

## **Updates on healthcare worker infections with COVID-19** Info Sheet #3 – April 12, 2020 - from Physicians Occupational Safety and Health (POSH)

As of 8 April 2020, COVID-19 in healthcare workers (HCWs) from 52 countries had been reported to the World Health Organization (WHO). As there is no systematic reporting of HCW COVID-19 infections, the numbers reported under-represent the true number of COVID-19 HCW infections globally, but we share this information with you nonetheless, with this caveat in mind.

A study from China CDC on 44,672 confirmed cases (by 17 February 2020) indicated 1,688 (3.8%) infections were among HCWs, including five deaths.<sup>1</sup> In Italy, a study from 10 April 2020 reported 15,314 infections among HCWs, representing 11% of all infections.<sup>2</sup> Infections in HCWs internationally have been mostly mild, but severe outcomes, including deaths have also been reported <sup>3-7</sup>.

Understanding infection in HCWs is critical to informing the specific Infection Prevention and Control (IPAC) measures needed to protect HCWs. **Preliminary results suggest HCWs internationally are being infected both in the workplace and in the community**, <u>most often through infected family members.</u><sup>8</sup>

In healthcare settings, factors associated with HCW infection have included: late recognition or suspicion of COVID-19 in patients, working in a higher-risk department, longer duty hours, sub-optimal adherence to IPC measures such as hand hygiene practices, and lack of or improper use of personal protective equipment (PPE).<sup>9-10</sup> Inadequate or insufficient IPAC training has already been cited as contributory.

As is the case for here in British Columbia, the WHO recommends the use of contact and droplet precautions by HCWs caring for patients with COVID-19.<sup>11.</sup> And, as is also the case in BC, WHO recommends airborne precautions for aerosol-generated procedures.<sup>11</sup> Correct use of PPE is critical, paying special attention to donning and doffing (putting on and removing) PPE, as well as hand hygiene and other IPAC measures. The evidence is clear that correctly application of these procedures, alongside standard precautions and administrative, engineering and environmental controls, substantially reduces the risk. If you would like a refresher on proper donning and doffing PPE, need fit-testing or have concerns about access to PPE, please also let us know (posh.covid@ubc.ca) or contact EmployeeSafety@VCH.ca

As these times also entail HCWs working long hours, and subject to fatigue, occupational burn-out, stigma and even violence, vigilance is required to maintain the physical and mental health of HCWs and the quality of care. Let's ensure that we have adequate staffing levels, and clinical rotation, to reduce the risk of burn-out, for safe and healthy working environments.<sup>1</sup>

Finally, we would like to note that we have been monitoring the data on the number of physicians (and other HCWs) who test positive in our jurisdiction; we are pleased that **the numbers of infected medical staff remain very low here, and have not been increasing.** (More data will be provided on this soon.)

POSH aims to provide weekly updates on what we are learning about protecting HCWs internationally and the local situation. We aim to keep you healthy and safe in this difficult time.

**For confidential questions** (your concerns, your exposures, your health, etc.), **please contact us at posh.covid@ubc.ca** . POSH plans to operate 8 am to 8 pm, Monday to Saturday and aims to get back to you as soon as possible. **Thanks for you dedicated work. Stay safe!** 

Annalee Yassi MD MSc FRCPC (PHPM), FRCPC (Occ Med), Physician Lead, Occupational Health, VCH



## References

- The Novel Coronavirus Pneumonia Emergency Response Epidemiology Team. The epidemiological characteristics of an outbreak of 2019 Novel Coronavirus Diseases (COVID-19) – China, 2020. http://weekly.chinacdc.cn/en/article/id/e53946e2-c6c4-41e9-9a9b-fea8db1a8f51
- 2. Integrated surveillance of COVID-19 in Italy : 10 April 2020. https://www.epicentro.iss.it/en/coronavirus/bollettino/Infografica\_10aprile%20ENG.pdf
- Kluytmans M, Buiting A, Pas S, et al. SARS-CoV-2 infection in 86 healthcare workers in two Dutch hospitals in March 2020. medRxiv. 2020:2020.03.23.20041913. doi: 10.1101/2020.03.23.20041913.
- Liu M, He P, Liu HG, et al. [Clinical characteristics of 30 medical workers infected with new coronavirus pneumonia]. Zhonghua Jie He He Hu Xi Za Zhi. 2020 Mar 12;43(3):209-14. doi: 10.3760/cma.j.issn.1001-0939.2020.03.014. PMID: 32164090.
- Liu J, Ouyang L, Guo P, et al. Epidemiological, Clinical Characteristics and Outcome of Medical Staff Infected with COVID-19 in Wuhan, China: A Retrospective Case Series Analysis. medRxiv. 2020:2020.03.09.20033118. doi: 10.1101/2020.03.09.20033118.
- McMichael TM, Currie DW, Clark S, et al. Epidemiology of Covid-19 in a Long-Term Care Facility in King County, Washington. New England Journal of Medicine. 2020doi: 10.1056/NEJMoa2005412.
- Wang C, Liu L, Hao X, et al. Evolving Epidemiology and Impact of Non-pharmaceutical Interventions on the Outbreak of Coronavirus Disease 2019 in Wuhan, China. medRxiv. 2020:2020.03.03.20030593. doi: 10.1101/2020.03.03.20030593.
- World Health Organization. Report of the WHO-China Joint Missionon Coronavirus Disease 2019 (COVID-19) 16-24 February 2020 [Internet]. Geneva: World Health Organization; 2020 https://www.who.int/docs/default- source/coronaviruse/who-china-joint-mission-on-covid-19final- report.pdf
- Ran L, Chen X, Wang Y, et al. Risk Factors of Healthcare Workers with Corona Virus Disease 2019: A Retrospective Cohort Study in a Designated Hospital of Wuhan in China. Clin Infect Dis. 2020 Mar 17doi: 10.1093/cid/ciaa287. PMID: 32179890.
- Lai J, Ma S, Wang Y, et al. Factors Associated with Mental Health Outcomes Among Health Care Workers Exposed to Coronavirus Disease 2019. JAMA Netw Open. 2020 Mar 2;3(3):e203976. doi: 10.1001/jamanetworkopen.2020.3976. PMID: 32202646.
- 11. World Health Organization. Infection prevention and control during health care when COVID-19 is suspected. https://www.who.int/publications-detail/infection-prevention-and-control-during-health-care-when-novel- coronavirus-(ncov)-infection-is-suspected-20200125