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Impact of the COVID-19 pandemic on urgent dental care delivery in a Swiss university center for dental medicine

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Abstract: (Limit 600 Words)

This study aimed to assess whether the emergency service of a major Swiss dental institution faced different demands (patient volume, treatment needs, dental care characteristics) during a lockdown, issued to mitigate the COVID-19 pandemic, compared with the weeks before and after. Data of patients receiving urgent care at a university center for dental medicine (Basel, Switzerland) during the 6-week lockdown, pre-lockdown, and post-lockdown periods were retrospectively evaluated. Statistical analysis involved tests for equal proportions and logistic regression models. The level of significance was set at α=0.05. The study comprised 3109 dental emergency visits in the period from February 2 to June 5, 2020. Daily caseloads increased during lockdown. Abscesses, orthodontic emergencies, and surgical follow-ups were more common during lockdown, whereas the number of dento-alveolar injuries declined (≤0.048). Urgent dental care provision involved intraoral radiographs more frequently in the pre-lockdown period compared with the following weeks (p<0.001). Among all treatments, aerosol-generating procedures dropped from 56.1% (pre-lockdown) to 21.3% during lockdown (p<0.001), while teledentistry follow-ups became more frequent (p<0.001). Patients with comorbidities sought urgent dental care less frequently during the post-lockdown period (p=0.004). The lockdown significantly impacted the dental emergency service in terms of patients' diagnoses, treatment needs, and the characteristics of the urgent care that was delivered. The delivery of dental care regularly involves close contact to patients, exposure to blood and saliva, and procedures that produce droplets and aerosols. Consequently, it may entail a heightened risk for cross-infection with severe acute respiratory syndrome coronavirus (SARS-CoV-2), the causative agent of the coronavirus disease 2019 (COVID-19). Based on current evidence, the risk of dental healthcare personnel (DHCP) contracting SARS-CoV-2 from asymptomatic patients is deemed low provided that DHCP wear advanced personal protective equipment (PPE) including N95 respirators (or equivalent masks) [3, 4] The appropriate management of dental emergencies is crucial to alleviate the burden faced by hospital emergency department. The timely and major reorganization of dental care services is, however, a challenge, and published data on utilization of dental emergency services during this pandemic are still limited [2, 6–8]. In mainland China, the use of teledentistry services increased considerably during lockdown.

Biography: (Limit 200 Words)

Florin Eggmann developed his research work in Department of Periodontology, Endodontology and Cariology, University Center for Dental Medicine UZB, University of Basel, Mattenstrasse 40, CH-4058 Basel, Switzerland. Asin Ahmad Haschemi developed his research work in Department of General Pediatric and Adolescent Dentistry, University Center for Dental Medicine UZB, University of Basel, Basel, Switzerland ,Dimitrios Doukoudis also developed his research work in Department of General Dentistry, University Center for Dental Medicine UZB, University of Basel UZB, Basel, Switzerland.

About University: (Limit 200 Words)

The University of Basel (Latin: Universitas Basiliensis, German: Universität Basel) is a university in Basel, Switzerland. Founded on 4 April 1460, it is Switzerland's oldest university and among the world's oldest surviving universities. The university is traditionally counted among the leading institutions of higher learning in the country. The associated Basel University Library is the largest and among the most important libraries in Switzerland. The university hosts the faculties of theology, law, medicine, humanities and social sciences, science, psychology, and business and economics, as well as numerous cross-disciplinary subjects and institutes, such as the Biozentrum for biomedical research and the Institute for European Global Studies. In 2020 professors.

NOTE: This is a sample abstracts. Conference/Journal name will be changed while publishing respective abstract in supporting journal website.

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Importance of Research: (Limit 200 Words)

The lockdown significantly impacted the dental emergency service in terms of patients' diagnoses, treatment needs, and the characteristics of the urgent care that was delivered. The aim of this study was therefore to retrospectively evaluate the dental emergency services that were provided at the UZB during the 6-week lockdown period of wide-ranging public health measures issued by the Federal Council (16 March [starting a midnight] until 26 April 2020). Data on urgent dental care delivered in the 6-week period before and after 17 March and 26 April 2020, respectively, were used to determine if the dental emergency service faced different demands at distinct stages of the pandemic. The demand faced by dental emergency service was defined by the volume and composition of patients seeking urgent care, their treatment needs, and the treatment modalities used in the provision of urgent dental care. Given the urgency of the COVID-19 health crisis and the singularity of the federal lockdown measures, a retrospective study design was chosen. The null hypothesis was that the three time periods assessed would exhibit no difference regarding the patient population, patients' treatment needs, and the characteristics of urgent dental care provision.

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