

Challenges in Geriatric Dental Patient Management in Covid-19 Pandemic

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Introduction: Older adults with multiple comorbidities have been identified as the highest risk group for fatal COVID-19 clinical outcomes. This Article covers the different types of geriatric people and the challenges they face in this pandemic, with respect to their oral health.

Many older adults have been prescribed angiotensin receptor blockers [ARB] and angiotensin converter enzyme [ACE] inhibitors to treat some of these chronic illnesses. Both ARB and ACE inhibitors upregulate ACE 2 receptors, which are the receptors used by SARS-CoV-2 to enter host cells. Therefore, patients prescribed with these medications are at even higher risk of SARS-CoV-2 infection. In addition, some older patients who survived COVID-19 infections will present with organ damage caused by the disease, such as acute respiratory distress syndrome, acute kidney injury, and cardiac injury.

There is a discussion questioning if older adults will benefit from COVID-19 vaccines because they have a less effective and less coordinated immune system. It seems that their responses to SARS-CoV-2 do not functionally transition from innate to adaptive immunity, resulting in little or no antibody production. Consequently, for a vaccine to be effective among older adults it needs to incorporate age-appropriate adjuvants to stimulate appropriate antibody responses among older persons.

The effects of required confinement in this pandemic situation are:

1. Increases their difficulty in accessing needed services.
2. May cause negative mental health effects due to isolation.
3. Reduced access to nutritious meals inability to shop for food.
4. Increased challenge for frail older adults to establish communication with others due to social distancing and wearing of masks due to their poor eye sight and inability to lip read.

Geriatric population can be divided into 3 classes:

1. Functionally independent older adults: They have the ability to drive and/or to use public transport themselves in order to access oral health care services. General dentists are able to safely treat these persons, provided the dentists have the necessary knowledge about physiology, medicine and pharmacology related to the patients common chronic diseases and how they impact dental care

2. Frail older adults: These persons have more complex medical histories and pharmacotherapies, which may require consultation with their physician prior to invasive treatment. This group includes persons that can still access oral health care in the community, provided somebody provides transport.
3. Functionally dependent older adults: They are homebound or living in institutions. The best way to provide oral health care for these persons may be to treat them in their own environment.

Frail and functionally dependent older adults face many barriers while accessing oral health Care.

1. Socio-economic barriers
 - a) Financial constraints
 - b) Lack of dental insurance
 - c) Lack of social support being institutionalized.
2. General health-related barriers
 - a) The presence of multiple co-morbidities
 - b) Polypharmacy
 - c) Cognitive impairments such as dementia
 - d) Reduced mobility
 - e) Impaired manual dexterity
3. Oral health issues that make dental care more challenging
 - a) Xerostomia,
 - b) Root caries
 - c) Heavily restored dentitions
 - d) Inability to maintain oral hygiene independently

Management of Geriatric patients:

1. Currently, the best way to avoid the negative consequences of COVID-19 amongst older adults are
 - a) Isolation
 - b) Social distancing
 - c) Enhanced infection control protocols.
2. Tele-dentistry: Using empathetic listening and compassionate care, the dentist/hygienist should be able to encourage oral hygiene routines to be maintained & evaluate urgent oral health problems.
3. Tele triage itself is challenging for this population due to the persistent digital divide among different generations and as many frail and

functionally dependent older adults have sensory and/or cognitive impairments and will find it difficult to appropriately communicate through a telephone or video call.

4. The next step after tele-triage is to make an appointment with the dental office. The new norms for infection control are also expected to be especially challenging for this group of patients. In the waiting room, the need to maintain social distance, cough and sneeze etiquette, and wearing masks may be difficult or virtually impossible for older persons with dementia.
5. Currently, aerosol generating procedures should be avoided in open areas. Contemporary conservative approaches for treating caries among frail and functionally dependent older adults, like the use of silver-diamine fluoride – SDF - and atraumatic restorative techniques - ART, such as using hand instruments and glass-ionomer cements are likely to become more routine.
6. For patients suffering with ill-fitting or loose dentures ,experiencing pain(general discomfort, localised), difficulty in speaking & eating etc, following are the advice and self help:
 - a. Recommend optimal analgesia.
 - b. Advise the patient to remove their denture whenever possible.
 - c. Advise the patient to seek routine dental care when this service resumes.
 - d. Advise for proper routine cleaning of dentures either with denture cleaning agents or chlorhexidine solution for infection control.
7. Prophylactic home care advices for oral hygiene maintenance for people of all age groups:
 - a. Brush twice a day with fluoride toothpaste.
 - b. Interdental cleaning by recommended flossing once a day.
 - c. Limit sugar intake to mealtimes where possible.
 - d. Avoid habits, which may cause fillings to fracture, such as opening things with your teeth, chewing hard sticky foods and carrying our risk activities such as physical sports without mouthguards or play fighting.
 - e. Follow good toothbrush hygiene etiquette including washing your hands before and after brushing, rinsing your brush in hot water after use, never sharing your toothbrush, and throwing away your toothbrush if you have experienced symptoms of COVID-19.
 - f. Make an appointment to get a dental check-up once the pandemic is over and the dental team and clinics of your locality

are back at work. Get your teeth and gums checked to ensure that your mouth is healthy and carry out any remedial work if needed.

Conclusion:

This Covid-19 pandemic has brought into consideration the urgent need to design effective and affordable strategies and programs for better oral health and quality of life of the elderly, which are integrated into general health programs.

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