



PPGSBio

Programa de Pós-Graduação em
Saúde e Biodiversidade



UFRR



II ACADEMIC JOURNAY OF PPGS *Bio*

Regionalization, biodiversity and
sustainability in the Northern Amazon

ABSTRACT BOOK



*Boa Vista - RR
Apr. 26, 2023*

II PPGSBio Journey: Regionalization, biodiversity and sustainability in the Northern Amazon

April 26th, 2023

Boa Vista - Boa Vista - Roraima - Brazil

ABSTRACT BOOK

**II PPGSBIO JOURNEY: REGIONALIZATION, BIODIVERSITY AND
SUSTAINABILITY IN THE NORTHERN AMAZON**

1st Edition

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CONFLICT OF INTEREST

The authors' resumes have been submitted for this edition, they all have confirmed that there is no conflict of interest. All content presented in this work is the sole responsibility of the authors.

COORDINATION

Prof. Dr. Gabrielle de Souza Rocha

Prof. Dr. Fabiana Nakashima

Profa. Dr. Cléria Mendonça de Moraes

ORGANIZING COMMITTEE

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Leidiane Martins Saraiva

Letícia Souza Moreno Dantas

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Luéliton De Lima Victor

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Rodrigo Borges Lima

Thais Pereira da Silva

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Wilma Lima Pound

Leôncio de Oliveira Torres

Valkíria de Sousa Silva

Undergraduate students

Dhemerson Azevedo De Sousa Isabela

Ávila Malburg

Sara Thaynã Fernandes Rocha

ART EDITION

Dhemerson Azevedo De Sousa

Marjorie Yadira Jaramillo Cardenas

Sara Thaynã Fernandes Rocha

LAYOUT DESIGNER

Marjorie Yadira Jaramillo Cardenas

COVER IMAGE

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ABOUT THE EVENT

As part of the II Academic Journey of the Graduate Program in Health and Biodiversity (PPGBio), we aim to socialize scientific production in the Northern Amazon, as well as to encourage local, national, and international participation and integration.

In this hybrid edition, the theme was Regionalization, Biodiversity, and Sustainability in the Northern Amazon, where members of the academic community who are involved in graduate programs and scientific projects at UFRR had the opportunity to engage in a dialogue.

Organizing Committee

MESSAGE FROM THE ORGANIZATION

It is the II Academic Journey of the Graduate Program in Health and Biodiversity (PPGSBio) that reaffirms the commitment of the Federal University of Roraima (UFRR) to advance scientific knowledge and foster interdisciplinary dialogue on critical issues in the Northern Amazon.

A dynamic platform for academic exchange has been established by the theme "Regionalization, Biodiversity, and Sustainability in the Northern Amazon." This edition brought together researchers, students, and professionals in a hybrid format that enhanced the possibility of participation and interaction among participants.

We would like to express our gratitude to the researchers and students who have shared their studies, helped enrich the discussion, and inspired new collaborations. We would like to express our gratitude to the researchers and students who have shared their studies, helped enrich the discussion, and inspired new collaborations.

Prof. Dr. Gabrielle de Souza Rocha
Prof. Dr. Fabiana Nakashima
Profa. Dr. Cléria Mendonça de Moraes

PROGRAM OF THE II PPGSBio Journey: Regionalization, biodiversity and sustainability in the Northern Amazon

Date: April 26th, 2023

Hours: from 8 am to 12 pm and 2 pm to 6 pm

Location: CCS Auditorium, Paricarana Campus – UFRR

Activities:

08:30-09:00 - Opening round table

09:00-09:25 - The impact of omics techniques on chemical ecology: the perspective for a rational search for assets from our biodiversity

09:30-09:55 - Nature, through molecular diversity arising from co-evolution with pathogens, provides AMPs as alternatives to conventional antibiotics and valuable contributors to the arms race against pathogens

10:00-10:25 - Turning toxic arsenals into lifesaving drugs: lessons from the venoms of small arthropods

10:30-11:00 - Coffee break

11:00-12:00 - Presentations

14:00-15:00 - Regionalization, biodiversity and indigenous health

15:00-15:30 - Coffee break

15:30-16:10 - Problems associated with mining for the state's rivers, including mercury use and water quality

16:15-17:00 - Advances and Prospects of Postgraduate Programs at UFRR

PALESTRANTES CONVIDADOS



Prof. Adelma Alves de Figueirêdo

A physician graduated from UFPE, with a residency in Pediatrics from IMIP, specialization in Pediatric Gastroenterology (2001), and a master's degree in Child and Adolescent Health (2002) from UFMG. She has been an assistant professor of Medicine at UFRR

since 2003 and has experience in hospital management and with the Municipal Health Department of Boa Vista (2007-2008). She holds a certification in Pediatric Nutrition from the Brazilian Society of Pediatrics (SBP) (2017), where she served as vice president of the Roraimense Society of Pediatrics for two terms and president for four.

Currently, she coordinates the Northern Region of the SBP Regional Integration Board, instructs the CANP, and leads the organization of PEDNORTE. In her professional practice, she works as a pediatric gastroenterologist and nutritionist, with expertise in Maternal and Child Health, as well as the healthcare needs of indigenous populations.



Prof. Eugênio Patrício de Oliveira

A physician graduated from the Federal University of Paraíba, with a specialization in Pediatrics from the Federal University of Roraima. She holds a degree in Pain Treatment and Palliative Medicine from the Hospital de Clínicas de Porto Alegre and is currently pursuing a master's degree in Medical Sciences – Neuroscience and Pain at UFRGS. He is a professor of Pediatrics at the State University of Roraima and

Service at HCSA, in addition to working as an assistant physician in the Palliative Care services at HGR and HCWF. His main areas of expertise include neurosciences, pediatrics, pain management, palliative medicine, autism, child neurodevelopment, and cannabinoid medicine.

She holds a degree in Biomedicine from the serves as the head of the Pain and Palliative Care



University of Marília (2007), a master's degree in Genetics from UNESP (2010), and a PhD in Health Sciences from FAMERP (2015), with CAPES-DS and FAPESP scholarships. She conducted research in immunogenetics and animal health at FAMERP and USP, with experience in the laboratory diagnosis of *Toxoplasma gondii* infection. She is currently a professor in the Medicine program at UFRR, where Prof. Dr. Fabiana Nakashima she is responsible for the Morphology Module Applied to Clinical Practice and serves as the coordinator of PPGSBio. Her research focuses on arboviruses, malaria, HIV, and toxoplasmosis.

Grossa (2007), with a master's and PhD in Genetics, Conservation, and Evolutionary



Prof. Dr. Norberto Peporine Lopes

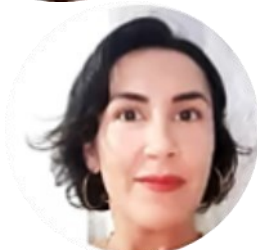
A Pharmacist, with a Master's in Pharmaceutical Sciences and a PhD in Chemistry from USP, he is also a full member of the Brazilian Academy of Sciences. He is a full professor at FCFRP-USP, where he coordinates the Center for Research in Natural and Synthetic Products and the Center for Mass Spectrometry of Organic Micromolecules. He has served as president of the Brazilian Society of Chemistry (SBQ) and holds strategic positions at INOVA-USP and NIDUS. With over 500 publications and numerous awards, his research focuses on natural product chemistry and mass spectrometry, with particular emphasis on chemical ecology and innovation.

Biochemist and specialist in innate immunity and antimicrobial peptides, his research is centered on the discovery and characterization of bioactive molecules involved in host defense, with applications in biomedicine and biotechnology.

He has extensive experience in proteomics, mass spectrometry, and bioprospecting of natural compounds, and has worked at several prestigious institutions, leading projects focused on new therapeutic strategies for

Dr. Philippe Bulet

combating infections and inflammatory diseases. In addition to his scientific contributions, he actively collaborates with international networks to develop



Prof. Dr. Leila Ribeiro A
Biologist graduated from the
State University of Ponta

Biology from INPA (2013). She is an adjunct professor of Medicine at UFRR, where she conducts research in animal genetics, cytogenetics, congenital defects, and epidemiology. She leads the research group "Biodiversity and its Relationship with Health-Disease" and is a member of the permanent faculty of the Graduate Program in Natural Resources.



Prof. Dr. Samantha Xena Nunes

Biologist and researcher at the University of Giessen, Germany, specializing in the biochemistry and biotechnology of animal toxins. He has expertise in proteomics, transcriptomics, and structural biology, with a focus on investigating bioactive compounds from venoms and natural secretions for biomedical and biotechnological applications. His research explores the chemical diversity of toxins

Dr. Tim Lüddecke



Quadros

the development of new drugs and biomolecules. In addition to his academic work, he collaborates with international research groups on the bioprospecting and their therapeutic potential, contributing to

innovative approaches in immunology and pharmacology.

Nutritionist and Pediatrician, specializing in Pediatric Nutrology (SBP/ABRAN) and Pediatric Parenteral and Enteral Nutrition (AMB/SBP/BRASPEN). He holds certifications as a specialist in Nutrology (ABRAN/AMB) and Pediatrics (TEP – SBP/AMB), in addition to completing a medical residency in Pediatrics (CNRM). She earned a Master's in Health Sciences from UFRR, with research focused on pediatric nutrology and child malnutrition, and is currently a PhD student in Biotechnology and Biodiversity at Bionorte/UFRR. As a Professor of Medicine at UFRR, she coordinates the modules on Child Health and Nutritional and Metabolic Disorders.

THEMATIC AREA

Axis 1. Health Education and Training



Prof. Dr. Vladimir Souza and characterization of venoms.

Geologist graduated from UFRGS, with a master's and PhD in Geosciences from the same institution. He is currently a Level 4 Associate Professor at the Federal University of Roraima (UFRR), where he works in the Geology program and in the graduate programs in Geography and the professional master's degree at the National Water Agency (ProfÁgua). He served as the Dean of Extension and Student Assistance at UFRR and has expertise in Paleontology, Stratigraphy, Biostratigraphy, and Petroleum Geology, coordinating projects on technological innovation and geological mapping in Roraima. In extension, he leads socio-environmental and environmental education projects, such as Hydros (Petrobras Ambiental) and the SocioEnvironmental Education Program (PROEXT/MEC). He is the leader of the research groups "Geological Studies of Roraima" and "Paleontology of the Amazon", and is actively involved in the Center for Studies and Planning in Hydrogeography (NEPH) and the WATER NETWORK.

Axis 2. Biodiversity, Education and Training

Axis 3. Health, environment and society relations

Axis 4. Covid-19 pandemic and its legacies

HONORABLE MENTIONS

In this edition of the II Academic Journey of the PPGSBio, three works received an honorable mention for their relevance and contribution to research in health and biodiversity. Check out the award-winning works and their respective authors:

1st place: *The impact of the covid-19 pandemic on the mental health of health professionals in the state of Roraima*

Authors: Renata Souza Trindade Almeida; Alana Bringel Feliciano; Evair dos Santos Rocha; Julio Cesar Fraulob Aquino; Gabrielle de Souza Rocha.

2nd place: *Nursing diagnoses in the activity/rest domain of NANDA-I taxonomy for the elderly in a long-term institution*

Authors: Luiza Gomes Ferreira; Aimêe Leitão Cruz; Gregório Cavalcante Silveira; Rafaela Beatriz Nóbrega Mota Eulálio; Viviane Maria Dos Santos Almeida; Luana Holanda Dos Santos; Raquel Voges Caldart.

3rd place: *Prevalence of disease factors risk in adults from Federal University of Roraima (UFRR)*

Authors: Sivone Costa de Araújo; Farney Fabrício Menezes de Araújo; Rizelda Alves Leal; Ana Carolina Godinho Fontenele; Letícia Coêlho Gomes; Rozinaldo Galdino da Silva; Julio Cesar Fraulob Aquino; Evair dos Santos Rocha.

TECHNICAL-SCIENTIFIC SUPPORT

Health and Diversity Journal

Graduate Program in Health and Diversity

REVIEW IN ENGLISH, UFRR ACADEMICS

Ana Beatriz Fonseca Aguiar

Jhonatan Leonardo Oliveira Palhares

Nathalia Mendonça Winkler

Ruan Lucas de Almeida Mangueira

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Axis 1. Health Education and Training

Educação e Formação em Saúde



Analysis of knowledge about available prevention strategies and adherence to these practices by people living with HIV/Aids in Boa Vista, Roraima

Luiza Helena Barreto Cavalcante¹; Vichthoria Castilho Simão¹; Pâmella Graziella Gomes Fontenelle¹; Gracielli Nonato Barbosa¹; Caroline Barbosa Moura¹; Fabiana Nakashima²

¹Medical School, Federal University of Roraima, Boa Vista, RR, Brazil.

²Professor at the Graduate Program in Health and Biodiversity, Federal University of Roraima, Boa Vista, Roraima, Brazil.

ABSTRACT

Introduction: The Acquired Immunodeficiency Syndrome (AIDS), caused by the human immunodeficiency virus (HIV), is characterized by the impairment of the host's immune system. It is known that to reduce the transmission of this virus, there are several strategies made available by state and municipal agencies, and the importance of adhering to these prevention practices is unquestionable. **Objective:** To analyze the level of information regarding available prevention strategies and adherence to these practices by individuals living with HIV/AIDS in Boa Vista, Roraima. **Methodology:** This is a basic research of a descriptive observational nature, with a qualitative and quantitative approach, in which a questionnaire was applied covering questions related to knowledge about forms of prevention [indication and acquisition of pre-exposure prophylaxis (PrEP) and of Post-Exposure Prophylaxis (PEP), importance of regular use of medication, knowledge about combined prevention and risk management] to HIV and adherence to practices [use of condoms in all sexual relations and correct use of medication] in individuals who live together with HIV/AIDS in a public health service in the municipality of Boa Vista, RR. **Results:** 264 individuals living with HIV/AIDS agreed to participate in this research. 117 (44.3%) reported not using condoms in all sexual relations. Two hundred and five (77.65%) said they felt informed about HIV/AIDS and 59 (22.35%) said they didn't. By comparing these frequencies with questions regarding prevention and adherence measures, this study identified statistically significant differences on: knowledge about combined prevention and risk management ($p < 0.0001$), correct use of medication ($p < 0.04$), importance of regular use ($p < 0.0004$), knowledge about indication and acquisition of PrEP and PEP ($p < 0.0001$). **Conclusion:** In view of the results, a serious scenario is observed, as the present work identified that individuals living with HIV/AIDS in Boa Vista do not have sufficient knowledge regarding the prevention strategies available in the municipality and in the State, and still have favorable behavior for virus transmission.

Keywords: HIV/Aids; prevention and control; medication adherence.

Funding source: PIBIC – UFRR, Municipal Health Department and authors' own funding.



Comparative study of the incidence of acquired immunodeficiency syndrome in the state of Roraima in the period from 2010 to 2019 in relation to the northern region of Brazil

Laís Fernanda de Souza Viana¹; Luiza Helena Barreto Cavalcante¹; Rayla Leandra Oliveira dos Santos¹; Rafael Silva Motta¹; Álvaro Vieira Aciole Paixão¹; Amanda Maria Sousa Felix²; Fabiana Nakashima³.

¹Medical School, Federal University of Roraima, Boa Vista, RR, Brazil.

²Medical School, Federal University of Fluminense.

³Professor at the Graduate Program in Health and Biodiversity, Federal University of Roraima, Boa Vista, Roraima, Brazil.

ABSTRACT

Introduction: The Acquired Immunodeficiency Syndrome (AIDS) has the Human Immunodeficiency Virus (HIV) as an etiological agent. In Brazil, the first case of AIDS was registered in 1980, in the state of São Paulo, and since then it has spread across the country. Factors such as migratory movements, drug trafficking and the sex trade contributed to the spread of this epidemic in the 1990s. **Objective:** To evaluate the incidence of AIDS cases in the State of Roraima and compare it with the states of the North Region. **Methodology:** This is an epidemiological, descriptive, retrospective and quantitative study, which is based on data collection in DATASUS and in the Virtual Health Library (BVS) and Scientific Electronic Library Online (Scielo) databases in the period from 2010 to 2019. **Results:** It was observed that during the study period, in the State of Roraima, there were 1,633 cases of AIDS, representing 4.2% of notifications in the northern region, with 1,101 (67.4%) of males and 532 (32, 6%) females. In parallel, in this time interval, the North Region registered 39,083 cases, among which 25,816 (66.1%) were men. Still, it was found that Pará was the state with the highest number of cases (46.2%, n=180,563,460) among the total number of cases in the region. **Conclusion:** In view of the results, it is concluded that Roraima, the smallest state in the northern region of Brazil, has the lowest incidence of AIDS in the period studied, while the highest incidence is represented by the State of Pará, which also has the highest demographic density. As for gender, both states had similar frequencies.

Keywords: Human immunodeficiency virus; acquired immunodeficiency syndrome; information; north of Brazil.

Funding source: Federal University of Roraima and authors' own funding.

Forms of clinical presentation of Guillain-Barré syndrome: narrative review

Vichthoria Castilho Simão¹; Guilherme Henrique Barros Borges¹; Fabiana Nakashima².

¹Undergraduate student, Medicine, Health Science Center, Federal University of Roraima.

²PhD, Medicine, Post-graduation in Health and Biodiversity, Health Science Center, Federal University of Roraima.



ABSTRACT

Introduction: Guillain-Barré Syndrome is a spectrum of acute inflammatory polyneuropathies that, due to autoimmune activation, affects the function of the myelin sheath of peripheral nerves, leading to bilateral ascending flaccid paralysis. The most common forms are classic demyelination and axonal variants, but more severe forms, although rare, can occur. **Objective:** To investigate the main clinical presentations of the three different forms of the syndrome. **Methodology:** This is a narrative review related to Guillain-Barré Syndrome. Textbooks, journals, and articles from the PubMed and SciELO databases published between 2012 and 2021, accessed and revised in the year 2022, which sought to investigate the symptomatology of the disease were used. **Results:** There is the classic form, whose manifestations are areflexia and rapid progression of flaccid, ascending, bilateral and symmetrical paresis of the limbs, which may take four weeks to progress. Still, there are variant forms, in which the initial manifestation may be with ophthalmological symptoms and, later, paresis, in addition to the more severe form, in which paresis may progress to total muscle paralysis. Severe patients may present, among other things, decreased respiratory capacity due to diaphragm muscle dysfunction, requiring hospitalization in Intensive Care Units. **Conclusions:** In view of the results, it was observed that the signs and symptoms of Guillain-Barré Syndrome are varied, categorized from classic to severe and are mainly neurological. Although the preferred diagnosis is clinical, due to the wide range of clinical manifestations, the treatment is multidisciplinary.

Keywords: Guillain-Barré Syndrome; viral infection; neurological disease; polyneuropathy.

Funding source: Federal University of Roraima and authors' own funding.

Frequent laboratory changes in hepatic and hematological profiles of patients with malaria in an endemic region

Thaynan Stefanny de Sousa Pereira¹; Katinayane Jaine da Silva Zolin¹; Allaelson do Santos de Morais¹; Fabiana Nakashima².

¹Medical School, Federal University of Roraima, Boa Vista, RR, Brazil.

²Professor at the Graduate Program in Health and Biodiversity, Federal University of Roraima, Boa Vista, Roraima, Brazil.

ABSTRACT

Introduction: Malaria is an infectious disease transmitted during the hematophagy of the female Anopheles mosquito infected by the protozoan Plasmodium. It is an endemic disease in the State of Roraima, and is clinically presented in a variety of ways, as it depends, among other factors, on the host's immune response and the intensity of tissue injuries (liver and blood) involved in the biological cycle. **Objective:** To present the most frequent laboratory alterations of the biological tissues affected by Plasmodium, regardless of the species, through the analysis of the differential leukocyte count and hemoglobin and some liver enzymes dosages. **Methodology:** This is a descriptive observational study that was carried out in partnership with a public health service in the capital of Roraima. Individuals with positive parasitemia who agreed to participate in this research collected a blood sample for the evaluation of the leukocyte count (leukocytes, basophils, eosinophils, neutrophils, lymphocytes, and monocytes) and hemoglobin and liver enzyme dosages (lactic dehydrogenase, aspartate



aminotransferase, alanine aminotransferase and alkaline phosphatase and Gamma Glutamyl Transferase). For each laboratory parameter, individuals were stratified into three groups, depending on the reference value of each test. In G (group) 1, individuals with a result within the reference value were grouped, in G2 with a result above the reference value and in G3 with a result below the reference value.

Results: So far, 76 individuals with positive parasitemia have been included in this study. G1 was composed of 59.7% referring to the dosage of lactic dehydrogenase, 89.0% aspartate aminotransferase, 68.1% alanine aminotransferase, 50.7% alkaline phosphatase, 61.6% Gamma Glutamyl Transferase, 100% Hemoglobin and basophils, 77% leukocyte, 85.1% eosinophil, 68.7% neutrophil, 70.3% lymphocyte and 86.5% monocyte. G2 was made up of 40.3%, 11.0%, 25%, 49.3%, 38.4%, 0.0%, 0.0%, 1.4%, 14.9%, 19, 4%, 6.8%, 13.5% respectively and G3 only 6.9% for alanine aminotransferase, 21.6% leukocyte, 11.9% neutrophil, 23% leukocyte. **Conclusion:** The most frequent laboratory alterations found in this study were: dosages above the reference value of liver enzymes (lactic dehydrogenase, alkaline phosphatase, and Gamma Glutamyl Transferase) and counts below the reference values of leukocytes (general), neutrophils and lymphocytes.

Keywords: malaria; hematologic tests, liver enzymes.

Funding source: Municipal Health Department, Federal University of Roraima, and authors' own funding.

Implantation of the standard week for multiprofessional residence in Adult Intensive Care.

Alana Bringel Feliciano¹; Ana Paula Rebouças Rego¹; Cinthia Renata Martins de Lima¹; Danielle de Almeida Damasceno¹; Kathelly Ellen de Araújo Tavares Carvalho¹; Leandra Caroline Santos Silva¹; Maria Aparecida Rodrigues de Assis¹; Maria do Socorro Porto de Lima¹; Melícia Lourdes Leitão Boni¹; Stéfanie Angélica Gimenez Jarochinski Silva¹; Viviane Landi Ferreira¹.

¹Health Department of the State of Roraima, SESAU, Brazil

ABSTRACT

Introduction: This article is the result of the intervention plan of the multiprofessional team, related to the Development of Residency Programs Management and Preceptorship in SUS (DGPSUS) project, an initiative of PROADI-SUS-HSL, which aims to prioritize the qualification of health residency programs and preceptorship in SUS through educational initiatives and interventions in the real context.

Objective: The goal is to structure the standard week, considering the residents' theoretical and practical activities planning in the areas of nursing, nutrition, and physiotherapy. **Methodology:** Due to the absence of the multiprofessional residency, the present assignment does not have a problem, but a chosen challenge. And for that, it is necessary to acknowledge the intended issues: the pedagogical project, the preceptor's competence profile, teacher and tutor, the resident's competence profile and the practice scenario. Thus, it is necessary to elucidate its evidence, which relies on the lack of specialized professionals with practice in adult intensive care. After articulation with the Multiprofessional Residency Council and with the Management Group, it will be possible to know the integrity of each targeted cause mentioned above and then create and establish the Standard Resident Week. Considered an educational strategy, inserted in the context of active teaching and learning methodologies (MAEA), the construction of the intervention project (PI) was structured in the absence of multiprofessional residency in the state of Roraima. The identified problem was the lack of specialized professionals with practice in adult intensive care, a situation worsened by the Covid-19 pandemic. The PI refers to a model composed of five complementary movements, which includes the planning and implementation of the proposed intervention, articulated with critical analysis of the process, monitoring, and evaluation of results by



indicators. **Results:** • To contribute to the implementation of multiprofessional residency in the state of Roraima, structuring the standard week in the three major covered areas; • To define the standard week and the residents' theoretical-practical activities; • To favor the integration of teaching-service and practical scenarios; • To reaffirm the institutional commitment to train qualified professionals in order to meet the need for qualified care in SUS. **Conclusion:** Currently, we do not have a multi-professional residency program in the State. However, there is a project to implement it, scheduled for 2024. As a result, an increase of the interaction of professionals is expected, generating improvements in health care, considering that, this multidisciplinary and interdisciplinary relationship provides continuous, comprehensive and humanized care for patients /family members, with benefits for everyone involved. The implementation of multiprofessional residency in the state of Roraima is scheduled for 2024, according to the determinations of the residency programs of the Ministry of Health. The intervention project proposed by the trainees has the support of the residency programs management course (GPRS) at the Federal University of Roraima (UFRR), Geral Hospital of Roraima (HGRR), and the Multiprofessional Residency Committee (COREMU).

Keywords:

Acknowledgments: We would like to thank the supervisor and supporter of the intervention projects Daniela Vicinansa Mônico Ferreira.

Funding source: Proadi –SUS – Hospital Sírio Libanês

Microscopic parameters as a tool for additional distinction of species of *Plasmodium* sp.

Luiz Felipe Soares Da Silva¹; Jamil Calderaro Casseb¹; Fabiana Nakashima².

¹Universidade Federal de Roraima.

²Professor at the Graduate Program in Health and Biodiversity, Federal University of Roraima, Boa Vista, Roraima, Brazil.

ABSTRACT

Introduction: Malaria is a disease that constitutes a public health problem in different parts of the world, especially in the Brazilian region of the Amazon basin. Therefore, the structuring of a strategy based on differential morphological criteria of each parasite species, through the blood smear method, can help in the correct identification of *Plasmodium* and, thus, in the conduct of the treatment. **Objective:** To elaborate a differential diagnosis strategy based on the Center for Diseases Control's standards, with the addition of the parasite-host ratio parameter and apply it to positive slides for malaria previously collected. **Methodology:** This work is a cross-sectional, experimental, quantitative, descriptive and retrospective study, involving 137 positive slides for malaria, which aims to use the CDC's standards for microscopic diagnosis of malaria in humans, to provide the correct identification of the disease-causing species and add an additional parameter of analysis, the parasite-host relationship. The 137 slides are stored at the Federal University of Roraima secondary from the research project "Clinical and laboratory aspects of malaria in Boa Vista - Roraima", previously approved by the Ethics Committee. Thus, it is not necessary that this work also be approved, according to resolution CNS/MS 466/2012. **Results:** It is expected to understand whether the host-parasite ratio obtained with the Axio Scope A.1 microscope can help to differentiate *Plasmodium* species, with the addition of a new diagnostic index to aid microscopists. Verify whether the application of the CDC criteria with the addition of the parasite-host relationship makes the detection of a particular species of plasmodium more specific. Analyze the prevalence of each *Plasmodium* species in the collected samples, which will help to better understand



the epidemiological profile of Plasmodium infections in Roraima. **Conclusions:** The current research project is in the waiting phase to start the analysis of blood smears.

Keywords: malaria, reference standards; health knowledge; attitudes practice.

Funding source:

Occupational stress: a study with mobile emergency service (Samu) teams in the city of Boa Vista/Roraima

Luciano José Coutinha¹; Marcelo Naputano¹.

¹Universidade Federal de Roraima - UFRR

ABSTRACT

Introduction: The Mobile Emergency Care Service/SAMU emerged within the Unified Health System/SUS with the aim of improving care for urgent and emergency situations that, before its existence, occurred in hospital emergencies without any prior care. The

severity of care has been shown to be an important occupational stress factor that needs to be investigated. **Objective:** To investigate and describe the understanding of occupational stress by the teams that work in the Mobile Emergency Service/SAMU in the city of Boa Vista/Roraima and propose an intervention/monitoring program to control occupational stress. **Methodology:**

Exploratory/descriptive research with a quali-quantitative approach. Data collection carried out through field research, with an instrument divided into 3 stages: 1. The constitution of an assembly, with six focus groups, as a strategy for an environment of debate and collective reflection and obtaining authorization for the terms of commitment. 2. Application of a structured questionnaire consisting of 3 parts: sociodemographic profile; the LIPP Adult Stress Symptom Inventory scale and, finally, 8 open questions. 3. Quantitative analysis of data with calculation of means/medians, standard deviation, significance and minimum/maximum values and subsequent interpretation of the same. **Results:** The partial results of the research indicate that the incidence of stress is differentiated by professional category in the SAMU service. Emphasis on the medical category that reached the highest percentage of stress with 80% presenting some level of stress, followed by the class of nurses with 66.7%, in third appears the driver category that reached 50% and, finally, the technicians of nursing having the lowest percentage of stress with the mark of 35.7% of the representatives. The results also showed that age group and marital status represented by young and married persons presented higher occupational stress levels. **Conclusions:** This research allowed to understand the occupational level of stress of the professionals from SAMU in Boa Vista/Roraima. The results have showed a high level of occupational stress according to their responsibilities, ages and marital status. Moreover, they make evident the necessity of promoting a reflection on their work and internal policies to manage and prevent occupational stress. Additionally, to help the health care workers to deal with the complexity of their daily activity.

Keywords: occupational stress; emergencies; emergency medical services; complementary therapies.

Funding source: Federal University of Roraima and authors' own funding.



Research on the epidemiology, pharmacology and prognoses of adult patients with sepsis and septic shock in the intensive care unit of the General Hospital of Roraima

Cristiana Áurea Batista Vasconcelos¹; Cléria Mendonça de Moraes^{1,2}

¹Medical School, Federal University of Roraima, Boa Vista, Roraima, Brazil

²Health Sciences Postgraduate Program, Federal University of Roraima, Boa Vista, Roraima, Brazil

ABSTRACT

Introduction: Stabilizing patients with sepsis and septic shock in intensive care units poses a significant challenge for medical teams. Analyzing the epidemiology, pharmacology, and monitoring the prognoses of these patients can help prevent disease progression and severity, as well as reduce their mortality.

Objective: The objective is to monitor prognoses, evaluate demographic, clinical, and laboratory data, and assess potential drug interactions in patients with sepsis and septic shock in intensive care units.

Methods: Data were sourced from the Hospital Morbidity Information System of the SUS (SIH/SUS), managed by the Department of Informatics of the Unified Health System (DATASUS) under the Ministry of Health. **Results:** From 2012 to 2022 in Brazil, there were a total of 1,220,134 hospitalizations reported with morbidity and mortality related to ICD septicemia. **Conclusion:** Enhanced prevention of sepsis is achievable, aiding medical teams in identifying profiles more susceptible to serious infections. Effective management of these patients can improve clinical outcomes and significantly reduce hospital mortality.

Keywords: Disease Prevention, Intensive Care Units, Sepsis

Financial support: Not applicable

Situation Analysis of riverside Primary Health Care in the city of Manaus/Am – an experience report.

Leoncio de Oliveira Torres¹; Luiz Gustavo Rodrigues Barbosa²; Ana Clara Rodrigues Faria²; Josvaldo da Silva Viana Júnior³; Daniele Bianca Reis Gomes³; Fabiana Nakashima^{1,3}; Bianca Jorge Sequeira^{1,3}; Anna Clara Silva Torres⁴; Gabrielle Mendes Lima^{1,3}.

¹Federal University of Roraima - Boa Vista (RR)/Postgraduate Health and Biodiversity Program.

²Federal University of Lavras - Lavras (MG)/Faculty of Medicine.

³Federal University of Roraima - Boa Vista (RR)/Faculty of Medicine

⁴Paraíso do Ceará University Center - Juazeiro do Norte (CE)

ABSTRACT

Introduction: Promoting equity, a principle of the Unified Health System (HUS), is closely linked to equality and social justice. **Methodology:** This experience report describes and reflects on observations made over nine days in May 2022 by two medical students at a Basic River Health Unit (BRHU), which serves the riverside communities of the lower Rio Negro in the rural area of Manaus, Amazonas.



Results: The experience revealed a service routine highly adapted to its environmental and social context, and the effective performance of a multidisciplinary team closely connected to local residents.

Conclusions: The BRHU Ney Lacerda faced challenges and difficulties, some inherent to providing care to the water-based population, and others not generalizable, highlighting the need for new strategies and restructuring of health programs for specific populations.

Keywords: Primary Health Care. Riverside dwellers. Basic River Health Unit. Health Unic System

Funding source: Federal University of Roraima and authors' own funding.

Axis 2. Biodiversity Education and Training

Educação e Formação em Biodiversidade



New occurrence of *Turnera subulata* Sm. for the state of Roraima, absence of collection or scientific isolation

Luéliton de Lima Victor¹ Natália Jones da Silva², Amélia Carlos Tuler³.

¹*Acadêmico do Programa de Pós-graduação em Saúde e Biodiversidade, Universidade Federal de Roraima, Boa Vista/Roraima, Brasil.*

²*Acadêmica do Curso de Ciências Biológicas, CBio, Universidade Federal de Roraima, Boa Vista/Roraima, Brasil.*

³*Professora do Centro de Estudos da Biodiversidade – CBio e Professora credenciada no Programa de Pós-graduação em Saúde e Biodiversidade, Universidade Federal de Roraima, Boa Vista/Roraima, Brasil.*

ABSTRACT

Introduction: Specimens records are documents that certify flora diversity and richness of a given region or country and are deposited in botanical collections. The UFRR herbarium plays a unique and critical role in environmental conservation and scientific, social, and technological development for the state of Roraima. Roraima has one of the richest floral diversities in the Amazon, but despite this, it is a botanically under sampled region is gifted with less research infrastructure. The fact that the UFRR herbarium collection is not digitized (and only partially computerized) is a bottleneck for botanists across the country. The inaccessibility of the UFRR herbarium to those who cannot physically visit the collection represents a challenge for the development of the Flora of Brazil. **Objective:** Identify species that occur in the state of Roraima but are not listed in the Flora of Brazil. **Methodology:** The "new" record for the state of Roraima was found during the analysis of specimens from the dissertation project Floristic composition and pollination and dispersal syndromes in an area of savanna in Roraima, Brazil. **Results:** One example is the species *Turnera subulata* Sm. (Turneraceae), which although has a wide occurrence in Brazil, is not listed in the Flora of Roraima. *Turnera subulata* is a shrubby species that can reach up to 1.5 meters in height, characterized by its dark green, shiny, elongated leaves, yellow flowers, and capsule-like fruits. **Conclusions:** Our finding highlights the need for the digitization and availability of the UFRR herbarium collection, democratizing access to information and consequently increasing knowledge about the flora of Roraima.

Keywords: Access to Information; *Turnera subulata* Sm ; World Health Organization (WHO).

Funding source: Federal University of Roraima and authors' own funding.

Axis 3. Health, environment and society relations



Clinical and laboratory evaluation of renal complications caused by malaria

Allaelson do Santos de Morais¹; Katinayane Jaine da Silva Zolin¹; Thaynan Stefanny de Sousa Pereira¹; Fabiana Nakashima².

¹Medical School, Federal University of Roraima, Boa Vista, RR, Brazil.

²Professor at the Graduate Program in Health and Biodiversity, Federal University of Roraima, Boa Vista, Roraima, Brazil.

ABSTRACT

Introduction: Malaria is a significant public health challenge in the Amazon, causing renal damage in the glomerulus, interstices, and tubules. This affects the quality of life of the economically active population and poses significant socioeconomic consequences. As a result, there is an urgent need to deepen our understanding of the link between malaria and kidney problems. **Objectives:** The aim is to conduct a comprehensive investigation into the potential complications caused by malaria, by examining both the clinical manifestations and laboratory alterations that could indicate its presence. **Methodology:** The study comprised of Brazilian and Venezuelan individuals aged between 18 to 59 years who tested positive for malaria through a thick blood smear test. Participants were asked to complete a questionnaire about their symptoms and underwent blood and urine sample collections to evaluate alterations in plasma levels of urea, creatinine, and changes in urine associated with malaria. For each laboratory parameter, individuals were stratified into three groups, depending on the reference value of each test. In G (group) 1, individuals with a result within the reference value were grouped, in G2 with a result above the reference value and in G3 with a result below the reference value. **Results:** Out of the 76 participants, 15 individuals (19.7%) reported oliguria, while another 16 (21.1%) reported polyuria, 7 (9.2%) hematuria, 14 (18.4%) choluria, 29 (38.2%) brown urine, 3 (3.9%) extremity edema and none (0%) reported anuria. The analysis of urine samples revealed within G2 10.5% by volume, 6.6% pH, 11.8% hemoglobin, 13.2% protein, 10.5% urobilinogen, 34.2 leukocytes, 36.8 cells and 26.3% red blood cells. The only expressive value of G3 was creatinine with 36.8%. **Conclusions:** Based on the collected data, it is evident that clinical manifestations and laboratory abnormalities indicative of renal complications are frequent among malaria-infected patients treated in Boa Vista, Roraima, regardless of protozoan species.

Keywords: Malaria; Urinalysis; Urea; Creatinine; Kidney Diseases.

Funding source: Municipal Health Department, Federal University of Roraima and authors' own funding.



Degree of dependence of elderly residents in a long-term institution

Aimêe Leitão Cruz¹; Luiza Gomes Ferreira¹; Gregório Cavalcante Silveira¹; Rafaela Beatriz Nóbrega Mota Eulálio¹; Luana Holanda Dos Santos¹; Viviane Maria dos Santos Almeida¹; Raquel Voges Caldart¹.

¹Universidade Federal de Roraima - UFRR.

ABSTRACT

Introduction: Population aging is considered a challenge to public health, due to the physical and social dependence, needing for long term care. In this context, the demand for formal health care to the elderly is increasing, and institutionalization is a common endpoint for this population. **Objective:** To identify the degree of dependency of elderly adults living in a long-term care facility. **Methodology:** Descriptive study, conducted with 36 institutionalized elderlies, from November to December 2022. Na instrument with sociodemographic and clinical variables and Katz Index were used for data collection. Descriptive data analysis was performed. The study was approved by the Committee for Ethics in Research with Human Beings. **Results:** The mean age of the elderly was 76.1 years old (± 8.6), most of them were male (91.7%) and the mean time of institutionalization was 2.9 years (± 4.1). Regarding to clinical profile, 69.4% of the elderly had two or more morbidities and 86.1% used polypharmacy. Dependence for at least one of the six activities assessed in the Katz Index was observed in 77.8% of the elderly adults. Among these, 75.0% of them were totally or partially dependent on getting dressed, 66.7% on bathing, 50.0% on toileting, 44.4% on continence, 41.7% on transfers and 36.1% on feeding. The evaluation of the Katz index showed that among the activities that were evaluated, food had the lowest percentage of dependency. **Conclusion:** The high percentage of dependency of the elderly for self-care activities demands greater investment in actions aimed at promoting health and preventing functional disability. These results contribute to guide measures that favor quality of life.

Keywords: Geriatric Nursing; Homes for the Aged; Functional Status.

Funding source: Federal University of Roraima and authors' own funding.

Early identification and initial treatment of sepsis by emergency nurses

Nayara Kalila dos Santos Bezerra¹; Keis de Paula Rosa¹; Edjane da Silva Barros¹; Andressa Gabrielle de Almeida Garcia¹; Bárbara Peixoto Leitão¹; Paulo Sérgio da Silva¹; Jackeline da Costa Maciel¹; Fabíola Christian Almeida de Carvalho¹; Raquel Voges Caldart¹.

¹Universidade Federal de Roraima - UFRR



ABSTRACT

Introduction: Since 2016, sepsis has been defined as the Potentially Fatal Organ Dysfunction Syndrome, caused by a dysregulated response of the body to an infection that culminates in septic shock, which can lead to death. It implies that the nurse, as a member of the multidisciplinary team and active in the emergency sector, need to be able to briefly identify the presumptive signs and symptoms of sepsis. **Objective:** To identify the degree of knowledge in nurses working in the emergency room, about the identification and initial treatment of sepsis. **Methodology:** Descriptive, cross-sectional, quantitative study, developed in the emergency department of a public hospital in Roraima, with 25 nurses. The sociodemographic, occupational, and knowledge data of the nurses about sepsis, were collected using an online structured questionnaire through Google Forms and analyzed using descriptive statistics through the Statistical Package for the Social Sciences (SPSS), 20.0 version. **Results:** Among the participants, 76.0% reported not having received training on sepsis and not being aware about the existence of sepsis protocols in the institution. As for the specific questions about sepsis, 68.0% had outdated knowledge about the current definition and clinical signs of sepsis. The initial management, the ideal time to administer the antibiotics' first dose, and initiating broad-spectrum antibiotics were the questions that obtained the best percentages of correct answers, with 88.0% and 80.0%, respectively. **Conclusion:** Gaps were founded in emergency nurses' knowledge about the identification and early treatment of sepsis, justifying the urgent need for training and implementation of clinical protocols in the institution.

Keywords: Emergency Identification. Sepsis. Nurses. Patient Care Planning. Emergencies.

Funding source: Não há crédito de órgãos financiadores da pesquisa.

Economic profile and health conditions of riverside residents with diagnosis of hypertension and diabetes in a floating primary health center in the city of Manaus-Am.

Leoncio de Oliveira Torres¹; Josvaldo da Silva Viana Júnior²; Daniele Bianca Reis Gomes²; Fabiana Nakashima^{1,2}; Bianca Jorge Sequeira^{1,2}; Gabrielle Mendes Lima^{1,2}.

¹Federal University of Roraima/Undergraduate Program in Health and Biodiversity.

²Federal University of Roraima/School of Medicine.

ABSTRACT

Introduction: The analysis of the social determinants of health and the evaluation of epidemiological aspects, related to chronic degenerative diseases, in the current context of highly socially vulnerable communities, such as the riverside communities, constitute fundamental tasks for the improvement of



the health care network. **Objectives:** To verify the socioeconomic characteristics and correlate the general health conditions of riverside users, diagnosed with systemic arterial hypertension (SAH) and diabetes mellitus (DM). **Methodology:** Quantitative, prospective, and cross-sectional study. Data, from semi-structured questionnaires, were collected from 209 adult patients, enrolled in a Floating Primary Health Center, in the city of Manaus-AM, in 2022. The economic determinants were verified: education, income, type of housing, number of inhabitants per family, marital status, ethnicity; also, previous history of cardiovascular disease, its conditions, access to health services and lifestyle habits. After collecting the data, they were tabulated, and a descriptive analysis was performed. Research was approved by CEP/UFRR, No. 57144022.3.0000.5302. **Results:** The results shows that most users are female, born in the northern region, in a common-law marriage and of brown ethnicity. Regarding social determinants, 79% lives below the poverty line; as for the educational stage, 60.2% have completed primary school; despite the housing standards, 85.1% are wooden (stilts) and have an average cohabitation of 3 people per family. As for health aspects, 63.3% have SAH; 13.3% DM; and both pathologies, 22.9%. In addition, 12%, have another associated pathology; 44.4% are obese, and only 20.5% do some physical activity. Concerning access to routine laboratory tests, 59% performed them, and through their analysis, 71.8% showed high cardiovascular risk. **Conclusions:** The information presented in this study reveals that the riverside populations of Manaus are quite vulnerable, both from an economic and social point of view, as well as the high prevalence of chronic degenerative diseases (SAH and DM). Therefore, it is necessary that social and health public policies, be implemented as a way for the people of the region access a better quality of life.

Keywords: chronic diseases; health services accessibility; primary health care; socioeconomic factors.

Funding source: Federal University of Roraima and authors' own funding.

Environmental factors of systemic lupus erythematosus: narrative review

Artur Diógenes Pinheiro Paiva¹; Raphael dos Reis Monteiro¹; Roberta Salgado Monteiro¹; Fabiana Nakashima².

¹Medical School, Federal University of Roraima, Boa Vista, RR, Brazil.

²Professor at the Graduate Program in Health and Biodiversity, Federal University of Roraima, Boa Vista, Roraima, Brazil.

ABSTRACT

Introduction: Systemic lupus erythematosus (SLE) is an inflammatory, systemic, chronic, and autoimmune disease that affects mainly women. It is characterized by the production of autoantibodies and formation of immune complexes, attacking tissues, and causing damage to various organs. Studies demonstrate that the multifactorial etiology of SLE is due to genetic and environmental factors, and their interactions over time. **Objectives:** The objective of the present study is to list the environmental factors most commonly related to the involvement of SLE. **Methodology:** This narrative review was carried out



by searching articles published in national and international journals, indexed in the National Library of Medicine (PubMed), Scientific Electronic Library Online (SciELO) and Google Scholar, using the following descriptors: systemic lupus erythematosus and environmental factors. The inclusion criteria were original articles available online in Portuguese, Spanish and English, in the last six years and 3 months (2016-March/2023). Also, those who did not meet the research objective, were established as exclusion criteria. **Results:** After applying the inclusion and exclusion criteria, seven articles were selected. It was founded that there is a wide range of factors that trigger SLE, such as: smoking (active and passive), ultraviolet radiation, air pollution, hormones, alcoholism, and exposure to silica. It should be noted that each of these causes acts in a very specific way, causing various changes in the organism ranging from DNA damage to the formation of self-antigens, self-reactive T cells and reactive oxygen species. So, in predisposed individuals, all these events, whether singly or jointly, will potentiate the development of SLE. **Conclusion:** It is inferred that the environmental factors pointed out by the literature are: behavioral habits (cigarette and alcohol addictions, consumption of hormones, etc), professional environment and some instruments/objects (health area, beauty salon, cleaning environments, etc.) and collective behaviors (air pollution). Thus, it is understood that disease control should be analyzed considering the individual as a whole and not just the biological aspect.

Keywords: autoimmune diseases; lupus erythematosus; risk factors; systematic review.

Funding source: Authors' own funding.

Epidemiological and nutritional profile of external donors of a human milk bank

Jhon Andreo Almeida dos Santos¹; Paula Vitória de Oliveira Sales¹; Ana Iara Costa Ferreira².

¹Medical School, Federal University of Roraima, Boa Vista, RR, Brazil.

²Professor at the Graduate Medical School, Federal University of Roraima, Boa Vista, Roraima, Brazil.

ABSTRACT

Introduction: The Human Milk Bank (HMB) is a specialized center, with the purpose of promoting breastfeeding. It is responsible for the collection, processing, and distribution of the donated milk. Roraima has only one milk bank, responsible for meeting the demands in the state, resulting in an imbalance between supply and demand of breast milk. Producing scientific knowledge is fundamental in this reality. **Objectives:** To analyze the epidemiological and nutritional profile, georeferenced the database, evaluate the nutritional profile, and correlate the socioeconomic and nutritional indicators with the spatial indicators of the milk bank's external donors. **Methodology:** This is an observational, quantitative, qualitative, descriptive, exploratory, cross-sectional, and prospective research. The participants will sign an informed consent form to apply the epidemiological and nutritional data sheet. Women who donated human milk, at home milking and/or at the milk bank, from October 2022 to October 2023, older than 18 years old and Brazilian, will be included. Minors, indigenous, immigrants, donors outside the described period, and those who refused to sign the consent form will be excluded.



Microsoft Excel and Graphpad Software, version 3.1 will be used for the statistical analysis of the data. **Results:** The supply of (HMB) Dra. Marilurdes Albuquerque depends on donors. Therefore, it is essential to know the sociodemographic profile of these women so that measures can be adopted to encourage the donation of human milk. In this sense, the epidemiological knowledge proposed in this research aims to foster a discussion about the reality of the only milk bank in Roraima, with scientific and local data. It is also believed that the results obtained will offer subsidies to propose measures aimed at increasing the number of donors. **Conclusion:** The need to take a closer look at the donation of human milk is justified by the fact that breast milk is of paramount importance for nutrition, growth, and development of children. Aiming to gather information at a local level, this work seeks to identify the local scenario regarding the services of the Milk Bank of Roraima, given the scarcity of published works in the area in the State of Roraima.

Keywords: breast feeding; milk banks; weights and measures; unified health system.

Funding source: Federal University of Roraima and authors' own funding.

Evaluation of physical activity in adults using the international physical activity questionnaire (Ipaq) in a population of the northern Amazon

Rizelda Alves Leal¹; Sivone Costa de Araújo¹; Farney Fabrício Menezes de Araújo²; Rozinaldo Galdino da Silva³; Julio Cesar Fraulob-Aquino^{4,5}; Gabrielle de Souza Rocha^{5,6,7}.

¹Master's student of the Graduate Program in Health and Biodiversity (PPGSBio) at UFRR

²Graduated in Physical Education from UERR

³Undergraduate Professor in Physical Education at UERR

⁴Undergraduate Professor of Medicine at UFRR

⁵Professor at the Postgraduate Program in Health and Biodiversity (PPGSBio) at UFRR

⁶Undergraduate Professor in Nursing at UFRR

⁷Professor at the Postgraduate Program in Cardiovascular Sciences (PPGCCV) at UFF

ABSTRACT

Introduction: The practice of regular physical activity is associated with improvements in health and helps the prevention of chronic non-communicable diseases (NCDs), such as type II diabetes mellitus, high blood pressure, cardiovascular diseases, and obesity. However, its irregularity or absence, and involvement in physical activity corroborates with other factors. **Objective:** To evaluate the level of physical activity in a population of adults in the municipality of Boa Vista - Roraima. **Methodology:** The study approved by the Research Ethics Committee, under CAAE: 65510122.0.0000.5302. Participants were: 41 adults (30 women), residents of Boa Vista/RR, Brazilian, from age 18 to 59 years old. Indigenous people, foreigners, and participants unable to perform any stage of these search were excluded. The IPAQ, short version, was applied. The data was presented as relative and absolute



frequency or mean \pm standard deviation. **Results:** Women (W) had a mean age of 30 ± 8.8 years, and men (M) 25.7 ± 9 years. Overall, 18 (43%) were active, 6 (14%) very active, 15 (35%) irregularly active and 2 (4%) sedentary. Among the females, 15 (50%) were active, 12 (39%) were irregularly active and 1 (3%) was sedentary. Among the males, 3 (27%) were active, 2 (18%) very active, 4 (36%) irregularly active and 1 (9%) sedentary. **Conclusions:** It was observed that most participants were physically active, complying with the recommendations for vigorous activities of ≥ 3 days/week and ≥ 20 minutes per session, moderate activity, or walking ≥ 5 days/week, and ≥ 30 min per session or any activity added together ≥ 5 days/week and ≥ 150 minutes/week (walking + moderate + vigorous).

Keywords: diabetes mellitus; health promotion; noncommunicable diseases; physical activity.

Funding source: There is no funding source.

Multiple tools for nutritional assessment and nutrient intake in the management of malnutrition in hemodialysis patients

N. L. S. Souza¹; L. C. A. R Bendaham²; A. C. P. Aguiar²; K. S. C. Figueiredo²; P. V. F. Nascimento³; J. C. F. Aquino¹; B. K Bassoli^{1,4}

¹Post Graduate Program in Health and Biodiversity (PPGSBio), Federal University of Roraima, Health Science Center, Boa Vista, Brazil;

²Medical School, Federal University of Roraima, Health Science Center, Boa Vista, Brazil;

³Department of Nutrition, Renal Clinic of Roraima, Multidisciplinary team, Boa Vista, Brazil;

⁴Post Graduate Program in Sciences Health (PROCISA), Federal University of Roraima, Health Science Center, Boa Vista, Brazil.

ABSTRACT

Introduction: Patients with Chronic Kidney Disease (CKD) on hemodialysis (HD) have malnutrition as one of the adverse clinical outcomes and a risk factor for mortality. The application of instruments for nutritional risk and food consumption evolution contributes to a better control of clinical environment and personalized treatment of malnutrition in dialysis patients. **Objectives:** Identify the risk of malnutrition and assess the adequacy of nutrient intake in CKD patients on HD, enabling the planning of more targeted nutritional therapy. **Methodology:** This is a descriptive, analytical, qualitative and quantitative prospective study, approved by the Ethics Committee. The studied population consisted of 161 patients over 18 years of age with CKD on HD. NRS-2002 criteria sum of points, resulted in the classification into mild, moderate and severe nutritional risk scores. Analysis of nutrients daily intake was performed applying the validated frequency and food consumption questionnaire FFQ-CHAMA. **Results:** Of the 161 CKD patients on HD, regarding NRS-2002 scoring criteria analysis, both genders had a mean of 1.60 ± 0.68 ; 1.52 ± 0.69 , presenting a mild nutritional risk score and a positive correlation with age



($p < 0.005$). The levels of daily intake of nutrients in the FFQ-CHAMA were above for vitamins B1, B2, B12, A, C, cholesterol, manganese, copper and, phosphorus, at below levels for vitamins B6, B9, E D, calcium, magnesium and iodine and at normal levels, for vitamins B3, B5, potassium, carbohydrate and energy in kcal/kg. Vitamins B5, D, E, selenium, iron and zinc obtained a positive with age and proteins were inversely proportional to age ($p < 0,05$) correlation. **Conclusion:** The study showed a low risk of malnutrition, however, not excluding its development. Increasing age is a determining factor in nutritional status, as the older the person, the greater the risk of malnutrition and the lower the protein intake. The study reinforces that the use of quick and simple tools is essential to identify the risk of malnutrition and to know food consumption, enabling personalized nutritional recommendations.

Keywords: malnutrition; age; protein; CHAMA; NRS-2002.

Funding source: Federal University of Roraima and authors' own funding.

Nursing diagnoses in the activity/rest domain of NANDA-I taxonomy for the elderly in a long-term institution

Luiza Gomes Ferreira¹; Aimêe Leitão Cruz¹; Gregório Cavalcante Silveira¹; Rafaela Beatriz Nobrega Mota Eulalio¹; Viviane Maria dos Santos Almeida¹; Luana Holanda Dos Santos¹; Raquel Voges Caldart¹.

¹Universidade Federal de Roraima – UFRR.

ABSTRACT

Introduction: When recognizing institutionalized elderly people as a vulnerable and specific group, the relevance of nursing in the formulations of clinical and critical judgment aimed at preventing harms, promoting health, and controlling possible complications is emphasized. In this regard, there is a need to identify the care demands determined by the nursing diagnoses. **Objectives:** To identify the main nursing diagnoses in the activity/rest domain of NANDA-I Taxonomy (2021-2023) in the institutionalized elderly people. **Methodology:** Descriptive study, conducted with 36 elderly people from a long-term institution, carried out based on the identification of nursing diagnoses. Data collection took place in November/December 2022 using an instrument based on the Theory of Basic Human Needs and the Katz Index. Descriptive data analysis was performed. The study was approved by Committee for Ethics in Research with Human Beings. **Results:** 14 nursing diagnoses titles related to the activity/rest domain were identified for the 36 elderly people. Among them, the majority (75.3%) belonged to the activity/exercise class (39.8%) and self-care class (35.5%), being all (100.0%) diagnostic titles focusing on the problem. The most frequent nursing diagnoses were: activity/exercise class: impaired physical mobility (83.3%), impaired transfer capacity (52.8%), impaired bed mobility (44.4%), impaired sitting (33.3%) and impaired mobility with a wheelchair (30.6%) and in the self-care class: dressing self-care deficit (75.0%), bathing self-care deficit (66.7%) and toileting self-care deficit (50.0%). **Conclusion:** Functionality is an essential factor in the assessment of the elderly and needs to be considered when



planning the assistance provided to this public. Based on the identification of nursing diagnoses, the planning and execution of care measures can be directed to the real needs of institutionalized older adults, optimizing nursing care, in addition to possible impacts on autonomy, independence, and quality of life for this population.

Keywords: geriatric nursing; homes for the aged; nursing diagnosis.

Funding source: Federal University of Roraima and authors' own funding.

Prevalence of disease factors risk in adults from Federal University of Roraima (UFRR).

Sivone Costa de Araújo¹; Farney Fabrício Menezes de Araújo³; Rizelda Alves Leal¹; Ana Carolina Godinho Fontenele²; Letícia Coêlho Gomes²; Rozinaldo Galdino da Silva⁴; Julio Cesar FraulobAquino^{5,6}; Gabrielle de Souza Rocha^{6,7,8}.

¹Master's student of the Graduate Program in Health and Biodiversity (PPGSBio) at UFRR

²Undergraduate Student in Nursing at UFRR

³Graduated in Physical Education from UERR

⁴Undergraduate Professor of Physical Education at UFRR

⁵Undergraduate Professor of Medicine at UFRR

⁶Professor at the Postgraduate Program in Health and Biodiversity (PPGSBio) at UFRR

⁷Undergraduate Professor in Nursing at UFRR

⁸Professor at the Postgraduate Program in Cardiovascular Sciences (PPGCCV) at UFF

Abstract

Introduction: a dangerous lifestyle such as sedentarism and unbalanced food intake, were appointed as the reason to an epidemic state of non-communicable chronic diseases' rise in worldwide. **Objective:** to analyze risk factors of overweight by anthropometric indicators. **Methods:** the study was approved in ethical research committee by n° caae: 65510122.0.0000.5302. it includes 41 participants (30 women), brazilians adults, students and workers (18 to 59y) from ufr. was analyzed waist-height ratio (whtr) waist circumference (wc), waist-to-hip ratio (whr), and body mass index (bmi). **Results:** the sample has a main age of 30±8.8y in female and 25.7±9y in male. bmi's results indicated overweight and obesity risk in 36.7% and 30% of females, and 36.4% and 36.4% in males, respectively. the wc's analysis observed high risk in 36.4% of males, while female had 10%, furthermore 10% this one was classified as in risk. in addition, whr's analysis pointed to males' 9.1%, 27.3% and 36.4% in overhigh, high and moderate risk, in opposition to 13.3%, 26.6% and 53.3% in females, respectively. at last, whtr showed 46.7% and 45.5% in risk states in female and male respectively. **Conclusions:** more than a third of the sample had risk of overweight and obesity and co-factor to ncd. thus, there is a need to understand factors and



conditions that promoted a healthy lifestyle adoption, such as an active behavior and conscious consumption of food and beverage.

Keywords: epidemics; healthy lifestyle; noncommunicable diseases; obesity; risk factors.

Funding sources: there is no funding source.

Quality assessment of prenatal care for pregnant women at HMINSN: a parallel between the east and west zones of Boa Vista-RR

Carla Mariana de Melo Beeck¹; Vinícius da Costa¹; Prof. Me. Cynthia Dantas de Macedo Lins¹.

¹*Federal University of Roraima – UFRR.*

ABSTRACT

Introdução: Despite the policies created by the Brazilian Ministry of Health, aimed at improving access and quality of prenatal care in Brazil, such as the Prenatal Humanization Program and Stork Network, the various Brazilian regions still have disparities in the supply of this service. Prenatal care aims to ensure a good pregnancy, healthy birth, and low impact on the health of both mother and baby. **Objetivos:** Perform the evaluation of prenatal care in the public health service (SUS), in Boa Vista, and compare the quality of prenatal care between the east zone and west zone, as well as analyze differences in schooling, budget, and geographic distance. **Methodology:** consists of basic observational research, whose approach will be qualitative and quantitative. Regarding the objectives, it is exploratory research. The procedure field research is based in puerperal women who gave birth at the Maternal and Child Hospital Nossa Senhora de Nazareth (HMINSN). The research consists of a questionnaire where socioeconomic data, information from the maternity record book, and the mother's and newborn's medical records will be analyzed. Currently, the research is in the data collection phase, which will continue until June 2023. Afterwards, the data will be analyzed and presented to the community at large. **Results:** prenatal care can be evaluated by means of several indexes presented in the literature, which assesses the number of consultations performed, in which trimester of pregnancy it was started, the performance of clinical-obstetric procedures, such as laboratory tests, and educational interventions. It is known that racial and socioeconomic differences continue to be a public health problem in Brazil. This sociodemographic impact can directly interfere in the access to prenatal care, whether due to geographical distance, structural aspects of the health unit, or professionals involved in the process. And this is reflected in the capital city of Boa Vista, divided into east Zone and West Zone. **Conclusion:** In view of the above, it is possible to realize the importance of this research in the academic and professional health field, since it will be possible to evaluate the quality of prenatal care in two different areas of the city of Boa Vista, the East Zone, where the population with the highest per capita income is concentrated, and the West Zone, marked by population housing programs.



Keywords: health services accessibility; prenatal care; primary health care; referral and consultation.

Funding source: Federal University of Roraima and authors' own funding.

Risk assessment for pressure injuries in institutionalized elderly people

Rafaela Beatriz Nobrega Mota Eulalio¹; Luiza Gomes Ferreira¹; Aimêe Leitão Cruz¹; Gregório Cavalcante Silveira¹; Viviane Maria dos Santos Almeida¹; Luana Holanda Dos Santos¹; Raquel Voges Caldart¹.

¹*Federal University of Roraima – UFRR.*

ABSTRACT

Introduction: Pressure injuries (PIs) frequently occur in patients who have reduced mobility, with an elevated percentage of PIs occurring in older adults. Advancing age leads to skin changes and, when coupled with impaired mobility and multiple comorbidities, increases the risk of PI development. **Objectives:** To identify the risk for the development of pressure injuries in institutionalized elderly people. **Methodology:** A descriptive study was conducted from November to December 2022, with 36 elderly adults living in a long-term institution. The Braden instrument was used. Descriptive data analysis was performed. The study was approved by the Research Ethics Committees for Human Beings (RECHB). **Results:** The average age of the elderly was 76.1 years old (± 8.6) and most of them were male (91.7%). A total of 5.6% of the elderly had pressure injuries. It was found that 58.3% of the elderly were at risk of developing pressure injuries, with 30.6% at high risk, 13.9% at low risk, 11.1% at moderate risk, and 2.8% at very high risk. Among the scale categories, those that obtained the lowest scores, indicating more significant risk, were "friction and shear", "activity" and "mobility" with a total of 69, 86, and 87 points, respectively. Regarding physical activity, 41.7% of the elderly were confined to a wheelchair, 27.8% walked frequently, 19.4% walked occasionally and 11.1% were bedridden. **Conclusion:** The results show a high percentage of elderly at risk for developing PIs. The use of the Braden Scale is a useful instrument in identifying patients more likely to develop pressure ulcers which can contribute to reducing the prevalence of PU among institutionalized elderly adults. The preventive actions for PU start with the elderly's admission, the moment in which the nurse must make use of predictive risk scales and plan the measures that meet that person's need.

Keywords: geriatric nursing; homes for the aged; pressure ulcer.

Funding source: Federal University of Roraima and authors' own funding.



Axis 4. Covid-19 pandemic and its legacies



A comparison between the profile of health professionals acting and not acting on the frontline of the covid 19 pandemic in the state of Roraima

Alana Bringel Feliciano¹; Renata Souza Trindade Almeida¹; Evair dos Santos Rocha¹; Julio Cesar Fraulob-Aquino^{2,3}; Gabrielle de Souza Rocha^{3,4,5}.

¹Master's student of the Graduate Program in Health and Biodiversity (PPGSBio) at UFRR

²Undergraduate Professor of Medicine at UFRR

³Professor at the Postgraduate Program in Health and Biodiversity (PPGSBio) at UFRR

⁴Undergraduate Professor in Nursing at UFRR

⁵Professor at the Postgraduate Program in Cardiovascular Sciences (PPGCCV) at UFF

ABSTRACT

Introduction: Covid-19 demanded a lot from healthcare professionals around the world. In the state of Roraima, the situation was no different, everyone had to adapt to a new reality and deal with daily challenges to protect the population and save lives. **Objective:** To describe and compare the sociodemographic characteristics of active and non-active health professionals on the front lines of the covid-19 pandemic in Roraima. **Methodology:** The project was approved by the Ethics and Research Committee of UFF through opinion 4,810,637. It is an observational, cross-sectional study with health professionals from the state of Roraima, Brazilians, aged over 18 years, excluding indigenous people, who acted and did not act on the front line during the covid-19 pandemic (2020- 2021). A questionnaire was applied on Google Forms® about: gender, age, education, income, weight, height, social isolation, among others, as possible routine changes during the pandemic. Thus, the results are presented as sample and percentage. **Results:** The responses of the 142 research participants were analyzed, with the profile of the health professional who worked on the front line during the covid-19 pandemic, mostly (74.29%) women, (62.86%) brown, aged between 31 and 40 years (42.86%), family income from R\$1,255 to R\$8,640 (62.86%), with a postgraduate degree (70%) and overweight BMI (40%). The profile of health professionals who did not work on the front line during the Covid-19 pandemic, mostly (90.28%) women, (61.11%) brown, aged 31 to 40 years (38, 89%), family income from R\$1,255 to R\$8,640 (55.56%), graduate studies (76.39%) and overweight BMI (43.06%). **Conclusion:** Based on the results presented, it is suggested that the sociodemographic characteristics of health professionals working or not on the front line are similar.

Keywords: covid-19; delivery of health care; pandemics; surveys and questionnaires; world health organization.

Financing Source: None.



Carrying out exams and comorbidities in the records of patients diagnosed with covid-19 admitted to a hospital in the northern Amazon in 2020.

Mylenna Christine Santos Campos¹; Hendrya Camylle da Silva Matos¹; Rodrigo Henrique de Lima Pinto¹; Ângela Aparecida Neto Amaral²; Adrielle Yasmine Maciel Ramos³; Ester Costa e Silva³; Julio Cesar Fraulob-Aquino^{4,5}; Gabrielle de Souza Rocha,^{5,6,7}.

¹Undergraduate Student in Nursing at UFRR

²Master's student of the Graduate Program in Health and Biodiversity (PPGSBio) at UFRR

³Undergraduate Student in Medicine at UFRR

⁴Undergraduate Professor of Medicine at UFRR

⁵Professor at the Postgraduate Program in Health and Biodiversity (PPGSBio) at UFRR

⁶Undergraduate Professor in Nursing at UFRR

⁷Professor at the Postgraduate Program in Cardiovascular Sciences (PPGCCV) at UFF

ABSTRACT

Introduction: In 2020, the world found itself in a pandemic context of covid-19, which produced deaths and countless harmful effects on the physical health and general well-being of the world's population, developed by the SARS-CoV-2 infection. In this sense, other comorbidities in addition to Covid-19 were observed in hospitalized patients, influencing the number of hospitalizations and deaths. **Objective:** To identify tests performed on patients hospitalized due to Covid-19 and evaluate their comorbidities, in a General Hospital in the capital Boa Vista, in Roraima. **Methodology:** Project approved by the Research Ethics Committee of UFRR with number CAAE: 55309621.30000.5302. Patients suspected of and tested positive for Covid-19 in 2020 were selected, including Brazilians adults over 18 years old, residents of the State of Roraima. Indigenous people, foreigners, pregnant women and patients who died were excluded. The medical records of hospitalized patients at the General Hospital of Roraima were analyzed. The results are presented as sample number and percentage related to established clinical parameters: Imaging exams, comorbidity, number of deaths and unfit for research. **Results:** 1,301 records of hospitalized patients were analyzed, excluding deaths (n=47), foreigners (n=1140), minors (n=1) and indigenous people (n=2), resulting in 111 records. The following clinical parameters were observed: cases confirmed with Covid-19 n=81 (89.9%), n=30 (33.3%) suspected cases, of the total only n=19 (17.1%) had tomography, while n=92 (82.9%) did not undergo tomography. As for comorbidities: n=24 (26.6%) had them, of which pneumonia+Covid-19 n=4 (0.9%), diabetes+Covid-19 n=7 (1.7%), systemic arterial hypertension +Covid-19 n=7 (1.7%). Among those diagnosed with Covid-19 without comorbidities were n=55 (61.0%), and even those who only had information about Covid-19 n=32 (35.5%). **Conclusion:** In conclusion, we demonstrated that hospitalizations due to COVID-19 predominate of patients with confirmed exams in relation to those suspected of having Covid-19, and the minority underwent imaging tests. The most prominent comorbidities were diabetes and systemic arterial hypertension. This reinforces the importance of paying attention to other comorbidities in addition to Covid-19, which influence hospitalizations and deaths.

Keywords: comorbidity; covid-19; pneumonia; pregnant women; reference standards.

Funding Source: There is no funding source



Prevalence analysis of the profile of hospitalized patients with a confirmed diagnosis for SARS-CoV-2 in a General Hospital in the northern Amazon of Roraima in 2020

Angela Aparecida Neto Amaral¹; Rodrigo Henrique de Lima Pinto²; Mylenna Christine Santos Campos²; Hendrya Camylle da Silva Matos²; Adrielle Yasmine Maciel Ramos³; Ester Costa e Silva³; Gabrielle de Souza Rocha^{4,5,6}; Julio Cesar Fraulob Aquino^{4,7}.

¹Student of the Graduate Program in Health and Biodiversity (PPGSBio) of the Federal University of Roraima - UFRR

²Student of the undergraduate course in Nursing/UFRR

³Student of the undergraduate course in Medicine/UFRR

⁴Professor of PPGSBio/UFRR

⁵Professor of the undergraduate course in Nursing/UFRR

⁶Professor of the Graduate Program in Cardiovascular Sciences (PPGCCV) of the Fluminense Federal University - UFF

⁷Professor of the undergraduate course in Medicine/UFRR

ABSTRACT

Introduction: The pandemic of the new Coronavirus (SARS-CoV-2), which began in Wuhan, China, in December 2019, happened with the virus spreading rapidly leading to outbreaks worldwide. The contamination of millions of people required rapid public health intervention, in the urgency of containing the spread of the virus and providing health thus allowing us to study the prevalence of the profile of inpatients in 2020. **Objective:** To identify the prevalence of the profile of patients hospitalized with Covid19 in a General Hospital of Roraima in 2020, with emphasis on sociodemographic data, reception with risk classification, days of hospitalization and comorbidities. **Methodology:** Study approved by the Research Ethics Committee/UFRR under CAAE number: 55309621.3.0000.5301. A retrospective study was conducted with analysis of the medical records of hospitalized patients with a positive diagnosis for Covid-19 in a General Hospital of the Northern Amazon of Roraima, with a sample of 111 medical records, as inclusion criteria for Brazilians, adults and the elderly, over 18 years of age and up to 75 years of age, of both sexes, residing in Roraima, Brazil, and including, minor, indigenous, vulnerable, pregnant women, nursing mothers, bedridden patients and/or those who feed through a probe/ostomy, deaths, and who do not have a test that proves infection by Covid-19. **Results:** The analysis of 1301 medical records resulted in a sample of 111; after the removal of those that met the exclusion criteria (n 1,190). Of these, the prevalence was: adults n=79 (71.1 6%), men n=65 (58.5%), living in the capital n=77 (69.3), with complete registration n=92 (82.8%), Orange risk classification n=37 (33.3%), being equal to the average of IHL for the orange classification=8.9 (IHL) and without classification =8.92 (IHL). Regarding comorbidities, n=67 (60.3%) did not present any or did not have this data recorded in the medical record during hospitalization; of those who presented n=44 (39.6%) the prevalence was n= 14 (12.6%) who had Systemic Arterial Hypertension and/or diabetes mellitus. **Conclusion:** It should then be concluded that from the medical records analyzed, the predominance was of male adults, living in the capital; the average IHL was 8 days. It is suggested that more severe patients, classified as Orange and/or who did not have the opportunity to go through the reception with risk classification, had a longer hospitalization time, and as for the pre-existing diseases, hypertension and diabetes stood out.

Keywords: bedridden persons; disease outbreak; hospitalization; pandemics; risk score; SARS-CoV-2;

Funding source: No Funding source



Relevance of risk classification and days of hospital intermission of patients in a hospital in Boa Vista/RR with diagnosis of covid-19 in the year 2020

Rodrigo Henrique de Lima Pinto¹; Mylenna Christine Santos Campos¹; Hendrya Camylle da Silva Matos¹; Angela Aparecida Neto Amaral²; Adrielle Yasmine Maciel Ramos³; Ester Costa e Silva³; Julio Cesar Fraulob-Aquino^{4,5}; Gabrielle de Souza Rocha^{5,6,7}.

¹Undergraduate Student in Nursing at UFRR

²Master's student of the Graduate Program in Health and Biodiversity (PPGSBio) at UFRR

³Undergraduate Student in Medicine at UFRR

⁴Undergraduate Professor of Medicine at UFRR

⁵Professor at the Postgraduate Program in Health and Biodiversity (PPGSBio) at UFRR

⁶Undergraduate Professor in Nursing at UFRR

⁷Professor at the Postgraduate Program in Cardiovascular Sciences (PPGCCV) at UFF

ABSTRACT

Introduction: In 2020 the Covid-19 pandemic, a disease caused by the new Coronavirus (SARS-CoV2) was the cause of many hospital admissions. Therefore, it was perceived the need to classify individuals arriving at hospitals, regarding the risk presented at the assistance time. **Objective:** To identify the risk classification performed using the Manchester protocol at the time of admission and the length of stay (LOS) in a hospital in Boa Vista/RR during the covid-19 pandemic. **Methodology:** Project approved by the Research Ethics Committee-UFRR under CAAE number: 55309621.3.0000.5301. We searched the medical records of patients admitted to a hospital in Boa Vista/RR and selected patient's records who tested positive for Covid-19 in 2020 and survived. The study included adults (> 18 years), Brazilians, residents of the state of Roraima, excluding indigenous, foreigners and pregnant women. We counted the risk classifications that used the Manchester protocol and the length of stay. Results are presented with sample and percentage n according to risk classification and mean LOS. **Results:** We analyzed 1301 medical records of patients diagnosed with Covid-19. Removing those who died (n=47) and those who were foreigners (n=1,140), it resulted in 114 records. Among these, exclusion criteria were applied, resulting in N=111 patients, which had the following Manchester protocol classifications: Orange n=37 (33.33%), Yellow n=23 (20.72%), Green n=14 (12.61%) and Blue n=2 (1.80%). However, those without sufficient information was found n=21 (18.91%) and without classification were n=14 (12.61%). As for LOS, the average was different for the risk classifications at the time of hospitalization, being Orange=8.9; Yellow= 6.6; Green= 7.4; Blue= 6.5; no classification=8.92. **Conclusion:** In conclusion, it is suggested that more severe patients, Orange and unrated, who did not go through screening probably for serious conditions during the admission, had longer length of stay.

Keywords: covid-19; pandemic, risk score.

Funding Source: No funding source

Sociodemographic characteristics of patients infected with SARS-COV-2 virus admitted to a hospital in the northern Amazon in 2020

Hendrya Camylle da Silva Matos¹; Mylenna Christine Santos Campos¹; Rodrigo Henrique de Lima Pinto¹; Angela Aparecida Neto Amaral²; Adrielle Yasmine Maciel Ramos³; Ester Costa e Silva³; Julio Cesar Fraulob Aquino^{4,5}; Gabrielle de Souza Rocha^{5,6,7}.



¹Undergraduate Student in Nursing at UFRR

²Master's student in the Health and Biodiversity Program (PPGSBio) at UFRR

³Undergraduate Student in Medicine at UFRR

⁴Undergraduate Professor of Medicine at UFRR

⁵Professor at the Graduate Program in Health and Biodiversity (PPGSBio) at UFRR

⁶Undergraduate Professor in Nursing at UFRR

⁷Professor of the Postgraduate Program in Cardiovascular Sciences (PPGCCV) at UFF

ABSTRACT

Introduction: With the emergence of Covid-19, caused by the novel coronavirus SARS-CoV-2, the disease escalated into a pandemic, crossing borders and consequently leading to numerous hospitalizations, widespread social isolation, and deaths. **Objective:** Corrected: "The objective is to evaluate the socio-demographic characteristics of patients infected with the SARS-CoV-2 virus who were admitted to a hospital in the Northern Amazon in 2020. **Methodology:** This study was approved by the Research Ethics Committee of UFRR under the number CAAE: 55309621.30000.5302. Selected were patients who tested positive for Covid-19 in 2020, including Brazilian adults over 18 years old residing in the State of Roraima. Indigenous people, foreigners, and patients who died were excluded. The medical records of patients hospitalized at the General Hospital of Roraima were analyzed. Sociodemographic data collected included sample number, percentage, and prevalence of parameters such as sex, age, race, area of residence, and availability of telephone contact. **Results:** A total of 1,301 records of hospitalized patients were analyzed, excluding 47 deaths, 1,140 foreigners, 1 minor, and 2 indigenous people, resulting in 111 records. Of these, 65 (58.6%) were men and 46 (41.4%) were women. The prevalence of adults under 60 years was 79 (71.2%). In terms of race, 75 (67.6%) were brown and one (0.9%) was black. Among them, 102 (91.9%) live in the capital Boa Vista/RR, with 74 (66.7%) residing in the West zone, 14 (12.6%) in the North zone, 6 (5.4%) in the South, and 2 (1.8%) in the Center Zone; 8 (7.2%) came from the rural area of the state. Additionally, 92 (82.9%) had a contact number, 9 (8.1%) did not, and 12 (10.8%) had the hospital number. **Conclusions:** Upon evaluating the sociodemographic characteristics, a predominance of adult men of mixed race was observed. There was a higher prevalence in areas with greater demographic density in the capital, Boa Vista, compared to rural areas. Most patients provided a telephone contact number. This highlights the importance of paying attention to regional differences in the context of patients with the SARS-CoV-2 virus in Roraima, which may indicate challenges in access to or quality of healthcare in various municipalities.

Keywords: covid-19; SARS-CoV-2; sociodemographic factors

Funding source: Federal University of Roraima and authors' own funding.

Sociodemographic profile and associated risk in adult patients diagnosed with covid-19 hospitalized in a hospital in the northern Amazon in 2020.

Adrielle Yasmine Maciel Ramos¹; Ester Costa e Silva¹; Angela Aparecida Neto Amaral²; Mylenna Christine Santos Campos³; Hendrya Camylle da Silva Matos³; Rodrigo Henrique de Lima Pinto³; Gabrielle de Souza Rocha^{4,5,6}; Julio Cesar Fraulob-Aquino^{6,7}.

¹Undergraduate Student in Medicine at UFRR



²Master's student of the Graduate Program in Health and Biodiversity (PPGSBio) at UFRR

³Undergraduate Student in Nursing at UFRR

⁴Professor at the Postgraduate Program in Cardiovascular Sciences (PPGCCV) at UFF

⁵Undergraduate Professor in Nursing at UFRR

⁶Professor at the Postgraduate Program in Health and Biodiversity (PPGSBio) at UFRR

⁷Undergraduate Professor of Medicine at UFRR

ABSTRACT

Introduction: In 2020, the Covid-19 pandemic, caused by the novel coronavirus (SARS-CoV-2), was declared. In this context, it was observed that adults without specific comorbidities also suffered from SARS-CoV-2 infection. **Objective:** The objective is to identify the sociodemographic profile and associated risk factors of adults admitted to a hospital in Boa Vista, Roraima, during the Covid-19 pandemic in 2020. **Methodology:** The project, approved by the Research Ethics Committee-UFRR under CAAE number 55309621.3.0000.5301, involved analyzing the medical records of patients admitted to a hospital in Boa Vista-Roraima. The study focused on those who tested positive for Covid-19 in 2020 and survived. It included Brazilian adults aged 18 to 59 years, residing in Roraima. Excluded were indigenous people, foreigners, and pregnant women. The research presented sociodemographic data and associated diseases at the time of hospitalization in terms of sample numbers and percentages. **Results:** A total of 1,301 Covid-19 records were evaluated, excluding 47 deaths and 1,140 foreigners, leaving 114 medical records. The study further excluded the elderly and those under 18 years of age, resulting in 83 (72.8%) remaining adult records. Of these, 45 (54.2%) were male, with the predominant age group being 36 to 44 years old. Most participants, 81 (97.6%), were of brown race, and 77 (92.8%) were residents of Boa Vista-RR. Regarding risk factors for Covid-19, 42 patients (50.6%) were hospitalized with Covid-19 alone, and 14 (16.87%) had conditions like hypertension or diabetes. There were 67 patients (80.7%) without information about pre-existing diseases at the time of hospitalization. **Conclusion:** Therefore, the analysis of the medical records of adults showed a predominance of males, predominantly of brown race, with most originating from the city of Boa Vista. Additionally, many had no recorded associated diseases, particularly diabetes and hypertension. This indicates that SARS-CoV-2 affected not only adults with comorbidities.

Keywords: covid-19; preexisting condition coverage; risk score.

Funding source: Federal University of Roraima and authors' own funding.

Sociodemographic profile and risk classification of elderly admitted in a hospital in the northern Amazon in 2020

Ester Costa e Silva¹; Adrielle Yasmine Maciel Ramos¹; Mylenna Christine Santos Campos²; Hendrya Camylle da Silva Matos²; Rodrigo Henrique de Lima Pinto²; Angela Aparecida Neto Amaral³; Julio Cesar Fraulob Aquino^{4,5}; Gabrielle de Souza Rocha^{5,6,7}.

¹Undergraduate Student in Medicine at UFRR

²Undergraduate Student in Nursing at UFRR

³Master's student of the Graduate Program in Health and Biodiversity (PPGSBio) at UFRR

⁴Undergraduate Professor of Medicine at UFRR

⁵Professor at the Postgraduate Program in Health and Biodiversity (PPGSBio) at UFRR



⁶Professor at the Postgraduate Program in Cardiovascular Sciences (PPGCCV) at UFF

⁷Undergraduate Professor in Nursing at UFRR

ABSTRACT

Introduction: The Covid-19 pandemic has significantly impacted global quality of life, primarily due to viral infection and social isolation. These factors have led to healthcare neglect, particularly pronounced among the elderly population, who already face physiological health challenges. **Objective:** Corrected: The study aims to identify the sociodemographic profile and risk classification of elderly individuals admitted to a hospital in Boa Vista, Roraima, during the covid-19 pandemic. **Methodology:** The project was approved by the Research Ethics Committee-UFRR under CAAE number 55309621.3.0000.5301. It included Brazilian residents of the State of Roraima aged 60 years or older, hospitalized with Covid19 in 2020. Indigenous people, foreigners, and pregnant women were excluded. Medical records from a hospital in Boa Vista, Roraima were analyzed, focusing on sociodemographic data and risk classification at admission. The results are presented as sample numbers and percentages. **Results:** Data were collected from 1,301 patients hospitalized with Covid-19, excluding 47 deaths, totaling 1,254 patients. Of these, 30 (26.31%) were elderly (>60 years), including 22 men (73.3%) and 8 women (26.7%). The most common age group was 60 to 70 years, with 20 patients (66.7%). A majority, 29 (96.7%), reported being of brown race, and 27 (90%) lived in Boa Vista/RR. Thirteen patients (43.3%) were admitted with a high-risk classification, 9 of whom (69.2%) were men. Out of these patients, 17 (56.7%) tested positive for covid-19; 5 (16.7%) had another illness, including 2 (33.3%) with hypertension and 3 (50%) with both hypertension and diabetes. **Conclusions:** The analysis of the medical records showed a predominance of brown men, who also presented with a high-risk classification at the time of hospitalization, indicating their greater vulnerability. There was a notable majority of patients from the city of Boa Vista compared to other areas, which may suggest challenges related to transportation or healthcare access in those regions.

Keywords: disaster vulnerability; health care; quality of life; sociodemographic profile.

Funding source: Federal University of Roraima and authors' own funding.

The consumption of alcoholic beverages by health professionals during the COVID-19 pandemic in the state of Roraima

Evair dos Santos Rocha¹; Alana Bringel Feliciano¹; Renata Souza Trindade Almeida¹; Julio Cesar Fraulob-Aquino^{2,3}; Gabrielle de Souza Rocha^{3,4,5}.

¹Master's student of the Graduate Program in Health and Biodiversity (PPGSBio) at UFRR

²Undergraduate Professor of Medicine at UFRR

³Professor at the Postgraduate Program in Health and Biodiversity (PPGSBio) at UFRR

⁴Undergraduate Professor in Nursing at UFRR

⁵Professor at the Postgraduate Program in Cardiovascular Sciences (PPGCCV) at UFF

ABSTRACT

Introduction: Covid-19 symptoms range from mild flu-like signs to severe pneumonia. Transmission occurs through respiratory droplets and contaminated secretions, such as sneezing and coughing. Public health interventions, including social distancing, aim to contain the virus. These measures have



altered various aspects of the population's routine, including dietary patterns and alcohol consumption. **Objectives:** The aim is to identify changes in alcohol consumption among health professionals during the covid-19 pandemic response period. **Methodology:** This project was approved by the Research Ethics Committee of UFF, under the opinion number 4.810.637. It is an observational, cross-sectional study that includes health professionals from the state of Roraima, aged over 18. Excluded from the study were pregnant women, cancer patients, individuals without internet access, bedridden patients, and/or those using a tube or ostomy. The questionnaire, administered via the Google Forms® platform, covered gender, age, income, education, social isolation, and other factors, including alcohol consumption and routine changes due to Covid-19, during the pandemic period (2020-2021). Data were presented as sample numbers and percentages. **Results:** Responses were collected from 142 survey participants, comprising 118 females (83%) and 24 males (17%). Among them, 34 (23.9%) do not consume alcoholic beverages, 50 (35.2%) reported no change in consumption, 22 (15.5%) reduced, and 36 (25.4%) increased their alcohol consumption during covid-19. Of the 142 health professionals, 69 (48.5%) worked on the front line of covid-19. Within this group, 21.7% do not consume alcohol, 42% maintained their consumption levels, 17.4% reduced, and 18.8% increased their alcohol consumption. Among those who increased consumption, 32 (88.8%) were female and 4 (11.1%) were male. **Conclusion:** The study indicates changes in alcohol consumption among health professionals during the Covid-19 pandemic. An increase in consumption was observed, which was more pronounced than the decrease, regardless of whether the respondents were frontline workers. These findings highlight a significant public health issue, potentially linked to the pandemic's impact on the routines and quality of life of health professionals.

Keywords: alcohol drinking; covid-19; dietary patterns; health professional; socioeconomic factors.

Funding source: Federal University of Roraima and authors' own funding.

The impact of the covid-19 pandemic on the mental health of health professionals in the state of Roraima

Renata Souza Trindade Almeida¹; Alana Bringel Feliciano¹; Evair dos Santos Rocha¹; Julio Cesar Fraulob-Aquino^{2,3}; Gabrielle de Souza Rocha^{3,4,5}.

¹Master's student of the Graduate Program in Health and Biodiversity (PPGSBio) at UFRR

²Undergraduate Professor of Medicine at UFRR

³Professor at the Postgraduate Program in Health and Biodiversity (PPGSBio) at UFRR

⁴Undergraduate Professor in Nursing at UFRR

⁵Professor at the Postgraduate Program in Cardiovascular Sciences (PPGCCV) at UFF

ABSTRACT

Introduction: The covid-19 pandemic has significantly impacted the health of the world's population. The consequences on the health of the population are due both to the action of the virus and to the social isolation carried out to contain the spread of the virus. The psychological alterations of the general population stand out. However, this care for health professionals remains neglected. **Objectives:** To evaluate the main symptoms and mental disorder reported by health professionals during the period of isolation caused by the covid-19 pandemic and relate them to pre-existing symptoms. **Methodology:** Observational, cross-sectional study, including health professionals from the state of Roraima over 18 years old, with indigenous people excluded from the study. Questionnaire applied by the Google Forms® platform on: gender, age, education, social isolation, whether you worked on the front line during the



pandemic, use of medication, symptoms and feelings related to mental aspects prior to the period of the covid-19 pandemic (2020 -2021) and changes due to this time. Participants could mention more than one symptom/feelings in the answers. Data will be presented as absolute and relative frequencies. **Results:** Responses were collected from 141 survey participants aged between 19 and 62 years old. Of those, 118 female (84%) and 23 (16%) males. Of the total, 59 (42%) had no mental complaints and of those who had mental complaints, 65 (46%) reported anxiety, 28 (20%) migraine, 24 (17%) insomnia, 14 (10%) depression and 61 (43%) reported worsening symptoms with the pandemic. During the pandemic, anxiety 99 (70%), fear 95 (67%), stress 93 (66%) and insecurity 83 (59%) stand out as the most prevalent feelings among the participants. **Conclusion:** This study shows that health professionals were subjected to situations of extreme stress that brought feelings of hopelessness and fear, which may have impacted on the symptoms they already had previously, aggravating the mental health of these professionals. These data point to an important public health problem for health professionals. This reinforces the importance that attention should be paid to health professionals general well-being in a pandemic context of covid-19, whether among frontline workers or not.

Keywords: covid-19; health professionals; mental disorders; psychological well-being.

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