate							
Symptoms (Circle Y or N)	<b>Daily</b>	<b>Daily</b>	<b>Daily</b>	<b>Daily</b>	<b>Daily</b>	<b>Daily</b>	<b>Daily</b>
Fever/Chills	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N
Cough	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N
Sore throat	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N
Shortness of breath	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N
Body aches	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N
Redness of the eyes	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N
Loss of smell OR loss of taste	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N
Nausea/vomiting/diarrhoea	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N
Fatigue/ weakness	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N
At Home or work?	H / W	H / W	H / W	H / W	H / W	H / W	H / W
Clinical and Progress Notes and Exposure History:							

# Types of screening

- Symptom questionnaire
- Temperature screening
  - Fever is either measured temperature  $>38^{\circ}\text{C}$  or subjective fever.
  - Fever may be intermittent or may not be present in some patients, such as those who are elderly, immunosuppressed, or taking certain medications (e.g., NSAIDs).
  - Clinical judgement should be used to guide testing of patients in such situations.
  - Medical evaluation may be recommended for lower temperatures ( $< 38^{\circ}\text{C}$ ) or other symptoms (e.g., muscle aches, nausea, vomiting, diarrhoea, abdominal pain headache, runny nose, loss of taste and smell fatigue) based on assessment by OMP.



# Medical surveillance is determined by risk

High risk	Medium risk	Low risk
<ul style="list-style-type: none"><li>• Active monitoring</li><li>• If they develop any fever OR symptoms consistent with COVID-19</li><li>• They should immediately self-isolate</li></ul>	<ul style="list-style-type: none"><li>• Self-monitoring until 14 days after the last potential exposure</li><li>• Check their temperature twice daily and remain alert for symptoms</li><li>• Ensure they are afebrile and asymptomatic before leaving home and reporting for work</li><li>• Asymptomatic workers are not restricted from work.</li></ul>	<ul style="list-style-type: none"><li>• no identifiable risk category do not require monitoring or restriction from work.</li></ul>

# Recommended procedure

1

- Determine the risk of COVID -19 to your employees

2

- Screening of employees for COVID-19 related symptoms and report such symptoms to a designated person and / or occupational health practitioner

3

- At start and ending the shift, designated persons and / or occupational health practitioner must check with employees whether they have experienced sudden onset of any of the following symptoms

4

- Should an employee report any of the symptoms
  - they should immediately be provided with a surgical mask and
  - referred to the designated staff at the workplace so that arrangements can be made for COVID-19 testing

5

- Should an employee report any additional symptoms as outlined in the symptom monitoring sheet
  - they should be provided with a surgical mask and
  - referred to the occupational health clinic, family practitioner or primary care clinic for further clinical evaluation and requirement for COVID-19 testing if indicated

6

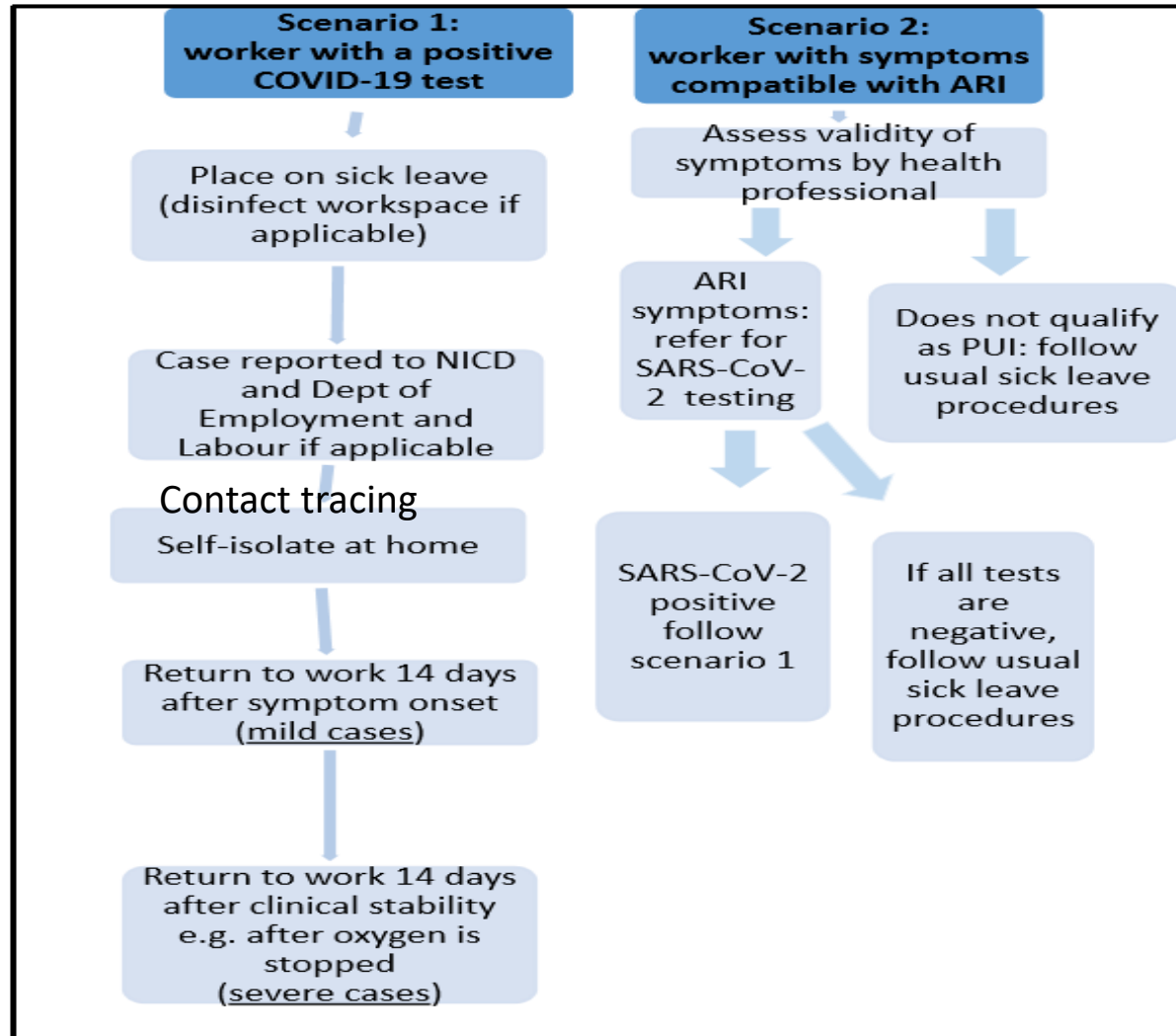
- On receiving their results the employee and/or health professional should notify their workplace so that the employee is managed accordingly (this should be actively followed up to prevent delays)
- Notify to the NICD
- Contact tracing

# Workplace protocols that need to be in place and organization specific

These should include protocols

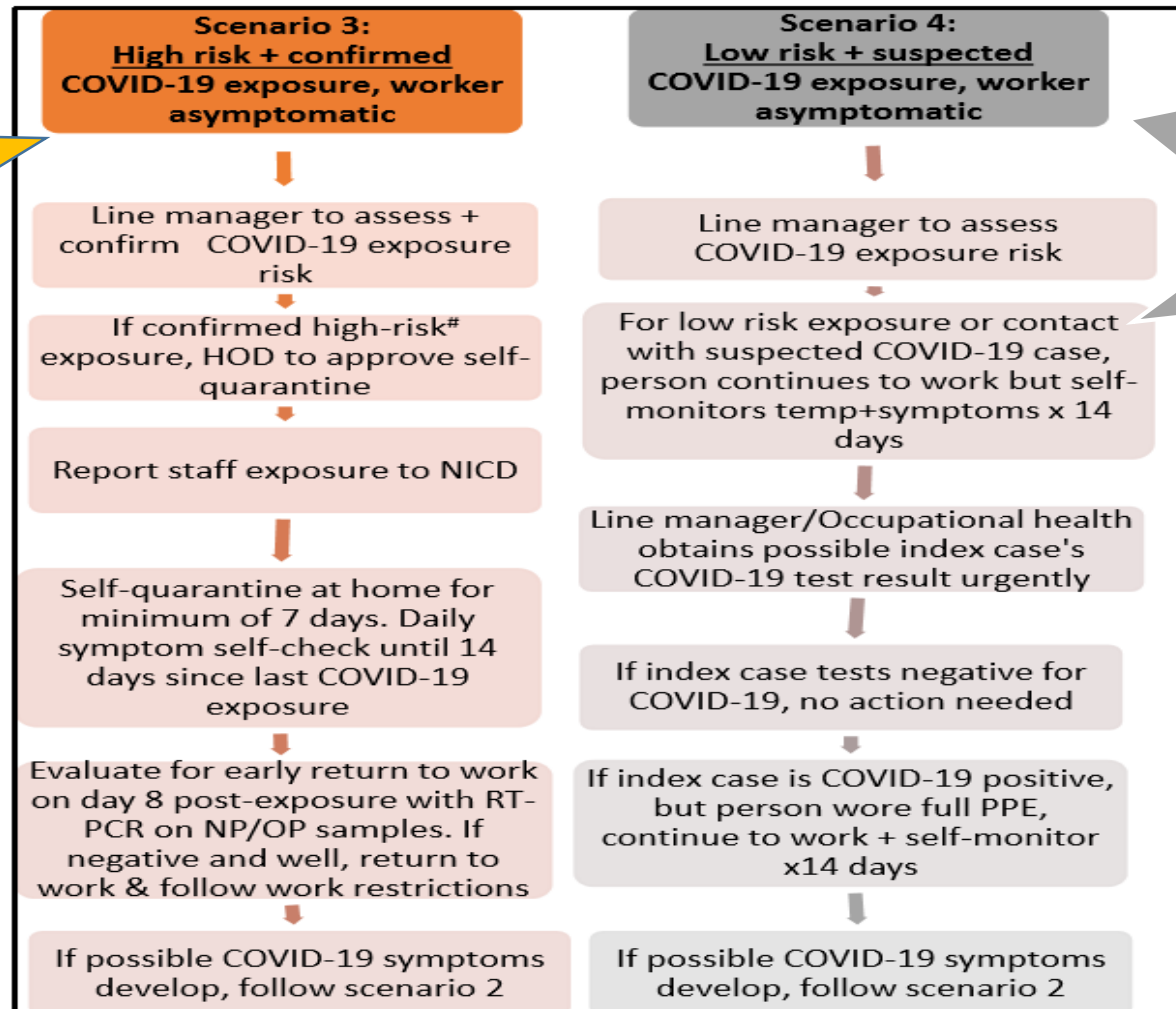
- In the event of a symptomatic person to be referred to testing and treatment
- In the event of a positive employee in the organization- requiring isolation and contact tracing
- Return to work protocol of infected employee
- Restriction of infected employees in the workplace following return to work

# Workplace management algorithms



# Workplace management algorithms for COVID-19 exposed workers

close contact within 1 metre for >15 minutes without PPE / failure of PPE / direct contact with respiratory secretions



>1 metre away from a COVID-19 confirmed case for <15 minutes OR within 1 meter but wearing PPE Also consider lower risk if COVID case was wearing a surgical mask (source control).



# Return to work- exclude from work until:

- Test-based strategy.
  - Resolution of fever without the use of fever-reducing medications, and
  - Improvement in respiratory symptoms (e.g., cough, shortness of breath), and
  - Negative results of COVID-19 testing from at least two consecutive swab specimens collected  $\geq 24$  hours apart
- Non-test-based strategy.
  - All symptoms have resolved,
  - 14 days have passed since onset of symptoms

# Return to work

- All employees on returning to work after isolation or quarantine period, should follow general work restrictions that include:
  - undergo medical evaluation to confirm that they are fit to work
  - wearing of surgical masks at all times while at work for a period of 21 days from the initial test
  - implement social distancing measures as appropriate
  - adherence to hand hygiene, respiratory hygiene, and cough etiquette
  - continued self-monitoring for symptoms
  - seek medical re-evaluation if respiratory symptoms recur or worse
  - in the case of health workers avoiding contact with severely immunocompromised patients

# Fitness to work

- Medical assessment done to determine if medically the employee can perform the job or task under the working conditions that are experienced at the time.
- Takes into account the job specifications of the employee and the risks posed to the employee
- This should be done when
  - There has been a significant change in the working conditions.
  - The medical condition may have severe outcomes due to the level of exposure by the job
  - Returning worker post infection

# Clinically extremely vulnerable

- Solid organ transplant recipients
- Cancers
  - who are undergoing active chemotherapy
  - lung cancer who are undergoing radical radiotherapy
  - cancers of the blood or bone marrow such as leukaemia, lymphoma or myeloma who are at any stage of treatment
  - having immunotherapy or other continuing antibody treatments for cancer
  - having other targeted cancer treatments which can affect the immune system, such as protein kinase inhibitors or PARP inhibitors
  - who have had bone marrow or stem cell transplants in the last 6 months, or who are still taking immunosuppression drugs
- Severe respiratory conditions including all cystic fibrosis, severe asthma and severe chronic obstructive pulmonary (COPD).
- Rare diseases and inborn errors of metabolism that significantly increase the risk of infections (such as Severe combined immunodeficiency (SCID), homozygous sickle cell).
- On immunosuppression therapies sufficient to significantly increase risk of infection.
- Women who are pregnant with significant heart disease, congenital or acquired.

# Other vulnerable workers

- Age greater than 60
- Cardiovascular disease
- Diabetes mellitus
- Chronic respiratory disease
- Chronic renal disease
- Pregnant workers
- Employees on immunosuppressive therapy i.e. systemic corticosteroids
- HIV diagnosed workers who are virally unsuppressed

# Considerations for the Return to Work Strategy (HWs)

- Facilities have considered local testing availability and the facility's ability to maintain staffing levels when deciding on which testing strategy to apply, and those factors may change over time.
- If testing is limited or must be rationed,
  - facilities have used the non-test based strategy to determine return to work, in order to conserve testing for diagnosis of persons suspected of having COVID-19
- In situations of critical staffing shortages
  - some facilities have conferred with the local public health authorities and allowed COVID-19 infected HWs to return to work earlier than indicated
  - This has been determined on a case-by-case basis, and facilities have considered duty restrictions, such as only permitting infected HWs to care for COVID-19 patients or limiting them to non-patient care activities

# Considerations for the Return to Work Strategy (HWs)

- In the setting of community transmission, all HWs are at some risk for exposure to COVID-19, whether in the workplace or in the community.
- Devoting resources to contact tracing and retrospective risk assessment could divert resources from other important infection prevention and control activities.
  - Reinforce the need for standard precautions for all patient encounters
  - Stress the importance of hand hygiene, cough etiquette, and respiratory hygiene
  - Enforce social distancing between HWs and patients when not involved in direct patient care
  - Instruct all HWs at the facility to report recognized exposures
  - Have staff regularly self-monitor for fever and symptoms
  - Remind staff to avoid reporting to work when ill
  - When resources are available, instruct staff to wear a medical mask at all times when in the facility as an additional protective measure to limit potential spread among staff and to patients

# **If you suspect you have been exposed to COVID-19**

- ▶▶ Alert your supervisor and occupational health clinic immediately
- ▶▶ If you are experiencing symptoms, inform your health care provider about any contacts and recent travel to areas affected by COVID-19

Enquiries : [info@nioh.ac.za](mailto:info@nioh.ac.za)

**For more information contact NICD: 080 002 9999**

**[www.nicd.ac.za](http://www.nicd.ac.za) or [www.nioh.ac.za](http://www.nioh.ac.za)**



**HOW TO STAY INFORMED:  
THIS SITUATION IS RAPIDLY EVOLVING**

**Please check for updates on the NHLS, NIOH , NICD, and NDOH  
websites**

**[www.nhls.ac.za](http://www.nhls.ac.za) | [www.nioh.ac.za](http://www.nioh.ac.za) | [www.nicd.ac.za](http://www.nicd.ac.za) |  
[www.ndoh.gov.za](http://www.ndoh.gov.za)**

**Latest updated information on the spread of COVID-19**

**[https://www.who.int/emergencies/diseases/novel-coronavirus-  
2019/situation-reports](https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports)**

**Advice and guidance**

**<https://www.who.int/emergencies/diseases/novel-coronavirus-2019>  
[https://www.ilo.org/beijing/information-resources/public-  
information/WCMS\\_736744/lang--en/index.htm](https://www.ilo.org/beijing/information-resources/public-information/WCMS_736744/lang--en/index.htm)**

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