

The challenges of dental care provision in patients with learning disabilities and special requirements during COVID-19 pandemic

To the editor

The worldwide spread and the high virulence of COVID-19 led to a pandemic since March 2020, as it has been affecting 216 countries until the end of May 2020, wherein these numbers increase daily. This unprecedented situation has resulted in a significant impact on health and dental care, in both private and public sectors,¹ affecting the hospital and community-based special care dentistry (SCD) services around the world. The worldwide spread of novel coronavirus COVID-19 disease with high virulence rate had caused an unprecedented impact on specialist dental services, including dental sedation and treatment under general anesthesia. COVID-19 mass consequences halted not only routine dental care but also considerably interrupted routine care and dental general anesthesia (DGA) on global scale.² What is more, the compulsory implementation of advanced personal protective equipment (PPE) made the management of special care patients even more challenging, especially when dealing with highly anxious patients, medically compromised persons, as well as individuals with learning disabilities.^{3–6}

Due to the fact that the transmission of Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) coronavirus is known to occur by inhalation of infectious microdroplets, and what is more, it is also possible via contact with mucous membranes, the health and dental professionals who treat their patients with the use of aerosol-generation procedures (ultrasonic scaling, high speed rotor used for restorations) are deemed to be at high risk of COVID-19 contraction.³ Particularly, there is an increased risk of cross-contamination during a clinical session, exposing other vulnerable and often medically/immune compromised patients, persons with suppressed immune system to infectious environment, as dental care is often directly related to the formation of bio-aerosols. Reports revealed that in a controlled environment, SARS-CoV-2 remained in the air throughout the experiment, which lasted 3 h.⁵ With the pandemic, several measures have been established at global and national

levels, resulting in elective dental procedures postponed within SCD services, mainly due to the possibility of producing bio-aerosols and lack of advanced/enhanced PPE. As a result of epidemic measures introduced, dental teams had to implement extraordinary safety protocols, especially for vulnerable and medically compromised patients and also to prioritize urgent care.

The COVID-19 pandemic seems to be the biggest challenge that special care dental services have ever faced.² Without dental services for patients with special needs, a large number of patients would be deprived of adequate oral health maintenance and protection measures.⁷ For some of them, restorative care is no longer an option, and more radical planning is required.⁸ On a daily basis, we have already observed an increase in the number of dental emergencies where noncooperative patients with learning difficulties and intellectual deficits are often anxious and frightened, decline any dental care with routine approach and even sit reluctantly in the dental chair. As the number of dental emergencies has been increasing rapidly, it is of high demand to upgrade the existing or establish new dental sedation services, particularly dedicated for noncooperative patients, who often manifest fear combined with intellectual deficit. This scenario is likely to be aggravated, since enhanced PPE has been implemented.

In SCD, particularly in case of patients with learning disabilities, a major challenge for outpatient care is to provide an adequate “fit for purpose” care for those who may not cooperate at an expected level of compliance, which in many cases is the issue due to lack of sufficient compliance and lack of understanding, as well as high level of anxiety. Furthermore, the patient may not have developed full intellectual development and mental capacity, as his/her ability to understand and cooperate is often compromised.⁶ From the pragmatic and clinical point of view, certain questions arise, such as how can we provide efficient and continuous care for this group of patients, without being able to restore a conscious sedation or DGA provision?² As clinicians, we believe this is our duty of

care, and we should reorganize our services, in order to help vulnerable patients.

The first option of choice should be a broader utilization of nonpharmacological methods, along with behavioral management methods for pain and anxiety control, as well as application of “desensitization” techniques on daily basis for some of our patients who might be complacent. However, these methods are not deemed to be sufficient for more severe cases of learning disabilities and complex, invasive dental treatment.⁹ While the behavioral management methods for anxiety control are useful for only a fraction of SCD patients, pharmacological techniques, including inhalation and intravenous (IV) sedation have been an effective and safe alternatives that allow the patient to become more cooperative, promoting a less traumatic, and more individualized treatment. This would be particularly useful in the treatment of individuals with mild moderate learning disabilities, young patients with attention deficit hyperactivity disorder and people with dental phobia.^{9–11}

Particularly nowadays, conscious IV sedation, with the use of titrated single-drug short acting benzodiazepines or propofol, seems to be the optimal pharmacological method of anxiety management in dentistry, as an alternative to DGA that is currently very limited.¹² Midazolam, the most common sedative agent for IV technique in SCD demonstrated to be efficient and safe in clinical use in outpatient settings.¹³ While the transmucosal and intranasal conscious sedation methods may potentially generate certain level of bio-aerosol during intranasal or intraoral application, IV sedation does not involve micro-droplets formation in the procedural context. However, this technique requires advanced CPR training and appropriate life support measures to manage any medical emergencies, most commonly adverse cardiorespiratory events. These possible complications arising from IV sedation should be always considered, which, consequently, could lead to hospital referrals.¹⁴ However, in general, conscious sedation procedures using IV midazolam have been shown to be safe and effective in patients with intellectual disabilities.^{10,11,15} The shortage of hospital staff involved in general anesthesia and/or sedation, as a result of COVID-19 crisis, creates additional problems related to interrupted access to specialist medical support. It is worth noting that the presence of a qualified anesthesiologist is mandatory for IV sedation provision for dental management purpose in a vast majority of countries, with some exemptions. Hence, SCD dental teams should expect that and be well prepared for a long-term postponed DGA provision in the nearest future.

Thus, referring patients for dental treatment completed under general anesthesia would also cause challenges for SCD teams and lead to conflicting situations, since hospital units are currently focusing mainly on appropri-

ate PPE protocols and intensive care for severe COVID-19 cases, rendering a reduced supply for even basic dental procedures (dental extractions), in addition to a shortage of inpatient beds and DGA recovery units. As recently reported, access to operating theater facilities for the use of GA is nowadays significantly more restricted due to the pandemic and this undoubtedly will continue in the near future.¹⁶ Clinicians dealing with special needs patients currently have to face complex and conflicting circumstances related to limited DGA provision, that directly impact the patient’s oral health, wellbeing, and quality of life. New SCD guideline launched by the Royal College of Surgeons of England (RCS England) recommends that nonurgent treatment should be deferred to minimize risk to patients, staff, and the public, and it is advisable to have two clinicians involved in the decision making process.¹⁷ A wider implementation of sedation techniques, such as IV sedation as a safe, non-aerosol generating, available and cost-efficient option would secure SCD provision during COVID-19 crisis.

Meeting the basic dental needs and demands for efficient pain and anxiety management must be always considered, in order to intervene early in an individualized patient-centered and safe way. This role of dental teams demonstrates that we maintain the provision of continuous duty of care and professional responsibility for our vulnerable patients who are exposed to various problems, resulting from current developments and affecting health care provision. Here, we urge a wider implementation of sedation techniques, such as IV sedation as a safe, available, and cost-efficient option to secure SCD provision during COVID-19 time. This is particularly valid nowadays as a result of deferred and suspended dental treatment under general anesthesia in hospital settings, affecting outpatient clinics due to prioritization of severe COVID-19 cases. The additional resources secured by local authorities should support specialist dental services, allowing more accessible dental care for patients with special needs, leading to a balanced health care outcome.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest that could be perceived as prejudicing the impartiality of the research reported.

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