

## RESEARCH

## Do COVID-19 Control Guidelines for Long-Term Care Facilities Include Oral Healthcare Orientations?

## INTRODUCTION

The COVID-19 pandemic represents a global health challenge. Controlling the spread of the virus in long-term care facilities (LTCFs) is considered a specific challenge because the older population has a worse prognosis and higher mortality rates.<sup>1</sup> Institutionalized people generally experience physical or mental disability, some of who are of advanced age with dependence on daily activities, including oral hygiene.<sup>2</sup> This procedure is performed most often by caregivers who may not have received proper training<sup>3</sup> and may represent an additional risk of the virus spreading because of the high viral load in the upper respiratory tract of infected individuals.<sup>4</sup> This practice may certainly cause concern to staff due to the possibility of cross-infection. However, oral hygiene must be maintained to control the oral biofilm, which is a microbial community embedded within an extracellular matrix associated with oral (dental caries and periodontal disease) and systemic diseases, such as respiratory tract infections and pneumonia.<sup>5</sup> Then, recommendations for oral hygiene as part of the guidelines for pandemic management should ensure the safety of workers and the older adults. This rapid review mapped the literature on measures to manage COVID-19 in LTCFs, identifying whether oral health hygiene orientations for dependent older adults were addressed.

## METHODS

We conducted a rapid review,<sup>6</sup> searching for publications (all type of documents since December 2019) on May 20, 2020 (Cochrane Library, Web of Science, Scopus, Scielo, and PubMed). The descriptors were: (COVID-19 OR SARS-CoV-2 OR severe acute respiratory syndrome OR pandemic OR coronavirus OR nCoV OR 2019 novel coronavirus OR 2019-nCoV OR novel coronavirus) and (long-term care facilities for the elderly OR nursing homes OR long-term care OR residential facilities).

## RESULTS

The guidelines from 59 selected publications focused on preventing COVID-19 virus from entering, spreading within, and spreading to outside the facility. The recommendations included personal protective measures,

disinfection of surfaces/environment, social distancing, testing of residents/staff/visitors, and isolating cases. The documents also discussed care approaches (psychosocial and medical support and use of technology to keep the social communication with family and friends) and the training of staff on infection control. Only one publication addressed the challenges of oral health care for older adults in LTCFs. They comment that dental appointments had been halted in most LTCFs as part of the recommended measures for isolation in an attempt to limit the spread of the disease because many dental procedures produce aerosols, the main means of the virus spreading. Another issue was to limit the use of personal protective equipment (PPE) by dentists, as PPE was required for hospitals and was in short supply globally. This publication has not addressed the hygiene orientations for dependent older adults in pandemic scenarios.<sup>7</sup>

## DISCUSSION

A large number of documents were published in a short period on COVID-19, demonstrating the response from the scientific community for the pandemic emergency and the concern with the protection of the institutionalized older adults.

Institutionalized older adults are more likely to develop oral health problems due to their morbidity, fragility, and frequent use of medications.<sup>8</sup> Therefore, preventive oral care, such as teeth brushing and mouth or dental prostheses cleaning,<sup>8</sup> is important for oral and systemic health.<sup>5</sup> These procedures can produce droplets and aerosols, increasing the risk of infectious contagion. The guidelines should recommend the use of PPE (surgical masks, aprons, gloves, and eye protection) by caregivers/nursing assistants while performing them. Patients with confirmed or suspected COVID-19 require additional measures besides the isolation in separate rooms within the LTCF. In these cases, the use of respiratory masks (N95, FFP3, and FFP2) could be more appropriate, as they have the highest filtering percentage of virus-sized particles.<sup>9</sup> Face shields must be used as an alternative to the usual dentist glasses to protect other areas of the face besides the eyes.<sup>9</sup> Additionally, the chemical oral biofilm control must be an alternative method for oral hygiene of the dentate and edentate older adults, minimizing droplets/aerosol production. Antiseptic mouth rinses could be used before oral hygiene procedures to decrease the oral viral load in droplets/aerosols in infected subjects and the risk of transmission.<sup>10</sup> The prosthesis cleaning must be performed outside the oral cavity. The guidelines also should discuss the use of high-fluoride toothpaste to dental control, especially radicular caries,<sup>11</sup> and proper storage and cleaning of toothbrushes. The dental literature still has not discussed these measures in the LTCF and pandemic context. Future

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studies must address this relevant topic to guide a safer practice in these scenarios.

## CONCLUSION

The guidelines for managing COVID-19 regarding LTCFs have not addressed specific oral health hygiene. A guideline with this orientation could contribute to the staff and older adult's health. There are more questions than answers. However, oral health care must be discussed among interdisciplinary health professionals so that there are advances in the guidelines qualifying the care practices for older adults.

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## Sex- and Age-Specific Differences in COVID-19 Testing, Cases, and Outcomes: A Population-Wide Study in Ontario, Canada

The severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) emerged in Wuhan, China, in late 2019 and spread globally, resulting in the COVID-19 pandemic. During the two previous coronavirus epidemics, severe acute respiratory syndrome and Middle East respiratory syndrome, male sex was associated with worse clinical outcomes.<sup>1</sup> Emerging COVID-19 incidence and outcome data indicate that men, especially older men, may also be more affected.<sup>2-6</sup> It is unclear whether these findings may be skewed because of unreported sex-based differences in SARS-CoV-2 testing and the age distributions of study populations.<sup>7,8</sup>

## METHODS

This population-wide cohort study included all residents of Ontario, Canada, who received a nasopharyngeal swab for SARS-CoV-2 between January 23, 2020 (date swab was performed for first reported case of COVID-19 in Canada) and May 26, 2020. We excluded individuals with unknown sex. Ontario is Canada's most populous province and home to nearly 15 million residents who receive universal access to medically necessary services including laboratory testing for SARS-CoV-2 under a publicly funded provincial health insurance program. We obtained data for this study from the Ontario Ministry of Health as part of the province's