LUMEN ET VIRTUS
ISSN: 2177-2789

REGULATION OF QUEUES IN SECONDARY CARE IN DENTISTRY IN BRAZIL AND THE ROLE OF THE ELECTRONIC MEDICAL RECORD: A LITERATURE REVIEW

https://doi.org/10.56238/levv15n43-082

Submitted on: 20/11/2024 **Publication date:** 20/12/2024

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ABSTRACT

The electronic medical record (EP) plays a crucial role in regulating the queues in secondary care in dentistry in Brazil. Secondary care is represented by the Dental Specialty Centers (CEO) which aim to expand access to specialized services, such as oral cancer diagnosis, endodontics, periodontics, minor oral surgery and care for people with special needs. This paper aims to analyze the management of queues in secondary care in dentistry in Brazil, highlighting the role of the electronic medical record as an essential instrument to improve the administration of access to specialized services and ensure continuity of care within the scope of the Unified Health System (SUS). For the analysis, a literature review was carried out in databases such as Pubmed/Medline, Google Scholar, VHL, and Scielo, considering studies published in the last 10 years (2014-2024). Only articles available in full and in Portuguese were included, in addition to official data from the Ministry of Health. The implementation of electronic medical records has the potential to

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improve demand management, improving communication between levels of care and ensuring continuity of care. However, there are some challenges to be faced in the implementation of this system, such as resistance from professionals, lack of training, and inadequate infrastructure. Despite this, digital integration is seen as a promising tool to optimize workflow and reduce queues and promote better patient care.

Keywords: Secondary Health Care. Unified Health System. Electronic Health Records.

INTRODUCTION

The regulation of queues in oral health follows the flow with the gateway to primary health care, composed mainly of the Family Health Strategy (ESF). Secondary care involves the Dental Specialty Centers (DSC), which seek the integrality and problem-solving capacity of care that is not provided in primary care (Azevedo *et al*., 2022).

These services are implemented and regulated by the National Oral Health Policy (PNSB), popularly known as Smiling Brazil, this program aims to ensure the population's access to all levels of complexity, aiming to improve the quality of citizens' oral health (Costa *et al*., 2023). Carrying out actions such as oral diagnosis, diagnosis and detection of oral cancer, periodontics, minor oral surgery, endodontics, and services for patients who have special needs, who need specialized attention (Azevedo *et al*., 2022).

In addition, electronic medical records are part of the financing and adherence of primary care, managing information and qualifying services through the e-SUS strategy. These data help health professionals to detect the demands of the territory, to outline strategies to improve oral health (Valente *et al*., 2023).

Thus, with this information system through the electronic medical record, when integrated between the levels of care, they help in the communication between primary and secondary care. However, this system still needs integration and qualification of health professionals to be used effectively (Valente *et al*., 2023).

Therefore, the objective of this study was to analyze the regulation of queues in secondary care in dentistry in Brazil, focusing on the importance of the electronic medical record as a tool to optimize the management of access to specialized services and ensure the continuity of care in the Unified Health System (SUS).

METHODOLOGY

This is a narrative review of the literature with the following guiding question: "How can the regulation of queues in secondary care in dentistry in Brazil be improved with the use of electronic medical records, and how does this tool contribute to optimizing access to specialized services and ensuring continuity of care in the SUS?". In addition, the PCC strategy was used, in which the P (problem) was considered the Dental Specialties Center, the C (concept) the regulation of the waiting list and the C (context) the electronic system.

The articles were searched in the Pubmed/Medline, Google Scholar Bireme, Virtual Health Library - VHL, Scielo, Scielo database. The search words used were "Electronic Medical Record", "SUS", "Queue Regulation", "Secondary Care", "Dentistry", "Queue

Management", "Service Efficiency", "Access to Dental Services" and "Dental Specialty Center", plus the Boolean operator "and" / "and".

As inclusion criteria for the articles, studies available in full and comprised between the years 2014 and 2024 were considered. Gray literatures were excluded, such as articles with only available abstracts, expert opinions, as well as articles in languages other than Portuguese. Statistical data from public agencies, news and information from the Ministry of Health were also included in the research.

The selection of articles was carried out as follows: first, searches were carried out using keywords, followed by the application of filters to exclude articles that did not meet the established criteria. Next, the titles were read, with the elimination of duplicate records, and the abstracts were analyzed to verify their relevance in relation to the study question. Finally, the selected articles were read thoroughly.

LITERATURE REVIEW AND DISCUSSION

Over the years, Dentistry has been forgotten at the ends of public health policies, leading to the creation of a habit where citizens only sought dental care in cases of extreme pain. This delay and the services offered at the time led to the development of a mutilating view of dentistry, since the procedures performed were only extractions. The Ministry of Health, aiming to change this situation, created in 2004 the National Oral Health Policy (PNSB) - Smiling Brazil. (Sales *et al,* 2017).

With the implementation of the PNSB, there was a great innovation with the creation of the Dental Specialty Centers (CEO), which work with references to health teams in primary care, solving complex cases that require specialized care and with the purpose of meeting the treatment demands generated by the increase in dental access. These centers offer services such as oral diagnostics with an emphasis on cancer detection, specialized periodontics, minor oral surgery of soft and hard tissues, endodontics, and care for people with special needs. (Galvão, 2019).

As a result, there was a great increase in the demand for care at specialty centers, leading to the emergence of a challenge for secondary care, to meet all the needs of patients. In addition, the lack of professionals in the field of public health, which is due to poor remuneration, concomitant with the low quality of resources and the unfavorable work environment, corroborate the increase in demands and challenges. (Sales *et al,* 2017).

With these obstacles, there was the development of electronic medical records (EP), defined as a standardized and digital medical record system. The EP was an initiative of the

Ministry of Health and aims to benefit all segments involving the health issue as a whole, in addition to enabling specific details of each of the patients. (Duarte *et al*, 2016).

In recent years, the adoption of Electronic Medical Records in public health services has expanded rapidly in several countries, due to its great potential to improve the quality, continuity, safety, and problem-solving capacity and effectiveness of actions and services in the health sector (Nguyen *et al.,* 2014; O'Donnell *et al*., 2018). However, there is evidence indicating variations in the levels of acceptance and success in its implementation (Nguyen *et al.,* 2014).

In addition, the adoption of PE in health systems modifies the workflow and introduces changes in health practices, resulting in varying impacts on the quality of care (Nguyen *et al.,* 2014). Thus, the implementation of the NP requires adaptations in the organization of work within the Family Health Strategy (FHS) and consequently demands the introduction of new professional practices, based on training and continuing education of professionals to deal with a new flow of information. (Araújo *et al*., 2014).

In Brazil, the e-SUS strategy directs and organizes the process of modernization of the national health information system, acting in the operationalization of the Health Information System for Primary Care (SISAB), with the objective of establishing a new information management model that helps municipalities and health services in the efficient administration of Primary Care (PHC). in addition to improving the quality of care offered to users (Brasil, 2018).

The NP, in addition to acting as a patient's medical record, is expected to assist in the organization of the demands of the health units, in the management of the professionals' agendas and in the notification of the procedures performed in the SIA/SUS. Thus, implementation in the SUS should promote an improvement in the quality of data recorded by family health teams, simplify the process of recording information, and reduce underreporting (Thum *et al*., 2019).

In addition, the NP allows the recording of individual characteristics of users, and the consolidation of data related to health problems and services by attributes of people, groups and populations, at the municipal, regional, state and national levels. From the implementation of the electronic medical record in the SUS, the monitoring of the health situation and financial management could be qualified through the facilitated production of care reports, situational diagnoses and epidemiological studies. Although it is not implemented in all health services in the national territory, there is an effort by the Ministry of Health (MS) to institutionalize it. (Toledo *et al*., 2021)

A survey carried out in the city of Horizonte-CE, with 98 health professionals, showed through their answers that the implementation of the NP brought positive results with regard to possible contributions to the improvement of the health services provided and that its installation was essential for an improvement in the quality of care provided by health service users (Rodriguez *et al*, 2023). This study also reports other possibilities for using the electronic medical record, such as scheduling by appointment, monitoring and analyzing data for decision making, making care more dynamic and patient care management more efficient and effective. (Rodriguez *et al*, 2023).

The Ministry of Health's initiative to offer a 100% public electronic medical record – the Electronic Citizen's Medical Record – of the e-SUS deserves to be highlighted, as it represents an important step towards building stronger primary and secondary care (Pilz, 2016). However, there are still significant challenges to the implementation and effectiveness of electronic medical records in the SUS. (Toledo, 2021).

Among them, the resistance of health professionals is a prominent barrier, often related to the lack of adequate training, insecurity in facing new technologies and the initial increase in the workload of adapting to the system. In addition, the costs associated with installing and maintaining technological infrastructure (such as acquiring equipment and ensuring connectivity in remote areas) also become a barrier, especially in smaller cities with limited resources. The lack of standardization of systems and limited interoperability between different platforms also hinder the integration of data between care and health networks, compromising the effectiveness and continuity of care (Toledo, 2021).

The use of technology to improve the regularization of dental queues has great potential to optimize services in the SUS. Integrated systems and digital platforms can be used to map the demand for dental services in real time, prioritizing more urgent cases and ensuring a more efficient allocation of resources. These innovations, related to the training of professionals for the use of digital tools, offer promising prospects for improving the efficiency, equity, and quality of dental services. (Navarro, 2024)

Professional training and integration between all levels of care through the collaborative use of electronic medical records are fundamental for improving public health. This integration facilitates the sharing of information, allows for more continuous and personalized care and increases the efficiency of the system, reducing duplication and promoting more inclusive and committed care. (Toledo, 2021)

FINAL CONSIDERATIONS

It is concluded that the regulation of queues in secondary care in dentistry in Brazil is a challenge that requires the integration of technologies, such as the electronic medical record, to optimize the management of services in the Unified Health System (SUS). Despite the advances provided by the Smiling Brazil program and the creation of Dental Specialty Centers, the overload in demand, the lack of trained professionals and structural limitations compromise the efficiency of care. Thus, the adoption of electronic medical records, when implemented with professional training and adequate infrastructure, represents a crucial tool to improve communication between levels of care, ensuring continuity of care and promoting a more equitable and problem-solving oral health system.

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