

## Infection Control Measures: Best COVID-19 Practices from Hong Kong



Healthcare workers can be protected during the COVID-19 coronavirus outbreak with the application of proper infection control measures, an example from Hong Kong shows.

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A recent study (Cheng at al. n.d.) from a research team at Queen Mary Hospital in Hong Kong, described the infection control preparedness for COVID-19 disease in Hong Kong in the first 42 days after the Chinese authorities' announcement on pneumonia cases on 31 December 2019 (day 1).

The researchers implemented a bundle approach of active and enhanced laboratory surveillance, early airborne infection isolation, rapid molecular diagnostic testing, and contact tracing for healthcare workers with unprotected exposure.

The results show that in the six-week period, 1,275 suspected cases were tested and 42 (3.3%) active confirmed cases of COVID-19 were treated in Hong Kong. The number of locally acquired cases significantly increased over time: from 1 of 13 (days 22 to 32) to 27 of 29 confirmed case (days 33 to 42), ie from 7.7% to 93.1%. Of those, 28 patients (66.6%) came from 8 family clusters.

At the same time, out of 413 healthcare workers involved in treating confirmed cases none contracted the disease, and nosocomial transmission of the coronavirus was not observed. 11 healthcare workers (2.7%) were exposed to the virus, which required their quarantine for 14 days; none of them was infected.

Immediately after the first pneumonia cases in Wuhan had been reported, Hong Kong's 43 public hospitals enhanced infection control measures including factors like visits to hospitals in mainland China in their screening criteria. If a patient was identified as infected with the coronavirus, they were immediately isolated.

Other measures implemented in each hospital included training on the use of personal protective equipment, informing and educating personnel on infection control, and regular hand-hygiene checks. Healthcare workers performing aerosol generating procedures on any patient were obligated to use of personal protective equipment. The authors of the study highlighted that increased hand hygiene, wearing of surgical masks in the hospital, and appropriate use of personal protective equipment were the appropriate infection control measures to prevent hospital-acquired infections with COVID-19.

As part of the study, the researchers collected and analysed environmental and air samples taken from a patient with a moderate level of viral load of coronavirus. The virus was detected in 1 of 13 environmental samples, but not in 8 air samples collected at a distance of 10 cm from patient's chin with or without wearing a surgical mask. The results suggest that environmental transmission may play lesser role in spreading the disease than person to person transmission.

## References

Cheng V et al. (n.d.). Escalating infection control response to the rapidly evolving epidemiology of the Coronavirus disease 2019 (COVID-19) due to SARS-CoV-2 in Hong Kong. Infection Control & Hospital Epidemiology, 1-24.

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