



## THE ACTIVITY OF STRETCHER BEARERS IN THE TRANSPORT AND TRANSFER OF PATIENTS IN A HIGH COMPLEXITY MATERNITY SCHOOL AND ITS RELATIONSHIP WITH ADVERSE EVENTS AND PATIENT SAFETY

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### Abstract

Stretcher bearers are a professional category that has been little studied in the scientific community, although they play an important role in patient safety, since they are in direct contact with patients. The main objective of this study is to analyze the activity of stretcher bearers at a teaching maternity hospital at a public university, aiming to identify the determinants of this work activity that impact patient safety, indicating measures to improve the activity that minimize the possibility of adverse events and increase patient safety, through the Ergonomic Work Analysis method. Thus, a participatory, technical and managerial action structure was created involving stretcher bearers, managers and patients. During the field research, it was observed that there was a lack of routine equipment cleaning, that linens used in transport and/or transfer were not changed regularly, and that the elevator was used for any and all activities, including for common and/or hospital waste. Physical constraints were also observed, such as lack of accessibility and layout problems, so stretcher bearers use strategies such as asking third parties for help or using riskier maneuvers when carrying the stretcher. Such strategies can increase the chance of an AE, which can directly affect patient safety. Another observation was that some patients and transports require assistance from nurses and/or nursing technicians, other stretcher bearers, or even the patient's companion, although none of this is prescribed for these cases.

**Keywords:** Ergonomics, Patient Safety, Stretcher Bearers, Patient Transport.

### 1. INTRODUCTION

Although the organizations that take care of the health of patients (maternity hospitals, hospitals, etc.) are intended for their cure, many adverse events occur without having the cause originating from the direct treatment adopted for the proper cure of the patient. It was only in

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the 2000s that patient safety became part of international (World Health Organization - WHO) and national (Ministry of Health - MS) health care strategies in public and private health organizations. Therefore, these health organizations have increasingly been concerned with the control of adverse events with a view to patient safety during care.

In July 2011, VEJA magazine printed the following headline: "WHO – going to the hospital is riskier than flying" (VEJA, 2011). According to this article, data from the World Health Organization (WHO) indicate that millions of people die every year due to medical errors and hospital-acquired infections. Tribuna do Norte (2017) reported that hospital failures kill more than accidents and cancer, also highlighting adverse events as the 2nd leading cause of death in Brazil. Leape, Brennan, Laird, Lawthers, Localio, Barnes et al. (1991) defined Adverse Events (AEs) as all incidents that result in harm to the patient's health. For Vincent (2009, p. 51), adverse events are understood as "an unintentional injury caused by medical treatment, and not by the progress of the disease" (VINCENT, 2009, p. 51). According to Padilha, Barbosa, Oliveira, Andolhe, Janzantte and Secoli (2015), adverse events (AEs) are those not related to the natural evolution of the underlying disease, which can lead to increased hospitalization time and cost, disability and even mortality of patients

Health care in organizations that provide highly complex services requires special attention, as it involves patients who need care of a complex nature, whose a series of aspects must be taken into account to promote patient safety and ensure the minimization of correlated adverse events (AEs).

The *World Alliance for Patient Safety* (2004) (in Portuguese, World Alliance for Patient Safety) was created in 2004, through the World Health Organization (WHO), with the purpose of disseminating knowledge about patient safety worldwide, by providing alerts on systemic and technical aspects involved and promoting international campaigns on the subject, in an attempt to minimize adverse events and, consequently, the number of victims of avoidable adverse events (WORLD ALLIANCE FOR PATIENT SAFETY, 2004).

According to the *World Alliance for Patient Safety* (2004), the main cause of AEs is related to deficiencies in the design, organization, and operation of the hospital system. Thus, most adverse events (AEs) occur due to latent causes within the systems, and not due to negligence or lack of training of professionals (WORLD ALLIANCE FOR PATIENT SAFETY, 2004).

For Belela, Peterlini and Pedreira (2010), the causes of AEs and their consequences in hospital environments are also due to the precariousness of the services provided, the lack of



adequate staffing, the excessive workload and the poor remuneration of professionals. It can be inferred from this statement that the organizational aspects of work are related to adverse events and, therefore, to patient safety, as was also pointed out by the World Alliance for Patient Safety.

Patient safety involves a wide range of aspects, which are listed in Ordinances No. 1377/2013 (BRASIL, 2013) and No. 2095/2013 (BRASIL, 2013) in the basic patient safety protocols. The aspects mentioned in these ordinances are: safe surgery, patient identification, hand hygiene, fall prevention, safe use of medications, and safe care environment.

It is worth noting that not only health professionals are responsible for patient safety, but also all professionals involved in their care and treatment, companions and even the patients themselves (MINISTRY OF HEALTH, 2016).

Pick-up at the point of origin, transport by stretcher or wheelchair, and delivery of patients to a point of destination is an activity that carries risks and is subject to accidental occurrences, which may result in the patient falling, shocks of part of the patient's body against surfaces, disconnection of treatment devices injected into the body, pickup, and transport and delivery of the wrong patient to the point of destination, delivery of the patient to the wrong destination etc.

The present study is ongoing and focuses on the thematic area of patient safety, having as its unit of analysis the activity of transport and transfer of patients carried out by stretcher bearers in a federal public health organization – maternity school of high complexity care. This article seeks to show the relationship between stretcher bearer activity and patient safety, through the understanding of the strategies and actions used by stretcher bearers to manage variabilities and contractors (constraints, constraints) (DE MONTMOLLIN, 1995; GUÉRIN, KERGUÉLEN and LAVILLE, 2001; ROCHA, 2017) of the activity.

## 2. GOALS

The general objective of the research, to which this article is linked, is to propose a set of measures to improve the activity of transport and transfer of patients carried out by stretcher bearers, aiming at improving patient safety at the maternity school. The objectives of this article are to present the results of the global analysis of the maternity hospital and the research sector, as well as to define the pre-diagnosis of the activity studied.



### 3. METHOD

#### 3.1. Type of study

The scientific method to be adopted in this research is the Ergonomic Analysis of Work (AET) (WISNER, 2004; GUÉRIN, KERGUELEN and LAVILLE, 2001; VIDAL, 2008). For the authors, the EWS comprises the analysis of the demand, the analysis of the technical process and the task, the analysis of the activity, the formulation and dissemination of the diagnosis and the ergonomic recommendations. Thus, the following structure adapted from Vidal (2008) will be adopted: instruction of the demand; global analysis; focusing and pre-diagnosis; focused analysis; validation and refund; and ergonomic specifications.

#### 3.2. Population

The research population comprises all 10 stretcher bearers from the Maternity School (ME) studied, and is therefore considered a census study. These stretcher bearers are distributed among the 3 daily work shifts (morning, afternoon and night) and the observations occurred in the 3 shifts, in order to verify if there are variations between them.

#### 3.3. Data collection

The AET begins with the emergence of demand, which can originate from the company's management, from the workers themselves (GUÉRIN, KERGUELEN and LAVILLE, 2001), or even be a provoked demand, that is, when researchers interested in a theme seek an organization proposing to help it understand and solve possible existing problems, in the field of Ergonomics (Carvalho and Saldanha, 2001). The present research was a provoked demand, since the researcher sought out the BD and proposed a study, which aroused the interest of the sector responsible for patient safety in the maternity hospital, because this sector evidenced problems with this activity.

Thus, for the development of demand analysis, Vidal (2008) recommends that there should be a global analysis, in the sense of knowing the place, gathering information that helps in the analysis and clarification of demand, through which the negotiated ergonomic demand will be established (VIDAL, 2008). For the author, the global analysis serves to broaden the initial scope, adjust the focuses and themes, and refine the demand, consisting of recognizing the place where the ergonomic action should produce its effects.

Thus, for the immersion in the theme of patient safety, adverse events and stretcher bearer activity, with regard to the survey of associated concepts, related research and statistical data, bibliographic and documentary research was carried out in academic databases, such as *scopus*, *science direct* and *pubmed* and government agencies. The instruction of the demand in



the BD was conducted by a process of social construction, as proposed by Vidal (2008), using interaction techniques such as conversational action and spontaneous verbalizations, in addition to questionnaires, observational techniques and bibliographic research.

To analyze the task, an interview was conducted with the head of the patient transport and transfer sector, in order to identify the tasks planned for the stretcher bearers and describe them. Also, with the same purpose, a meeting (focus group) was held with the stretcher bearers. The results of the interactions with the head of the sector and the stretcher bearers will complement and validate the analysis of the stretcher bearers' task.

For the analysis of the activity, a plan was made for the observation and audiovisual recording of the activities of the stretcher bearers, using cameras, verifying the observables of the activity (VIDAL, 2008), both elementary, such as postures, displacements and communications, as well as compounds (sequences of actions, measurement of the state of equipment and facilities) and verbalizations.

Wisner (2004) states that the analysis of activity is not limited to the study of the course of action, and the layer underlying cognition, the representation, which can differ from one operator to another, should be explored. For this reason, semi-structured interviews and conversations were also carried out with the stretcher bearers, in order to know the determinants of the activity of the stretcher bearers that affect patient safety. With this, it was possible to formulate the pre-diagnosis and, later on, from the systematic record and analysis of the observables, the diagnosis of the activity will be formulated, aiming at the elaboration of the Descriptive Memorial of Transformations (GUÉRIN, KERGUELEN and LAVILLE, 2001).

All the data collected, the ergonomic demand, the diagnosis formulated, and the indications for improvement of the activity will be returned to the respective research participants and validated during the course. It is worth noting that this article deals with the results of the initial stages of ETS, ending with the aforementioned focusing and pre-diagnosis stage.

### **3.4. Ethical aspects of research**

A research project involving human beings has ethical aspects, and it is necessary to discuss them in order to comply with the ethical determinations provided for in Resolution No. 466/2012. Thus, a project was submitted to the Ethics Committee of Plataforma Brasil, on 04/08/2019 for approval and approved on 05/03/2019, as the number of the Certificate of Presentation for Ethical Appreciation (CAAE): 08910118.0.0000.5292.



#### **4. RESULTS OF THE GLOBAL ANALYSIS OF THE MATERNITY AND STRETCHER BEARER SECTOR**

To carry out the global analysis, on-site observations and semi-structured interviews and conversations (VIDAL, 2008) were carried out with the hospital managers responsible for the Patient Safety Center (NSP) and for the stretcher bearer activity sector, respectively.

##### **4.1. Description and overall functioning of the Maternity-School**

###### **4.1.1. History of the Maternity-School**

The construction of the ME began in 1932 and was completed in the early 1940s. But it was only in 1950 that there was, in fact, the inauguration of the Natal Maternity Hospital, as this building was ceded, between 1941 and 1947, to the Ministry of War, through an agreement with the Society of Hospital Assistance, being quite deteriorated, requiring three years of work to recover the building. According to Trindade (2015), when it was founded in 1950, the maternity hospital had 130 beds, with the most modern hospital equipment at the time.

###### **4.1.2. Structure of the Maternity-School**

The ME has a building in eclectic neocolonial style, predominantly, which has a structure composed of 141 beds, 26 of which are Intensive Care Unit beds, 16 gynecology surgical beds and 72 clinical and surgical obstetrics beds; 22 outpatient offices; 01 Amphitheater and 01 Study Center, distributed in a total area equivalent to 7,787 m<sup>2</sup>.

The ME also provides outpatient clinics for high-risk pregnancy, family planning, perinatology, fetal medicine, general and specialized gynecology and prevention of diseases of the lower genital tract, in addition to multiprofessional outpatient clinics (psychologist, nurse, social worker, nutritionist) and the Assisted Reproduction Center. It has a 24-hour urgent and emergency service with an Obstetric Center, Neonatal ICU, Maternal ICU, Human Milk Bank, Mammography, Ultrasound, as well as Clinical Analysis, Microbiology and Cytopathology laboratory services.

###### **4.1.3. Services offered by the Maternity-School**

The ME is a specialized hospital complex, of a public nature, which offers comprehensive care to the public using the Unified Health System (SUS) in Brazil, operating in the areas of women's health, high gestational risk and gynecological surgery. Also, in the



ME, teaching activities (training of undergraduate medical students) and research (Graduate Programs, Medical Residency and Master's Degrees) are carried out. In 2016, more than 3,800 births were performed in the BD, 63% of which were cesarean sections and 37% were normal. Of these, 91% were considered high risk and 9% usual risk. In the same year, more than 9,400 hospitalizations were carried out. Among them are gynecological surgeries and clinical treatments, with a total of 1,500 surgeries performed and more than 2,600 clinical treatments.

The maternity hospital also has the Patient Safety Center (NSP), which aims to promote a culture of patient safety in the hospital environment, with the planning, development, control and evaluation of care processes, in order to ensure their quality. The members of this nucleus must represent different sectors of the hospital, in addition to counting on the participation of patients, families and/or caregivers whenever possible (EBSERH, 2019).

## **4.2. Description and overall operation of the Stretcher Bearer Sector**

### **4.2.1. Characterization of stretcher bearers**

In all, there are 10 stretcher bearers who work at the maternity hospital. The stretcher bearers are outsourced. In 2016, there was a change in the company that outsources this sector, however 80% of the stretcher bearers remained. Thus, the ME has the support of nine outsourced stretcher bearers, of which one is not exclusive to ME, being scheduled to several hospitals when there is demand or lack of any professional, however it is more demanded for the ME itself, all of them are interspersed in a 12-hour shift regime, taking 36 hours off, in addition to these there is a fixed stretcher bearer in a 44-hour weekly regime (administrative hours: from 7 am to 5 pm from Monday to Friday), with three or four present during the day shift and, always, two in the night shift. The day shift for stretcher bearers who work on a 12-hour shift starts at 7 am and ends at 7 pm, while the night shift starts at 7 pm and ends at 7 am. All of them have 1-hour lunch breaks.

#### **a) Socio-demographic data**

- Age: 50% are between 30 – 40 years old and 50% are over 40 years old;
- Gender: 100% are male;
- Education level: 90% have completed high school and 10% have completed elementary school;
- Salary of the profession: 100% receive 1 minimum wage and additional unhealthy work, 13th salary and annual vacation of 30 days;





- Length of service in the function: 60% have more than 9 years, 10% 7 years, 20% have 5 years and only 10% 1 year of service in the function, as for the length of service in the outsourced company, 80% have been since the beginning of the company in the ME, that is, 3 years, and 20% with 1 year or less.
- Length of service in the Maternity: 40% are over 19 years old, 40% between 5 and 7 years old and 20% are less than 1 year old;
- Primary and outsourced workers: 100% outsourced.

#### b) Work organization

- Weekly working hours: 90% work on duty, 12 hours/36 hours, and 10% 44 hours per week;
- Work shift: 40% perform night work and 60% perform day work;
- Work on their days off: 67% work and 33% do not work of the 9 on-duty workers, these extra jobs vary between car wash, soccer athlete, sales cart, furniture repair and general services;
- Turnover: Low

### 4.2.2. Facilities and equipment of the Stretcher Bearer Sector

There is an administrative room, which is not exclusive to stretcher bearers, and is also used by other professionals, such as those in general service. The stretcher bearers on duty share this room with a professional who has a computer, through which transport request calls are received via telephone, which are passed on by him to the stretcher bearers. The ME has 16 stretchers, 9 wheelchairs, 1 chair for bathing and 1 transport incubator.

### 4.2.3. Flow of the call process for patient transport

A professional receives patient transport calls from various sectors of the Maternity via telephone and computer, and passes them on to the stretcher bearers, via radio or instantly in the room, so that they can perform the requested care. This professional also controls the tasks of the stretcher bearers, based on a call control spreadsheet, which contains the name of the stretcher bearer, the type of transport required (stretcher, wheelchair, etc.), sector where the





patient is transported, the patient's destination sector, and the time of departure and arrival at the administrative room of the stretcher bearers. This registration, however, only occurs during the day and, every Friday, the hotel manager, responsible for the stretcher bearers at ME, saves the call control spreadsheet and sends it to the outsourced company, of which the stretcher bearers are employees.

#### **4.2.4. Prescribed Work of Stretcher Bearers**

The prescribed work of stretcher bearers consists of: referring patients to requested areas; receive, check and transport exams, materials or equipment, such as oxygen, medical records, among others; control sterile material; keep equipment clean and organized, such as stretchers and chairs; provide stretchers and wheelchairs to transport patients; help victims and report on the service and completion of calls for control purposes.

Telephone calls, requesting stretcher bearers to transport patients, must be made by nurses, who must identify themselves by informing their name to the stretcher bearer, the extension where they are, the place of origin and destination of the patient, the type of transport they need and whether they need oxygen during transport, in order to correctly fill out the aforementioned worksheet, previously. However, during the interview with the stretcher bearers, it was reported that this protocol is not followed correctly by the nurses.

#### **4.2.5. Aspects related to Occupational Health and Safety**

According to the company responsible for ME's stretcher bearers, these professionals are subject to occupational risks, such as risks due to physical agents (noise, vibrations, extreme temperatures), chemical (dust, gases, vapors, absorbed by the human body through the respiratory route, through the skin), biological (bacteria, fungi, bacilli, parasites, protozoa, viruses, among others), ergonomic (work standing, handling of patients, etc.) and work accidents.

During 2018, there were two leaves by the National Institute of Social Security (INSS). Annually, training is carried out with these professionals.

In December 2018, training sessions were held addressing the following subjects: work accidents; Regulatory Standard 32 (biological risk); basic principles in fire prevention and fighting and Regulatory Standard 17 (ergonomics). However, these trainings are not specific to the stretcher bearer function, and drivers and professionals in the laundry sector are also present.

#### **4.2.6. Services provided by stretcher bearers**



Until June 2019, the stretcher bearer sector had, on average, 15000 attendances, of these, around 70% were for handling, transport and/or transfer of patients, and 30% of other materials, among the 5 sectors that most requested calls are in first place the high-risk sector, in second unit A, in third the ultrasonography sector, in fourth unit B1, and in fifth the maternal ICU.

## **5. RESULTS OF THE TARGETING AND PRE-DIAGNOSIS OF THE ACTIVITY OF STRETCHER BEARERS**

### **5.1. Patient Safety**

When asked about what they understand by patient safety, 80% answered that it would be transporting with care, attention and/or calm, 40% answered to provide safety to the patient, checking the equipment, 30% of this to do the transport accompanied by technicians, nurses and/or doctors, 30% answered to detect the patient's illness and know if it is urgent or not, 20% said it would be to be careful with the baby, only 10% mentioned the use of PPE.

As can be seen, the understanding of patient safety, for them, mainly comprises transporting patients with care, attention and/or calm. Let's look at some reports from the stretcher bearers:

"The patient feels confident in us and also, you know, in the equipment used, but often the equipment is not so good" (Maquero F. M. S.).

"You have to be careful when transporting the patient, right?! Give attention, be careful with the baby too" (Stretcher Bearer E.J.C.A)

"Transport them calmly, transfer the bed carefully, check the equipment, because there are stretchers with rails that have to be fitted, otherwise the patient falls" (Stretcher bearer D. S. S.).

"It is when transporting the patient, depending on the severity, be careful, always accompanied by the nurse, doctor. And be careful with us too, right, not to get blood, because we don't know what she has" (Stretcher bearer C. R. A. P.).

### **5.2. Incidents and accidents**

When asked about having experienced some type of incident (near accident) and/or accident during patient transport, 60% said no and 40% answered yes; namely:

- 1- Elevator was broken, they had to climb the stairs and the patient fell (Stretcher bearer I. D. T. O.)



- 2- He passed the stretcher over the foot of the nursing technician he was accompanying, she took leave (Stretcher bearer E. J.C.A.)
- 3- Patient faints during the transfer in unit B, because there is no elevator and she has to climb the stairs recently delivered (Stretcher bearer D. N. S.).
- 4- Some fainting and falls of patients (Stretcher bearer F. M. S.).

### 5.3. Training

Regarding having already undergone some type of specific training to perform their function, 10% answered that they have never received any training and 90% that they have already received, but 30% had only 1 training, 40% 2 training and 20% had 4 training and

only 10% more than 15, such trainings lasted, on average, from 2 to 4 hours, covering topics such as safe patient handling, correct form of transfer, posture, humanization, use of PPE, use of equipment (brakes, etc.), and all of them have already received more than 1 year and a half without training.

### 5.4. Positive and negative points of the role

As positive points in relation to their function, 80% reported a good relationship with the team and managers, 30% good equipment and new stretchers, 10% mentioned that it is an essential function, as they have the first contact with the patient and 10% reported that it is important to enjoy what they do. Some of the reports made by them were: "I think a positive point is to like what you do, right, if I didn't like it, I wouldn't have worked with this for more than 30 years, it's good to help others, we have to understand the patients, because each one has their problems, and we don't know what they are going through, you have to respect it" and "The stretcher bearers are the first to receive the patients, so we are, let's say, their entrance, right, it's an essential function, and the team too, we are friends".

As for the negative points, 70% cited the lack of a ramp or elevator and the broken transport platform in Unit B1, 40% cited the low salary, 40% lack of radio in some wards, this being a specific problem of the night shift, because there was no employee responsible for receiving calls in the room, 30% mentioned the elevator with unevenness and old wheelchairs, without brakes and without support, and 10% the call phone is not only for calls and also rings for random things and is responsible for also picking up equipment, exams, or anything they ask for.



### 5.5. Suggestions for improvements to the activity pointed out by the stretcher bearers themselves

As suggestions for improvements, the following were mentioned:

- ✓ Have an exclusive room and improve the resting place;
- ✓ Have radio in all sectors;
- ✓ The phone is exclusive for calls;
- ✓ Elevator or ramp in unit B;
- ✓ Walkway to unit B;
- ✓ Wheelchairs with stand.

Among the suggestions for improvement mentioned above, the stretcher bearers pointed out the need to install an access ramp in a certain place of Unit B1 (see Figure 1), because the automatic platform responsible for raising the patient in the wheelchair, in this section, does not work, causing patients with less than 24 hours of surgery or delivery to have to climb the stairs alone or, only, with the help of stretcher bearers. They also reported that, for certain types of patients and transportation, there is a need for help from nurses and/or nursing technicians, other stretcher bearers, or even the patient's own companion.

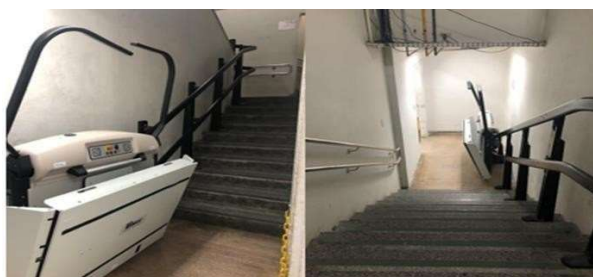


Figure 1. Access to unit B1 (Authors, 2019)

Another suggestion often mentioned was the improvement of the sector room, which, as can be seen in Figure 2, is a small environment, with low ceilings for the anthropometry of the occupants, with infiltrations in one of the walls, as well as the resting place, seen in Figure 2, which is under a staircase, whose ceiling is sloping and very low. In addition to the place being extremely small, in view of this, it has been reported that there have been accidents of head hits on the ceiling when they get up from the mattress, or on the door because it is lower than the height of most of them.



Figure 2. Room in the stretcher bearer sector and resting place for stretcher bearers (The authors, 2019).

In addition, with the open observations, it was found that equipment is only cleaned when it is visibly dirty (with stains), and the change of the cloth in the wheelchair is also only done when it is very dirty with dark stains or when there is blood from the patient, it was also observed the conditions of the wheelchairs, which are rusty, and with broken footrests, and none of them have support for serum or other medication, as shown in Figure 3.



Figure 3. Wheelchairs in the sector. (Authors, 2019)

The hand hygiene protocol, previously mentioned in Ordinances No. 1377/2013 (BRASIL, 2013) and No. 2095/2013 (BRASIL, 2013), with the basic patient safety protocols, was passed on to all employees in the sector, however, it was observed that they do not always wash their hands before and after the service. In addition, it was found difficult to pass with the stretcher in the maternal ICU (which is among the 5 sectors with the most calls), because there



is a chair on one side of the corridor and on the other side two fire extinguishers, leaving a small space for the stretcher to pass, which can be seen in Figure 4, in addition to the problem of unit B1, As mentioned above, another point observed was a small unevenness in the elevator (highlighted in red in Figure 4), and in addition there is no elevator exclusively for common garbage

and/or Hospital Like this all elevators convey Patients companions, employees, and also the garbage.



Figure 4. Access to Unit A of the Maternity and elevator unevenness. (Authors, 2019)

From the reports and observations, the following pre-diagnoses were reached:

The lack of a routine for cleaning the equipment, the non-regularity in changing the cloths used in the transport and/or transfer service, as well as the common use of the elevator for any and all activities, including common and/or hospital waste and, also, the transport of patients, can increase the risk of hospital infections, considered a common EA in Brazil. According to Oliveira and Maruyama (2008), the main causes of hospital infection are: inadequate sterilization and disinfection of articles and equipment, breakdown in hospital cleaning routines, breakdown of routine nursing and medical procedures. In other words, such procedures can generate the aggravation of the risk of an AE for BD patients.

The physical controversies observed, which involve the lack of accessibility in Unit B1, problems with the layout in Unit A, make stretcher bearers have to use strategies such as asking for help from third parties during transport to or from Unit B1, or using riskier maneuvers when passing with the stretcher in Unit A, as well as lifting the stretcher during the entry and exit of the elevator due to the unevenness encountered. Such strategies can increase the chance of an AE occurring, such as falls and/or fainting, which can directly affect the safety of the BD patient.





For certain types of patients and transport, there is a need for the help of nurses and/or nursing technicians, other stretcher bearers, or even the patient's own companion, although none of this is prescribed for these cases.

## **6. CONCLUSION**

The article presented the initial stages of the construction of the EWS with the stretcher bearers of a maternity school in the city of Natal-RN. It was found that the survey of the global data of the company and the sector, as ingredients of the Global Analysis, are important to know the global functioning of the company, which is of great importance to better specify the demand, to understand how the aspects of organizational dimension or macro ergonomics are related to the problems related to the negotiated ergonomic demand.

The article also demonstrated that stretcher bearers, when carrying out their activities, are faced with physical contractors – due to the characteristics of the physical facilities (degradation of equipment, inadequate layout, absence of elevator access to unit B2, etc.) of the ME and the equipment used – and with time constraints – due to the urgency of transportation, high demand, etc. and that, in order to achieve their objective – to transport and move the patient safely – they carry out regulations that consist of the development of strategies and actions, such as relying on collaboration

to carry out certain transfers and make anticipations, such as making forecasts of patient demand when faced with intense flows at certain times and days of the week.

The aim of this study was to draw attention to the relationship between stretcher bearer activity and the occurrence of possible adverse events with transported and transferred patients, and to contribute to the adoption of improvements in stretcher bearer activity and the safety of patients at the Maternity Hospital, minimizing the occurrence of adverse events.

## **7. DISCLAIMER**

The authors are solely responsible for the information included in this work and authorize the publication of this work in the scientific dissemination channels of ABERGO 2020.

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