Who is caring for the oral health of dependent institutionalized elderly during the COVID-19 pandemic?

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The COVID-19 pandemic has had wide ranging impacts across all aspects of society including health as well as access to healthcare services and their delivery. A universal pattern of mortality and morbidity data points towards a disproportionately higher burden in the more vulnerable groups, thereby further exacerbating health inequalities, with the majority of COVID-19 associated deaths globally recorded in older adults with underlying systemic health conditions[1]. As a consequence, care homes have been disproportionately affected with outbreaks of COVID-19 and have recorded excessive mortality rates, particularly in countries where a large proportion of older adults reside in care homes and/or where the majority of care home residents are frail or care dependent with a number of comorbidities. This bleak picture of excessive mortality is the tip of the iceberg and should not result in the underlying health and oral health burden of care home residents going unnoticed. We want to make the case particularly for oral health, as the limited available evidence during the pandemic indicates a major challenge both from a public health and health services perspective.

But let's set the scene first. Around half of all care home residents have some of their own natural teeth but their oral health is typically much worse than their community living peers[2]. With increasing age, the ability to care for their mouth deteriorates, essential oral hygiene practices become challenging and they require support from care home staff. In addition, polypharmacy leads to dry mouth, and diets can become rich in carbohydrates with many also having to maintain increasingly complex dental restorations[3,4]. All these factors increase the risk of oral diseases and poor oral health amongst care home residents has been shown to impact negatively on their quality of life, general health and diet, thus exacerbating underlying medical conditions and comorbidities[5].

Current prevention practices and service provision in care homes are often poor. Challenges include a lack of policy, inadequate resources and staff training and these are compounded by high staff turnover. Furthermore, there is significant difficulty in obtaining routine dental care due to the very complex needs of institutionalised older people, with a significant proportion suffering from cognitive impairment and dementia. Access to domiciliary services is variable and often challenging, leading to subsequent hospital admissions for dental problems, in turn distressing older people and their families[6]. With the numbers of dentate people who are dependent on care increasing, provision of effective prevention, such as daily oral hygiene, is paramount and needs to be complemented with appropriate

professional care. This has been recognised more widely as a priority area and relevant guidance has recently been developed[7,8].

The COVID-19 pandemic has, within a rather short period, amplified and intensified the oral health challenges in care homes. Oral health promotion programmes, already existing in many care homes, have in almost all cases "paused" as access to care homes was restricted for health promoters and other health care staff. More importantly, the pandemic has affected the organisation of care within care homes and the ability and availability of staff to actively provide preventive care, as they are stretched to almost breaking point in order to cope with the grave consequences of the pandemic. Similarly, ongoing research to improve prevention and oral healthcare provision has also been affected given the restricted access to care homes[9]. This is an issue that may take some time to resolve, as the resumption of research is unlikely to be immediate once the pandemic ends. Equally, it is not known what the longer-term effects of a novel virus will be on the delivery of care and future research projects in this context as wider financial pressures will have to be considered.

In terms of dental treatment provision, the restricted access of health care staff to care homes and the COVID related challenges around safe dental care provision have serious consequences. Data from Zurich demonstrates the impacts on oral health services with hospital clinics for dependent older adults reporting an 81% reduction in patient attendance and no domiciliary services available to residential care home residents since March 2020 due to the COVID related restrictions[10]. A similar picture is reported in Belgium where the established Gerodent programme has had restricted access to care homes[11]. These examples and ongoing discussions in England highlight the major long-term sustainability challenges for domiciliary care provision, despite the importance of the service and the severe implications for the health of care home residents if it is discontinued[12]. Interestingly, this worrying development seems to be applicable in different settings and irrespective of whether the oral health care is provided through specialised clinics, programmes and institutions or through primary care. Where oral health services have partly resumed, anecdotal evidence suggests significant deterioration in oral hygiene and overall oral health amongst care home residents as prevention and oral health promotion appears to have received little attention by care staff during the pandemic.

The consequences of poor oral health and a lack of preventative care in this patient group are well established including the development of aspiration pneumonia. Evidence suggests improved oral hygiene and frequent professional oral care can reduce the progression or occurrence of respiratory tract diseases in dependent older patients[13]. Given the respiratory consequences of COVID-19 infection, this becomes even more significant. Moreover, patients in intensive care units with poor oral hygiene requiring mechanical ventilation have a higher risk of ventilator associated pneumonia (VAP)[14]. But beyond the grave general health consequences, maintaining acceptable oral health of older people in care homes is essential for function, both physically and to facilitate social interaction. These elements are crucial to ensure that older adults' dignity is maintained towards the end of their lives.

Prior to the COVID-19 pandemic oral health provision for older adults in care homes was already a significant public health issue, with little attention paid to prevention of diseases and maintaining good oral function of the residents. There is now an urgent need to re-

establish oral health promotion programmes and appropriate delivery of oral healthcare services for dependent older people. Otherwise, we may see poor oral health exacerbating a range of medical conditions in this population including pneumonia and delirium, increasing healthcare costs and leading to poorer outcomes. Addressing the oral health burden of this most vulnerable group of older adults is an important aspect of the health inequalities agenda and our level of priority and success of this will ultimately reflect on what society we want to emerge post COVID.

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