

**Medical health condition of institutionalized elderly****Condição médica de saúde de idosos institucionalizados**

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**Mariana Vieira Martins Sampaio Drummond**

Médica pela Faculdade UniEvangélica de Anápolis

Instituição: Faculdade UniEvangélica de Anápolis

Endereço: Rua 104, número 638, setor Sul, CEP 74083-300, Goiânia - GO, Brasil.

E-mail: maryy\_drummond@hotmail.com

**Beatriz Cristina Egidio de Rezende**

Médica pela Faculdade UniEvangélica de Anápolis

Instituição: Faculdade UniEvangélica de Anápolis

Endereço: Rua 9, número 663, apto 302, setor oeste, Goiânia - GO, Brasil

E-mail: bea\_rezende@hotmail.com

**Marcela Teixeira Thomé**

Médica pela Faculdade UniEvangélica de Anápolis

Instituição: Faculdade UniEvangélica de Anápolis

Endereço: rua GV 02, Qd. 11 Lt. 09 Residencial Granville Goiânia - GO, Brasil

E-mail: marcelathome@hotmail.com

**Camila Carvalho de Miranda**

Médica pela Faculdade UniEvangélica de Anápolis

Instituição: Faculdade UniEvangélica de Anápolis

Endereço: QE 08 conjunto H casa 54, CEP: 71010-086- Guará 1 - Brasília-DF, Brasil.

E-mail: milamiranda.med@gmail.com

**Marina Nahas Dafico Bernardes**

Médica pela Faculdade UniEvangélica de Anápolis

Instituição: Faculdade UniEvangélica de Anápolis

Endereço: Alameda das Azaléias, Qd.13, Lt.20 Jardins Viena, Aparecida de Goiânia - GO,  
CEP 74935187. Brasil

E-mail: marinanahas\_9@hotmail.com

**Pabline Melo de Oliveira**

Médica pela Faculdade UniEvangélica de Anápolis

Instituição: Faculdade UniEvangélica de Anápolis

Endereço: Rua Waldomiro Cunha, Qd 75 - Condomínio Fimiani, Apto 304 Bloco C, B. JK  
Nova Capital, Anápolis - GO, CEP 75105130. Brasil.

E-mail: pabline-melo@hotmail.com

**Silvia Cristina Marques Nunes Pricinote**

Médica pela Universidade Federal de Goiás

Instituição: Faculdade UniEvangélica de Anápolis  
Endereço: Rua 1, qd 40, It37/43, Residencial Euroville 2, bloco Alcazar, apt 203, Bairro  
Chácaras do Alto da Glória. Goiânia - GO, Brasil.  
E-mail: dra.silvia.pricinote@gmail.com

**Andreia Moreira da Silva Santos**

Farmacêutica e Bioquímica, especialista em controle de qualidade de medicamentos, cosméticos e correlatos pela Universidade Federal de Goiás, Mestre em Neurofarmacologia pela National University of Ireland, Galway e doutora em Neurociências pela National University of Ireland, Galway.

Instituição: Centro Universitário UniEvangélica de Anápolis  
Endereço: Rua das esmeraldas Q05 L02, Itamaraty. Anápolis-GO, Brasil.  
Email: andreia.silva@unievangolica.edu.br

**ABSTRACT**

Brazil has been experiencing a process of population aging, which has led to an increase in the number of elderly people, as well as an enhancement of the importance of Long-term Institutions for Elderly People (LIEP). Based on this approach, this study aimed to know the health medical conditions and the medications used by the elderly people institutionalized in the city of Anápolis (GO). It was a descriptive and quantitative cross-sectional typology with pre-structured questionnaires used for analysis of medical records and reports of a population composed by 101 elderly people hosted in five LIEP. The results of this research were a higher prevalence of institutionalized elderly people over 76 years old, female, who suffer from high functional dependence, concomitantly with the decompensation of their chronic diseases, such as hypertension and diabetes, as well as worsening of acute aggravations, such as falls, and gastrointestinal disorders. It was also evaluated the prevalence of the medication classes used by the group, highlighting the usage of antihypertensive, in accordance with the most prevalent chronic disease. In addition, it was reported some difficulty in accessing adequate medical treatment. Finally, most of these places present socioeconomic characteristics of low financial conditions, conflicting family contact, absent leisure activities, with acute aggravations and decompensation caused by chronic diseases, and restricted medical care. However, all visited institutions were interested in the search for improvements that culminate in quality of life for the elderly people and fit the requirements recommended by the Ministry of Health.

**Key word:** Elderly People Health. Institutionalized Elderly People's Health. Long-term Institutions for Elderly People.

**RESUMO**

O Brasil está passando por um processo de envelhecimento populacional, o que levou a um aumento no número de idosos, bem como a um aumento da importância das Instituições de Longo Prazo para os Idosos (LIEP). Com base nessa abordagem, este estudo objetivou conhecer as condições médicas e os medicamentos utilizados pelos idosos institucionalizados na cidade de Anápolis (GO). Tratava-se de uma tipologia descritiva e quantitativa de corte transversal com questionários pré-estruturados utilizados para análise de prontuários e relatórios de uma população composta por 101 idosos hospedados em cinco LIEP. Os resultados desta pesquisa foram uma maior prevalência de idosos institucionalizados acima de 76 anos, do sexo feminino, que sofrem de alta dependência funcional, concomitantemente com a descompensação de suas doenças crônicas, como hipertensão e diabetes, bem como

agravamento de agravos agudos, como quedas e distúrbios gastrointestinais. Também foi avaliada a prevalência das classes de medicamentos utilizados pelo grupo, destacando o uso de anti-hipertensivos, de acordo com a doença crônica mais prevalente. Além disso, foi relatada alguma dificuldade em acessar tratamento médico adequado. Por fim, a maioria desses locais apresenta características socioeconômicas de baixas condições financeiras, contato familiar conflituoso, ausência de atividades de lazer, com agravos agudos e descompensações causadas por doenças crônicas e atendimento médico restrito. No entanto, todas as instituições visitadas estavam interessadas na busca de melhorias que culminassem na qualidade de vida dos idosos e atendessem aos requisitos recomendados pelo Ministério da Saúde.

**Palavra-chave:** Saúde do Idoso. Saúde do Idoso Institucionalizado. Instituições de longa duração para idosos

## 1 INTRODUCTION

According to the 1946 World Health Organization Constitution (WHO), health is a state of complete physical, mental and social well-being and is not merely the absence of disease or infirmity [1]. Such status constitutes one of the fundamental rights of every human being, without distinction of age, sex, race, religion, political creed, and economic or social condition. However, there are several obstacles to reach it in different social classes, especially those with the most disadvantaged conditions, and in different life cycles, such as the elderly people.

In Brazil, this age group, considered as 60 years old individuals (Statute of the Elderly People, 2003), has been growing continuously in society, since the aging of the population is, in fact, an undeniable and universal phenomenon. The demographic transition in Brazil has evolved into notable changes in the age structure, from a typical format of a country with a strong predominance of young population, to a new format, similar to the other current developed countries, in which the proportion of the elderly people tends to surpass the proportion of young people [2].

Even though population aging is a pertinent consequence of the development process, in the Brazilian reality, the increase in life expectancy was not accompanied by essential quality of life, raising an offspring of elderly people with severe health prognoses, also in the social, financial and affective spheres [3].

Aging is a process that happens to human beings in an active and gradual way, in which there are morphological, functional, biochemical and psychological changes that cause loss of the human being's ability to adapt to the environment, resulting in vulnerability and greater occurrence of diseases that can lead to death [4].

Old age often makes the individual impotent, helpless, and fragile to make his own

decisions, depriving him of autonomy and independence. Thus, the elderly people have been seen as an unproductive, outdated person, and little has been done to recover their identity and raise their self-esteem. Moreover, they are not always supported by family members and are often forced to live in LIEP or shelters, living in isolation, away from relatives and friends [5]. The hospitalization of the elderly in a LIEP may still present as the only option to the lack of family, financial, or psychological care structure [6].

Long-term Institution for Elderly People, houses designed to meet elderly people's needs, such as provision of social assistance, basic hygiene care and food, often lack compliance with such requirements. In addition, these places also make it difficult to establish interpersonal relations in the community context, isolating them from the rest of the population. This relationship is indispensable for elderly people's cognitive maintenance and their citizenship [7].

Regarding to these realities, the main objective of this study was to know the medical conditions of elderly people institutionalized in the city of Anápolis (Goiás, Brazil) as well as the chronic systemic diseases and acute aggravations that affected the most of them. At the same time, it determined the access of the institutionalized elderly people to physicians; the medical profile of the institutionalized elderly people; the epidemiological profile of this population; the number of hospitalizations in 2015; and, finally, the main walk instruments used by the elderly people, as well as their physical activity.

## **2 METHODOLOGY**

It was a cross-sectional, descriptive and quantitative study.

For the study development, 7 LIEP in Anápolis – GO were contacted. Among them, however, only 5 institutions accepted to be part of the research. The population studied was formed by 101 individuals. All the surveyed elderly met the inclusion criteria and had their medical records and reports evaluated for completing a data collection form (APPENDIX A).

Inclusion criteria was based on individuals, men and women, aged 60 years or older living in a Long-term Institution for Elderly People for 6 months or more, with the patient's report, a list of medications, authorization by the institution through the Term of Authorization for Use and Handling of Data (APPENDIX B), Statement of Co-participating Institution (APPENDIX C) and Authorization for Research Participation, signed by the participant / legal guardian / family member / institutional officer through signature of the Volunteer and Clarified Consent Form – VCCF (APPENDIX D).

The researchers approached the elderly in the LIEP, to invite them to be part of the research. Then, they explained about the research and clarified doubts. If the elderly people did not have autonomy to participate in the research, the researchers would return to the institution on the day of visits, because it was easier to contact their relatives. If no relatives were found or had no family members who visited them, the institutional leader would be approached and requested to sign. In 100% of the cases, the institutional leaders were the ones who signed the VCCF.

The developed procedure consisted of medical records and medication reports analysis, as of the completion of the data collection form. The data were only collected with the authorization of the person responsible for the institution in question.

The researchers explained the nature of privacy, in which the datasheets would not be identified in any way, since they would be coded (A1, A2, A3), and its confidentiality, in which no person other than the researcher would have access to the instruments and would not be disclosed with identification.

The participation of the LIEP, with authorization for handling the aforementioned documents required for the research, was voluntary, without any form of punishment if they did not want to participate in any part of the research or ceased to answer any question. The institution was guaranteed its right to free withdrawal of participation at any time without any type of penalty and the data were only collected respecting the norms of research with human beings and after release of favorable opinion of the Ethics and Research Committee, whose Certificate for Presentation and Assessment Ethics number was 45611015.1.00005076.

All the collected data were analyzed by the SPSS program. The design of the applied statistical analysis was descriptive and the socio-demographic data were presented in frequency and percentage. The Chi-Square statistical test was used. The results are being delivered to the City Health Department and the Health Council in Goiás to serve as a starting point for improvement of LIEP.

### **3 RESULTS**

According to table 1, 51 individuals correspond to females and the average of age found was 76.94 for women. In addition, the average time of institutionalization between women was 11.47 years, considering that the level of significance was 0.04. Also, the number of hospitalizations in 2015 was 22 for women and 21 for men.

**Table 1 - Age, period of institutionalization and number of hospitalizations by age**

Variables	Sex	Average
Age of the elderly in years	Male	76,00
	Female	76,94
Period of institutionalization in years	Male	5,90
	Female	11,47
Number of hospitalizations in the last year	Male	21
	Female	22

Regarding the religion, data were collected from only 2 women who considered themselves catholic. About marital status, there were only 26 individuals, most of whom were single. About the individuals' schooling, between 17 people, 12 people pointed out that they did not have any year of study and no individual fit the option of 8 years or more of study.

Moreover, it was found that the individuals were born on the Midwest, Northeast, Southeast and North of Brazil. Most of them were from the Midwest and only 3 individuals did not present information about their city of birth. With regard to the diseases that were rated in the topic of chronic diseases, the most frequent disease was Systemic Arterial Hypertension, with 11 representatives of each sex. In second place came depression, followed by diabetes mellitus, hypothyroidism and pneumopathy.

In order to better understanding and analysis, the present chronic diseases were divided into metabolic, neurological, psychological, physical and cancer diseases. Of this, it was found that the most representative group of diseases was the metabolic (systemic arterial hypertension, diabetes mellitus, anemia), with 48.49%. As for the walking aid instrument, within the total sample of 101 elderly, such information was obtained from 91 elderly people. Of these, 27 elderly people used some type of instrument, most were wheelchair users, and 64 did not use any type of instrument. Regarding the practice of physical activities, this information was collected in 100% of the population and was not reported in any elderly of the study.

Acute injuries were divided into 9 different systems, besides the general division, composed by injuries that did not fit into any particular system, such as fever, dizziness /

vertigo, hyporexia, prostration, drowsiness, torpor, tremors and edema. Of the total sample, the information on acute injuries, since the hospitalization of the elderly person, was collected in only 56 people, due to the lack of registration, as observed in the table below.

The tabulation of medication data was performed by dividing them into 12 major classes, in addition to the 'other' class, whose drugs did not fit into any previous classification, such as vitamins, gastric (antiulcer) protectors, antianemic, antiemetic, syrups, antiparkinsonians, antihistamines and dopaminergic agonists.

**Table 2 – Frequency of acute aggravations**

Comorbidities	Yes	No	Not informed
Pulmonary	26 (46,4%)	30 (53,5%)	45 (44,5%)
General	53 (94,6%)	3 (5,35%)	45 (44,5%)
Digestive	36 (64,2%)	20 (35,7%)	45 (44,5%)
Urinary system	20 (35,7%)	36 (64,2%)	45 (44,5%)
Neurologic	20 (35,7%)	36 (64,2%)	45 (44,5%)
Head and neck	21 (37,5%)	35 (62,5%)	45 (44,5%)
Skin/phanero	25 (44,6%)	31 (55,3%)	45 (44,5%)
Osteomuscular	11(19,6%)	45 (80,3%)	45 (44,5%)
Heart	11 (19,6%)	45 (80,3%)	45 (44,5%)

**Table 3 – Frequency of drugs used by drug class**

Used medication	Total	Frequency
Antihypertensive	53	19,92%
Antidiabetic	8	3,00%
Antipsychotic	25	9,39%
Antihyperlipemic	13	4,88%
Anti-inflammatory	23	8,64%
Anxiolytics	17	6,39%
Antidepressant	23	8,64%
Others	55	20,67%
Antiepileptic	39	14,66%
Antibiotics	4	1,50%
Anticoagulant	2	0,75%
Antiarrhythmic	4	1,50%
Total	266	100%

This information was collected throughout the studied sample and, according to the table above, a total of 266 medications were used, of which 104 were different medications. The average number of medications used by the elderly was 2.61 medication/person, taking into account that there were elderly people who used up to 16 medications, while there were 18 individuals who did not use any medication.



The most used class, among the elderly, except the category 'other', which contains different drug classes, was the class of antihypertensive, corresponding to 19.92% of the total, followed by the class of antiepileptic, corresponding to 14.66 % of the total.

Regarding medical treatment last year, this information was obtained from 56 elderly people. Of these, most had access to medical treatment last year and only 3 did not have. Twenty-nine elderly people consulted with a geriatric doctor, 29 with a cardiologist, 24 with a general practitioner, 2 with a psychiatrist, 1 with an ophthalmologist and 1 with a mastologist. It was observed an average of 6.47 consultations per elderly person within a year.

One hundred per cent of the medical appointments, held outside the institutions, were scheduled and monitored by the institutional leaders.

#### **4 DISCUSSION**

In the research, 50.49% of the studied population was female and this data was similar to the Brazilian studies, in which the female was the most prevalent gender, both in the northeast and in the south region, but with a percentage higher than that one found in the study [8].

In addition, the average age found among men was 76 years old and among women it was 76.94 years old, a fact that corroborates the findings in the literature that show that the institutionalized elderlies are increasingly older or with serious cognitive impairments that make their permanence in their houses impossible. It was found in the research that the time of institutionalization was about twice higher for females, which can be explained by the women's longer life expectancy [9].

In the present study, the division into the acute diseases with the highest incidence was the general one, corresponding to 53 elderly people among the 56 evaluated. By all of these diseases, the falls need to be highlighted, which are frequent problems in the elderly population. In Brazil, about 29% of the elderly people fall at least once a year and 13% fall on a recurring basis [10]. According to preliminary data from the Department of Informatics of SUS – Brazilian Unified Health System (DATASUS), in 2008 there were 5142 deaths of people who were 60 years or older in Brazil, due to falls, occupying the second place in mortality caused by external causes, with 25.3 %. [11].

In this study, falls were reported in the medical records of 15 elderly patients, among the 56 evaluated for acute injuries, corresponding to 26.78% of the sample. It should be taken into account that there may have been underreported falls. In another study, carried out in the city of São Paulo, with a sample of 121 institutionalized elderly people, falls were reported by



45 individuals resulting in an even higher prevalence of 37.2% [12].

Secondly, there were acute diseases related to the digestive system, with a prevalence of 36 people. Among these, injuries such as diarrhea, constipation, vomiting, fecal incontinence, abdominal pain, oral candidiasis, hernia, hemorrhoids, sialorrhea have been reported. The diseases related to the pulmonary system, such as dry cough, productive cough, dyspnea, pneumonia, asthmatic crisis and coryza, were in third place, and in the face of this, several medications have been used in this system.

Regarding chronic diseases, those of greater relevance among the surveyed group were systemic arterial hypertension, depression and diabetes mellitus. According to the study carried out by Araújo et al. (2008) in the Federal District in 6 LIEP, the elderly people presented the same sequence of chronic diseases prevalence as the current study [13]. Also, Soares et al. (2012) described systemic arterial hypertension as the most frequent disease in the elderly population living in two institutions in the city of Marília – SP [14]. Differently, Silva et al (2013) reported that endocrinological diseases were the most prevalent, followed by cardiovascular diseases [9].

Cardiovascular diseases are relevant causes of death among the Western population, highlighting the arterial hypertension that is one of the great risk factors for stroke, which can generate great disabilities [13]. Because of this, the diagnosis and introduction of correct and early treatment is necessary.

When talking about medications, the elderly people use, on average, 2 to 5 medications regularly, with polypharmacy being observed in 20 to 50% of this population - taking into account that polypharmacy can be defined as the use of 5 or more drugs per person, according to Hanlon et al. (2002) [15].

In the present study, 84 elderly patients used at least one medication and of these, 37 elderly people, corresponding to 36.27% of the sample, performed polypharmacy. According to Almeida (1999), of the total medications prescribed for the elderly person, 32% are for cardiovascular problems, such as hypertension, and 24% for neuropsychiatric disorders. This fact was evidenced in the current research through the class of antihypertensive being the most used among the elderly, corresponding to 51.96% of the total. In addition to it, still in agreement with Almeida, the second most used class of medications was antipsychotic, corresponding to 24.51% of the total [16].

Moreover the provision of medications to residents, the services of an LIEP should be organized in order to meet the multiple needs, of material, emotional and spiritual type that

the elderly people need for a satisfactory daily life, including, necessarily, full health care. As part of such care, the doctor plays an extremely important role. It should be borne in mind that it is a member of an interdisciplinary team, based on the elderly's multi-approach, considering it in its biological, psychological, social and environmental aspects, and especially respecting its values and desires [17].

Thus, it is observed the importance of medical care, combined with the work of the multidisciplinary team present in the institutions. In the present study, among the 56 elderly people whose information regarding access to medical treatment was collected, 53 had this access, and the majority of them were performed by voluntary visits from doctors to the institutions. Only 2 LIEP (A and D) received frequent visits from doctors (geriatrician, cardiologist and general practitioner). It is important to note, given these data, that more than half of the elderly had access to geriatric doctors. The other three LIEP complained about the absence or low frequency of medical assistance. Davim et al., 2004, shows this fact when affirming how rare are the LIEP that maintains specialized personnel for social assistance and health or that have a proposal of work focused on keeping the elderly independent and autonomous [5].

It is important to emphasize the relevance of the city of Anápolis in owning a hospital dedicated exclusively to the care of the elderly population. The Dia do Idoso Hospital presents priority in the care of institutionalized elderly people, which demonstrates special attention to the third age population, in terms of health, in the city of Anápolis.

## **5 CONCLUSION**

In the current research, an epidemiological profile was found with the majority being women, over 76 years old; single, with hypertension and depression as more prevalent chronic diseases, with falls and gastrointestinal alterations as the main acute diseases, which has the class antihypertensive as the most used one. In addition, most of the elderly did not perform any physical activity and did not use any walking aid instrument. Thus, most of the found data are in agreement with the national and international data observed in the literature and suggest the need for a better execution of effective care policies for institutionalized elderly people, according to their individualities, knowing their way of being and thinking, are transformed in priorities for planning health actions. In this way, the institutionalized elderly people will be able to enjoy a healthy aging.

According to the found results, it is sought to highlight the possible problems of this

population, both for society and for those ones responsible for health and elderly people in Brazil. In addition, there are no social policies to support caregivers - including family members or other individuals who directly assist the elderly people in their basic activities (food, home assistance, medical care and counseling services) - in order to attend the elderly people's special needs and their different comorbidities.

Orientation to caregivers will motivate them to train themselves, provide better services to the elderly people, and pay attention to the recognition of acute illnesses, a fact that provides early care that avoids hospitalizations and complications.

All institutions were interested in the search for improvements that culminate in the elderly's quality of life and fit the Brazilian's Ministry of Health requirements.

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