Survey

Spread of SARS-CoV-2 in nursing aged care settings

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Implications for practice and research

► Proper monitoring and implementation of infection prevention and control (IPC) programme and evaluation of disease indicator for each setting is necessary.

► More research needs to find out solution to deliver adequate training to the available human resources is necessary for future monitoring and contact tracing.

Context

COVID-19, which is caused by SARS-CoV-2, is an acute respiratory infection that mostly affects the trachea and lung. The condition is usually mild to complete asymptomatic in most of the cases. However, as people get older, their symptoms might become more severe, leading to life-threatening complications and may result to death.[1] Older people living in nursing homes are most at risk in the ongoing COVID-19 pandemic, due to the high prevalence of chronic diseases, frailty and disabilities.[2] Lack of personal protective equipment (PPE), failure to proper isolation and staff members working in multiple facilities are some of the factors believed to contribute to the spread of infection.[1] The aim of the study was to learn more about how SARS-CoV-2 infection spreads and its impacts in nursing homes.[1]

Methods

This study included 3292 public or private nursing homes across Italy.[2] An online questionnaire was sent to the Director of each nursing home.[2] Assistance was provided by telephone to completing the questionnaire. There were four sections to the questionnaire: information on sociodemographic characteristics of the settings, such as how many healthcare workers and residents there are; the spread and course of infection; the implementation of the infection prevention and control (IPC) programme components; and psychopharmacological drug and other adverse event issues during this period of the pandemic. Descriptive, frequency, non-parametric Spearman rank coefficient, univariate and multivariate regression logistic model was used for data analysis.

Finding

Participation in the study came from 1356 nursing facilities with a total of 100 806 people. In total, 9154 residents have died since the questionnaire was filled out, for a variety of reasons. Of these, 7.4% had COVID-19 and 33.8% had influenza-like symptoms, corresponding to a cumulative incidence of 0.7 and 3.1, respectively.[2] Overall, 29% of nursing homes having SARS-CoV-2 outbreak, while 67.7% of nursing homes have influenza-like outbreak reported. The key factors positively linked with the existence of COVID in nursing homes were a lack of staff, difficulties in moving patients to hospitals or other facilities, isolating residents with COVID, number of beds and geographical location.[2]

Commentary

This survey aimed to draw attention to the possibility of underestimating mortality during the pandemic among older adults with influenza-like symptoms who may not have had a COVID-19 swab test. Lack of workers, difficulty moving patients to a hospital or other centre or isolating them in a single room, medicine shortages, and the inability to do swab tests, as well as institutions with a larger number of beds, all likely emerged as major risk factors for an outbreak.[3] Infection in nursing care staff, rather than residents, is a strong identified risk factor for resident death, with timing indicating that residents could be infected by staff rather than vice versa. Infection in staff is not the sole method by which infection in an older population might lead to an increase in mortality. Fear of COVID-19 could lead to worker absences, which could lead to death in a high-needs population due to dehydration and other mechanisms.[4] PPE helps to prevent SARS-CoV-2 transmission and gives staff peace of mind so they can stay focused on the job.

Policy makers must make the growing nursing care crisis a priority. COVID-19 testing and PPE should be prioritised in nursing homes. Nursing home employees must be entitled to paid sick leave. It is a cause for catastrophe if staff continue to work when sick. A large number of nursing homes are poorly organised and fail to properly implement infection control programmes. More frequent inspections are necessary.[5] To prevent mortality, continuous manpower training, proper isolation and transportation facilities must be implemented.

Competing interests None declared.

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Check for updates

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