

Original Paper

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# Diagnosis of pharmaceutical service for the Specialized Component and Special Drug Program in municipalities in the Rio Grande do Sul

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Submitted: 21-05-2022 Resubmitted: 29-01-2023 Accepted: 17-03-2023

Double blind peer review

## Abstract

**Objectives:** Diagnosis of the structure, process, and result of Pharmaceutical Service for the Specialized Component and Special Drug Program carried out in municipal pharmacies, together with the Basic Component, in municipalities in the Rio Grande do Sul. **Methods:** The research is characterized by a cross-sectional study carried out in 22 public pharmacies in RS cities that dispense drugs from Specialized Component, Special Drug Program and Basic Components. Data collection addressed aspects of structure, processes, and results and was carried out through interviews, document analysis, and direct observation. Data collection took place between January and March 2020, with the aid of the Epicollectc application, which allows the capture of data through text, photos, and video entry forms. Data were extracted, coded, and analyzed using the Excel program (approval opinion in CEP/UFRGS nº 2.437.516). **Results:** In 81.8% of Pharmacies there is a specific room for the Specialized Component and 36,4% of the pharmacies have Standard Operating Procedures (SOPs). Daily temperature control of thermolabile storage locations occurs in 86.4% of locations. The monitoring record of users, in relation to clinical outcomes, occurs in 18.2% of services. Approximately 50% of the places visited claimed to guarantee the integrity of the treatments. **Conclusion:** The present study showed good results regarding structure when compared to previous research and PNAUM. In the item processes, it is necessary to advance in order to qualify the service, the follow-up to the patient, so that the results in the patient's health and quality of life are achieved.

**Keywords:** pharmaceutical service, primary health care, health services research, national drug policy, unified health care system.

## Diagnóstico da assistência farmacêutica para o Componente Especializado e Programa de Medicamentos Especiais em municípios do Rio Grande do Sul

## Resumo

**Objetivos:** Diagnóstico da estrutura, processo e resultado da Assistência Farmacêutica para o Componente Especializado e Programa de Medicamentos Especiais realizado em farmácias municipais do Rio Grande do Sul. **Métodos:** A pesquisa caracteriza-se por um estudo transversal realizado em farmácias da rede pública em municípios do RS que dispensam medicamentos dos Componentes Especializado, Básico e Programa de Medicamentos Especiais. A coleta de dados abordou aspectos de estrutura, processos e resultados e foi realizada por meio de entrevistas, análise de documentos e observação direta. A coleta ocorreu entre os meses de janeiro a março de 2020, com auxílio do aplicativo Epicollectc, que permite a captura dos dados por meio de formulários de entrada de texto, fotos e vídeos. Os dados foram extraídos, codificados e analisados no programa Excel (parecer de aprovação no CEP/UFRGS nº 2.437.516). **Resultados:** Em 81,8% das farmácias, há sala específica para atendimento do Componente Especializado e 36,4% das farmácias possuem Procedimentos Operacionais Padrão (POPs). O controle diário de temperatura de locais que armazenam termolábeis ocorre em 86,4% dos locais. O registro de monitoramento dos usuários, em relação aos desfechos clínicos, ocorre em 18,2% dos serviços. Aproximadamente 50% dos locais visitados afirmaram garantir a integralidade dos tratamentos. **Conclusão:** O presente estudo apresentou bons resultados com relação a estrutura se comparado com pesquisas anteriores e a PNAUM. No item processos, é necessário avançar para qualificar o atendimento, o acompanhamento ao paciente, para que os resultados com a saúde e a qualidade de vida do mesmo sejam alcançados.

**Palavras-chave:** assistência farmacêutica, atenção primária à saúde, pesquisa sobre serviços de saúde, política nacional de medicamentos, sistema único de saúde.



## Introduction

The Pharmaceutical Assistance Specialized Component was conceived to incorporate medications, expand coverage to new diseases and increase access by SUS users. The requirements were originated from society in general, from the National Council of Health Departments (*Conselho Nacional de Secretários de Saúde*, CONASS), from the National Council of Municipal Health Departments (*Conselho Nacional de Secretarias Municipais de Saúde*, CONASSEMS), from the Ministry of Health (*Ministério da Saúde*, MS) and from the growing number of individual lawsuits for the supply of medications<sup>1</sup>.

The Specialized Component provides comprehensive treatment for all clinical conditions contemplated in this Component, through different lines of care defined in the Therapeutic Protocols and Guidelines (*Protocolos e Diretrizes Terapêuticas*, PCDTs)<sup>1</sup>.

The Pharmaceutical Assistance Specialized Component (*Componente Especializado da Assistência Farmacêutica*, CEAF) is made up of groups of medications targeted at medium- and high-complexity care in the Unified Health System (*Sistema Único de Saúde*, SUS)<sup>2</sup>. Funding of this Component is responsibility of the MS and of the State Health Departments (*Secretarias Estaduais de Saúde*, SES)<sup>2</sup>.

In addition to the CEAF, the SES in Rio Grande do Sul (RS) offers its own list, the Special Drug Program, which makes up a group of medications and nutritional therapies for the treatment of diseases prevalent in RS that are not covered by the MS health programs<sup>3</sup>. The list of medications of this Program is defined by SES/RS Ordinance No. 670/2010. Access to these medications in RS can occur in special municipal pharmacies, to specifically serve the Specialized Component and the Special Drug Program or in pharmacies from the municipal public network, which serve the Pharmaceutical Assistance Basic Component (*Componente Básico da Assistência Farmacêutica*, CBAF)<sup>2</sup>. Funding of this Component is an exclusive responsibility of the SES/RS<sup>2</sup>.

The CEAF was organized in coordination with the CBAF to avoid overlaps and guarantee integrality of the treatments according to the lines of care established in the Clinical Protocols and Therapeutic Guidelines (PCDTs) set forth by the Ministry of Health<sup>1</sup>.

Good organization and structuring of pharmaceutical care are necessary for the implementation of pharmaceutical services aimed at promoting rational medication use. In the dispensing stage, all the information about proper use of the medication and its proper conservation is provided, contributing to preventing treatment abandonment. However, without organized structure and processes it is oftentimes not possible to provide the medication to the user with good product quality, adequate validity and safety. The professional needs to be certain that the structure is adequate and that the processes are taking place as they should to develop effective patient care<sup>1</sup>.

According to Donabedian (1990), "the evaluation regarding quality of the services depends on three components: structure, process and result<sup>4</sup>. There should be a causal relationship among them: the structure supports execution of the process, which is performed to generate results"<sup>3</sup>.

Rational medication use is the guideline and priority in the National Medications Policy (*Política Nacional de Medicamentos*, PNM). Both structure and process influence rational medication use.

PhA management emerged as one of the major governmental challenges in the health area, regardless of the assistance sphere, due to its high cost and complexity degree. It involves care, technical, logistical, technological, cultural, political, economic and social aspects, as well as low qualification of pharmaceutical services, failures in the constituent components of the PhA process, increasing demand for medications by the population, scarcity and mismanagement of public resources. Investments in physical structure, organization of processes and ongoing training of workers involved in the activities that are part of the PhA processes are the major challenges for structuring and effective implementation at the municipal level, especially in Primary Health Care (PHC)<sup>5,6</sup>.

The studies that deal with Pharmaceutical Assistance assessment are mostly targeted at the CBAF. This study intends to present the diagnosis of the structure, processes and result of the PhA for the Specialized Component and Special Drug Program, in order to contribute to devising actions to qualify the services in the RS municipalities.

## Methods

This study is related to the project entitled "Pharmaceutical Assistance Organization in Primary Care in Municipalities from Rio Grande do Sul: Structure, Process and Results", funded with resources from FAPERGS/MS/CNPq/SES/RS Call No. 03/2017 PPSUS – 2017, and approved by the UFRGS Ethics Committee under opinion No. 2,437,516.

This is a cross-sectional study with data collection conducted by means of *in loco* interviews, documentary analysis and direct observation in the loci selected to comprise the sample. The data collection instruments were questionnaires prepared from a review of the scientific literature, organized into sections and considering PhA Structure, Processes and Results.

In order to prepare the research instrument, a search for articles and other documents was performed in the following databases: MEDLINE, Embase, LILACS, SciELO, and CAPES Theses and Dissertations Catalog. Free searches in the electronic websites for the term "Specialized Component" allowed finding two TCU audits conducted in 2014 in RS and in Goiás. The details of the integrative review to develop the research instrument is described in the supplementary material.

The sample consisted of 18 municipalities where the Regional Health Coordinating Offices are located, in addition to those with more than 100,000 inhabitants, resulting in 29 municipalities that account for more than 50% of the state's population. In each participating municipality, data were collected from two municipal pharmacies- one small and the other large- with the exception of municipalities that had only one pharmacy. Specific pharmacies for the CEAF and Special Drug Program were not visited due to the collection flow established for the project approved in the PPSUS, which favored the CBAF.

Two researchers from a hired company were duly trained and conducted the interviews. The collection procedure took place between January 6<sup>th</sup> and March 13<sup>th</sup>, 2020. The interviews lasted approximately 1 hour. The software used for data collection was Epicollect. The app allows capturing data through text entry forms, which included questions and answers from the interviews with those in charge of the pharmacies, as well as photos and videos with images of documents and locations of each institution defined for evaluation. For this article, the data referring to the Specialized and Special Drug Program components were prioritized.



The data were extracted from Epicollect to a database in Excel format. The answers to the questionnaire were coded, and the data were analyzed and presented in a descriptive way via central tendency measures and frequencies.

## Results

A total of 19 municipalities were visited, including large (18), average (6) and small (5) cities. The large municipalities represented 62.1% of the sample. Eighteen (18) of them housed Regional Health Coordinating Offices (see details in the supplementary material). 22 pharmacies were visited, located in 21 municipalities, which dispense CEAF and Special Drug Program medications in the same pharmacy where CBAF dispensing takes place. The other 8 municipalities (Porto Alegre, Cachoeira do Sul, Caxias do Sul, Cruz Alta, Ijuí, Santo Ângelo, Santa Maria and Viamão) have a specific pharmacy for these components. Among them, Porto Alegre was the only one that had not yet municipalized this component when the study was conducted.

The data presented below concern the 22 pharmacies that serve the Specialized, Special Drug Program and Basic components. Of them, 81.8% have external identification and 95.5% offer accessibility.

Table 1 presents the details about the infrastructure for serving users and storing medications in all 22 pharmacies visited.

Most of the pharmacies (18) have service counters, which represents 81.8% of the cases. On the other hand, privacy separators between counters are only found in seven pharmacies (31.8%). The pharmacies that include some separator between the employee and the user account for 59.1% and the separator is made of glass in 11 (50%).

In the vast majority of the pharmacies (81.8%) there is a specific room for CEAF service. Eight pharmacies (36.4%) reported having Standard Operating Procedures (SOPs).

Twenty pharmacies (90.9%) have refrigerators, freezers or exclusive chambers to store these products. Thermohygrometers to measure temperature and humidity are found in 12 pharmacies (54.5%). Three pharmacies have their own automatic generator (13.6%). Environment humidity is measured daily in 40.9% of the institutions, whereas the refrigerator and ambient temperature measurements are carried out in 86.4% and 54.5% of the pharmacies, respectively.

A good part (72.7%) of the pharmacies have a lockable cabinet, exclusive for storing the medications included in Ordinance No. 344/98, whereas 27.3% have a lockable room and the pharmacist is in charge in 63.6%. Among the measures mentioned to prevent robberies/thefts are the existence of alarms (59.1%), locked rooms (50%) and security guards (27.3%). Of the 22 pharmacies, it was verified that 19 were not dirty, presence of dust was verified in two, and of garbage in one. Eight had empty boxes in the corridors and two of them, mold and infiltrations in the walls and roof.

Dispensing of the CEAF and Special Drug Program is carried out daily and full-time in 18 institutions (81.8%). In the others, dispensing occurs on alternated days and shifts.

In 17 pharmacies (77.3%), the clients are served both by assistants and by pharmacists. In almost all pharmacies (21 [95.5%])

**Table 1.** Characterization of the infrastructure of all 22 pharmacies dispensing the Basic and Specialized components and Special Program medications- Porto Alegre, Brazil, 2020

Infrastructure	Dispenses CEAF + CBAF N (%)
<b>Waiting line conditions</b>	
Own waiting room	18 (81.8)
The user waits to be served	
Sitting down	20 (90.9)
Standing up	2 (9.1)
<b>Conditions of the service locus</b>	
Air conditioning	19 (86.4)
Window	14 (63.6)
Fan	6 (27.3)
Drinking fountains	10 (45.5)
Bathrooms	16 (72.7)
Accessible bathrooms for the users	11 (50.0)
Clients are served sitting down	10 (45.5)
<b>Conditions of the locus for the employees</b>	
Exclusive drinking fountain	12 (54.6)
Exclusive bathroom	20 (90.9)
Exclusive space for snacks/drinks	17 (77.3)
Place to store belongings	20 (90.9)
<b>Washable items</b>	
Floor	22 (100.0)
Ceiling/Lining	13 (59.1)
Walls	17 (77.3)
<b>Waterproof items</b>	
Floor	16 (72.7)
Ceiling/Lining	11 (50.0)
Walls	12 (54.5)
<b>Ventilation of the dispensing stock area</b>	
Air conditioning	20 (90.9)
Windows	16 (72.7)
Fans	4 (18.2)
<b>Medication storage conditions</b>	
Protected from direct sunlight	22 (100.0)
Away from floor and walls	19 (86.4)
Maximum box stacking	19 (86.4)
<b>Organization of the medications</b>	
Alphabetical order	1 (4.5)
No order	22 (100.0)
According to expiration date	22 (46.8)
<b>Total</b>	

the services by assistants are supervised by the pharmacist. In 7 (31.8%) of the pharmacies visited, only the pharmacist opens the administrative process whereas in another 5 (22.7%) this task is in charge of the assistant. In the 10 (45.5%) remaining pharmacies, the process is opened by both: assistants and pharmacists. In most of the pharmacies (18 [81.8%]), the process is opened under the pharmacist supervision.

When asked whether organization of the processes was in line with the state protocol's requirements, most of the interviews answered that it was (81.8%). However, when asked to specify the items served, only nine pharmacies (40.9%) organize the processes appropriately, including the following: complete filling-in of the report and registration of the user and responsible person with the appropriate signatures; gathering of the

requested documents, forms, exams in order, and receipts for delivery of medications to the users; in addition to archiving the processes in chronological order. The main failure in organization of the processes is non-presentation of the medication delivery receipts.

Table 2 shows the characterization of the processes related to dispensing in the CEAF, specifically.

**Table 2.** characterization of the processes related to dispensing in the CEAF in all 22 pharmacies visited, Porto Alegre, Brazil, 2020.

Process	N (%)
Presence of an exclusive pharmacist for CEAF cases	12 (54.5)
Way to transfer information on the procedures defined in the PCDTs to those involved in the service.	Writing 15 (68.2)
	Verbal 17 (77.3)
	Other 1 (4.5)
Disclosure to users about access to medications from other components (basic and strategic).	21 (95.5)
Disclosure of the service to sectors of the health care network	13 (59.1)
Organization of the processes according to the state protocol.	18 (81.8)
Monitoring record in relation to the clinical outcomes.	4 (18,2)

PCDTs = Clinical Protocols and Therapeutic Guidelines. Source: Prepared by the authors.

The patients are notified that the medication is out of stock in 20 pharmacies (90.9%) (Table 3). In addition to passing on the information at the time of dispensing, other strategies are used, such as telephone service verified in 5 pharmacies, posters in the pharmacy on 3 occasions and websites on 2 occasions.

One respondent mentioned that 20% of the specialized component medications were out of stock. Of the 10 (45.5%) remaining pharmacies, the number of out-of-stock medications ranged from 2 to 208, resulting in a mean of 48.3 (Table 4).

According to Table 4, eleven pharmacies assert guaranteeing integrality of the treatments. However, the answers regarding other data related to integrality, such as supply and lack of medications and monitoring record of the clinical outcomes, do not confirm this information in some cases.

**Table 3.** Characterization of the results related to drug dispensing in the Specialized Component and Special Drug Program (22 pharmacies). Porto Alegre, Brazil, 2020.

Results	N (%)
Number of users served in dispensing in this component/day.	30 a 300
Number of pharmacies that notify the patients that the medication is out of stock only at the time of dispensing.	20 (90.9)
Number of pharmacies that offer all the medications from the Specialized and Special Drug components.	17 (77.3)
Number of pharmacies that assert guaranteeing integrality of the treatments.	11 (50)

Source: Prepared by the authors.

**Table 4.** Variables related to treatment integrality guarantee by municipality. Porto Alegre, Brazil, 2020.

Treatment integrality guarantee	Municipality	It offers all the medications from the CEAF and Special Drug Program	Number of CEAF and Special Drug Program out-of-stock medications	It records or monitors the clinical outcomes	
Yes	Alvorada <sub>1</sub>	Yes	20%	No	
	Alvorada <sub>2</sub>	NS	NS	No	
	Bento Gonçalves	Yes	NS	No	
	Canoas	Yes	NS	No	
	Gravataí	No	70	No	
	Novo Hamburgo	No	NS	No	
	Palmeira das Missões	Yes	NS	No	
	Passo Fundo	Yes	NS	Yes	
	Rio Grande	Yes	99	No	
	Santa Rosa	Yes	33	Yes	
	Sapucaia do Sul	Yes	NS	No	
	No	Alegrete	Yes	NS	Yes
		Bagé	Yes	2	Yes
		Cachoeirinha	No	208	No
Erechim		Yes	NS	No	
Estrela		Yes	NS	No	
Frederico Westphalen		Yes	3	No	
Osório		Yes	10	No	
Pelotas		Yes	15	No	
Santa Cruz do Sul		No	18	No	
São Leopoldo		Yes	25	No	
Uruguaiana	Yes	NS	No		

NS = Does not know/Did not answer Source: Prepared by the authors.





## Discussion

The survey carried out points to favorable data in relation to infrastructure and ambience of the pharmacies in terms of accessibility. Practically all the institutions visited (95.5%) have access ramps. The pharmacies must allow access for people with disabilities, providing access ramps, doors with enlarged dimensions, lever-type door handles and grab bars<sup>6</sup>.

Ambience occupies a space of fundamental importance in services. The environment is part of the relationship between employees and users/patients. This relationship can be eased or impaired, depending on the physical space and environment offered<sup>7</sup>. A first fact that draws the attention is that not all pharmacies visited (81.8%) have external identification. This happens, for example, when a pharmacy works within the Health Department. Lack of identification can lead users to understanding that they fetch their medication at the Health Department and to forgetting that the pharmacy is an important link in the medication use process and in health treatments. For a comfortable environment, in a pharmacy there are elements that act as service modifiers and qualifiers, such as: service identification plates and flow signals, absence of railings or glass in the communication counters; availability of tables and chairs for service; and treatment of external areas<sup>7</sup>.

The percentage of institutions that provide toilets to their users was lower in pharmacies from in the Rio Grande do Sul municipalities (72.7%) than the one observed in the Medication Access and Use National Survey (81%)<sup>9</sup>. In addition to that, the local survey found that 50% of the institutions have an accessible bathroom. As for the availability of drinking fountains, they were found in 45.5% of the RS municipalities and in 68.2% of the municipalities visited in the Medication Access and Use National Survey (*Pesquisa Nacional sobre o Acesso e Utilização de Medicamentos*, PNAUM)<sup>9</sup>.

The Brazilian health system underwent important transformations with the creation and regulation of the Unified Health System (SUS). The SUS principles, social participation and decentralization, inspire humanization of the services, allowing for a more satisfactory result<sup>10</sup>. Practically all pharmacies (90.9%) provide seats in the waiting room for users; this percentage is slightly higher than the 80.2% observed in the PNAUM<sup>9</sup>. The percentage of pharmacies that perform sitting service is still low (45.5%), but higher than the one observed in municipalities from the entire country (23.7%)<sup>9</sup>.

Approximately 81.8% of the pharmacies visited have counters for serving the clients. However, only in 31.8% there is a separator between the counters to allow for greater privacy. On the other hand, the existence of a separator between the user and the attendant was verified in 59.1% of the pharmacies, usually made of glass (50%). According to the PNAUM, in nearly 40% of the pharmacies, this separator is a grid. Separators for communication and interaction with the patient can make it difficult to understand the correct way to use the medication, in addition to generating embarrassment in the user when requesting clarifications. One reason for their existence is protecting workers against violence from dissatisfied users<sup>9</sup>. With the COVID-19 pandemic, the glass separator came to be seen as a protection against communicable diseases<sup>11</sup>. All this information reveals that pharmacies still have to go through adaptations to better welcome users, without separators between the parties and with a condition of privacy, allowing sitting service to provide adequate and respectful information exchange, valuing the patient in a unique way.

Employees need adequate conditions and comfort in their work environment. The survey revealed that 90.9% of the pharmacies have an exclusive bathroom for employees, that only 54.6% have an exclusive drinking fountain, that 77.3% have an exclusive space for snacks and that 90.9% have a place to store belongings. The percentages show that, in general, the employees have good infrastructure conditions, but there is a need for improvements in some aspects.

Another important aspect for the ambience is air conditioning. The state of RS presents large temperature variations throughout the year. The presence of air conditioning, observed in most institutions (86.4%), provides comfort to users and employees alike, in addition to maintaining stability of the medications, which is the case in 90.9% of the storage rooms. Most pharmacies (72.7%) have windows. The Coronavirus pandemic has shown the importance of natural ventilation. However, to prevent the entry of insects, it is necessary to install protective screens, which only occurs in 13.6% of the pharmacies.

In general, the institutions presented good hygiene conditions. The floors are washable in all pharmacies. In terms of impermeability, 50% of the institutions have ceilings/linings that are not waterproof, as evidenced by the presence of mold and infiltration in 9.1% of them. In the PNAUM, the presence of infiltrations, mold on the walls, dripping on the ceiling, cracks in the floor, as well as lack of light and ventilation were observed in the institutions<sup>9</sup>. The following can be mentioned among the required measures: allocating medication storage areas only for this purpose; using waterproof finishing material, washable and resistant to the cleaning and disinfection process on the ceiling, floors and walls; and using smooth, durable surfaces<sup>12</sup>.

Since 2012, the Pharmaceutical Assistance Qualification National Program (*Programa Nacional de Qualificação da Assistência Farmacêutica*, QUALIFAR-SUS) aids municipalities with financial support for structure actions<sup>13</sup>. Of the 21 municipalities that serve the CEAF and Special Drug Program together with the CBAF that were interviewed, three (Canoas, Erechim and Passo Fundo) are not contemplated in QUALIFAR-SUS. There are no major differences in results between these municipalities and the others that have QUALIFAR-SUS; perhaps, as they are already well-structured they did not request support from the Program.

The percentage of SOPs (36.4%) observed in the sample is higher than the one observed by Blatt (2005) in Santa Catarina (9%)<sup>14</sup>. Activities such as receiving, dispensing and storing medications and opening an administrative process can be described in SOPs, which are important tools that are easy to prepare and implement. These documents are highly recommended as they ease training and improve quality of the tasks by helping reduce errors.

Regarding storage of the medications, the pharmacies were careful in terms of protection from the action of sunlight, storing medications away from the floor and walls and respecting the maximum box stacking defined by the industry. Good part of the pharmacies (86.4%) store the medications in alphabetical order, when the expected is 100%. In Santa Catarina, 53% of the municipalities store the medications without following any order<sup>15</sup>. Provision according to validity (FIRST IN/FIRST OUT) is observed in all institutions. The environmental conditions of a pharmacy can activate extrinsic factors, which are responsible for the higher number of changes and deteriorations in medications. Following the manufacturers' recommendations is fundamental for product storage. It is equally important to promote air circulation that

favors temperature balance at all points in the environment, prevent direct light incidence on the medications, avoid the emergence and permanence of moisture in environments and keep places clean. Improper handling of medications can also affect their integrity and stability; therefore, boxes should not be thrown, dragged or be placed excessive weight on<sup>16</sup>.

The structure is also favorable for the storage of thermolabile medications. While less than half of the institutions (47.2%) that participated in the PNAUM had an exclusive refrigerator for thermolabile medications, the percentage observed for the loci visited was 90.9%<sup>10</sup>. The temperature of the devices is measured daily in 86.4% of the pharmacies in the municipalities of Santa Catarina, whereas 72% do not perform temperature control of their refrigerators<sup>15</sup>. Only 13.6% of the institutions have an automatic generator, jeopardizing the stocks of thermolabile medications, which can lead to product losses, with economic harms to the municipality, the state and the Union, as well as out-of-stock situations to serve the users. The PNAUM showed the same results<sup>9</sup>.

With regard to the processes, services are provided under the supervision of a pharmacist in 95.5% of the pharmacies that also dispense CEAF. This percentage is close to the one observed in municipalities from Santa Catarina (82%)<sup>15</sup> and is in agreement with Gerlak (2017), who recorded the presence of pharmacists in more than 90% of the basic pharmacies in the country<sup>17</sup>. The current study showed that, in 54.5% of the pharmacies, the pharmacist is exclusively responsible for the service of this component, whereas in Santa Catarina, 31% of the pharmacists dispense CEAF<sup>15</sup>. The differences in values verified in the studies can be understood by heterogeneity of the service, by the greater complexity of the CEAF and by the encouragement by this Coordination Office to hire a pharmacist to coordinate the service.

Prescribers and other professionals at the Health Units are informed about access to CEAF and Special Drug Program medications and necessary procedures in 72.7% of the institutions visited, a percentage similar to the one found by Blatt (61.5%)<sup>14</sup>. The patients are informed about out-of-stock medications in 90.9% of the pharmacies, and the information is passed on only on site in 50% of them. In the municipalities from Santa Catarina, the information on the availability of medications is passed on in-person and by telephone in 60% and 83% of the institutions, respectively<sup>14</sup>.

Monthly shortages of items supplied by the State are quite variable in pharmacies, which can signal several situations: problems in stock control at the Ministry of Health, the State and/or the Municipal Pharmacy. In addition to impairments in treatments, as it is communicated at the time of dispensing in most pharmacies, out-of-stock medications generate costs and fails to meet the patients' expectations. The Internet is increasingly employed by users and health networks to disseminate diverse information. The development of technologies such as apps and social networks, which disseminate information about medication supply and shortage, can also be a way to ease communication.

Organization of the processes is carried out in accordance with the state protocols in 81.8% of the pharmacies visited; however, when asked individually about the items served, less than half of the respondents (40.9%) stated that they complied with all the guidelines. The main failure in organization of the processes is non-presentation of the medication delivery receipts. A receipt is an important proof that the medication was delivered, preventing fraud.

In relation to monitoring the users' clinical outcomes, only 18.2% of the cases are monitored, which shows that pharmacotherapy follow-up is still incipient, requiring stimulation and qualification. In the work carried out in the municipalities from Santa Catarina, pharmacotherapy follow-up was not observed<sup>14</sup>; however, it is necessary to consider that there was little incentive for these activities at the time of the study. Pharmacists' training measures are required, committing them to a higher level of responsibility towards the patients<sup>18</sup>.

Another reason for not monitoring the clinical outcomes may be lack of structure of public pharmacies, such as lack of space and material necessary for this service. The high number of daily consultations and lack of time both for professionals and for users can also explain this result. Data from the PNAUM<sup>18</sup> show that only 13.7% of the SUS primary care units in Brazil have an area devoted

to pharmaceutical consultations or pharmacotherapy follow-up. In this paper, we can observe that the presence of an exclusive room for CEAF assistance is found in most pharmacies, being a very important resource for the implementation of pharmaceutical

consultation activities, which require space and privacy.

Pharmacies claim to guarantee integrality of the treatments in 50% of the cases. Analyzing Table 4 to compare the answers related to integrality, we can observe some divergences, such as: Gravataí and Novo Hamburgo are municipalities that stated ensuring integrality of the treatments, although they do not offer all the medications included in the component. Gravataí also reports 70 out-of-stock medications, whereas Novo Hamburgo failed to answer. On the other hand, Alegrete and Bagé answered that they do not guarantee integrality of the treatments; however, they asserted offering all the CEAF and Special Drug Program medications and also claimed to have monitoring records of the clinical outcomes. Regarding the out-of-stock items, Alegrete was unable to answer and Bagé answered that they had 2 out-of-stock medications, the lowest number among the respondents.

Integrality, one of the objectives of implementing the CEAF, is insufficient in the pharmacies from the RS municipalities. Although expected with the creation of the Component, clinical outcome monitoring is still incipient. SES/RS started the process of training pharmacists to assess clinical outcomes and ensure integrality

of the treatments with the *Farmácia Cuidar+* Program<sup>19</sup>. Making the entire treatment available and giving access to all services are important points to ensure the principle of integrality. An adequate health service structure also depends on the participation of duly qualified people, motivated to deal with the clients and in sufficient numbers to meet the demands of the population<sup>20,22</sup>.

PhA organization by components, with different rules and funding, increases the challenge for managers to enable integral access to medications. In this way, it is extremely important to search for mechanisms that aim at this integrality. According to Fatel (2021), it was evidenced that only 0.7% of the users had a monitoring record of their treatments at SES/SP<sup>21</sup>. There is incipient monitoring of patients treated with CEAF medications and their health outcomes.

This paper prioritized evaluating pharmacies in municipalities with a population of more than 100,000 inhabitants and with CRS headquarters. Thus, the data may not reflect the situation of institutions in smaller municipalities, which are more numerous. On the other hand, they provide an overview of the



service conditions performed in municipalities that, together, represent more than 50% of the state population. It is also important to consider that the data do not reflect the reality of Special Pharmacies, which only dispense Specialized Component medications. Studies involving these institutions would provide a broader view of the CEAF. Another point to highlight is the use of direct and indirect questions to assess the same information, as in the case of integrity and the protocols to organize the processes.

## Conclusion

The current study presented good results in relation to the structure when compared to previous research studies and the PNAUM<sup>9</sup>. In the item processes, it is necessary to advance to qualify patient care and follow-up, so that results in terms of their health and quality of life are achieved.

## Collaborators

RAB- Conception and design, critical review of the article.

JWV- Conception and design, critical review of the article.

TM- Critical review of the article.

FM- Conception and design, critical review of the article.

DP- Conception and design.

IH - Conception and design, data analysis and interpretation, critical and relevant review of the intellectual content.

## Funding sources

This study is related to the project entitled "Pharmaceutical Assistance Organization in Primary Care in Municipalities from Rio Grande do Sul: Structure, Process and Results", funded with resources from FAPERGS/MS/CNPq/SES/RS Call No. 03/2017 PPSUS – 2017.

## Declaration of conflict of interests

The authors declare that there are no conflicts of interests in relation to this article.

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