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EPIDEMIOLOGICAL ANALYSIS OF ELDERLY IN ICU IN THE GAÚCHA HILL REGION IN SOUTHERN BRAZIL: COMPARATIVE DATA TO 2018 AND COVID-19

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Abstract: Goals: to evaluate the epidemiological profile of the elderly in an intensive care unit (ICU) of a private hospital in Gaúcha Hill between April and September 2020, including those affected by Sars-CoV-2, and to compare the information collected in 2018. **Method:** retrospective observational study, including variables such as age, gender, prognostic score (SAPS3), days of ICU stay, mechanical ventilation (MV), death, and positive PCR test for Sars-CoV-2. Patients under 60 years of age and without SAPS3 completed due to ICU admission for less than 2 days were excluded. **Results:** A total of 184 elderly people in ICU were analyzed. 57% were men, with a mean age of 75 years, with 75% of hospitalizations for clinical reasons, mostly for respiratory causes (71.7%), consisting of 45 hospitalizations (62.5%) for Covid-19, also mostly male (66.7%), with a mean age of 72 years. They remained on average for 8.9 days, with an average SAPS3 of 52.9, with 52.57% of patients requiring MV and 50.5% of death. Among elderly people with Covid-19, the average was 14 days, with an average of SAPS3 60.7. 86.7% of these required MV and 68.9% died. In 2018, the majority were female (54.9%), with an average of SAPS3 54 and the main hospitalization cause of hospitalization was renal/metabolic clinic (29.3%), with an average of 7.6 days, 46% requiring MV and 27% progressing to death, unlike in 2020, probably due to the occurrence of the Sars-Cov-2 pandemic. **Conclusions:** There are few epidemiological analysis studies involving a specific group for elderly people with Covid-19 in ICU. The present study shows that the affected elderly require a longer hospital stay, as well as a greater need for MV and significantly higher mortality when compared to the general group of elderly people in 2020 and 2018, evaluated at the same institution.

Keywords: Critical care, old man, coronavirus infections.

INTRODUCTION

Aging is a dynamic, progressive and irreversible process, with physical, metabolic, psychological and social changes. In this context, it is known that humanity is undergoing population aging, with an inversion of the age pyramid. It is estimated that in 2025 there will be 32 million elderly people in Brazil, making it the 6th country with the highest number of elderly people in the world.[1]

In Rio Grande do Sul, the Population Aging Index in 1970 was 14.8 (for every 100 inhabitants under the age of 14, there were 14.8 inhabitants over 60 years of age), compared to an index of 65,4 (65.4 elderly people per 100 inhabitants under 14 years old) in 2010, which is the highest rate in Brazil.[2]

Greater longevity is a health challenge, presenting changes necessary to adequately care for older patients, who usually have a greater number of comorbidities and greater need for health care, demonstrating the need for deep adjustments in the type and amount of health services available to them. this part of the population.[1]

In this context, the Intensive Care Unit (ICU) consists of an environment that aims to care for complex patients, who have clinical and/or surgical conditions that require monitoring and delicate management. Efficiency and solvability are essential in this environment, contributing to favorable outcomes and shorter hospital stays. Among ICU patients, the elderly account for 42 to 52%, with approximately 60% of ICU patients.[1] The high prevalence of elderly people in this care environment denotes the importance of knowing their epidemiological profile, in order to ensure better assistance and lower cost. [3, 6]

In addition to the facts mentioned above, in 2020, when the study was carried out, the world was faced with a pandemic situation

of global impact, rarely experienced in the history of humanity, with the SARS-CoV-2 pathogen being identified, in order to analysis of elderly patients positive for the virus in the period covered by the study was added.

Regarding the growing share of the elderly in the population, there are few studies in Brazil and in Gaúcha Hill region on the characteristics of this group within the ICU environment. Thus, the objective of the present study was to analyze the epidemiological profile of the elderly admitted to the Intensive Care Unit of the Virvi Ramos Hospital and to perform a comparative analysis regarding the patients hospitalized from June to December 2018 in the same hospital, located in the municipality of Caxias do Sul - LOL.

MATERIAL AND METHODS

The present study analyzed the epidemiological profile of the elderly admitted to the intensive care unit of Hospital Virvi Ramos from April to September 2020. For this, patients aged 60 years or older were selected.

OUTLINE

Retrospective observational study describing the analysis of the profile of the elderly admitted to an intensive care unit at Hospital Virvi Ramos from April to September 2020 and their relationship compared to patients admitted from June to December 2018. A total of 275 hospitalizations were analyzed in the proposed period, which was chosen in view of the period with the highest admission of patients, including patients affected and not affected by Covid-19.

PATIENT SELECTION

All patients admitted to the intensive care unit (ICU) of Hospital Virvi Ramos from April 2020 to September 2021 were selected for the study and the profile of patients aged 60 years or older was analyzed, i.e., elderly

according to the definition of the World Health Organization for developing countries. Patients under 60 years of age in the ICU were excluded, as well as patients who did not have their SAPS completed, due to a hospitalization period of less than or equal to 2 days. A comparison was made with data obtained from patients hospitalized in this ICU in a similar period in 2018.

In the initial period of the study (April 2020), Virvi Ramos Hospital had an ICU comprising 6 private beds and 4 public beds, constituting a mixed ICU, which has clinical or surgical hospitalizations. Due to the pandemic situation and periods of health emergency, the ICU of Virvi Ramos Hospital became an ICU, counting from the month of May with ICU II, with 8 beds, and from the month of July with the ICU III, with 8 beds, covering a total of 26 beds.

Upon admission to the ICU, information such as sex, age, reason for hospitalization and SAPS3 score were collected. Other variables were also observed, such as the need for mechanical ventilation (MV), tracheostomy (TQT), total days of ICU stay and deaths. Another aspect is the verification of hospitalized patients with a positive test result for Covid-19.

As for the reasons for hospitalization, those of clinical cause were distributed according to the organic system affected: 1- cardiovascular, 2- neurological, 3- gastrointestinal, 4- respiratory, 5- renal/metabolic and, separately 6- surgical causes.

INSTRUMENTS

Data were collected and transcribed into a spreadsheet. Data such as number of patients, age, sex, length of stay in the ICU, discharge/death and SAPS3 come from the RMSaúde-TOTVS® program, Cubo 19.13/ Epidemiological Analysis system. Information on MV and TQT performance was collected

from an updated table by the physiotherapy team of the CTI of Hospital Virvi Ramos after permission for consultation. Information about positive test results for Sars-Cov-2 was verified with SCIH from Hospital Virvi Ramos (SCIH). Data were analyzed using a Microsoft Excel spreadsheet. They were checked individually, and their consistency and coherence were checked. Also, a comparison was made with data obtained from patients hospitalized in 2018 in the same ICU.

RESULTS

From April to September 2020, there were 271 admissions to the ICU of Virvi Ramos hospital. After selecting patients over 60 years of age, a total of 194 patients (70.54% - graph 1) were selected and, after applying exclusion criteria (not filling out the SAPS or patients not being discharged from the ICU until 11/15/2020), an analysis was performed. of 184 patients admitted to the ICU of Hospital Virvi Ramos (org chart 1).

Of the total number of elderly people analyzed, the majority are male (57.06% - graph 2), with 138 hospitalizations (75% - graph 3) for clinical reasons, among these, 99 hospitalizations occurred for respiratory reasons (71.7%), 11 hospitalizations for cardiovascular reasons (7.9%), 10 hospitalizations for neurological reasons (7.2%), 9 hospitalizations for renal/metabolic reasons (6.5%) and 9 hospitalizations for gastrointestinal reasons (6.5% - graph 4). The average age among the analyzed elderly was 75 years.

The mean of the SAPS score values was 52.89; and 93 patients died (50.54% - graph 5). The mean length of stay in the ICU was 8.9 days. 97 patients (52.71% - graph 6) required mechanical ventilation and 37 of the patients on mechanical ventilation (20.1% - graph 6) required tracheostomy.

All the analyzed values had a significant contribution to their results due to the Sars-Cov-2 pandemic, such as the main reason for hospitalization being respiratory and the largest share of patients undergoing mechanical ventilation, as well as the number of patients with an outcome of Deaths.

Thus, epidemiological data among elderly patients positive for Sars-CoV-2 in the ICU environment were also verified (Table 1). During the study period, a total of 72 patients with positive results were analyzed, of which 45 were elderly people over 60 years old (62.5%), with an average SAPS found of 60.7, with a mean age of 72 years., and most patients (30 patients, corresponding to 66.7%) were male. The infected elderly patients remained in the ICU for an average of 14.7 days, and 31 patients died (68.9%). 86.7% were submitted to mechanical ventilation (39 patients), and 17 (37.8%) required and/or had clinical conditions to perform a tracheostomy.

DISCUSSION

The world population of elderly people is constantly growing, with an important participation in the process of demographic transition, resulting from the decline in mortality and birth rates.[7] In Brazil, this transition has occurred rapidly.[8,9]

It is estimated that the Brazilian elderly population will reach 32 million in 2025, placing the country as the sixth largest in number of elderly people in the world.[10] Projections from the Brazilian Institute of Geography and Statistics suggest that the proportion of people aged 60 and over will reach 64 million people in 2050, which will represent 24.6% of the total population.[10,11] While in France it took 150 years for the elderly population to double from 10% to 20%, it is estimated that in Brazil this event will occur in 20 years.[8,9,12]

The rapid and progressive increase in the number of elderly people, which is already

being observed, is accompanied by greater attention to chronic diseases and their complications, constituting a challenge for the health system in terms of its management, funding, availability and professional qualification. [8,9,13,14]

This fact is reflected in the portion of hospitalized elderly people and also in the portion admitted to intensive care units. An increase of 50% in the demand for ICU beds is estimated to accompany the population aging process, and this increase will also be observed in the need for rehabilitation programs, health supplies and nursing homes.[15] Regardless of the health indicator analyzed, studies show a higher proportion of diseases in citizens over 60 years of age, indicating that their comorbidities need to be identified, managed and monitored early, in order to reduce mortality rates and health costs, avoiding future overload on specialized health services.[6]

Regarding the ICU environment, the present study found that the majority of patients are elderly (70.54%), similar to that found in an analysis carried out at the same hospital in 2018, when the elderly corresponded to 73.7% of the patients. ICU patients[19] and when compared to other studies carried out in different countries (such as Spain, Mexico and Finland)[14, 16-18, 20-22], also including other regions of Brazil (such as São Paulo, Paraná and Rio Grande do Norte)[5,6], reflecting the significant presence of the elderly population in Gaúcha Hill, highlighting that the proportion of elderly people in ICU also reflects characteristics of their location, in addition to the type of ICU (clinical, surgical or mixed) and the type of hospital (basic or tertiary).[16]

As for the sex of the elderly portion hospitalized in ICU, a predominance of males was found (57.6%), contrary to what was found in 2018, when 54.9% of patients were female.[19]

This dichotomy is present in other studies, which present a greater representation of men among patients [3,13,17,20-23,27], now have a greater presence of women in their samples.[11,19,24] In the articles reviewed, there was a greater number of studies demonstrating a greater presence of males among the elderly patients studied. In this context, given the differences found on the predominant sex in the literature and also in the comparison between the analyzes carried out in 2018 and in 2020 at the same institution, it is inferred that, probably, the patient's sex does not influence the severity of the condition.

Regarding the SAPS 3 score for severity criteria at admission, the analysis showed a score of 52.9 in the elderly population, similar to 2018, whose value was 53. This result is in line with what was found in surveys with a sample of elderly people in ICU carried out in other institutions.[17,25] Still, the mortality found of 50.54% among the analyzed elderly is highlighted, different from the 27% rate presented in the previous study.[19] It is believed that a significant portion of death outcomes occurred due to the pandemic state that occurred in 2020, when an unprecedented disease challenged, and still instigates, the scientific environment, with the elderly group being the population most likely to be vulnerable to the pathology. Analyzes carried out before the Covid-19 pandemic predicted an increase in mortality among the elderly from 24 to 40%.[23]

Regarding the reason for hospitalization, the mixed ICU of the hospital in question had a greater share of clinical admissions (75%), similar to what happened in 2018 (79.7%). There was a predominance of respiratory causes (71.7%), followed by cardiovascular (7.9%), neurological (7.2%), renal/metabolic (6.5%) and gastrointestinal (6.5%) etiologies. This result had a considerable influence on the Acute Respiratory Distress Syndrome (ARDS)

cases, resulting from complications from infection with the Sars-CoV-2 virus. Previous analysis at the same institution showed a prevalence of renal/metabolic (29.3%, including sepsis), cardiovascular (25.3%), respiratory (24.6%), neurological (15.3%) and gastrointestinal reasons (5,3%).[19]

In this context, 52.7% of elderly patients required invasive ventilation, with 20.1% requiring tracheostomy due to prolonged mechanical ventilation (MV), the numbers are more expressive compared to those found in 2018 (46% and 11 .7%, respectively), it is inferred that this difference occurred due to the management of ARDS in intensive care in the context of the Covid-19 pandemic.

Also, an analysis carried out in 2018 showed an average length of stay of 7.65 days among elderly people in the ICU.[19] In 2020, an average of 8.9 days was observed, with the months with the longest average hospitalization time occurring in July (8.5 days), August (15.5 days) and September (10.17 days), according to the highest average number of Sars-Cov-2 cases in the state of Rio Grande do Sul.[51] The average length of stay in both 2018 and 2020 is consistent with other studies involving the elderly population in ICU, where 1-13.1 days of hospitalization were found.[3,5,6,11,17,18,21,23-27]

It is known that the year 2020 was marked by the presence of the coronavirus pandemic (Sars-CoV-2), causing Covid-19, a condition that in many cases causes ARDS, with an expressive inflammatory response, still without defined treatment so far. of construction of this study.[28] Such an infectious disease presents the elderly as a vulnerable group, who are more susceptible to complications from the infection, since they have more frailty comorbidities and, thus, are at greater risk of developing severe forms of the disease, requiring intensive care and a higher rate of infection. Lethality.[28,29] North American analyzes described 31% of Covid-19 cases occurring in the elderly over 65, according to a study, with this group accounting for 45% of hospital admissions, 53% of ICU admissions and 80% of recorded deaths.[28]

Articles discussing the pathophysiology of Covid-19 in the elderly were reviewed, as well as studies analyzing reports and literature review in this part of the population. Study reported higher mortality among elderly males with severe Covid-19[30,31], in the same way, more deaths were found in the present study among elderly males in the ICU of the present analysis (66.7%). In Brazil, data collected at the beginning of the pandemic in the country (April 2020) indicated that 70% of affected patients were elderly, similar to the finding in the current research.[32] Even so, data on elderly patients affected by Sars-Cov-2 regarding the ICU environment are scarce, and no research has been found aimed at this significant portion of the population in intensive care to date, highlighting the importance of studies in the area in question for a better approach to the present pathology resulting from the current pandemic.

CONCLUSION

Elderly people constitute the largest portion of patients hospitalized in intensive care, especially respiratory and cardiovascular clinical causes. Most of the patients in the present study are male, and patients with Sars-CoV-2 are more prone to prolonged hospitalizations and have a significantly higher risk of death. Based on the results obtained, the need to know the epidemiological profile of the elderly hospitalized in ICU is highlighted, especially in the face of a pandemic situation caused by Sars-Cov-2, an unprecedented disease that challenged doctors and managers to better care for patients, of which the elderly are a significantly vulnerable group, since the aging process itself involves anatomical,

physiological and psychosomatic changes, which, combined with changes in the immune system, predispose the elderly to the severe form of the disease. Considering the progressive and accelerated increase in the elderly population in Brazil, the importance of studies that discuss the specific needs of the elderly is expressive, and it is emphasized that they must be considered a priority group for care at all levels of health care, especially in the primary, where preventive measures would minimize complications resulting from the multiple comorbidities commonly present in the third and fourth age. Both in primary care, in hospitals and in intensive care, the elderly are important representatives in planning the management of health resources for better care and better use of their services.
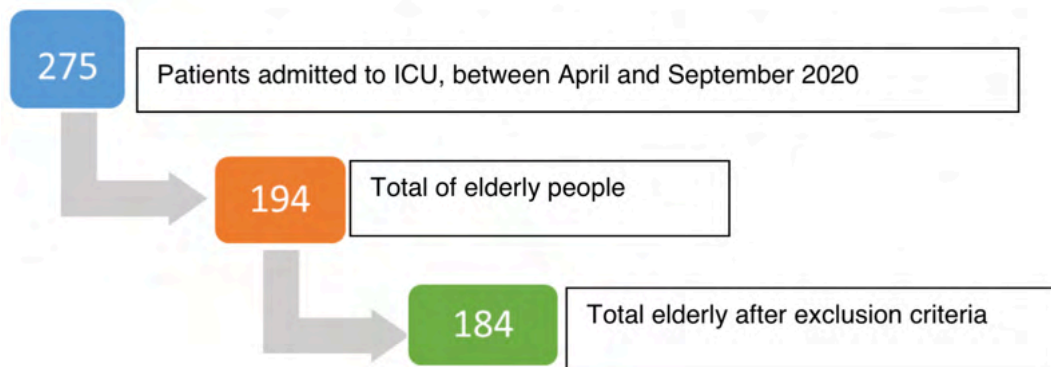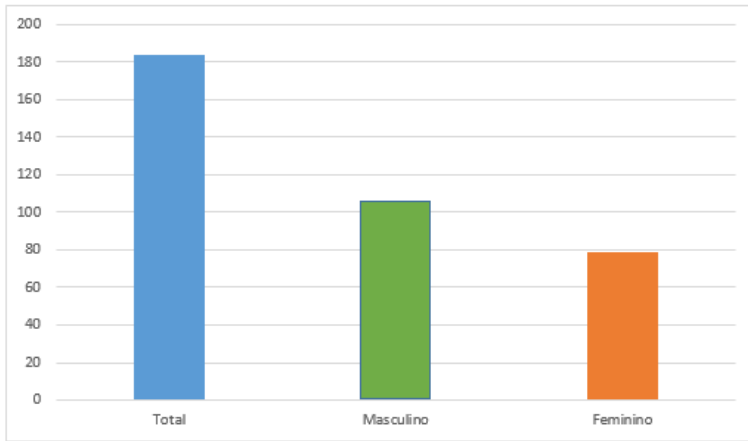

Organizational Chart 1 - Selection of patients
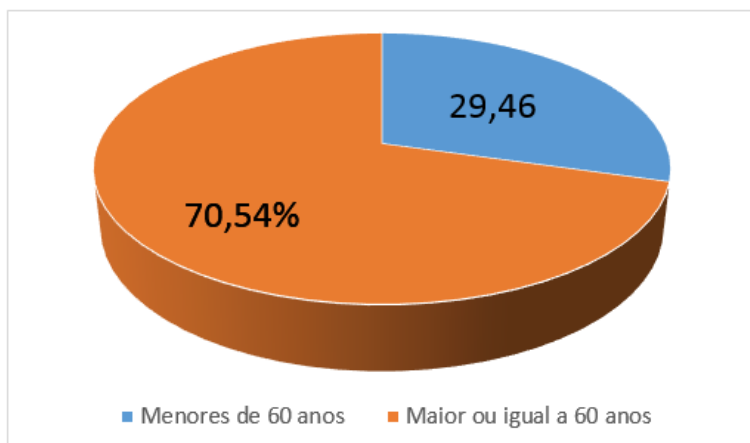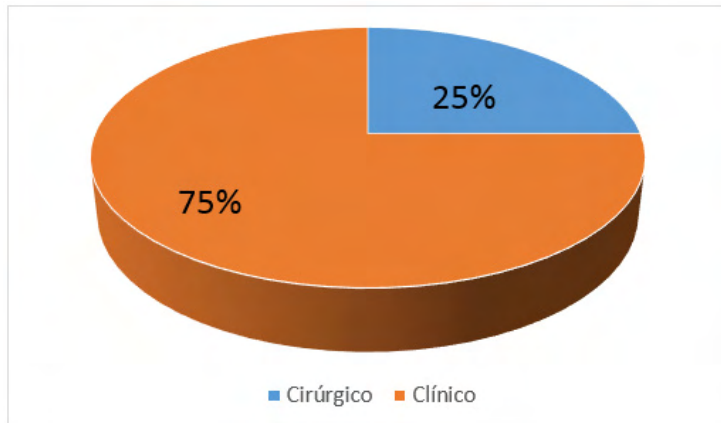

Under 60 years old   Greater than or equal to 60 years old

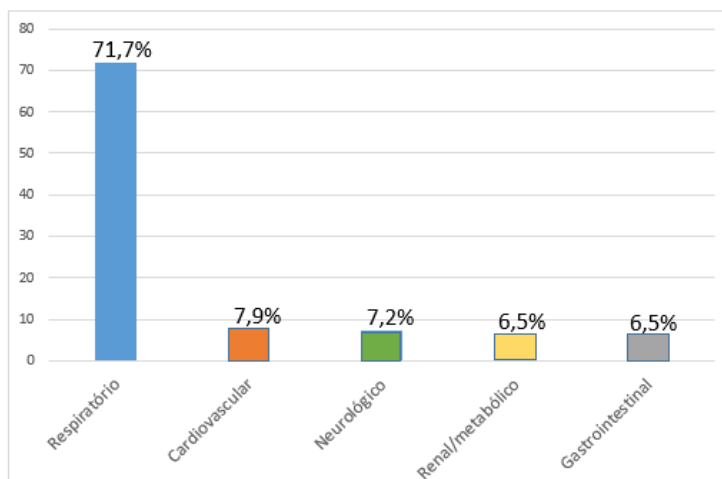Graph 1 - Total elderly

Total   Male   Female

Graph 2 - Number of elderly patients by sex
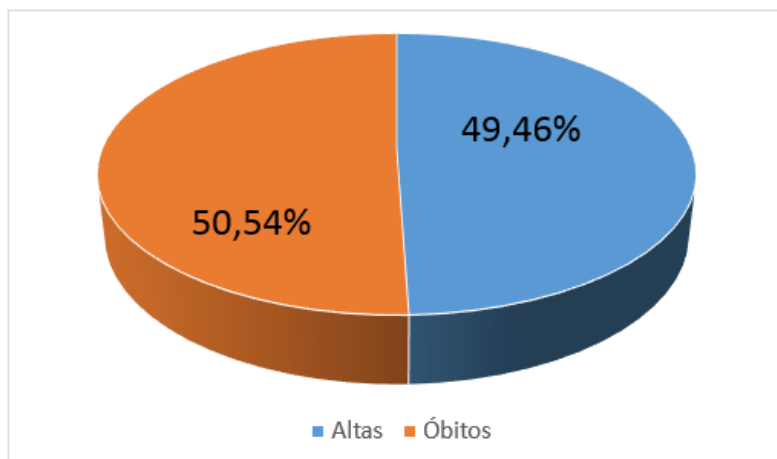

Clinical   Surgeon

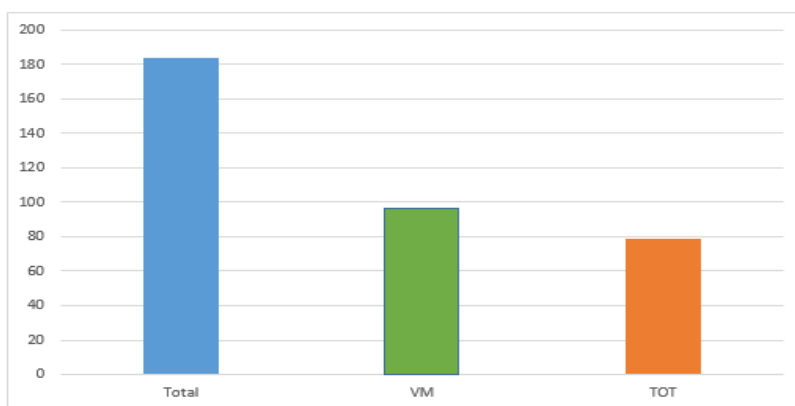Graph 3 - Clinical and Surgical Admissions in the Elderly in the ICU

Respiratory / Cardiovascular / Neurological / Renal / Metabolic / Gastrointestinal

Graph 4 - Reasons for Clinical Hospitalization among the elderly in the ICU

Discharges   Deaths

Graph 5 - Deaths among the elderly in ICU

Graph 6 – Elderly on mechanical ventilation (MV) and with tracheostomy (TOT) (TOT)

	2018	2020: Sars-CoV-2 negative	2020: geral	2020: Sars-CoV-2 positive
Women sex	121 (54,9%)	64 (46,94&)	79 (42,9%)	15 (33,3%)
Male sex	100 (45%)	75 (53,9%)	105 (57%)	30 (66,7%)
Middle Ages	Not described	75 years	75 years	72 years
Average lenght of stay	5,9 days	6,8 days	8,9 days	14,7 days
SAPS 3 - Medium	53	51,6	52,9	60,7
VM need	102 (46%)	58 (41,7%)	97 (52,7%)	39 (86,7%)
TQT need	26 (11,7%)	20 (14,4%)	37 (20,1%)	17 (37,8%)
Death	60 (27%)	62 (44,6%)	93 (50,5%)	31 (68,9%)

Table 1 - Epidemiological data among Covid-19 positive and negative elderly patients in the ICU setting, compared to data collected in 2020 with the general elderly population and compared to data found in 2018

REFERENCES

1. SCHEIN, Luiz Eduardo C.; CEZAR, Juraci A. Perfil de idosos admitidos em unidades de terapia intensiva gerais em Rio Grande, RS: resultados de um estudo de demanda. **Rev Bras Epidemiol**, v.13, n.2, p. 289-301, 2010.

2. CLOSS, Vera E.; SCHWANKE, Carla H. A. A evolução do índice de envelhecimento no Brasil, nas suas regiões e unidades federativas no período de 1970 a 2010. **Rev Bras Geriatr Gerontol**, v.15, n.3, p. 443-458, Rio de Janeiro, 2012.

3. TALIZIN, Thalita B., et.al. Fatores de risco para mortalidade em idosos admitidos em unidade de terapia intensiva de hospital público. **Geriatr Gerontol Aging**, v.13, n.2, p. 69-74, 2019.

4. BOUMENDIL, Ariane, et. al. Prognosis of patients aged 80 years and over admitted in medical intensive care unit. **Intensive Care Med**, v. 30, p. 647-654, 2004.

5. BONFADA, Diego, et. al. Análise de sobrevida de idosos internados em unidade de terapia Intensiva. **Ver Bras Geriatr Gerontol**, v. 20, n.2, p. 198-206, Rio de Janeiro, 2017.

6. DE OLIVEIRA, Verônica C. R., et. al. Evolução clínica de adultos, idosos e muito idosos internados em unidade de terapia intensiva. **Rev Latino-Am Enfermagem**, v.19, n.6, 2011

7. BANGSHAW, Sean M., et. al. Very old patients admitted to intensive care in Australia and New Zealand: a multi-centre cohort analysis. **Critical Care**, v.13, 2009.

8. CINTRA, Marco T. G., et. al. The impacto of intensive care admission criteria on elderly mortality. **Rev Assoc Med Bras**, v. 65, n.7, p. 1015-1020, 2019.

9. Site da Sociedade Brasileira de Geriatria e Gerontologia. Relatório mundial em Envelhecimento e Saúde. Organização Mundial da Saúde, Genebra, 2015. Disponível em: https://sbgg.org.br/wp-content/uploads/2015/10/OMS-ENVELHECIMENTO-2015-port.pdf. Acesso em: 10/12/2020.

10. DE SOUZA, Thieli L. Ocorrência de eventos adversos em pacientes idosos internados em uma unidade de terapia intensiva. 2013. 21 folhas. (Curso de Especialização em Gestão da Atenção à Saúde do Idoso) – Grupo Hospitalar Conceição, Porto Alegre, 2013.

11. FEIJÓ, Carlos A. R., et. al. Morbimortalidade do idoso internado na unidade de terapia intensiva do hospital universitário de Fortaleza. **Rev Brasil de Terap Int**, v. 18, n. 3, p. 263-267, 2006.

12. Site da Organização Pan-Americana de Saúde. Folha Informativa – envelhecimento e saúde. OPAS, 2018. Disponível em https://www.paho.org/bra/index.php?option=com_content&view=article&id=5661:folha-informativa-envelhecimento-e-saude&Itemid=820. Acesso em 12/12/2020.

13. REYES, José C. L., et. al. Characteristics and mortality of elderly patients admitted to the intensive care unido f a district hospital. **Indian J of Crit Care Med**, v. 20, p. 391-397, 2016.

14. SANCHEZ-HURTADO, Luis A.El adulto mayor em uma unidad de cuidados intensivos mexicana, análisis retrospectivo. **Med Intensiva**, v.42, n.4, p. 258-260, 2018

15. FLAATTEN, H., et. al. The status of intensive care medicine research and a future agenda for very old patients in the ICU. **Intensive Care Med**, v.43, n.9, p. 1319-1328, 2017

16. LÓPEZ-SOTO, Alfonso, et.al. El anciano em la unidad de cuidados intensivos. **Rev Esp Geriatr Gerontol**, v. 44, n. S1, p. 27-33, 2009

17. SÁNCHEZ-HURTADO, Luis A., et. al. Validation of a prognostic score for mortality in elderly patients admitted to intensive care unit. **Indian J of Crit Care Med**, v. 20, p; 695-700, 2016.

18. KAARLOLA, Anne R. N.; TALLGREN, Minna; PETTILA, Ville. Long-term survival, quality of life, and quality- adjusted life-years among critically ill elderly patients. **Crit Care Med**, v.34, n. 8, p. 2120-2126, 2006

19. CIGNACHI, Caroline. Perfil epidemiológico dos pacientes idosos internados no Centro de Terapia Intensiva do Hospital Virvi Ramos. 2019. 20 folhas. Trabalho de conclusão de residência em clínica médica. Hospital Virvi Ramos, Caxias do Sul, 2019.

20. VOSYLIUS, Saulius; SIPYLAITE, Jurate; IVASKEVICIUS, Juozas. Determinants of outcome in elderly patients admitted to the intensive care unit. **Age and Angeing**, n.34, p. 157-162, 2005.

21. LANKOANDÉ, M.; et. al. Inhospital outcome of elderly patients in na intensive care unit in a Sub-Saharan hospital. **BMC Anesthesiology**, v.18, n. 118, 2018.

22. SHPATA, Vjollca; et.al. The prevalence and consequences of malnutrition risk in elderly Albanian intensive care unit patients. **Clinical Interventions in Aging,** v. 10, p. 481-486, 2015.

23. GUIDET, Bertrand; et. al. Effect of systematic intensive care unid triage on long-term mortality among critically ill elderly patients in France: a randomized clinical trial. **JAMA**, v. 318, n. 15, p. 1450-1459, 2017.

24. ORSINI, Jose; et. al. Prognostic factors associated with adverse outcome among critically ill elderly patients admitted to the intensive care unit. **Geriatr Gerontol Int**, v. 15, n. 7, p. 889-894, 2015.

25. ZAMPIERI, Fernando G.; et. al. Admission factors associated with prolonged (>14 days) intensive care unit stay. **Journal of Critical Care**, v. 29, p. 60-65, 2014.

26. DOCHERTY, Annemarie; et. al. Epidemiology and outcomes o folder patients admitted to Scottish Intensive care units: a national database linkage study. **Lancet**, 385 supll.1, s33, 2015.

27. KIZILARSLANOGLU, Muhammet C. Is frailty a prognostic fator for critically ill elderly patients? **Aging Clin Exp Res**, v. 29, n. 2, 2017

28. FHON, Jack R. S.; et. al. Atendimento hospitalar ao idosos com COVID-19. **Rev Latino-Am. Enfermagem**, v. 28, e. 3396, 2020.

29. PERROTTA, Fabio; et. al. COVID-19 and the elderly: insights into pathogenesis and clinical decision-making. **Aging Clin Exp Res**, v. 32, n.8, p. 1599-1608, 2020.

30. DAOUST, J. F. Elderly people and responses to COVID-19 in 27 countries. **Plos One**, v.15, n.7, 2020

31. O'DRISCOLL, Megan; et. al. Age-specific mortality and immunity patterns of SARS-CoV-2 infections in 45 countries. **Nature**, 2020. Disponível em: https://pubmed.ncbi.nlm.nih.gov/33137809/. Acesso em 26.12.2020.

32. SANTOS, Jemima R. L.; et. al. Repercussions of Covid-19 for everyday of elderly people. **REVISA**, v.9, spe.1, p.576-582, 2020.