

National evaluation of reference dental centers for the care of patients with special needs

Avaliação nacional dos centros de referência odontológica para atendimento de pacientes com necessidades especiais

Evaluación nacional de los centros de referencia odontológica para atención de pacientes con necesidades especiales

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This study aimed to evaluate the number of Odontological Specialty Centers (CEOs) qualified as part of the "Network of Care for People with Disabilities" (RCPD-CEO), and whether this number is adequate to cater for the demand of patients with special needs (PSNs) in each capital. This is a cross-sectional, quantitative, and normative-evaluative study, of the relation between the number of CEOs and the number of PSNs in the Brazilian capitals in 2017. According to the Ministry of Health, there are 133 CEOs in the Brazilian capitals. Among these, only 79 are qualified to care for the patients with special needs. The Brazilian Midwest had the most centers offering attention to PENS (87.5%), and the south, the least (11.1%). The results suggest the need to increase the number of CEOs that attend PENS, as to integrally and universally assist the Brazilian population in their oral health needs, as well as to diminish the waiting time of users and their need to go to other cities or states in order to be treated.

Descriptors: Oral health; Health information systems; Dental staff.

O presente estudo teve como objetivo avaliar nas capitais brasileiras a quantidade de Centros de Especialidades Odontológicas (CEOs) habilitados como "Rede de Cuidados à Pessoa com Deficiência" (CEO-RCPD), e se esse número é compatível para atendimento da demanda existente de pacientes com necessidades especiais (PNEs) em cada uma das capitais. Trata-se de um estudo transversal, quantitativo, de caráter avaliativo normativo da relação entre o número de CEOs e o número de PNEs das capitais brasileiras no ano de 2017. De acordo como Ministério da Saúde, o Brasil possui 133 CEOs atuando nas capitais brasileiras. Dentre estes, apenas 79 estão habilitados a atender a demanda dos pacientes com necessidades especiais. A região Centro-Oeste foi a que apresentou a maior oferta de atendimento a PNEs nos CEOs (87,5%), e a região Sul, a menor (11,1%). Os resultados sugerem a necessidade de aumentar o número de CEOs que atendam a PNEs, de forma a assistir integral e universalmente a população brasileira em suas necessidades de saúde bucal, bem como reduzir o tempo de espera dos usuários e a necessidade de deslocamento para outros municípios ou Estados.

Descritores: Saúde bucal; Sistemas de informação em saúde; Recursos humanos em odontologia.

El presente estudio tuvo como objetivo evaluar en las capitales brasileras la cantidad de Centros de Especialidades Odontológicas (CEOs) habilitados como "Red de Cuidados a la Persona con Deficiencia" (CEO-RCPD), y si ese número es compatible para la atención de la demanda existente de pacientes con necesidades especiales (PNEs) en cada una de las capitales. Se trata de un estudio transversal, cuantitativo, de carácter evaluativo normativo de la relación entre el número de CEOs y el número de PNEs de las capitales brasileras en el año de 2017. De acuerdo con el Ministerio de la Salud, Brasil posee 133 CEOs actuando en las capitales brasileras. Entre estos, solo 79 están habilitados para atender la demanda de los pacientes con necesidades especiales. La región Centro-Oeste fue la que presentó la mayor oferta de atención a PNEs en los CEOs (87,5%), y la región Sur, la menor (11,1%). Los resultados sugieren la necesidad de aumentar el número de CEOs que atiendan a los PNEs, de forma a asistir integral e universalmente a la población brasileras en sus necesidades de salud bucal, así como reducir el tiempo de espera de los usuarios y la necesidad de traslado para otros municipios o Estados.

Descriptores: Salud bucal; Sistemas de información en salud; Personal de odontología.

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INTRODUCTION

According to the directives, principles and functions of the Unified Health System (SUS), in 2003, the National Policy of Oral Health was created. Its main objective was reorganizing a series of actions in oral health targeted at citizens of all ages, broadening access to free odontological treatments to Brazilians¹.

Although the odontological treatment improved year after year, it was found that the demand for services and specialized treatment, which could not be executed in primary care, was increasingly higher:

"With the expansion of the concept of primary care, and the consequent increase in the offer of diverse procedures, there is also a growing need for investments that propitiate increasing the access of secondary and tertiary levels of attention. To confront the challenge of broadening and qualifying the offer of specialized odontological services, the Center for Odontological Specialties - CEO - was created"
Directives of the National Policy of Oral Health¹.

In the year of 2004, the Centers of Odontological Specialties — CEO — were created. They are classified as Specialized Clinics or Specialty Outpatient Clinics, and currently offer to the population that originates from Primary Care, the following specialties: Periodontics; Oral diagnostic with emphasis on early diagnoses and detection of oral cancer; Minor Oral Surgery; Endodontics; and Attention for Patients with Special Needs².

Attention in the CEOs is scheduled, after the patient is referred by a professional from the primary care (ESF), who evaluates the real need for referral in more complex cases³.

The CEOs can be categorized in three types: CEO type I (three simultaneous patients), CEO type II (four to six patients) and CEO type III (at least seven patients). According to the number of professionals in each CEO, there is much variability, according to the demand and the local needs of each Municipality or Unit, but all of them must work 40 hours per week⁴.

The implantation of CEOs is a relevant strategy, and aims to guarantee the integrity of care in the odontological field. Not only the implantation of these medium complexity (or

secondary attention) units is important for the oral health of Brazilians to continuously increase, but the incentives by the federal government, including budgetary ones, are paramount for the advance and constant improvement of facilities and equipment used in the CEOs⁵.

To generate this advance, the National Program of Improvement to Access and Quality (PMAQ) was created in 2011, and has been used ever since by the Oral Health Teams in primary care. According to the Ministry of Health, the PMAQ is a program that covers the entire country, and aims to promote better access and quality to health care⁶.

Since 2013, the PMAQ has also been expanded to include the CEOs, a relationship which is called PMAQ-CEO. With the adhesion to the program, the teams start to receive 20% more of the resources designated for each participant team. After an external evaluation, the teams may lose the benefit, keep it, or increase it to 60% or 100%, according to their performance. That means that a type I odontological center, which receives R\$ 8,250, will start to receive R\$ 9,900, whereas the CEOs type II will receive R\$ 13,200 and the units type III will go from R\$ 19,250 to R\$ 23.100⁶.

Still in 2012, the Network of Care for People with Disabilities was created, through decree GM/MS n. 793, from April 24⁷, which aims to:

"Create, amplify and articulate the health care units for people within the Unified Health System (SUS) who have disabilities, whether these are permanent or temporary; progressive, regressive, or stable; intermittent or continuous".

Through this Network of Care for People with Disabilities (RCPD), the Specialty of Attention for Patients with Special Needs — PSN — started to be a part of all CEOs in the national territory, including the creation of incentives for the CEOs that adhere to the RCPD, which, up to this day, are as follows: R\$ 1,650.00 for type I CEOs; R\$ 2,200.00 for CEOs type II and R\$ 3,850.00 for CEOs type III⁷.

Any CEO in the country may require this national incentive. To do so, they must meet the following requirements⁷:

- Offer exclusive care for PSNs for at least 40 hours a week;
- Offer support to the Primary Care Oral Health Teams when it comes to caring and referring people with special needs that require specialized odontological care;
- Maintaining regular and consistent feeds of information regarding the production of the CEO through the Outpatient Information System of SUS (SIA/SUS), using as an instrument for registration the Individual Bulletin of Outpatient Production (BPA-I) for all procedures conducted on people with disabilities;
- Maintaining the minimal monthly production demanded by Decree nº 1,464/GM/MS, from June 24, 2011; applying the additional resources from the Ministry of Health due to the incorporation of the CEO to the Network of Care for People with Disabilities exclusively to this end;
- Guaranteeing accessibility and mobility conditions for people with disabilities within the dependencies of the CEO;
- Providing the CEOs with oral health professionals who are qualified to offer odontological care for people with disabilities⁷.

After the city or state management requires it, the proposition is sent to the General Coordination of Oral Health/DAB/SAS of the Ministry of Health (MS) and to the Bipartite Intermanagement Commission (CIB). After that, the MH publishes a specific decree, changing the qualification of the CEO to CEO-RCPD⁷.

According to Freitas et al.⁹:

"The implantation of CEOs is a relevant strategy which aims for the integral offering of odontological care as a type of health service which represents, should be evaluated, targeting the continuous improvement of the quality of the offered service".

Therefore, the objective of this study was to evaluate the number of CEOs in the Brazilian capitals, how many of those are qualified as CEO-RCPD, and whether this amount is adequate to care for the target population with special needs.

METHOD

This is a cross-sectional, quantitative, and normative-evaluative study, of the relation between the number of CEOs and the number of PSNs in the Brazilian capitals in 2017.

According to the Ministry of Health, in 2017 there were 133 CEOs active in the Brazilian capitals. Among these, only 79 were qualified to care for the patients with special needs.

To choose which cities to analyze, the following inclusion criteria were adopted: all capitals of the Brazilian states and the Federal District; CEOs types I, II and III, and CEOs which were listed in the database of the Department of Primary Care (DAB) in 2017.

The sample included 27 cities (Brazilian capitals), each of which had from 1 to 28 CEOs, whether they were qualified to care for PSNs or not. They were grouped by region, according to Table 1.

Table 1. Researched Regions with CEOs according to the DAB. Brazil, 2017.

Region	nº. capitals	General CEOs	CEOs with PSN
Midwest	04	24	21 (87.5%)
Northeast	09	32	21 (65.6%)
North	07	21	08 (38.0%)
Southeast	04	47	28 (59.5%)
South	03	09	01 (11.1%)

These data were obtained through official websites of the Brazilian Institute of Geography and Statistics (IBGE) and the SUS, and tabulated in a spreadsheet in Microsoft Excel 2017, through which data was consolidated according to the capital and the region of the country, so that it could be

analyzed per capital or by sub-groups of the 5 Brazilian regions. After tabulation, a statistical analysis was conducted through IBM's SPSS software, version 20.0.

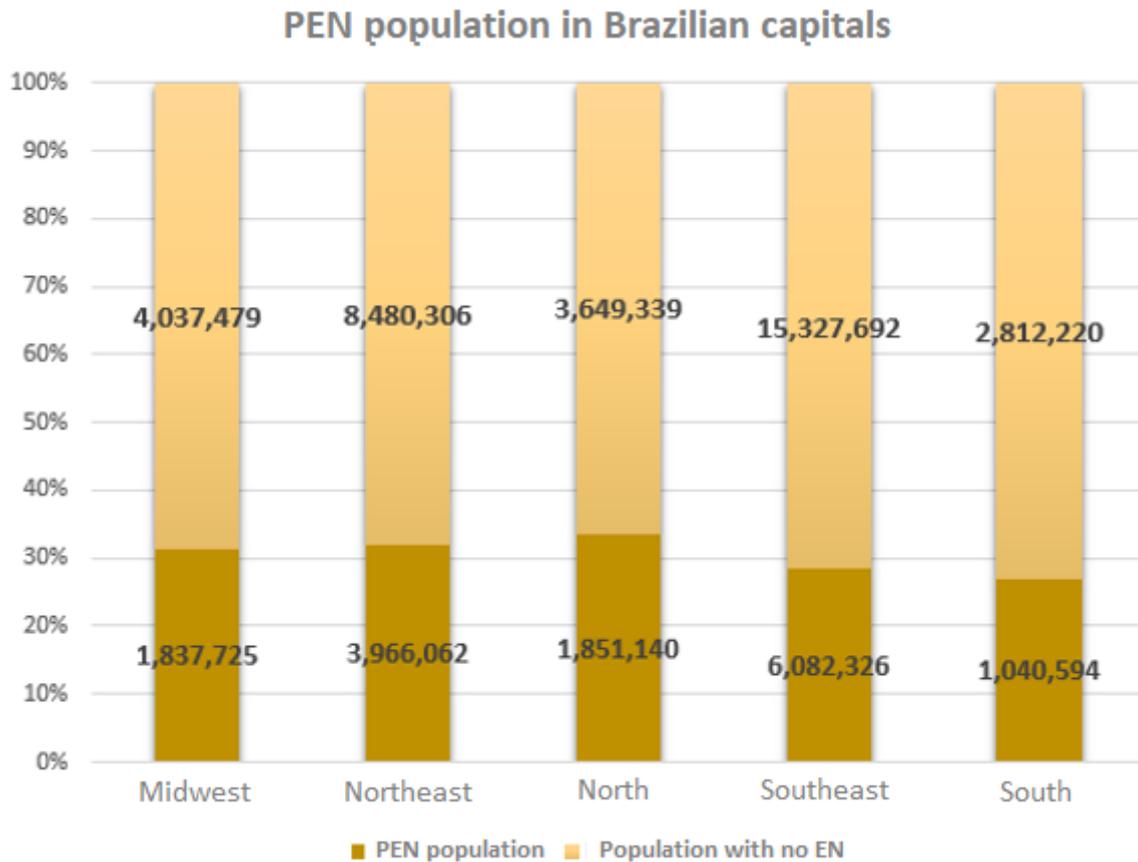
Among the independent variables, the following were considered: population of the capital according to IBGE 2016 estimates;

people with no disabilities; people with at least one type of disability; percentage of people with special needs; number of CEOs that are part of the program "Viver Sem Limites" (Living Without Limits).

RESULTS

Chart 1 shows the relationship between the population without any type of disability and the number of people with at least one disability in all capitals and in the Federal District, grouped in the five Brazilian regions.

Chart 1. Population with and without special needs. Brazil, 2017.



Source: Brazilian Institute of Geography and Statistics - IBGE.

Chart 1 shows that the population from the capitals in the Brazilian South and Southwest represents the lowest proportion of people with at least some type of deficiency. They represent less than 30% of the population.

On the other hand, the population with disabilities in the capitals of all other regions is more than 30% of the total population, especially in the North, where almost 35% of the population has at least one disability when compared to the total population.

Chart 2 shows the amount of Odontological Specialty Centers in Brazilian capitals, per region. It was found that only the Midwest the number of CEOs which are specialized in patients with special needs is almost equivalent to that of CEOs which do not

(little more than 20). Therefore, it can be noted that they are not qualified to care for this part of the population. On the other hand, this proportion is much worse in the south, where there are much less CEOs qualified to care for people with special needs than regular ones.

Through an analysis of the capitals, and considering that for each 500 thousand people one qualified CEO is needed, all capitals of the Midwest, including the Federal District, have an appropriate number of CEOs PSN to care for the population.

A similar situation is found in the northeast of the country. Only the capitals of the states Rio Grande do Norte and Maranhão have less PSN CEOs registered in the DAB

database than necessary to care for their population of people with disabilities.

In the north, the number of PSN CEOs in the capitals is not proportional, as some have much more than necessary for the number of people with disabilities, while others are lacking in this aspect. The capitals Boa Vista, Manaus and Palmas stand out as the ones which have less qualified CEOs than necessary, while Porto Velho and Macapá have more than twice the amount than their population demands.

In the region which contains two of the biggest Brazilian cities, the southwest, the city of São Paulo alone, which has nearly 3,500,000 people with at least one type of disability, theoretically needing 7 qualified

CEOs, has 28. On the other hand, all other capitals in the southwest have less qualified CEOs than needed to care for their demand of people with special needs.

In the south, only the city of Florianópolis stands out positively, while the others have a small number of qualified CEOs. Despite that fact, this amount is enough to care for their population of people with disabilities.

Chart 3 shows the capitals and the Federal District grouped according to region, the number of CEOs qualified to care for people with at least one disability per region, and how many would be needed to reach the proportion of 1 qualified CEO per 500,000 people.

Chart 2. Number of General CEOs in relation to the number of CEOs qualified to care for people with Special Needs. Brazil, 2017.

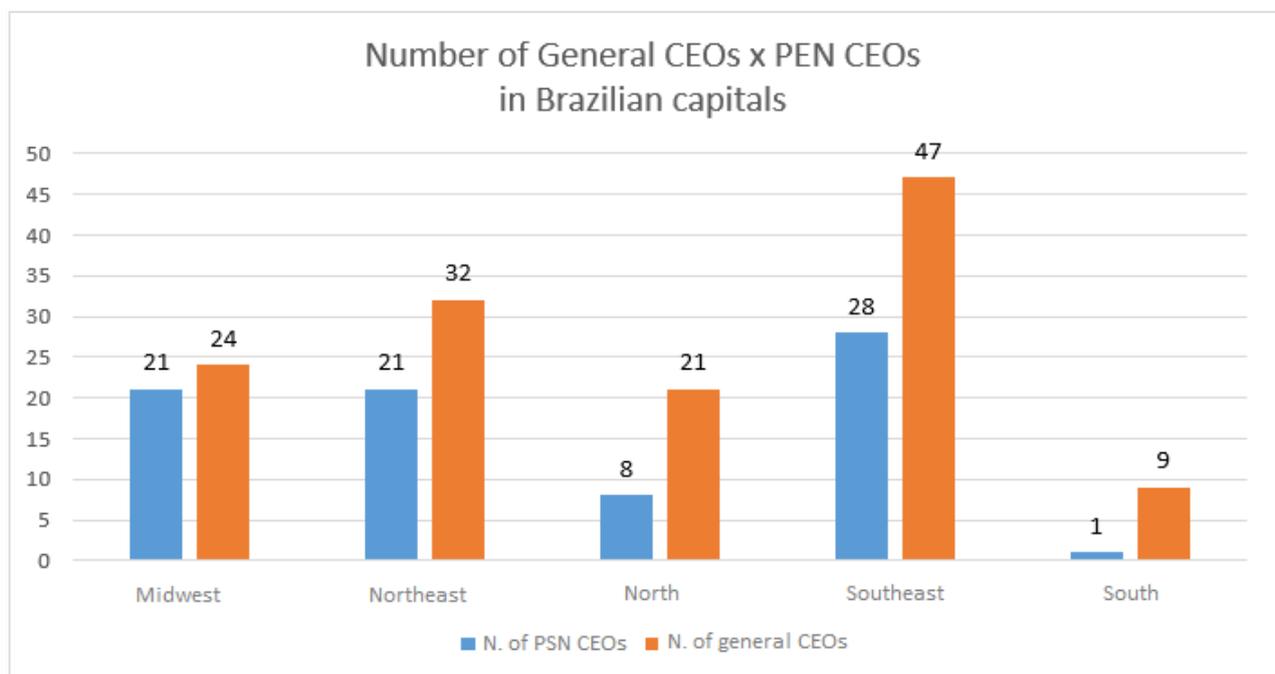
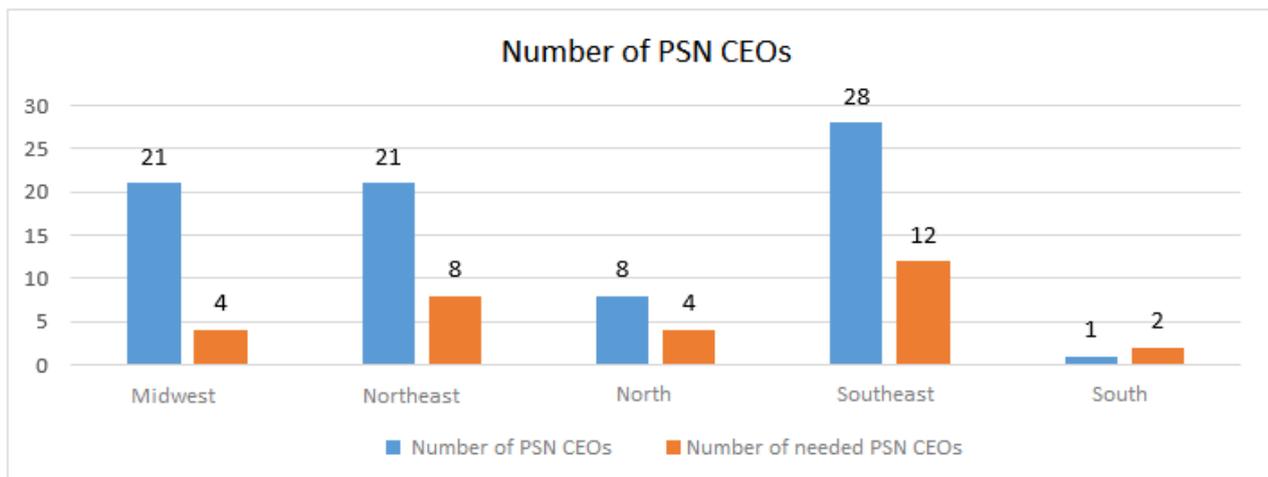


Chart 3. Ideal number of PSN CEOs to offer adequate attention in the Brazilian capitals, grouped per region.



DISCUSSION

According to Decree No. 1570, from July 29, 2004, the Ministry of Health prescribes that there should be one Odontological Specialty Center for every 500,000 residents¹⁰.

Starting from the fact that each CEO has one specialist in each field, this is considered a good number for each 500 thousand people with some type of disability¹⁰.

Brazilian Public Policies have undeniably advanced a great amount in the last decades when it comes to Odontology^{8,9,11}, with the insertion of the dental surgeon in the Family Health Strategy and their later inclusion in medium complexity services, generating better support and attention in Primary Care. However, according to this study, the reality of Brazilian capitals does not meet expectations regarding the coverage of these centers. The capitals from the north and northeast, especially, stand out. It is clear how much still need to be invested to improve odontological special care for people with disabilities.

It should also be highlighted that this study only includes state capitals, not considering big urban centers which are often in other areas of the states, and minor towns, which often do not have the structural and geographic capabilities, nor do they have the same need for a Odontological Specialty Center. In these cases, the capitals are the only place where to refer these patients.

Except in the south, all other regions have much more CEOs than needed to care for the people with disabilities. However, these centers are poorly distributed among the capitals of the regions, and as a result, the number of centers is incompatible with the number of people who need assistance.

That means that the attention services are often unused in some cities, while others offer precarious care for their population, while some do not offer any at all. In practice, that leads these last cities to have a long waiting period, frequent rescheduling and worker overload, as sometimes those without this specialty need to conduct the treatment nonetheless¹².

In the capitals where there are no CEOs that offer care for people with special needs, the users are referred to the general CEOs, and patients receive care from Endodontics, Periodontics, Surgery, or Pediatric Dentistry specialists.

CEOs that care for people with special needs are, therefore, poorly distributed. However, CEOs are known to have extremely important social roles, especially when it comes to the reduction of inequalities in the access to specialized odontological services, allowing for reductions in the morbidity as it relates to oral health¹³. Therefore, the evaluation is a tool to be emphasized to improve the working of the centers and

consequently, the health levels and the quality of life of the population.

Previous studies in the equity of the distribution of CEOs found that most implanted CEOs were grouped in sizable cities with better Human Development Indexes (HDI)^{4,14}, a result also found in this study. Therefore, the relationship between the number of people who need the centers and the distribution of these centers is still disproportionate. This phenomenon in which the offered service does not reach the entire population, was described by Hart, who named it "Law of Reverse Assistance"¹⁵.

In the cities where there are no Odontological Specialty Centers that attend people with special needs, the demand of these patients is diluted in the Primary Care and in non-qualified CEOs, when it is possible for the patient to be cared for there, or directly in high complexity services, including hospitals that offer odontological assistance. A research¹³ showed that the performance of the CEOs is influenced by types of organization, by the management of working processes and by the characteristics of the places in which they are implanted¹⁶, which justifies the results found in this study.

CONCLUSION

Medium complexity services were found to have severe shortcomings when it comes to caring for patients with special needs. The number of qualified centers in the Brazilian capitals and in the Federal District are not necessarily low, but they are poorly distributed among these cities.

Public Policies need to plan better the distribution, as do the Federal and City Governments, so that they will be adequate to the number of patients who need this type of specialized care.

That is so because, due to physical and geographic issues, this population cannot be cared for by primary care or medium complexity care if there are no specialized services.

Once more, a health policy project is being executed in an effective way, but in a way that still needs to be adjusted and to receive more investments, not only in the

capital cities (which were the targets of this study), but also in small cities, as to offer timely and quality service to this part of the population.

The CEOs have meaningfully improved the attention they offer and the amount of people they cared for since the beginning of the 2000s. These numbers grew in the following years, but do not, currently, grow in the same rate, nor are they reachable by the population who is unable to go to bigger cities, where they can find specialized treatment.

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CONTRIBUTIONS

Renato Carvalho Morais Junior took part in the conception, design, data collection and writing. **Laís Guedes Alcoforado de Carvalho** contributed in the design and writing. **Isabella Lima Arrais Ribeiro** took part in the design, statistical analysis and writing. **Ricardo Dias de Castro** contributed to the design, guidance and supervision of the article.

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