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Health surveillance and management of Health Care Workers in the COVID-19 epidemic

Introduction

1. Health Care Workers (HCW) may, in the course of their normal duties, be exposed to SARS-CO-V2 and there is a reasonable likelihood such workers develop COVID-19 (C19).
2. Besides this biological hazard, professional exposure to the human misery of the pandemic poses a serious psycho-social hazard.
3. Occupational health- and standard C19 non-pharmacological controls require specific adaptation and specialized resources, discussed herein.

Risk categorisation

1. Health care work exposes to a high C19 risk
 - a. Probability
 - i. The probability of C19 exposure is very high¹ during specific medical-, post mortem-, or laboratory procedures and is high² for all HCW working with known or suspected sources of SARS-CO-V2.
 - ii. There are administrative or specialized (e.g., CSSD) services where the probability is lower.
 - b. Severity

The severity of work-acquired C19 is known to be determined by age and comorbidity.
2. Health care work exposes to a high psycho-social risk
 - a. All HCW have a very high exposure to the trauma of dealing with very sick patients, the high C19 mortality and the communication thereof to relatives.
 - b. The Fatigue-risk due to rostering practices, job- and personal factors is very high
3. Health care workers may pose a high C19 risk to patients

This applies when caring from frail, elderly or high (comorbidity) risk patients.

¹ Workers in this category include:

- HCW performing aerosol-generating procedures on known or suspected COVID-19 patients.
- HCW collecting or handling specimens from known or suspected COVID-19 patients
- Morgue workers performing autopsies people known to, or suspected of having C19 at death.

² Workers in this category include:

- HCW exposed to known or suspected COVID-19 patients.
- HCW moving known or suspected COVID-19 patients in enclosed vehicles.
- Mortuary workers preparing bodies of people known to, or suspected of having C19 at death

C19 health risk mitigation in HCW

1. Risk avoidance
 - a. Risk avoidance initiatives for C19 include work accommodation in low exposure jobs.
 - b. Psychological stress, burn-out or PTSD may not be so easily avoided.
2. Standard occupational health (OH) risk controls for working with hazardous biological agents (HBA) are defined in the Hazardous Biological Agents Regulations³ and not repeated here.
3. C19 standard non-pharmacological measures applicable to HCW
 - a. Identification of vulnerability and arrangements for accommodated work
 - i. C19 vulnerability is well described, but
 - ii. HCW vulnerable to psycho-social risks should also be actively identified and accommodated.
 - b. Pre-work screening and not presenting for work when C19 symptomatic or in quarantine.
 - c. Early reporting of C19 symptoms if these present at work.
 - d. C19 vaccination:
 - i. Considering the above C19 risk categorization, all HCW should be vaccinated.
 - ii. The extent and impact of the mandatory nature of such vaccination is defined in the DoEL Directive⁴ and provides for adequate management of the vaccination process, possible side effects and persons refusing on health-, religious- and constitutional grounds as these are applied to HCW, their workplaces and employers.
 - iii. The employer of the HCW should record the HCW vaccine status and ensure compliance with the management of HCW who refuse vaccination.
 - e. Ongoing C19 risk review and evaluation of evidence based global OH initiatives as these apply to HCW, should allow
 - i. A prudent peel-down of non-pharma C19 controls, as vaccination produces individual- and herd immunity.
 - ii. Ditto would apply with successful availability of preventative or curative pharmacological agents.
 - f. C19 PPE
 - g. Specific health surveillance and OH services for HCW during the pandemic.

³ Hazardous Biological Agents Regulations GN R 1390, 27 December 2001 under the Occupational Health and Safety Act.

⁴ Consolidated Direction on Occupational Health and Safety Measures in Certain Workplaces, Government Gazette 44700 of 11 June 2021

Specific health surveillance and OH services for HCW during the pandemic

1. Screening for comorbidity

An active health screening program⁵ is required as it cannot be assumed that all HCW are aware of a prevailing comorbidity⁶.
2. Health surveillance program to include
 - a. Pre-placement (initial) evaluation
 - b. Periodical screening; the interval should be determined by the strength of the epidemic in the work environment (e.g. test positivity rate and daily case load).
 - c. PPE fit testing (annual) and training in fit check
 - d. Vigilance surveillance
 - i. Of C19 disease or psychological trauma: at the hand of sick notifications, sick certificates and post illness return to work assessments.
 - ii. Post contact surveillance: HCW should have permanent access to health surveillance after incidents or when presenting with C19 symptoms, including after vaccination.
 - iii. HCW should have permanent access to counselling and psychological support-, diagnostic- and therapeutic services.
 - e. Daily health surveillance

For as long as pre-work screening is mandatory for all HCW, the employers' OH service should be available to assist HCW and their seniors in determining the correct course of action for any abnormal screening results, as also defined in the NDoH guidelines.
 - f. Preventative SARS-Co-V2 testing

Where critical C19-free bubbles are required (e.g. bone marrow transplant teams), regular antigen or PCR testing may be an option.

Occupational Health Resources for HCW

Employers of HCW should provide:

1. A team of competent professionals for ongoing risk evaluation and adaptation of the OH program for HCW.
2. The services of competent OMP and OHNP with training and current professional development in the management of C19 in HCW.
3. Full-time availability of clinical- and psychological health services to exposed, sick or affected HCW; this should include prevention programs.

⁵ See Regulation 8(1)(b) of the Hazardous Biological Agents Regulations GN R 1390, 27 December 2001 under the Occupational Health and Safety Act.

⁶ Reduced immunity, cardio vascular conditions, diabetes and other endocrine disease, kidney disease, pregnancy may not be known