

## Hospital Dentistry and the participation of the dental surgeon in the multidisciplinary team in tertiary care

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**Abstract:** This work aimed to survey the role of dentistry within multidisciplinary teams in hospital environments, through the analysis of requests for dental care evaluations in a hospital in Belo Horizonte. This study analyzed 137 requests for dental care evaluations, sent between February 2015 and February 2018. All requests described in dental care referrals were evaluated and grouped in: pathological conditions, request for review, symptoms, oral hygiene and other observations. The data were recorded in an Excel for Windows program and presented as absolute and percent values. Most patients were male (70%), with an average of 54 years ( $\pm 19.88$ ). The descriptions requesting dental care referrals amounted to: pathological conditions (n=98), request for review (n=19), symptoms (n=20), oral hygiene (n=10), and other observations (n=21). The five most common expressions in the requests were "poor dental condition", followed by "dental care evaluation", "toothache", "mucosal lesions", and "tooth mobility". It could be concluded that, over a two-year period, an increase in requests for dental care evaluations, though few, could be observed, as compared to the total admissions in the same period. The growth in demand for dentists may represent the recognition of the need for their integration within the hospital staff, even if the concept of a multidisciplinary team remains unclear.

**Keywords:** Oral health. Dental service, hospital. Dental care.

Date of Submission: 13-05-2020

Date of Acceptance: 25-05-2020

### I. Introduction

Hospital infections, for example, are considered an important problem of public health and a significant cause of the increase in mortality and hospital costs. It is known that one of the most commonly found infections in hospitalized patients is the respiratory tract and the literature shows the direct association between biofilm oral and these respiratory infections [4], [5], [6].

Care with oral hygiene and prevention opportunistic infections are related to mobility to perform the correct techniques hygiene and self-perceived ability individual regarding the changes present in the cavity oral. This autonomy for self-care is found often compromised in patients hospitalized [7], [8].

Care for hospitalized patients depends on the interaction of multiprofessional work, result of the sum of small partial care que se complementam. Existe, no entanto, uma dificuldade em se estabelecer funções e delegar responsabilidades, o que resulta em uma sobrecarga no processo de gerência de um hospital. Portanto, tornase um desafio coordenar adequadamente uma equipe tão diversificada e especializada de profissionais da saúde [9].

Apesar de se saber da importância da intervenção odontológica no contexto hospitalar e das políticas públicas em saúde determinarem a participação do cirurgião-dentista nos três níveis de atenção à saúde da população, a presença desse profissional na equipe hospitalar é ainda muito restrita [3], [10].

When it comes to the hospital environment, the promotion of oral health aims at assistance humanized and integral to the patient using hospitalization, providing knowledge and motivating you and your companions in the generation good habits [11]. These actions have been shown to important in incorporating the hygiene habit patients' oral care to the hospital routine, reducing dental biofilm and, consequently, the risk infections from the oral microbiota [12].

Furthermore, it is already known that most diseases systemic symptoms present oral manifestations that predispose to the development of processes pathological, making the health-disease balance much more fragile

It is essential that the dental surgeon is able to work in tertiary care and the present study will collaborate to discuss the main demands observed in hospitalized patients and the possibilities of contribution of Dentistry in this context [13].

The aim of this study was to evaluate the participation of Dentistry, in a team multidisciplinary, in the hospital context, from the demand for dental evaluation during hospitalization, in requests interconsultation, forwarded to the Dentistry.

## II. Methods

This is a descriptive analysis study with a retrospective approach, based on the medical records. Medical records were included in the study of hospitalized patients, in whom they were requested consultations to Dentistry, during the period between February / 2015 and February / 2018.

The medical records with incomplete data that made data collection impossible or unclear requests have been excluded. Data collection was performed from these requests. Initially, data regarding the age and sex of the patients, sample characterization. All

the requests described in inter-consultations, sent by the doctors, the Dentistry team. The descriptions were grouped by their common characteristics and analyzed according to the group in which most fit: pathological conditions, request assessment, symptoms, oral hygiene and other comments.

The data obtained were recorded and tabulated Excel for Windows spreadsheets for facilitate description and grouping, and presented in absolute and percentage values.

## III. Results And Discussion

In the period between February / 2015 and February / 2018, a total of 137 patients were referred for evaluation dentistry, from the request for consultation formal via system. Of these, 70% were male (n = 96) and ages ranged between 19 and 99 years old with an average of 54 years old ( $\pm 19.88$ ), 51 patients (37%) aged 60 and over. Most of the individuals were hospitalized in general medical wards (66%), followed by the special care clinic (11.1%), surgical clinic (9.6%), stroke unit (9.6%), intensive care unit (3%) and obstetric clinic (0.7%).

The total number of inter-consultations increased considerably from the first to the second year performance of the Dentistry team, from 4988 requests, achieving a growth of 79.5% in relation to the previous year.

The analysis of the oral condition described in interconsultation requests is exposed in table 1, grouped according to characteristics common and quantified in relation to the number of times the expressions were used. THE most frequent expression was "teeth in poor condition conservation" cited 36 times, representing 39.8% of evaluation requests and allocated to the group pathological conditions, with 98 (58.3%) citations. In some cases there was no description of the reason for the interconsultation request, being requested only one dental evaluation (19 requests).

**Table 1** - Description of the absolute and relative frequency of requests sent to the dental team, 02/2015 to 02/2018.

CONDIÇÃO BUCAL (terminologia utilizada nas solicitações)	Frequência		Total	
	n*	%	n	%
<b>CONDIÇÕES PATOLÓGICAS</b>				
Dentes em mau estado de conservação, condição dentária ruim, dentição precária, cárie,	39	39,8		
Doença periodontal, dentes com mobilidade, risco de queda, risco de aspiração, dentes bambos, sangramento bucal	24	24,5		
Lesões de mucosa	13	13,3	98	58,3
Boca séptica, complicações infecciosas, infecção foco cavidade oral	8	8,2		
Abscesso, edema, celulite	8	8,2		
Trauma, fratura de dentes	6	6,1		
<b>SOLICITAÇÃO DE AVALIAÇÃO</b>				
Avaliação odontológica (sem especificação)	19	100	19	11,3
<b>SINTOMAS</b>				
Dor de dente	16	80		
Dor em mucosa, em articulação temporomandibular, na face,	3	15	20	11,9
Dificuldade na mastigação	1	5		
<b>HIGIENE BUCAL</b>				
Higiene oral precária, higiene oral insatisfatória	10	100	10	6,0
<b>OUTRAS OBSERVAÇÕES</b>				
Exodontia, extração dentária, remoção de sutura	10	47,6		
Avaliação de prótese, prótese mal ajustada, prótese quebrada, confecção de prótese	8	38,1	21	12,5
Halitose	2	9,5		
Sialorreia	1	4,8		

\*Mais de uma descrição por solicitação

The presence of dentistry professionals in all health care settings, including the hospital is recognized by science [10] and by right [11]. The present study confirmed the need for the insertion of the dentist not only in the ICU, but in all hospitalization spaces. The biggest volume of patients admitted during the study period was observed in general wards (66%). Taking into account gravity, in spite of the number of patients is lower, the concern with the control of oral hygiene is justified, mainly in patients admitted to Therapy Units

Intensive Care (ICU). There is evidence that oral hygiene interventions in hospital environment may reduce the incidence of pneumonia associated with mechanical ventilation (VAP) [6], [15].

There has been an increase in the demand for dental, clinical or surgical, during hospitalization [2]. The present study can confirm this trend, since the total number of inter-consultations received increased roughly from the first to the second year of performance of the dental team, reaching a 79.5% growth compared to the previous year.

This one increase can be credited to the insertion of the dental surgeon in the hospital's professional team, for through the Multiprofessional Residence, since there is no this professional in the permanent staff of this hospital. In this aspect, the residence has been systematizing a demand until then non-existent. In the present study, during the period evaluated, the total number of hospital admissions was 27,068 patients, while the number of evaluation requests sent to Dentistry corresponded to only 0.5% of the total.

When it comes to the importance of Dentistry in the hospital environment, you cannot fail to mention your role in pain relief and promoting quality of life. In the present study, the request for inter-consultation "dental pain" was among the main requests, grouped into symptoms, along with pain mucosa, pain in the temporomandibular joint or pain in the face (20 requests). Studies demonstrate that the presence of painful symptoms and health compromised oral health significantly affect quality of life and this impact seems to be more severe in systemically compromised patients or hospitalized [14].

However, despite the literature showing the importance of inserting the dentist in the hospital context, with research in which has demonstrated the influence of oral condition on the evolution of hospitalized patients, this practice is still faces some obstacles. Among them we can mention the low priority of the dental procedure and oral care in the face of other problems presented by the patient, [15], [17], in addition to a certain prejudice regarding dental practice in the hospital environment [2].

The demand for the dental surgeon tends to grow, especially when it is inserted in the practice of a hospital team, as in this study. Compared to this picture, two problems can be pointed out. The increase in demand is not accompanied by understanding of what a team is multidisciplinary, with the prevailing thinking of a better division of tasks and observed, in an evaluation with about 400 nurses active in hospitals and public health care to health, that only 0.25% of respondents worked with the dentist in their team. [3]

Despite the insertion of Dentistry, seem discreet and the literature on the role of the dental surgeon in the hospital environment is still scarce, it is evident that the demand for this professional in this context will become bigger and bigger. Therefore, it is up to the dental surgeon the responsibility to improve and be able to act in this aspect of Dentistry which is in fact integrated with multi-professionality with common goal of greater benefits to patients.

#### **IV. Conclusion**

The present study demonstrated that, despite the number of requests for dental evaluation seem small compared to the amount of hospitalizations in the same period, it can be observed that the demand for the professional grew significantly, which points to the recognition of the need for performance of the dentist, on the part of the other professionals.

Problems such as caries, dentistry, periodontal disease, tooth mobility, oral infections and others started to awaken among hospital professionals the need for evaluation specifies what motivated the referral demands in this regard, to the dentistry team. Oral problems started to bother professionals from different areas of the team.

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Gardene Paiva MAGALHÃES, et. al. "Hospital Dentistry and the participation of the dental surgeon in the multidisciplinary team in tertiary care." *IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)*, 19(5), 2020, pp. 21-24.