NOTE PREVIEW ARTICLE

NURSING DIAGNOSIS TO PATIENTS WITH CARDIOPULMONARY DISORDERS IN INTENSIVE CARE UNIT

DIAGNÓSTICOS DE ENFERMAGEM A PACIENTES COM DISTÚRBIOS CARDIOPULMONARES NA UNIDADE DE TERAPIA INTENSIVA

DIAGNÓSTICOS DE ENFERMEIRÃ A PACIENTES CON DISTURBIOS CARDIOPULMO Na EN LA UNIDAD DE TERAPIA INTENSIVA

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ABSTRACT

Objective: to characterize the socio-demographic profile of patients with cardiopulmonary disorders. Methodology: a descriptive research with quantitative approach, to be held with the patients admitted to the Intensive Care Unit (ICU) of the Hospital Regional do Seridó in Caicó/RN. The research subjects will be people with a diagnosis of cardiopulmonary disease. For data collection we will use Galbreath questionnaire based on the Theory of Adaptive Roy, which will guide the clinical examination, and structured interview questionnaire to obtain socio-demographic data of the patients. The data will be transferred to a spreadsheet of the application Microsoft Excel 2007 and analyzed by descriptive statistics and presented in tables and figures. The research project was approved by the Ethics and Research CAAE 02370512.1.0000.5294. Expected results: we expect to delineate the socio-demographic profile of patients with cardiopulmonary disorders through identification of nursing diagnoses and a plan of nursing care. Descriptors: Nursing; Intensive Care; Nursing Diagnosis.

RESUMO

Objetivo: caracterizar o perfil sócio demográfico dos pacientes com distúrbios cardíopulmonares. Metodologia: pesquisa descritiva, com abordagem quantitativa, a ser realizada com os pacientes admitidos na Unidade de Terapia Intensiva (UTI) do Hospital Regional do Seridó, em Caicó/RN. Serão sujeitos de investigação pessoas com diagnóstico médico de doenças cardíopulmonares. Para a coleta de dados será utilizado o questionário de Galbreath, baseado na Teoria Adaptativa de Roy, que guiará o exame clínico e o questionário com roteiro estruturado para obtenção de dados sócio demográficos dos pacientes. Os dados serão transferidos para uma planilha do aplicativo Microsoft Excel 2007 e analisados pela de estatística descritiva e apresentados na forma de tabelas e figuras. O projeto de Pesquisa foi aprovado pelo Comitê de Ética e Pesquisa CAAE 02370512.1.0000.5294. Resultados esperados: espera-se traçar o perfil sócio demográfico dos pacientes com distúrbios cardíopulmonares, por meio da identificação dos diagnósticos de enfermagem e um plano de cuidado de enfermagem. Descritores: Enfermagem; Terapia Intensiva; Enfermagem.

RESUMEN

Objetivo: caracterizar el perfil sociodemográfico de los pacientes con disturbios cardiopulmonares. Metodología: pesquisa descriptiva, con abordaje cuantitativo, a ser realizada con los pacientes admitidos en la Unidad de Terapia Intensiva (UTI) del Hospital Regional de Seridó, en Caicó/RN. Serán sujetos de investigación personas con diagnóstico médico de enfermedad cardíopulmonares. Para la colecta de datos será utilizado el cuestionario de Galbreath, basado en la Teoría Adaptativa de Roy, que guiará el examen clínico y el cuestionario con un guía estructurada para obtener los datos sociodemográficos de los pacientes. Los datos serán transferidos para una planilla del aplicativo Microsoft Excel 2007 y analizados por la de estadística descriptiva y presentados en la forma de tablas y figuras. El proyecto de Investigación fue aprobado por el Comité de Ética e Investigación CAAE 02370512.1.0000.5294. Resultados esperados: se espera trazar el perfil sociodemográfico de los pacientes con disturbios cardiopulmonares, por medio de la identificación de los diagnósticos de enfermería y un plano de cuidado de enfermería. Descriptores: Enfermería; Terapia Intensiva; Diagnóstico de Enfermería.
INTRODUCTION

The Nursing Care System (NCS) is regarded as a proposal for a comprehensive and individualized assistance to the users of health care network and their family. It should be built by nurses, based on a systematic process that according to Resolution 358/2009 of the Federal Council of Nursing - Conselho Federal de Enfermagem (COFEN) in its 1st art., 2nd paragraph, includes the History of Nursing, Nursing Diagnosis, Care Planning, Implementation and Evaluation.¹

The SAE is presented as a methodological tool to guide nursing care in their practice applying the scientific method, assisting the nursing staff in decision-making and evaluating the consequences of those actions. So in order to operationalize the care needs of the individual patient.²

The nurse who uses the Roy model agrees with the concept of health as the goal for the person's behavior and his function will be to manage the stimuli produced by the environment to reach that person, in order to put him inside the adjustment zone. The nurse and her team must also act to strengthen the regulatory mechanisms of the individual / society to prepare them for changes that may happen (health promotion).³

The systematic care in nursing is needed, since the standardization of clinical practice of the profession ensures greater success in therapeutic approaches based on science and care protocols to group of diseases that could support the nursing staff, making their participation more important in therapeutic processes of disease, organizing care and making the integration of the multidisciplinary team.⁴

The nurse as prescriber and as provider of care, and leader of nursing team, must have competence and technical ability to apply systematic care. This model of care is being discussed in more formative spaces and has been deployed in some services which create a positive impact on health restoration. This new reality is fundamental and important, because it allows the nurse to develop a more worthy users of health services, humanizing their care focusing their conduct in obtaining results and investigation.⁵

Knowing that the SAE is directly linked to the hospital and the nursing staff provides assistance in all environments, it is clear that in the ICU there is a greater need for systematizing care to these patients, which deserve greater attention and a more organized treatment, enabling quick recovery and qualified care to service users.⁶

In health care, the ICU space emerges as the ideal place to treat extreme cases that show acute symptomatic crisis and put lives at risk, and require advanced life support. The treatment of these clinical cases put the intensivist multidisciplinary team committed to patients who need accurate care and hard technology for better management of their staff and for successful actions.

The main causes of hospital admissions with high risk of death are cardiorespiratory diseases. We know that the circulatory and respiratory system has vital function for homeostasis, since from them the tissues receive oxygen and nutrients necessary for proper cell function, and other functions. We must be aware that these diseases in organism systems endanger human life, the main causes of death worldwide are circulatory diseases, in Brazil, according to a study in 2006, they were responsible for 62% of deaths.⁷

The cardiorespiratory diseases represent a wide range of diseases that involve different biological mechanisms or contaminants, among which we highlight the following cases. Congestive Heart Failure (CHF) occurs when the heart is unable to pump blood at a proportional rate to the need of the metabolizing tissues or can do only that in high filling pressures. It is usually caused by a deficiency of the extrinsic force of contraction; the ICC can also occur due to other conditions in which the normal heart is suddenly exposed to a load that exceeds its capacity.⁸

As an example, fluid overload, the acute myocardial infarction or acute valvular dysfunction. Problems in the filling of the ventricles can also interfere.⁹ Heart diseases are ischemic syndromes that trigger ischemic processes in the myocardium, an imbalance between the perfusion of oxygenated blood and the demand of the heart muscle. Ischemia covers not just the lack of oxygen, but also a reduced availability of nutrient substrates and removal of metabolites.

In over 90% of cases, the syndrome is related to atherosclerotic obstruction of the coronary arteries. It is manifested in Acute Myocardial Infarction (AMI), angina pectoris, chronic heart ischemia and sudden heart death.⁹ Angina pectoris is presented as a complex of symptomatic ischemia, characterized by paroxysmal attacks and generally recurring precordial chest discomfort or substernal.

Nursing diagnosis to patients...
The AMI is the death of heart muscle resulting from myocardial ischemia and anoxia, resulting in failures in pumping blood and tissue perfusion. Hypertensive heart disease are heart’s response to increased demands induced by systemic hypertension. In hypertension, cardiac hypertrophy occurs as adaptively to pressure overload disorders which can lead to myocardial infarction, heart dilation, heart failure and sudden death.

The commitment of the heart valves is also a pathological problem, it can happen to stenosis and/or valvular insufficiency, compromising blood flow in the chambers of the heart. Pulmonary edema is the most common cause increase of hydrostatic pressure causing weight increase and saturate of the lung parenchyma, mainly in the lung base. Microbleeds can happen. This injury makes difficult to breathe as predisposes lower respiratory tract infections.

The acute respiratory distress syndrome (ARDS) occurs when rapid respiratory failure happens; cyanosis and severe hypoxemia can progress to multisystem organ failure. Pulmonary emphysema is characterized by abnormal and permanent dilation of distal bronchi accompanied by the destruction of their walls without obvious fibrosis. The chronic obstructive pulmonary disease (COPD) is a group of diseases that is caused primarily by cigarette use. It causes bronchial wall thickening, increased mucus production, loss of lung elasticity, among others. Pathophysiological bronchitis and asthma are included in this group.

Respiratory infections are diseases involving the most common microorganisms in the human body. Pneumonia can be broadly defined as an infection of lung tissue caused by a wide range of microorganisms. Superior respiratory infections and defects in innate immunity and occurrence of immunosupression for various reasons are the main causes. It can be acquired in the community, hospitals, by aspiration or systemic way. Children and the elderly people are most affected, if they were not treated they can develop more serious infections what can endanger the patient’s life.

The ICU of Hospital Regional do Seridó, in Caicó / RN, setting of this study, the cardiac and respiratory diseases accounted for 19.89% of hospital admissions in 2009. The rate of admission to hospital unit is significant. According to the secretary of the hospital, there were a total of 1927 and 2219 admissions in 2008 and 2009 respectively. Morbidity is varied according to the data from DATASUL; the major causes of hospital admission are the diseases of the circulatory and respiratory systems.

This study is relevant because the Hospital Regional do Seridó is reference in emergency and intensive care for more than 20 municipalities of the Seridó, of medium and high complexity. Those municipalities need this ICU for continued assistance to users of the health service.

**OBJECTIVES**

- To characterize the socio-demographic profile of patients with cardiopulmonary disorders;
- To identify the main nursing diagnoses of lung disorders;
- To trace plans of care for patients with cardiopulmonary disorders treated in ICU.

**METHODOLOGY**

**Study Characterization**

The research is descriptive, which aims to describe characteristics of a population or phenomenon. There are many studies that fall into this category and one of its most significant features is the use of standard techniques of data collection, as this study.

The descriptive research studies characteristics of groups, age, sex, origin, education, state of physical and mental health, as in this type of study. Studies that have aimed to raise attitudes of certain groups also fall into the descriptive research.

Study with a quantitative approach, which involves the systematic collection of numerical information through controlled conditions, analyzing the information collected through statistical studies. In this study, the researcher is based on measurable parameters; it shows numerically the opinions and information relating to the research problem, to be classified and analyzed, establishing a relationship of cause and effect between variables.

**Population**

The research subjects will be the patients admitted to the ICU, 10 patients with a diagnosis of cardiopulmonary disease. This quantity is justified because it corresponds to twice the number of ICU beds in that hospital within two months of occupation. For this study, patients admitted to the ICU will be selected. The age does not imply the objectives of the study, however, it can imply in the formulation of treatment plans.

Thus, it constitutes the criterion for inclusion of subjects in this study: patients...
who have a medical diagnosis of disease of the heart and/or breathing, to be older than 18 years-old, the data collecting not endanger the stability of the patient. If the patient is unconscious or in sedation, this is configured as an exclusion criterion because it undermines the voluntary participation in the research.

The researcher will contact them through telephone with the sector and he will have information provided by the team on the admission of new patients that meet the inclusion criteria. If this occurs, the researcher will be present as soon as possible for the application of the instruments of data collection. If the research subject cannot answer some of the questions made, we will use as a secondary source the information contained in the medical records of the institution.

To be part of the study, participation in the agreement will be made by submitting the Term of Free and Informed Consent Form (ICF) to the subject. For the acceptance of the participant, it is cited that participation is voluntary and they may quit at any time of the survey, when necessary, without loss, in accordance with the principles of the Resolution no. 196/96 of the National Health Council (CNS). 13

♦ Instrument of data collection

Data collection will happen in hospital, more precisely in the ICU so that does not disrupt the normal routine of service. The collection is made with a participant at a time. The researcher will be properly attired as a routine hospital using Personal Protective Equipment (PPE) acquired by the researcher.

To give viability to the research, we intend to use the questionnaire Galbreath¹ translated by Regina Machado Goroes, using the theory of adaptive Roy as basis to guide clinical examination and structured interview questionnaire to obtain socio-demographic data of patients and the healthcare plan nursing patients with cardiopulmonary disorders in the intensive care unit.

It is worth remembering that if the patient did not have a position to answer some questions the researcher will look for information from the medical record, duly authorized by the institution co-participant.

♦ Treatment and analysis of data

The steps of data analysis and final report will occur in the area of collective study at UERN, in library and classrooms of Nursing, in Caicó campus. The data will be transferred to a spreadsheet of the application Microsoft Excel 2007 and analyzed using descriptive statistics - distribution in absolute and relative frequencies. The main results are presented in tables and figures, with their respective percentage distributions.

To perform the identification of nursing diagnoses, we will use in the diagnostic classification of NANDA-International Version 2009/2011, based on the collection instrument Roy theory. This theory form the basis for the nursing care plans developed in frames containing criteria: nursing diagnoses, defining characteristics, related factors, nursing prescriptions and assignments, goals and rationale.

After collection, the data will be categorized by disease. Detailed analysis will be made in order that the researcher had conditions, socio-demographic profiling to identify the nursing diagnoses and treatment plans to outline the proposed research objectives.

Therefore, the infrastructure where the stages of the research will be processed includes one of the halls of the nursing department/UERN, in relation to the collection of information. The other steps will have the infrastructure of coordination of nursing course and the research group “Nursing in the individual/collective health-illness, health education and care/management of health services”, in the campus Caicó/UERN.

♦ Ethical Considerations

This research follows ethical criteria established in Resolution no. 196/96, which deals with the ethics of research on humanos.13 beings having been submitted to the Ethics Committee in Research of the University of Rio Grande do Norte (UERN) and authorized by the protocol 140/10 CAAE 0123.0.428.000-10, with seeming approval approved on June 17, 2011.

The signing of the consent by the subjects precede the application of the instrument for data collection, and all will be informed about the objectives and procedures of the research, emphasizing the voluntariness of their participation and the guarantee of anonymity.

REFERENCES

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