REGISTRATION AND HOSPITALIZATION PANORAMA RELATED TO ARTERIAL HYPERTENSION

REGISTRO Y HOSPITALIZACION RELACIONADOS CON LA HIPERTENSIÓN

Ana Zaira da Silva¹, Amanda de Fátima Alves Costa², Lucilane Maria Sales da Silva³

ABSTRACT

Objective: to know the registration and hospitalization’s panorama related to arterial hypertension. Method: ecological study, descriptive with quantitative approach, conducted through secondary data about the registration and hospitalization related to arterial hypertension in Picos- PI, from 2008 to 2012. Data were collected through DATANUS, created for definition and tabulation (TABNET) after code selection: gender, age and cities. It was used the descriptive statistic. Results: it was identified an increase of hypertensive’s registration and hospitalization, highlighting the female population, between 60 and 69 years old, and the cities of Picos, Inhuma and Elesbão Veloso. Conclusion: the hypertensive’s registration and hospitalization increasing cases points to a necessity to spread the nursing cares to this public aiming to give them enough support to their life quality maintenance. Descriptors: Hypertension; Health Systems; Nursing.

RESUMO

Objetivo: conhecer o panorama dos cadastramentos e internações relacionadas à hipertensão arterial. Método: estudo ecológico, descritivo, de abordagem quantitativa, realizado a partir de dados secundários referentes ao cadastramento e internações relacionadas à hipertensão arterial na Macrorregião de Saúde Picos-PI, entre 2008 a 2012. Os dados foram coletados a partir de arquivos do DATASUS, gerados para definição e tabulação (TABNET) após seleção dos códigos: sexo, faixa etária e municípios. Utilizou-se a estatística descritiva. Resultados: identificou-se aumento do número de internação e cadastramentos de hipertensos, destacando-se a população feminina, na faixa etária de 60 a 69 anos, e os municípios de Picos, Inhuma e Elesbão Veloso. Conclusão: o aumento dos casos de cadastramento e internação de hipertensos aponta a necessidade de expandir os cuidados de enfermagem a este público a fim de oferecer suporte necessário para a manutenção da qualidade de vida desses sujeitos. Descriptores: Hipertensão; Sistemas de Saúde; Enfermagem.

RESUMEN

Objetivo: conocer la visión de conjunto de registros y la hospitalización relacionados con la hipertensión. Método: estudio ecológico y descriptivo con enfoque cuantitativo, realizado a partir de datos secundarios relativos al registro y hospitalización relacionados con la hipertensión en Picos-PI desde 2008 a 2012. Los datos se obtuvieron de los archivos generados por DATASUS para definición y lengüeta (TABNET) después de la selección de códigos: género, edad y municipios. Se utilizó la estadística descriptiva. Resultados: se identificó un aumento en el número de hospitalizaciones y registros de pacientes hipertensos, especialmente la población femenina de 60-69 años, en los municipios, Picos y Inhuma Elesbão Veloso. Conclusión: el aumento de los casos de registro y admisión hipertensos indica la necesidad de ampliar los cuidados de enfermería a esta población con el fin de proporcionar el apoyo necesario para el mantenimiento de la calidad de vida de estos sujetos. Descriptores: Hipertensión; Sistemas de Salud; Enfermería.

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INTRODUCTION

Reputable as a disease group which presents high mortality rate, morbidity and incapacity, the chronic diseases not transmitted (CDNT) is constituted as a public health problem that last during the time. These diseases are characterized by generate high expenses with hospitalization and medicines, and provide long latency period, prolonged development time, irreversible damage and complications that cause varying degrees of disabilities; and are where are increasingly present in the lives of people, especially the most vulnerable in socio-cultural terms.¹

Among the range of CDNT highlights the systemic arterial hypertension (SAH), which is responsible for at least 40% of deaths caused by stroke, 25% of deaths from coronary artery disease and when associated with diabetes mellitus, it contributes 50% of the cases of renal failure Terminal.²

Defined as a multifactorial clinical condition characterized by high and sustained levels of blood pressure (BP), SAH is associated frequently to the functional and structural changes in target organs (heart, brain, kidneys and blood vessels), and metabolic changes, increasing the risk of fatal cardiovascular events and nonfatal.³

In Brazil, it is estimated that the number of hypertensive patients reaches approximately 17 million, representing 35% of the population aged over 40 years and of this total, only one third are able to control the levels of BP.³ As a single cause, the SAH may be considered the most important morbidity of the adult population, thus representing a serious problem of public and epidemiological order in the country, both for its high prevalence, as the complications that can lead.⁴

In this scenario it is appropriate to highlight the importance of primary care (PC) face this dilemma, because the SAH is a medical condition sensitive to primary care. In Brazil, between the minimum strategic actions of responsibility of municipalities present in the PC, is the control of hypertension, to be developed through the diagnosis, registration of patients, active surveillance, monitoring during treatment, and conducting practices educational.⁵

Despite advances in national health policies, challenges remain, especially management, by not properly use the information available in the information systems that can support decision-making aimed at improving the health of individuals and communities from the actions developed on the PC. When well organized and guided by collective interests, this level of attention is able to address up to 85% of the health problems of the population, thereby ensuring the minimization of health problems, and the reduction of hospitalizations.⁶

So based on the above and in congruence with the National Agenda of Priorities in Health Research, the objective is to know the overview of registrations and admissions related to high blood pressure, in view of the increasing number of hypertensive with SAH in Picos/PI, and the occurrence of hospitalizations due to the disease in question. Therefore, this study allows us to know some fragility at the services and health systems, which affects directly the population life quality.⁷

METHOD

An ecological and descriptive study with a quantitative approach, conducted from secondary data regarding to registration and hospitalization related to arterial hypertension in Picos/PI, from 2008 to 2012.

Picos is the third most important region, in population and economic terms, among the eleven that make up the entire state of Piauí. Composed of 42 municipalities, has a population of 368,877 inhabitants for the year 2015, according to data from the Brazilian Institute of Geography and Statistics (BIGS).⁸

The theoretical frameworks chosen to guide the object of study were: primary care, characterized as a gateway to the Health Unic System (HUS), to centralize actions and target goals; and the Department of Computer and Information Health System (DATHUS), created in 1998 by the PC department in order to offer support to family health teams in order to identify individual and collective problems of the health situation of a given population.⁹

We collected data on registrations from health information DATHUS after selecting epidemiological and morbidity information, and then Hiperdia; the fact is noteworthy that were only collected information related to SAH within the prescribed period (2008-2012), and focusing on the micro-region municipalities most effected entries.

Information related to the hospitalizations was obtained from files generated to define and tab (TABNET) from selections on DATES codes that interested the study, such as: municipalities, morbidity list, gender and age. The results were exposed through tables and graphs, and data analysis descriptive statistics were used.
The health macro-Peaks had, during the period from 2008 to 2012, a total of 15,534 records of patients with SAH. From that total, 10,014 corresponds to females (Table 1).


<table>
<thead>
<tr>
<th>Year</th>
<th>W</th>
<th>%</th>
<th>M</th>
<th>%</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>1.947</td>
<td>66.24</td>
<td>992</td>
<td>33.75</td>
<td>2.939</td>
</tr>
<tr>
<td>2009</td>
<td>3.875</td>
<td>65.25</td>
<td>2.063</td>
<td>34.74</td>
<td>5.938</td>
</tr>
<tr>
<td>2010</td>
<td>1.354</td>
<td>63.41</td>
<td>781</td>
<td>36.5</td>
<td>2.135</td>
</tr>
<tr>
<td>2011</td>
<td>1.447</td>
<td>63.66</td>
<td>826</td>
<td>36.33</td>
<td>2.273</td>
</tr>
<tr>
<td>2012</td>
<td>1.391</td>
<td>61.84</td>
<td>858</td>
<td>38.15</td>
<td>2.249</td>
</tr>
<tr>
<td>Total</td>
<td>10.014</td>
<td>5.520</td>
<td>15.534</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

W= Women ; M= Men; %= Frequency

Annual cadastramentos analysis and follow-up of hypertensive patients, from the data provided in DATAHUS, it was floating in the proportion related to registration throughout the analysis period, and an increase in the number of registers, in absolute terms, especially in the year of 2009, during which occurred the largest proportion of hypertensive registration, resulting in 5,938 entries, corresponding to 38.22% of Grand total as it was possible to observe in the table above.

With respect to sex, in the analyzed period there was a predominance of the female population, which accounted for 64.4% of the total registered and followed up in hypertensive macroregion investigated.

As regards municipalities that more registered and accompanied with hypertension, were, in descending order: Picos, with 1,959 new entries in the analysis period; Inhuma, 913 registers; Valença, with 885 records, Oeiras which registered 875 with hypertension, and Simões with 768 records (Figure 1).

With regard to hospitalizations related to hypertension, found that hospitalizations within 3,964 occurred 2008 to 2012, and of this total, 2,367 were related to people of the female gender, and 1,597 corresponded to male persons (Table 2).
Table 2. Hypertension’s hospitalization analysis in Picos/PI, from 2008 to 2012.
Picos-Pi, 2015.

<table>
<thead>
<tr>
<th>Year</th>
<th>W</th>
<th>%</th>
<th>M</th>
<th>%</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>358</td>
<td>59.56</td>
<td>243</td>
<td>33.75</td>
<td>601</td>
</tr>
<tr>
<td>2009</td>
<td>466</td>
<td>61.23</td>
<td>295</td>
<td>34.74</td>
<td>761</td>
</tr>
<tr>
<td>2010</td>
<td>546</td>
<td>61.55</td>
<td>341</td>
<td>36.5</td>
<td>887</td>
</tr>
<tr>
<td>2011</td>
<td>566</td>
<td>61.25</td>
<td>358</td>
<td>36.33</td>
<td>924</td>
</tr>
<tr>
<td>2012</td>
<td>431</td>
<td>54.48</td>
<td>360</td>
<td>38.15</td>
<td>791</td>
</tr>
<tr>
<td>Total</td>
<td>2,367</td>
<td></td>
<td>1,597</td>
<td></td>
<td>3,964</td>
</tr>
</tbody>
</table>

Note that the number of hospitalizations was increasing progressively, in absolute numbers, over the years, highlighting the fact that in 2011 there were the largest number recorded in the period under examination, with 924 hospitalizations, 23.30% of the Grand total, as noted in table 2.

Entre os municípios que mais internaram em decorrência da hipertensão arterial, destacaram-se Picos, que registrou 1.826 internações (46%), número bem superior aos demais; seguido por Elesbão Veloso, que efetuou 478 hospitalizações; em seguida aparece Paulistana, com 396 internações, Oeiras, com 302, e Fronteiras com 275 hospitalizações registradas (Tabela 3).

Among the municipalities that more was institutionalized as a result of high blood pressure, have Peaks, which recorded 1.826 hospitalizations (46%), much higher than the other; followed by Elesbão Veloso, which made 478 hospitalizations; then appears Paulistana, with 396 hospitalizations, Oeiras, with 302, and Fronteiras with 275 hospitalizations recorded (table 3).

Table 3. Hypertension hospitalization, according to cities from 2008 to 2012. Picos-Pi, 2015.

<table>
<thead>
<tr>
<th>Cities</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Picos</td>
<td>276</td>
<td>427</td>
<td>423</td>
<td>378</td>
<td>322</td>
<td>1,826</td>
</tr>
<tr>
<td>Elesbão Veloso</td>
<td>15</td>
<td>40</td>
<td>116</td>
<td>169</td>
<td>138</td>
<td>478</td>
</tr>
<tr>
<td>Paulistana</td>
<td>93</td>
<td>90</td>
<td>93</td>
<td>118</td>
<td>2</td>
<td>396</td>
</tr>
<tr>
<td>Oeiras</td>
<td>-</td>
<td>1</td>
<td>14</td>
<td>97</td>
<td>190</td>
<td>302</td>
</tr>
<tr>
<td>Fronteiras</td>
<td>61</td>
<td>68</td>
<td>83</td>
<td>37</td>
<td>26</td>
<td>275</td>
</tr>
</tbody>
</table>

According to age, the most hospitalized during the investigated period were: 60 to 69 years old, followed by 70 to 79 years old, 50 to 59 years old, 40 to 49 years old and 80 or more years old, respectively (Figure 2).

It is noticed that the age from 60 to 69 years old present the highest proportion of hospitalization per arterial hypertension in practically all analyzed years (948 hospitalization in total), except in 2011, when the age from 70 to 79 years old, occupied till that time the third place and about hospitalization reached the first position, and in 2012 got the second place (Figure 2).
DISCUSSION

This study’s findings showed that the hypertensive’s registration number is increasing during the years, fact that was evident from the data analysis relative to 2009, where were registered 5.938 (38,22%) SAH people.

Also noteworthy is the fact that the female population, appear in a higher frequency than men. Of the total entries made between 2008 and 2012, 10,014 were related to women, while only 5,520 corresponded to males.

These aspects of the characteristics of systemic arterial hypertension (SAH), incidence and prevalence of this disease, are relevant in view of this constitute a public health problem at national level.

Among the range of chronic diseases, SAH constitutes the main risk factor for the development of cerebrovascular disease, ischemic and heart. In addition to being the main cause of preventable death in the world, being responsible for about 13% of deaths in general.10,11

In 2000, the global prevalence of patients with SAH was estimated at 26%, should it go up to 29% in 2025, taking into account only the population growth and the age group. In 2008, in Brazil, the SAH has reached about 21% of people aged over 20 years, and in 2011 that number rose to 23% among individuals aged 18 years or more.10

A study conducted in southern Brazil, with 422 hypertensive patients registered in one of the 23 Basic Health Units (BHU) investigated, he pointed out that most of the participants were female, precisely 59,48% of the investigated. Converging well with the evidence found in this and in other studies.

The fact that the female population is higher than the male in relation to the number of entries from SAH, is probably related to the fact that women have better survival than men, and therefore are susceptible to being affected by chronic diseases for a period of longer. Especially when they are aged over 60, at which present greater health concern, and tendency to develop self-care.12

Regarding the municipalities that more hypertensive signed up, they stood out peaks and Inhuma, which together added more than 3,000 new registrations, equivalent to almost 20% of the overall total. Located 320 km from the state capital, Picos has a population of 73,414 inhabitants, which may explain the fact that this city stand out against the registration of hypertensive. In addition, the city has a Primary Care (PC) which reference is made in the state and nationwide, known for efficiency and agility across the health problems of the population. On the other hand, Inhuma, with a population of 14,845 inhabitants, is characterized by the presence of people descendants of blacks and indigenous people, and this is related directly to the high number of patients with SAH in the municipality.13

With regard to hospitalizations resulting from high blood pressure, it was revealed increase in the absolute number in the period from 2008 to 2012. And in 2011 obtained the highest number of hospitalizations related to SAH, totaling 924. Furthermore, the female population (59,71%) was again higher than men (40,29%).

This finding differs rather than address the IV Brazilian Guidelines on Hypertension, pointing to the higher prevalence of SAH in males (38,5%), while women represent 30%. However, it is believed that the female predominance is explained by the fact that population show greater concern about their own health, or can also be connected to the ease of access to health services, especially in primary context, that the public has.14 It also highlights the existence of a greater number of health programs in BHU targeted to women, compared to programs targeted to men, which is another factor that influences the evidence found in this and in other studies.15,16

With respect to age, it was found that between 60-69 years was the most interned over the analysis period, representing 23,91% of the total. This index is made compatible with that found by other authors, considering that a study developed based on National Survey by Household Sample (NSHS) revealed that hypertension is the most preferred disease among the elderly, these findings reflect the profile of Brazilian society, which has ceased to be mainly young/adult, to become elderly.17,18

Municipalities more hospitalized due to SAH, stood out once again peaks, with 1,826 admissions; and then Elesbão Veloso, who reached a total of 478 hospitalizations related to hypertension. As already mentioned, Peaks has a far superior to other municipalities’ population; in addition, it is a reference in terms of health for more than 20 smaller surrounding municipalities, including other states. The existence of the Regional Hospital Justino Luz, where all health levels are attended, including several services and get
paid for it, a large number of people daily reaffirm the importance that this city has in front of the local population health and life problems.

**CONCLUSION**

The arterial hypertension is highlighted among the chronic not transmitted diseases for attacking a high number of people, from both gender and different ages. Hypertension stands out among the chronic diseases by the fact affect a large number of people of both sexes and various ages. Is showed as a health problem present in contemporary societies; being able to threaten the balance and well-being of the collective or individual mode of individuals.

Thus, the data suggest the need to develop actions focused on health promotion in view of a large number of people being affected by this disease. In this scenario, is highlighted the nurse, to constitute yourself a born leader, project manager and actions whose main focus of its activities the health education of the subjects, in order to provide a better quality of life to people.

It is worth noting the lack of updated data on the system used (DATAHUS/TABNET), which is an effective means of communication between health services, managers and community. Make use of these data is a right of all citizens, especially those linked to research in order to produce and disseminate knowledge. In this way is essential that we can access the real data, date and accurate, aiming to achieve through this deed. The practice based on evidences, which can be useful to health professionals facing the hypertension and also the others chronic diseases.

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**REFERENCES**


Registration and hospitalization panorama...


