

## ATTENTION FOR HEALTH WORKERS IN AN EMERGENCY CARE UNIT

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### ABSTRACT

**Introduction:** The national policy on occupational health preaches accident prevention and illness through providing appropriate and safe working conditions. Currently, great attention is dedicated to human resources of health care due to the high occurrence of illness at work. **Objective:** to identify health problems in health workers in an Emergency Care Units. **Methodology:** a retrospective study with a quantitative approach using the documentary analysis of medical records of the health workers attended from 2008 to 2010, in the Emergency room of a hospital of Paraná-Brazil. **Results:** 4224 employees were treated at the units representing 4.1% of all service performed in the three years 2008-2010, from these 69% were female and 49% were Nursing Assistants. There was a prevalence of diseases of the musculoskeletal system (50%) followed by circulatory diseases (17%) and respiratory (14%). **Conclusion:** It is up to the health services would be attention to factors that cause the illness of these professionals and adopt effective strategies for the prevention and control of occupational risk factors and the peculiarities of tasks performed.

**Keywords:** Health personnel. Occupational health. Emergency medical services. International classification of diseases.

### INTRODUCTION

The origin of the field of workers' health has configured the search moves for democratization of the country, when several scholars start movements for political organization of attention to the class <sup>(1)</sup>. Healthcare workers have experienced a significant technological advance, with new means of diagnostics, sophisticated appliances, demanding that they suit changing the structure of the workplace and making the existing occupational risks increase and new risks arise from work <sup>(2)</sup>.

One of the places where this reality is most evident, are the services of urgent and emergency care, also known as Emergency Room services (ER), configured by tense environments and with the greatest needs of

the worker's adaptation to the place, demanding ever more of the subjects who operate there.

The demand for emergency services expanded, too, in the 20th century and the rise tends to continue in the current century. The increasing number and severity of patients' conditions make the Emergency department a place of great importance. In addition, the unpredictability of the demand, the severity and complexity, as well as the diversification of approaches make this scenario a real challenge to workers involved in it <sup>(3)</sup>. The concern with quality in emergency care has been a constant since 1970 as result of the large increase observed in its demand. Emergency services, represented by units of ER, have become the "gateway" to the health care system, not only in developing countries <sup>(4)</sup>.

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Although the organization and structuring of urgent and emergency services are being worked on over the years, only in 2002 is that organizational criteria have been established from the stream and accountability for such attendances, by the Ministerial Decree n. ° 2,048/GM, represented an important component of health care and the structuring of the network <sup>(5)</sup>.

In recent years, the increasing demand for services in this area, the growth in the number of accidents, urban violence and the inadequate structuring of the network are factors that have contributed decisively to the overload of the services provided to the care of the population, all these are factors that put the health of that act at risk of disruption <sup>(6)</sup>.

The increase in demand for emergency services, and its transformation in the gateway of the system are a symptom of dysfunction of the system. The gateway should be the primary health care and, when they do not work well or when people do not trust in the services and other setbacks, is where these changes appear.

The current scenario on the health of workers performing different has become critical, since they constitute the most relevant occurrences served in health services, such as the illness as result of the work, which often is not identified by themselves, due to lack of knowledge or no importance to the fact and even their naturalization before the problem <sup>(7)</sup>.

Many institutions do not have their own occupational health services or in some cases, the workers do not use them, trying to avoid the stigma of being sick or incapacitated to maintain their work <sup>(8)</sup>.

This fact makes it difficult to analyze the profile of illness, damaging research and making it impossible to have an overview of accidents and work-related illnesses in Brazil. To know the characteristics of the health care workers in ER can be one of the possible strategies to identify occurrences of work-related illness, in front of a panorama of possibilities of involvement relating to the profession of health, a fact that motivated the present study. Thus, it was elected as a guiding question:

What causes that lead the health worker looking for the Emergency Room?

## OBJETIVE

To identify the health problems that affect health workers met in an ER unit.

Retrospective study of a quantitative approach of the data collected through documentary analysis technique of the medical records of the health workers, served in the ER units of a hospital of Londrina, Paraná, Brazil. The institution has 361 beds and performs highly complex procedures in the areas of Cardiology, Nephrology, Neurology, Orthopedics and organ transplants. It has urgent and emergency services, adult and neonatal Intensive Care Unit. Its ER unit is divided into two parts: ER and Emergency and Trauma Center (ETC).

The ER receives patients for simple consultations not from trauma and the ETC, those referenced via Integrated System of Trauma and Emergency Services (ISTES) and Mobile Emergency Attendance Service (SAMU). Generally speaking, patients assisted in this unit have greater severity and complexity, in need of emergency services. Although the institution is not reference to workers' health, such subjects are addressed in the ER, according to the spontaneous demand and referrals for other health services.

The study population was made up of all healthcare workers served in units of ER, from all areas, between the month of January 2008 to December 2010.

It was used as criteria for inclusion to have been answered in the ER in overtime and be identified in chart be healthcare worker, regardless of the institution's work. All who did not meet the previous criteria were excluded.

For data collection, we used the "Business Intelligence" software (BI) QlikView, named used in the institution, which allows systematizing the data recorded in electronic records and perform the evaluation more quickly. The extracted variables were: sex, age, profession, service type and classification of type of complaint/illness by CID 10.

After systematization, the data were tabulated by the Excel program, version 2007 and organized into tables. Descriptive statistics were used for analysis and presentation of results tables.

The project was approved by the Research Ethics Committee of the hospital studied (ZIP 373/10 CAAE: 0036.0.083.083-10).

## RESULTS AND DISCUSSION

Among the years 2008 to 2010, 102,136 patients were attended in the ER and ETC, from these 4,224 (4.1%) were healthcare workers as shown in table 1.

Of health professionals, 69,5% were females, 53% were aged between 21 and 40 years and, moreover, a little portion of subjects were aged over 70 years (0,4%).

With respect to the professions, there was a predominance of attendances by class that work with direct and uninterrupted contact with patients, as shown in table 2.

**Table 1** - Distribution of health care workers met at the ER according to sex and age in Londrina, Paraná, 2011. (n = 4224).

YEARS	2008		2009		2010		Total
VARIABLES	f	%	f	%	f	%	f
<b>SEX</b>							
Male	491	32,9	466	31,5	333	26,6	1290
Female	1002	67,1	1014	68,5	918	73,4	2934
<b>Total</b>	<b>1493</b>	<b>100</b>	<b>1480</b>	<b>100</b>	<b>1251</b>	<b>100</b>	<b>4224</b>
<b>AGE</b>							
20 years old or less	184	12	165	11	101	8,1	450
21-30 years old	413	28	381	26	272	21,7	1066
31-40 years old	416	28	393	26,5	383	30,6	1192
41-50 years old	311	21	322	22	323	25,8	956
51-60 years old	124	8	155	10	134	10,7	413
61-70 years old	44	3	56	4	31	2,5	131
> 70 years old	1	0	8	0,5	7	0,6	16
<b>Total</b>	<b>1493</b>	<b>100</b>	<b>1480</b>	<b>100</b>	<b>1251</b>	<b>100</b>	<b>4224</b>

Among the health professionals, it was observed that the categories of nursing workers were represented by 2075 (49%) Nursing assistants, 419 (10%) Nurses and 414 (10%) Nursing technicians, in addition to the 23 Nursing attendants (0.5%).

Of 4224 healthcare workers attended between 2008 to 2010, 9.5% presented work-related illnesses. The larger percentage indicates nursing assistants (57.3%), Surgical Assistants (15.3%), Nurses (10%) Nursing Technicians (10%) and Laboratory Technicians (5.31%), as shown in Table 3.

The diseases presented by the health workers, according to the CID are work-related, showed that the most affected was the

musculoskeletal, showing 50% of occurrences, being the most prevalent M 54.4 Lumbago c/Sciatica (19%), Myalgia (79.1%) 17 M, M 25.5 articulation pain (16%) and M54 Dorsalgia (15%), noting increased number among the nursing assistants.

The circulatory system accounted 17% of total, being the most prevalent to I 10 Primary Hypertension, with 83% of workers showing such change and again, identifying a significant number among the nursing assistants.

The respiratory system represented 14% being the most prevalent J 45 asthma (63%), followed by J 02.9 non-specific acute pharyngitis (30%), between the same workers.

**Table 2** - Distribution of health care workers met at the ER according to professions/occupations. Londrina, Paraná, 2011. (n = 4224).

YEARS		2008		2009		2010		Total
ATTENDED PROFESSIONS/OCCUPATIONS		f	%	f	%	f	%	f
Nursing Assistant		713	48	729	49	633	51	2075
Surgical Assistant		260	17	187	12	189	15	636
Nurse		142	10	151	10	126	10	419
Nursing Technician		121	8,0	148	10	145	11,5	414
Laboratory Technician		75	5,0	64	4,0	43	3,0	182
Doctor		70	4,7	83	5,5	50	4,0	203
Lab helper		27	1,8	13	1,0	0	0	40
Pharmacist		24	1,5	16	1,0	13	1,0	53
Psychologist		14	1,0	33	2,5	16	1,3	63
Dentist		11	0,8	12	1,0	2	0,2	25
Biochemist		9	0,5	9	0,7	10	0,8	28
Nursing attendant		8	0,5	8	0,6	7	0,6	23
Nutritionist		8	0,5	2	0,2	6	0,5	16
Physical Therapist		5	0,4	11	1,0	0	0	16
Pharmacy helper		4	0,3	4	0,5	4	0,4	12
Audiologist		1	0	6	0,5	2	0,2	9
Operating room Technician		1	0	0	0	0	0	1
Occupational therapist		0	0	4	0,5	5	0,5	9
TOTAL		1493	100	1480	100	1251	100	4224

The study showed that the nursing assistants are health workers who sought the ER for the years 2008 to 2010; they are in greater numbers in health services and are closer to the patient during the entire period of stay, lifting them, hygienizing them, changing their clothes, feeding them, among the many tasks they perform in the daily work

So we decided to share the findings into categories, as most systems affected, which are presented below:

This factor can generate illnesses and search for the health service.

### Diseases of the circulatory system

Hypertension is a health problem of more significant relevance and affects 10% or more of the adult population<sup>(9)</sup>. This high prevalence may lead to heart failure and/or cerebral vascular, coronary and renal insufficiency. Risk factors of

hypertension may be associated with obesity, excessive salt intake, physical inactivity, smoking, alcohol intake and psychological factors such as stress<sup>(10)</sup>. Study of intensive care nurses with 40 years old or more presented general major stress level (4.88%) than the younger professionals (3.63%), being this one of the predisposing factors to the occurrence of harms to health and including the performing different circulatory system<sup>(11)</sup>.

It is beneficial attention to health workers who are routinely exposed to risk factors present in the working environment and behavior. In this study, 17% of the occurrences were related to cardiovascular and 83% of workers were diagnosed as suffering from hypertension, this fact puts them at high risk of development of performing different like stroke, heart failure, including changes to other systems.

**Table 3.** Distribution of health care workers with work-related diagnoses according to the international classification of diseases. Londrina, Paraná, 2011. (n = 4224).

YEARS	2008				2009				2010			
VARIABLES	f	%	WRD	%	f	%	WRD	%	f	%	WRD	%
Nursing Assistant	713	47,76	76	51,01	729	49,26	84	63,16	633	50,60	68	57,63
Surgical Assistant	260	17,41	33	22,15	187	12,64	8	6,02	189	15,11	21	17,80
Nurse	142	9,51	14	9,40	151	10,20	16	12,03	126	10,07	10	8,47
Nursing Technician	121	8,10	12	8,05	148	10	14	10,53	145	11,59	14	11,86
Laboratory Technician	75	5,02	11	7,38	64	4,32	8	6,02	43	3,44	3	2,54
Doctor	70	4,69	3	2,01	83	5,61	3	2,26	50	4,00	2	1,69
Others	112	7,50	-	-	118	7,97	-	-	65	5,20	-	-
<b>TOTAL</b>	<b>1493</b>	<b>100</b>	<b>149</b>	<b>100</b>	<b>1480</b>	<b>100</b>	<b>133</b>	<b>100</b>	<b>1251</b>	<b>100</b>	<b>118</b>	<b>100</b>

\*WRD: Work-related diagnosis.

There are a large number of professionals who work from 6 to 12 hours/day and the overload of work ends up triggering a number of problems in the life of the individual, including poor diet, a few hours of sleep, stress, sedentary lifestyle, obesity, among other predisposing risk factors for triggering conditions such as Severe Hypertension<sup>(12)</sup>.

### Musculoskeletal system diseases

The nursing staff's is everyday exposed to risks related to the working environment. The harms to health acquired by health workers are mainly the backache, because it is a work in which physical force is required for transportation and mobilization of patients, among others<sup>(13,14)</sup>. Among healthcare workers, the majority of diagnoses (71%) concentrated on six groups; of these, diseases of the musculoskeletal system and connective tissue diseases presented greater relevance with 12% of cases<sup>(14)</sup>.

A research carried out in order to meet the morbidity and mortality of workers shows that work-related disorders related to the spine (lumbar pain, lumbago, backache, and others), the osteoarthroses, cervical-branquialgias, tenosynovitis and peritendinites among others, present a reasonable impact on morbidity of workers. The most common cause found is non-specific and often associated with ergonomic or traumatic problems<sup>(9,10)</sup>.

Among the locations of pain, the lumbar spine has gotten high percentage applicant in studies conducted among nursing workers. Movement activities, the maintenance of static postures, in bending for long periods, and the transport of patients are most activities associated with this kind of pain. Since the implementation of care, drag or push beds/stretchers/wheelchairs with patients is more associated with complaints of pain in shoulder and cervical region<sup>(15,16)</sup>.

Among 23 employees of a nursing University hospital of São Paulo, the identification of physiological loads to which they are exposed showed that as regards the perception of exposure to loads, eight (42.1%) considered themselves exposed to excessive weight handling in activities developed in the unit; 19 (82.6%) reported being exposed to work on foot and 15 (79.9%) recognized that work in inappropriate positions and/or annoying. These three may not be associated with a fact that predisposes workers to greater wear and consequently, higher probability of occurrence of accidents and illnesses<sup>(16)</sup>.

The illness related to labor activity can generate performing different that cause a worker miss the work. Study that sought to identify the causes of absenteeism nursing workers showed that such absences were caused by problems related to the

musculoskeletal system (8.8%), with emphasis on the cervicolumbago, fractures and contusions on ends. Some activities performed by these workers cause too physical, as the transport and movement of equipment and patients. The long permanence of foot for assistance, associated with bad body posture and the inadequacy of the physical space and furniture are singled out as ergonomic risk factors responsible for damage to health<sup>(17)</sup>.

The reflection of these healthcare workers problems configures the data obtained in the present study, since they presented 50% of the total of occurrences related to work-related musculoskeletal disorders.

### Respiratory system diseases

In this study, among nursing workers, the highest number of certificates was related to the problems of the respiratory system. The frequent exposures to biological agents (contaminated hands, material handling and secretions, sharp drill material, lack of ventilation) and chemicals (cleaning/disinfection of materials and environment, anesthetic gases) can be the causes of respiratory infections<sup>(17)</sup>.

The prevalence of health problems recorded in permits-health nursing, was related to the respiratory system (16.6%), with a predominance of upper respiratory disorders (IVAS), followed by bronchial asthma, oropharynx and pneumonia.

Respiratory infections have been little valued by workers and their managers, perhaps because they are considered fleeting. These sometimes claim to be climate change or low

resistance as being responsible, not relating to the work overload, poor diet and inadequate conditions of work, additional risk factors<sup>(18)</sup>.

This fact leads us to reflect the need for discussion with the workers of the risks present in work environments, as well as effective methods of preventing and protecting their own health.

## CONCLUSION

The results of this study confirm the situation found in other health services. Although these more frequent health problems (low back pain, hypertension and asthma) common to the population in general, the literature shows its relation to factors present in the daily life of active health workers in hospitals and in units of basic care to health and therefore, it is up to health services drive attention to causative factors of illness and adopt effective strategies for the prevention and control of occupational risks, taking into account the conditions under which the work is performed and the safety conditions offered workers, and still meet the legal recommendations contained in particular in the regulatory norms NR9, NR17, NR32.

As limitation of the present study is the analysis from secondary data, which may be incomplete. Other studies must be conducted with broader population for a more complete analysis of the situation in the areas of health and nursing, since these represent the largest number of industry professionals.

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## ATENDIMENTOS AOS TRABALHADORES DA SAÚDE EM UNIDADE DE PRONTO ATENDIMENTO HOSPITALAR

### RESUMO

Introdução: A política nacional de saúde do trabalhador prega a prevenção de acidentes e adoecimentos por meio do oferecimento de adequadas e seguras condições de trabalho. Atualmente, grande atenção é voltada aos recursos humanos da área de saúde devido à elevada ocorrência de adoecimento pelo trabalho. Objetivo: identificar os problemas de saúde que acometem os trabalhadores de saúde atendidos em uma Unidade de Pronto Atendimento. Método: estudo retrospectivo, quantitativo, utilizando a análise documental de prontuários dos trabalhadores de saúde atendidos, de 2008 a 2010, na Unidade de Pronto Atendimento de um hospital do Paraná - Brasil. Resultados: dos 102.136 atendimentos registrados, 4.224 (4,1%) foram dirigidos aos trabalhadores da área da saúde. Desses, 69% são do sexo feminino e 49% auxiliares de enfermagem. As queixas de maior frequência nos atendimentos foram relacionadas com as doenças do sistema osteomuscular (50%), em especial dor lombar, ao sistema circulatório (17%), em especial hipertensão arterial e ao sistema respiratório (14%), em especial asma. Conclusão: cabe aos serviços de saúde destinar atenção aos fatores causadores do adoecimento desses profissionais e adotar

estratégias eficazes de prevenção e controle dos fatores de riscos ocupacional e as peculiaridades das tarefas realizadas.

**Palavras-chave:** Pessoal de saúde. Saúde ocupacional. Serviços médicos de emergência. Trabalhador.

## ASISTENCIAS PARA LOS TRABAJADORES DE SALUD EN LISTA UNIDAD HOSPITALARIA

### RESUMEN

**Introducción:** La política nacional de salud del trabajador predica la prevención de accidentes y enfermedades por medio del ofrecimiento de adecuadas y seguras condiciones de trabajo. Actualmente, gran atención es dirigida a los recursos humanos del área de salud debido a la elevada ocurrencia de enfermedad por el trabajo. **Objetivo:** identificar los problemas de salud que acometen a los trabajadores de salud atendidos en una Unidad de Pronto Atención. **Método:** estudio retrospectivo, cuantitativo, utilizando el análisis documental de registros médicos de los trabajadores de salud atendidos, de 2008 a 2010, en la Unidad de Pronto Atención de un hospital de Paraná - Brasil. **Resultados:** de los 102.136 atendimientos registrados, 4.224 (4,1%) fueron dirigidos a los trabajadores del área de la salud. De esos, 69% son del sexo femenino y 49% auxiliares de enfermería. Las quejas de mayor frecuencia en los atendimientos fueron relacionadas con las enfermedades del sistema osteomuscular (50%), en especial dolor lumbar, al sistema circulatorio (17%), en especial hipertensión arterial y al sistema respiratorio (14%), en especial asma. **Conclusión:** cabe a los servicios de salud destinar atención a los factores causadores de la enfermedad de esos profesionales y adoptar estrategias eficaces de prevención y control de los factores de riesgo ocupacional y las peculiaridades de las tareas realizadas.

**Palabras clave:** Personal de salud. Salud ocupacional. Servicios médicos de urgencia. Trabajador.

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