ORIGINAL ARTICLE

PATIENT CHARACTERISTICS WITH INFECTIOUS DISEASES HOSPITALIZED IN THE INTENSIVE CARE UNIT

CARACTERIZACIÓN DE PACIENTES COM ENFERMEDADES INFECCIOSAS INTERNADOS EN UNIDADE DE TERAPIA INTENSIVA

ABSTRACT

Objective: to characterize the clinical and epidemiological profile of patients with infectious diseases admitted to an Intensive Care Unit. Method: an exploratory, descriptive, and retrospective study with a quantitative approach, performed in a public hospital in Fortaleza/CE, with 203 patients. The data collected were from medical records of patients from April to August 2015, analyzed using descriptive statistics from tables and figures. Results: males (68.5%) and the age group of 21 to 35 years (32%) predominated followed by the range of 36 to 50 years old (31.5%). The main medical diagnosis was AIDS (50.2%). The average length of stay of patients in the unit was 11 days and 49.8% died. Conclusion: proven to be predominantly male and aged 21 to 35 years old, with AIDS as the main diagnostic. The patients remained in the ICU an average of 11 days and more than half died. Descritores: Intensive Care Units; Nursing; Infectious Diseases.

RESUMO

Objetivo: caracterizar o perfil clínicoepidemiológico dos pacientes internados em uma Unidade de Terapia Intensiva de doenças infecciosas. Método: estudo exploratório e descritivo, retrospectivo, com abordagem quantitativa, realizado em um hospital público em Fortaleza/CE, com 203 pacientes. Os dados coletados dos prontuários dos pacientes, de abril a agosto de 2015, foram analisados pela estatística descritiva a partir de tabelas e figuras. Resultados: males (68,5%) e a faixa etária de 21 a 35 anos (32%) predominou o sexo masculino (68,5%) e a faixa etária dos 21 aos 35 anos (32%), seguida da faixa dos 36 aos 50 anos (31,5%). O principal diagnóstico médico foi a aids (50,2%). A média de permanência dos pacientes na unidade foi de 11 dias e 49,8% evoluíram para óbito. Conclusão: comprovou-se predominio do sexo masculino e da faixa etária de 21 a 35 anos, tendo como diagnóstico principal a aids. Os pacientes permaneceram na UTI em média de 11 dias e mais da metade evoluiu para o óbito. Descritores: Unidades de terapia intensiva; Enfermagem; Doenças Infecciosas.

INTENSIVE CARE UNIT

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INTRODUCTION

In most cases, serious patients with important changes in organ systems with repercussions in their homeostatic balance need advanced support and assistance of a specialized multidisciplinary team, to restore their vital functions efficiently.¹

Some units are called special because they have high-tech equipment, as well as a multidisciplinary and interdisciplinary team of qualified professionals, aiming to restore the hemodynamic balance and changed functions of the critically ill patients.²

Intensive Care Unit (ICU) is the hospital dependency aimed at care of critically ill or at risk patients potentially recoverable, who require continuous assistance from the multidisciplinary health team and other specialized human resources, and equipment capable of maintaining a monitoring and follow-up of these patients within 24 hours.³

Infectious diseases are among the most prevalent diseases in ICUs, an important factor in the outcome of patients because infectious conditions in ICU are associated with prolongation of hospitalization and high mortality rates, also reflecting in high hospital costs.

It is essential that nurses who work in ICUs have knowledge concerning the possible hemodynamic changes in hospitalized patients in this unit as well as the therapeutic modalities and essential nursing care to them, offering a more qualified assistance, providing higher chances of recovery to the patient.¹

Also, there is the importance of continuous education of all active staff in the ICU, for professional qualifications and constant updating, contributing to the care of critically ill patients. It is also necessary to know the patient profile admitted in the ICU, as they may have peculiarities that could interfere with the established treatment.

It is worth noting that patients with infectious diseases are often critically ill and are admitted to a specific ICU with the use of various devices for the maintenance of life. This fact highlights the curiosity about their state as well as the use of advanced support in the ICU for infectious diseases.

The knowledge of the hospitalized patient’s profile in the ICU is relevant, seeking to raise specific variables in a given group, directing the care planning guided in this profile and identifying their needs and consequently qualifying assistance.

This study may contribute to the knowledge and assessment of clinical and epidemiological profile of patients with infectious diseases in intensive care, providing targeted assistance to their affected needs.

OBJECTIVE

- To characterize the clinical and epidemiological profile of patients with infectious diseases admitted to the ICU.

METHOD

Exploratory, descriptive, and retrospective study with a quantitative approach, developed in the ICU of a public hospital, reference in the care of patients with infectious diseases, located in Fortaleza, Ceará.

The study population was composed of patients hospitalized in the ICU in 2013. The inclusion criterion was being hospitalized in the ICU for at least 24 hours. Patients whose data were incomplete were excluded. Thus, the sample consisted of 203 patients.

The option for 2013 is justified by the fact that the medical records of 2014 are not already stored in full, given the audit process, which requires time.

Data were collected from medical records of patients, the results of laboratory tests and the book of patients in the ICU admission, in the period from April to August 2015, analyzed quantitatively, using descriptive statistics (simple and percentage rate) and exposed in figures and tables.

The principles contained in Resolution 466/12 were followed, which recommends standards for research involving human beings.⁴ The study had the project approved by the Research Ethics Committee of the institution, with opinion No 037/2011.

RESULTS

The data allowed the construction of hospitalized patients profiles with infectious diseases in ICU, which are arranged below.
Table 1. Distribution of patients according to gender and age group. Fortaleza/CE, 2015.

<table>
<thead>
<tr>
<th>Variables</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>139</td>
<td>68.5</td>
</tr>
<tr>
<td>Female</td>
<td>64</td>
<td>31.5</td>
</tr>
<tr>
<td>Age group (years old)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 21</td>
<td>11</td>
<td>5.4</td>
</tr>
<tr>
<td>21 to 35</td>
<td>65</td>
<td>32.0</td>
</tr>
<tr>
<td>36 to 50</td>
<td>64</td>
<td>31.5</td>
</tr>
<tr>
<td>51 to 65</td>
<td>38</td>
<td>18.8</td>
</tr>
<tr>
<td>&gt; 65</td>
<td>25</td>
<td>12.3</td>
</tr>
<tr>
<td>Total</td>
<td>203</td>
<td>100</td>
</tr>
</tbody>
</table>

There was a predominance of males among ICU patients, with the percentage of 68.5%, and there 31% female.

The age group of the patients varied, highlighting the range from 21 to 35 years old, with 32%, followed by the range 36-50 years old with 31.5% and 18.8% between 51 and 65. The age extremes are presented in a smaller percentage, with children under 21 years old with 5.4% and over 65 with a percentage of 12.3%.

Regarding the medical diagnosis, little more than half of the patients (50.2%) were diagnosed with AIDS. The lung diseases also stood out with 22.2% of patients. Then, there was meningitis (8.3%), varicella (2%), tetanus (2%), leptospirosis (2%) and leishmaniasis (1.5%). Other diagnoses were observed with 11.8% including stroke, malaria, acute myocardial infarction, exogenous poisoning, leprosy, among others.
As seen in Figure 2, it was found predominantly patients' hospitalization in the ICU from three to 16 days (62.6%) followed by 17 to 30 days (18.7%). It was noted that 15.3% remained 48 hours in the ICU, and only 3.4% remained for a period exceeding 30 days. It is worth noting that the average length of stay of patients in the unit was 11 days, and the period ranged from 24 hours to 85 days.

Another aspect observed in the study was the clinical outcome, which found that 49.8% died, 45.3% were transferred to a unit in the institution, and only 2% were transferred to another institution.

Regarding gender, male predominance was observed with a percentage of 68.5% corroborating previous prospective study conducted in the ICU of a hospital in France, with most patients were male.6 The results of another study are opposed to this results since most patients were female diverging most studies according to which most patients are male.7

About age, variations were observed, with prominence in the range from 21 to 35 (32%), then the range of 36 to 50 years old (31.5%) and between 51 to 65 (18.8%).

A study found the prevalence of patients admitted to the ICU over the age of 60 years old.8 The disagreement with the data found in this study reflects the type of investigated scenario, presenting a change, as the ICU of infectious diseases is specific and does not...

Figure 2. Distribution of patients according to their hospitalization in ICU. Fortaleza/CE, 2015.

Figure 3. Distribuição dos pacientes segundo o desfecho clínico. Fortaleza/CE, 2015.

DISCUSSION

Knowing the profile of the patients admitted to an Intensive Care Unit is something essential for quality care because the professionals can direct care to patients, resulting in specialized care.

The characterization of critically ill patients in the ICU can assist in the guidelines of admissions and discharges of this unit because the profile of the knowledge of these patients favors the establishment of objective criteria.6

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cover all diseases and specifically focusing on diseases that usually affect younger patients.

The medical diagnosis was an aspect investigated in the study, found the prevalence of AIDS (50.2%), followed by lung diseases (22.2%). There were also the following diagnoses identified: meningitis (8.3%), varicella (2%), tetanus (2%), leptospirosis (2%) and leishmaniasis (1.5%).

Data from a survey proved the main diagnoses that indicated the patient’s hospitalization in ICU: cardiovascular and neurological disorders (15%); complications after surgery and trauma/accidents (45%); infections (25%); and disorders of the gastrointestinal tract (5%). There are differences in the diagnoses found in this study since it was in an ICU of infectious diseases, which explains the different and specific diagnosis.

The length of stay in patients in ICU was raised, and this ranged from 24 hours to 85 days, with an average of 11 days. There was a predominance of patients who remained in the ICU for three to 16 days (62.6%), followed by 17-30 days (18.7%).

It was observed a prevalence of a period greater than 16 days and may be characterized as a long period of hospitalization, as previous research considered prolonged ICU when the days of the patient’s admission to the unit exceeded seven days. However, there is no consensus in the literature, ranging from three days, seven days, ten days, 14 days or 30 days, stressing that the lack of consensus may be associated with the fact that most studies be conducted in units with a mixed population, suggesting new studies to characterize the group better.

In this light, it is emphasized that the data from this study show differences when compared to other studies due to the ICU profile, which specializes in infectious diseases, admitting patients in general more acute illnesses.

Regarding the clinical outcome, the main outcome was death with 49.8% of patients. However, an important percentage of patients was transferred to a unit in the institution (45.3%), and only 2% were transferred to another institution. It is noted that the values approached about death and intra-hospital transfer, but still there was a small difference, highlighting deaths in this study.

The frequency of deaths in ICUs has great variability in the literature. These differences in mortality are attributed to the ICU and customer characteristics.

CONCLUSION

The profile of patients with infectious diseases admitted to the ICU was designed, contributing to the training and the care delivered to this population to assisting their rehabilitation.

It was proved to be predominantly male and aged 21 to 35 years old, setting up in a younger group, reality associated with the peculiarity of the institution. More than half of the patients were diagnosed with AIDS as associated with ICU admission, especially also for lung diseases.

Regarding the length of stay in ICU patients, there was an average of 11 days, and the period ranged from 24 hours to 85 days.

Regarding the clinical outcome, the highest percentage observed was the patients who died, but with the great approach to patients leaving the ICU and going to another unit within the institution.

Given the above, there is the complexity of ICU patients with infectious diseases, which reflects the relevance of studies in the area of critical patients, allowing the perception of the complexity of care to this population and generating interest from professionals in professional development.

It is suggested to carry out studies with larger samples and focus on other clinical and sociodemographic variables in patients admitted in this type of ICU to increase knowledge about them and enabling a more targeted and qualified assistance to this profile of patients.

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Patient characteristics with infectious...


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