

MEDICAL REPORTS RECOMMENDING WORK RESTRICTIONS AT A TEACHING HOSPITAL IN BRAZIL¹

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This non-experimental and cross-sectional descriptive study aimed to evaluate medical reports recommending work restrictions for workers at a teaching hospital in Brazil. A form was used for data collection, characterizing the medical reports and work restrictions, with its content previously validated. A total of 176 medical reports was analyzed, containing 337 work restrictions, recommended from January 2001 to January 2004. The results demonstrated a high rate of work restrictions in the study hospital. The most restrictions frequent were ergonomic (78.6%), and the most often prescribed were: no weight lifting or carrying and no repetitive movements. There was an average of two restrictions per medical report, 79.5% of which were definitive and the mean restriction period was 13 months.

DESCRIPTORS: hospital units; human engineering; occupational health; nursing

LAUDOS MÉDICOS RECOMENDANDO RESTRICIONES DE TRABAJO EN UN HOSPITAL UNIVERSITARIO EN BRASIL

Este estudio descriptivo, no experimental y de corte transversal tuvo por objetivo evaluar los laudos médicos conteniendo restricciones de trabajo, prescritas a trabajadores de un hospital universitario en Brasil. Para la colecta de datos, fue utilizada una ficha para caracterización de los laudos médicos y restricciones de trabajo, previamente validada cuanto al contenido. Fueron levantados 176 laudos médicos con restricciones de trabajo, prescritas en el período de enero del 2001 a enero del 2004, totalizando 337 restricciones. Los resultados demostraron que era elevada la ocurrencia de restricciones de trabajo dentro de la institución estudiada. Las más frecuentes fueron ergonómicas (78.6%), sendo que las más prescritas fueron: no levantar ni transportar peso y no ejecutar movimientos repetitivos. Hube un promedio de dos restricciones por laudo médico, el 79.5% era definitivo y el período promedio de vigencia fue 13 meses.

DESCRIPTORES: unidades hospitalarias; ingeniería human; salud ocupacional; enfermería

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Trata-se de um estudo descritivo, não experimental, de corte transversal, que teve por objetivo avaliar os laudos médicos contendo restrições de trabalho prescritas a trabalhadores de um hospital universitário no Brasil. Para a coleta de dados, foi utilizada uma ficha para caracterização dos laudos médicos e das restrições de trabalho, previamente validada quanto ao conteúdo. Foram levantados 176 laudos médicos contendo restrições de trabalho prescritas no período de janeiro de 2001 a janeiro de 2004, totalizando 337 restrições. Os resultados demonstraram que era elevada a ocorrência de restrições de trabalho dentro da instituição estudada. As mais frequentes foram ergonômicas (78,6%), sendo que as mais prescritas foram: não levantar nem transportar peso e não executar movimentos repetitivos. Houve uma média de duas restrições por laudo médico, 79,5% eram definitivas e o período médio de vigência foi de 13 meses.

DESCRIPTORIOS: unidades hospitalares; engenharia humana; saúde ocupacional; enfermagem

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INTRODUCTION

Hospitals are enterprises associated with health care services, aiming at care, treatment and cure of those affected by disease. However, they also pose a series of health risks to those who work in them. Most hospitals have a structure with a high level of complexity and diversity of services and, consequently, varied occupational risks⁽¹⁾. Researchers and organizations have identified a vast number of biological, chemical, physical, ergonomic and accident risks in the hospital work environment⁽²⁻⁵⁾.

The accident law in Brazil, concerning its social principle, has the objective of preventing, attenuating and indemnifying damage or loss, through the rendering of benefits and services. In accordance with this act, when an accident or occupational disease has been identified, the State is responsible for repairing the damage suffered by the worker. At a later stage, it is the responsibility of the Medical Investigation Unit of the National Social Security Institute (INSS) to verify or eliminate the cause and effect connection of disease and work on behalf of the insured worker. Later, however, it is the responsibility of the Medical Investigation Unit to submit the insured worker to functional capacity evaluation, with the objective of granting benefits (sick leave, accident leave and disability retirement) and to refer the worker to occupational rehabilitation⁽⁶⁾. In accordance with Regulatory Norm n. 7 (NR-7), approved by Edict n. 3.214/78 of the Labor Ministry, when the occurrence or worsening of occupational diseases is detected, or alterations in any type of organ or biological system are found, even in the absence of symptomatology, the responsible physician has the following obligations: request the company to issue the Accident at Work Report (CAT); recommend, when necessary, removal of the worker from risk exposure or from work; direct the worker to Social Security for determination of the causal nexus, incapacity evaluation and definition of social security conduct in relation to work; and orient the employer regarding the necessity to adopt control measures in the work environment. It should be noted that an insured worker who has been affected by an occupational or work-related disease is assured of the same social security and labor rights guaranteed to a worker injured in an accident at work⁽⁷⁾. The Medical Report is the written and detailed description of every specific fact of a permanent nature related to a medical investigation, requested by a competent authority to

an official investigator or, in their absence, to unofficial investigators, but who have a moral commitment to see that justice is done. They are used to communicate the decision of experts⁽⁸⁾.

There is reason for concern in the hospital field regarding the limitations imposed on workers who operate in this sector. Such work restrictions are requested with the objective of removing the worker from exposure to occupational risks, due to the impossibility of performing the specific functions of an activity or occupation, in consequence of morphological, psychological and/or physiological alterations caused by disease or work-related accident. These restrictions may be temporary or permanent. In general, this may lead to a series of organizational and psychosocial situations in the work environment, mainly if there is a significant decrease in human resources. Despite its importance, little has been published in Brazil on the subject. Moreover, as a result of an informal survey by the Human Resources Department of a teaching hospital where the study was carried out, it was found that the great majority of restrictions imposed on its workers are due to musculoskeletal symptoms and ergonomic issues. Within this context, the evaluation of medical reports containing work restrictions in a hospital is justified by the current usefulness and contribution to the comprehension of the health-disease process of hospital health care workers, in the sense that it facilitates prevention and rehabilitation programs and personnel rotation. The objective of the present study was to analyze the epidemiological aspects (number, type, occurrence, duration) of medical reports with restrictions prescribed to workers of a teaching hospital, in a three-year period.

METHODS

Type of study

This is a non-experimental and transversal descriptive study, with retrospective information obtained by means of identification of medical reports with work restrictions, across a period of three years.

Study Scenario

The institution studied in this investigation was a teaching hospital, located in the city of Campinas, state of São Paulo. This hospital was chosen as a

field of research because it is a general, governmental and reference hospital to other institutions, within and outside the state of São Paulo.

Population

All medical reports (n=176) containing work restrictions prescribed in a three-year period were included, totaling 337 restrictions.

Instrument for data collection

A form was developed for characterizing the medical reports and work restrictions, with theoretical support of other investigations⁽⁹⁾. A preliminary study of the characteristics of restrictions contained in medical reports and occupational health statements at the Human Resources Department of the institution was done prior to the preparation of the form. The form contained questions about general and occupational data (name of employee and professional category) as well as considerations of the restrictions (number of previous restrictions, restriction period, duration and type of restriction). For the content validity evaluation, the form was submitted to six experienced specialists in the field, all staff members of the State University of Campinas (UNICAMP). The instrument was subsequently adapted and corrected to obtain its final version.

Data collection

All medical reports for identification of work restrictions prescribed from January 2001 to January 2004 were included in the study. The data was collected from the professional records filed at the Human Resources Department of the Hospital and inserted in a database using Microsoft Access 2002.

Data analysis

Data were analyzed with the help of the Statistics Sector at the School of Medical Science. The collected data were organized and inserted in Microsoft Excel 2002. For the statistical analysis, the program "The SAS System for Windows", version 6.12 (1996) was utilized. A descriptive statistical analysis was done to evaluate certain epidemiological aspects (type, incidence, duration) of the medical reports and work restrictions.

Ethical aspects

The Project was previously approved by the Research Ethics Committee of the Hospital, under process number 99/2003.

RESULTS

A total of 176 medical reports and occupational health statements, prescribing 337 restrictions in a three-year period, were identified.

Table 1 shows the different occupational categories, comparing them to the total number of employees in the studied institution.

Table 1 - Distribution of workers with medical reports prescribing work restrictions according to their occupational category. Campinas, 2004

Occupational category	Total of workers in the institution	Total of workers in the institution	
	n	n	%
Distributor of materials	1	1	100.0
Recreation monitor	1	1	100.0
Mechanic technician	4	3	75.0
Hospital laundry assistant	24	14	58.3
Nutrition assistant	2	1	50.0
Necropsy technician	2	1	50.0
Cook	8	3	37.5
Serving person	42	13	31.0
Hospitalization unit officer	19	5	26.3
Electrician	4	1	25.0
Kitchen assistant	25	6	24.0
Laboratory assistant	27	6	22.2
Nurse assistant	229	45	19.7
Driver	17	3	17.6
General repair man	6	1	16.7
Nurse's aide*	33	4	12.1
Receptionist	51	6	11.8
Pharmacist	9	1	11.1
Administrative assistant	127	14	11.0
Cleaning Assistant	71	7	9.9
Pharmacist Assistant	12	1	8.3
Microcomputer operator	27	2	7.4
Hospital equipment operator	14	1	7.1
Radiology technician	29	2	6.9
System analyst	15	1	6.7
Hospital technical assistant	15	1	6.7
Security	17	1	5.9
Laboratory technician	38	2	5.3
Social worker's assistant	20	1	5.0
Biologist	63	3	4.8
Administrative technician	140	6	4.3
Nursing technician	401	11	2.7
Nurse	310	8	2.6
Total	1803	176	

* Category deleted by the Federal Nursing Council (COFEN) in 1986

Among the occupational categories for whom work restrictions were prescribed, the sample showed that the most affected were the categories of distributor of materials and recreation monitor (100% in both instances). It should be pointed out that this result was obtained due to the fact that each of these categories has only one worker for the entire hospital. The following categories were also highly affected by work restrictions: mechanic technician (75%), hospital laundry assistant (58.3%), nutrition assistant (50%) and necropsy technician (50%). Table 2 shows the frequency of work restrictions among the nursing staff.

Table 2 - Frequency of reports with work restrictions among the nursing staff in a three-year period. Campinas, 2004

Category	Total in the institution (n)	Total with restrictions (n)	% in the category	% in the institution
Nurse	310	8	2.6	0.4
Nursing technician	401	11	2.7	0.5
Nurse assistant	229	45	19.7	2.1
Nurse's aide	33	4	12.1	0.2
Total	973	68	7.0	3.2

The nursing staff (nurses, technicians, assistants and aides) accounted for 7% of the workers with restrictions in the category and 3.2% in the whole institution. Of the nursing workers who received restriction reports, the most affected were the assistants (66.2%), followed by the technicians (16.2%), nurses (11.8%) and aides (5.9%).

Approximately 14% of the subjects had previous reports with work restrictions (SD=0.6, values between zero and four). It was found that the mean restriction period of the medical reports and occupational health statements was 13 months (SD=8.8, varying between 20 days and 38 months). When the restriction time was categorized as definitive or temporary, it was observed that the great majority was definitive (79.5%). Regarding the number of restrictions by medical report and occupational health statement, there was a variation from one to six, with an average of two restrictions per report (SD=1).

In order to facilitate data analysis, it was decided to classify work restrictions into the following groups: biological, physical, chemical, ergonomic, psychosocial and organizational⁽⁹⁾. Table 3 specifies the types of work restrictions in these subgroups.

Table 3 - Classification of the types of work restrictions prescribed to health care workers in a teaching hospital. Campinas, 2004

Restriction		Frequency (n=337)	Percentage (%)
Biological	Avoid performing hygiene tasks for the patients, transport contaminated clothing to the sterilization facilities, prepare the body after death, change diapers, concurrent cleaning of patient unit, apply bandages, transport patients	8	4.5
	Do not work with infectious contagious disease patients	1	0.6
Physical	Mandatory use of ear protectors when exposed to noise	3	1.8
	Do not manipulate iced product	1	0.6
	Do not expose yourself to high temperatures	1	0.6
Chemical	Do not perform activities that require the use of latex gloves	7	4.0
	Do not manipulate chemical products	5	2.8
	Do not remain in places where chemical products are manipulated	1	0.6
Ergonomic	Do not lift or transport weights	106	59.7
	Do not perform repetitive movements	39	22.2
	Do not use strength of upper members	34	19.3
	Do not perform activities that require a standing position	28	15.9
	Do not employ physical strength	26	14.8
	Do not make abrupt extension, flexion and rotation movements with the spinal column	15	8.5
	Do not perform activities that require a sitting position	10	5.7
	Do not engage in constant walking movements	8	4.5
Psychosocial/organizational	Work break of 10 minutes at each 50-minute repetitive motion activities	35	19.9
	Do not perform dangerous activities such as working on rotating machines, in high places and driving automotive vehicles	4	2.4
	Do not work in very busy places	2	1.2
	Do not work in locations that require approaching seriously ill patients	2	1.2
	Reduced working hours with gradual resumption of daily work load	1	0.6

Among restrictions, it was found that the most frequent were ergonomic (78.6%), and the most prescribed were: do not lift or transport weights (59.7%); do not perform repetitive

movements (22.2%). It was observed that 79.5% of the 176 medical reports and occupational health statements contained one or more ergonomic work restrictions.

DISCUSSION

In a three-year period, 176 medical reports and occupational health statements with work restrictions were identified, totaling 337 restrictions.

Among the occupational categories that received work restriction recommendations in the last three years, the most affected were distributor of materials and recreation monitor. When we observe the occurrence of medical reports with work restrictions in the nursing occupational categories, we find that the assistants were the most affected. This information may be explained when the specific tasks performed by nurse assistants are analyzed, that is, activities that required a great deal of physical exertion.

In relation to the number of restrictions per medical report and occupational health statement, the average number was two work restrictions. Approximately 14% of the subjects had previous medical reports with work restrictions. It is believed that this may be explained by the fact that restrictions are not properly formulated, that is, they do not minimize or remove the risks to which workers are exposed. It may also happen that the work environment is not being modified in accordance with the subjects' (in)capacities, leading to further exposure to occupational risks after the restriction period is no longer in force.

One of the problems observed in the work restrictions process at the institution was the serial prescription of temporary restrictions in several reports, until finally the definitive restriction was recommended. This fact shows the actual need to develop and implement early measures for injury prevention, using a multidisciplinary team, to avoid this vicious cycle in which the worker ends up being definitively removed from his labor activities. Preventive and health care strategies in the acute phase should be implemented, as well as the injured worker's return to work planning.

The mean work restriction period in the studied sample was 13 months while, when the restriction time was categorized as definitive or temporary it was observed that the majority was definitive (79.5%). Few studies have evaluated the efficacy of work restrictions to limit the duration of incapacity or the frequency of new episodes. Some authors indicate that temporary work restrictions may offer protection against the exacerbation of symptoms

during convalescence⁽¹⁰⁾. The safe return to work, as soon as possible, requires the identification of problems and favorable negotiating conditions for the health care team and the involved company sectors, to ensure an adequate state of affairs for the injured worker⁽¹¹⁾. Research suggests that one of the possibilities of achieving early return to work for non-specific low-back pain patients is the prescription of temporary work restrictions⁽¹²⁾. Studies on administrative and occupational health policies are needed, since the mere prescription of work restrictions will not solve the problem of long-term exposure of workers to occupational risks. A joint institutional work-restriction follow-up program, continued education and training, as well as modified work position should be implemented.

A prolonged work restriction period may reflect an informal effort on the part of the health care staff to modify the physical work effort in high-demand occupations. Such strategy, however, does not seem to be the best option for the worker. In contrast with a replanning of formal work, restrictions bring with them the burden of periodic medical reevaluation, the stigma attached to the affected subjects, the probable identification of the workers as incapable and the rupture of the work process. After investigating ergonomic work restrictions, some authors suggested that a favorable approach to secondary prevention could involve work modification to reduce physical demand for all subjects exposed to heavy loads, or at least for those removed from work due to low back pain⁽¹⁰⁾.

After classifying work restrictions into groups (biological, physical, chemical, ergonomic, psychosocial and organizational), it was found that the most frequent one was ergonomic (78.6%). Within this group, the most prescribed were: do not lift and transport weights (59.7%) and do not perform repetitive movements (22.2%).

An investigation pointed to three main causes for temporary work disability after identifying the granting of 6,906 benefits of the common sick-leave type in a medical investigation, carried out in 1998: external causes, musculoskeletal disorders and mental diseases. These conditions are potentially related to the worsening of quality of life and work. The large proportional incidence of musculoskeletal disorders – especially tenosynovitis and low back pain, conditions frequently associated with effort and

repetition of movements at work – possibly reflect the fact that they are under-recorded as work-related diseases⁽¹³⁾.

In a study carried out with 105 assistants and technicians of a public hospital, where one of the objectives was to evaluate the presence of musculoskeletal symptoms in these workers, it was found that 93% had complained of some kind of musculoskeletal symptom in the last 12 months and 62% in a seven-day period. The highest prevalence of these symptoms, according to the anatomic area, was: lumbar region (59%), shoulders (40%), knees (33.3%) and cervical region (28.6%). It was also found that 29.5% of those who answered missed work and 47.6% saw a doctor due to the same symptoms⁽¹⁴⁾. A research with nursing staff workers of a teaching hospital who had suffered some kind of work-related accident with spinal column injury demonstrated that most accidents occurred in their own work unit (50%), during the activity of moving and transporting patients and equipment and also as a consequence of slippery floors⁽²⁾.

The process by which the occupational health team prescribes work restrictions has not been well described in the literature as yet. Further studies should be carried out to gather the information used to prescribe a work restriction and the intention that motivated the prescription. The investigation should examine: the trajectory of work restriction prescriptions, whether such restrictions reduce exposure to known or suspected risk factors associated with prolonged recovery; the extension to which the prescribed restrictions are implemented and maintained at the workplace; whether the restrictions introduce different risk factors that might bring on a new incapacity or prolonged recovery. Evidence indicates that, once work restrictions are prescribed, they are maintained beyond the required convalescence period⁽¹⁰⁾.

It has been witnessed in Brazilian reality that there are a large number of companies that only begin looking for programs for management and prevention of work-related musculoskeletal disorders (WMSDs) after facing an actual outbreak of an epidemic disease. In these conditions, intervention difficulties are greatly increased, as well as failure probability⁽¹¹⁾. Brazilian companies are not prepared to deal with individuals incapacitated for work and the main interested parties, which are the companies,

the unions, insurance companies and the National Social Security Institute (INSS), do not have the necessary structure to meet the requirements of these workers, such as job replacement, return to work or information about benefits and legal rights. The reality is that there is a growing number of civil responsibility claims involving companies, as well as regressive lawsuits that Social Security may file against them. One of the ways to solve or at least abate the problem would be to create mechanisms that would enable the effective requalification of the worker with sequels, by means of fast and agile devices for fiscalization and control, in addition to orienting the directly involved agents about the potential problems that they may face if they relegate such workers to a second place⁽¹⁵⁾. The health care team should prescribe work restrictions when it becomes apparent that the modification of activities will facilitate the return to work or limit exposure to physical demands that may exacerbate symptoms or hinder full recovery. The perception of this team regarding physical effort of the workers can be improved through discussions with the workers, visits to the workplaces, and multidisciplinary work with worker health sectors⁽¹⁰⁾.

The restrictions deserve more specific investigation of implications, both for the institutions (administrative, economic and social) and for the workers (psychosocial and economic).

CONCLUSIONS

In the present study, 176 medical reports with a total of 337 work restrictions in a three-year period were analyzed. The most affected occupational categories were: distributor of materials, recreation monitor, mechanic technician, hospital laundry assistant, nutrition assistant and necropsy technician. As regards the nursing team, the assistants were the most affected. The mean work-restriction period in the medical reports was 13 months, while when the restriction period was categorized as definitive or temporary it was observed that the great majority was definitive.

The results demonstrated a high incidence of work restrictions in the studied institution, with prevalence of ergonomic restrictions. The process used by the occupational health team to prescribe work restrictions deserves further investigation.

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