Long Term Care and Covid-19 Monitoring

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Long-term care facilities worldwide, from care homes to rehabilitation clinics, are locations for outbreaks of coronavirus disease 2019 (COVID-19) [1]. Patients (or residents) in long-term care facilities need ongoing care, live in close quarters, and are usually elderly and multimorbid, putting them at a higher risk of contracting SARS-CoV-2 (the virus) and experiencing serious outcomes from COVID-19 (the disease) [2,3]. Healthcare professionals are also vulnerable to infection, and in the absence of adequate hygiene and infection-prevention steps, they can spread the virus through regular contacts with patients and staff [1,4]. Long-term care facilities have and continue to maintain a greater burden of SARS-CoV-2 infection and COVID, despite the fact that the full scale of the current pandemic remains unknown and ever-evolving [5].

Appropriate COVID-19 monitoring is critical for early detection of outbreaks and the development of necessary public health measures to reduce spread, such as case isolation, contact tracing, and enhanced infection prevention [6]. The reverse transcriptase polymerase chain reaction (RT-PCR), which is normally performed on clinical samples from nasopharyngeal swabs, is the latest gold-standard diagnostic test for active SARS-CoV-2 infection [7]. RT-PCR is extremely costly, must be outsourced for organisations without on-site resources, and is commonly subject to shortages and strict usage guidelines, despite its sensitivity and specificity. However, symptomatic infections are just the height of the problem: many infections can cause no or only mild symptoms, develop large amounts of virus in the absence of symptoms, and take a long time to manifest symptoms [8]. COVID-19 outbreaks are believed to be driven by silent diffusion from asymptomatic and pre-symptomatic infections [8], unintentionally bringing the virus into healthcare organizations and causing nosocomial spread [8].

Inadequate surveillance systems have been described as aggravating circumstances for COVID-19 outbreaks in long-term care facilities, as well as those lacking testing capability or depending solely on symptoms as indicators for testing [1]. Several surveillance techniques, including randomly testing healthcare professionals, evaluating all patients upon admission, and universal or serial testing, have been suggested to maximize testing whilst accounting for the unique transmission dynamics of SARS-CoV-2 [9]. However, available testing ability and health-economic resources, especially in low- and middle-income settings, restrict COVID-19 surveillance in practice [9]. Due to research shortages, community testing (sample pooling, which combines clinical specimens from various individuals into a single biological sample for a single RT-PCR test) has gained popularity as a therapeutically responsive and resource-efficient option to individual-based testing [10].

COVID-19 monitoring in long-term care settings must be optimized to reduce and deter potential nosocomial outbreaks, taking into consideration both the unusual epidemiological features of SARS-CoV-2 and the low access of testing tools.

Disclosure Statement

The author declare that there are no conflicts of interest.

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