

Out-of-pocket payments in hospital bills: a challenge to management

Glosas em contas hospitalares: um desafio à gestão
Glosas en cuentas hospitalarias: un desafío a la gestión

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ABSTRACT

Objective: To analyse out-of-pocket payments (OOP) by health insurance company in hospital bills. **Method:** Cross-sectional study with quantitative approach. The information was obtained in the database of a health insurance company in the north of Paraná State and categorised into administrative and technical OOP. We analysed reports regarding OOP made in eight hospitals of the accredited network company, from 2013 to 2015. **Results:** The analysed data totalled 36 thousand items paid out-of-pocket. The highest OOP rates occurred in hospital 1 (67.6%); emergency room service (50.1%); time of hospitalization, ≤ 1 day (70.8%) and medical-hospital materials (59.2%). The year with the highest rates of administrative (54.51%) and technical (48.05%) OOP was 2013. **Conclusion:** We concluded that OOP are indicators for the institutions to check the critical topics to be improved and that managers must work on originator aspects of OOP, to prevent greater loss.

Descriptors: Supplementary Health; Nursing Audit; Hospital Costs; Hospital Administration; Pre-Paid Health Insurance.

RESUMO

Objetivo: Analisar glosas efetuadas por operadora de plano de saúde em contas hospitalares. **Método:** Pesquisa descritiva transversal, com abordagem quantitativa. As informações foram obtidas no banco de dados de uma operadora de plano de saúde do norte do Paraná e categorizadas em glosas administrativas e técnicas. Foram analisados relatórios referentes às glosas efetuadas em oito hospitais da rede credenciada da operadora, no período de 2013 a 2015. **Resultados:** Os dados analisados totalizaram 36 mil itens glosados. Os maiores índices de glosa ocorreram no hospital 1 (67,6%); serviço de pronto-socorro (50,1%); tempo de internação, ≤ 1 dia (70,8%) e materiais médico-hospitalares (59,2%). O ano de 2013 apresentou maior índice de glosas administrativas (54,51%) e técnicas (48,05%). **Conclusão:** Concluiu-se que as glosas são indicadores para as instituições verificarem os pontos críticos a serem melhorados e que é preciso atenção dos gestores para trabalhar aspectos causadores das glosas, como forma de prevenção de prejuízos maiores.

Descritores: Saúde Suplementar; Auditoria de Enfermagem; Custos Hospitalares; Administração Hospitalar; Planos de Pré-Pagamento em Saúde.

RESUMEN

Objetivo: Analizar glosas efectuadas por operadora de plan de salud en cuentas hospitalarias. **Método:** Investigación descriptiva transversal, con abordaje cuantitativo. Las informaciones fueron obtenidas en el banco de datos de una operadora de plan de salud del norte del estado del Paraná y categorizadas en glosas administrativas y técnicas. Se analizaron informes referentes a las glosas efectuadas en ocho hospitales de la red acreditada de la operadora, en el período de 2013 a 2015. **Resultados:** Los datos analizados totalizaron 36 mil elementos glosados. Los índices más altos de glosa ocurrieron en el hospital 1 (67,6%); servicio de emergencias (50,1%); tiempo de internación, ≤ 1 día (70,8%) y materiales médico-hospitalarios (59,2%). El año de 2013 presentó el índice más alto de glosas administrativas (54,51%) y técnicas (48,05%). **Conclusión:** Se concluyó que las glosas son

indicadores para que las instituciones comprueben los puntos críticos a ser mejorados y que se necesita atención de los gestores para trabajar aspectos que causan las glosas, como forma de prevención de pérdidas más grandes.

Descripciones: Salud Suplementaria; Auditoría de Enfermería; Costos Hospitalarios; Administración Hospitalaria; Planes de Prepagos en Salud.

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INTRODUCTION

The supplementary health system acted with free initiative regarding offer and financing of operations and health services until 1998. Private health plans that existed until the eighties were specifically used by citizens who had formal labour bonds. These plans were collective. Afterwards, the plans were extended to individual contracting, that is, the client did not have to be linked to a legal entity. Due to the expansion of private services, the government needed to take on the responsibility for health and implemented the National Regulatory Agency for Private Health Insurance and Plans (ANS). The laws that regulate and elaborate on the private health insurance plans, creating the ANS, substantially transformed the scenario of supplementary health. They implemented legislative provisions for the entry and exit of health plan companies in the market as well as the protection of the rights of its users⁽¹⁾.

Now, given the expansion of the health area, it has been demanding better operational and administrative results because it is more involved with people's lives and the high costs of living. These costs can impact not only the patient, but also the professional, the health institution and even the health insurance company. Auditing is a tool of controlling expenses in this scenario⁽²⁾.

Auditing hospital bills is a process used in health institutions, since it is a cost controlling tool. Nursing professional have been participating in the process and working to help creating an adequate flow of documents used, of which the main point is the nursing notes in the patient's records⁽³⁾.

We understand that cost auditing aims at checking and controlling the billing sent to health insurance plans, verifying exams and procedures performed, making routine visits to hospitalised patients and crossing information received with that of in the patient's medical records. It is also used to investigate payments processes and costs, assess statistics, hospital and organizational specific indicators, check systems of billing of medical bills and develop contractual and administrative out-of-pocket payments (OOP) processes⁽³⁾.

In supplementary health, the payment model of bills per unit of service is preferably used. Therefore, all items must be on the medical bill along with a coherent justification for their use, retrospectively⁽⁴⁾.

Out-of-pocket payments are the cancelling of remuneration of the hospital bill invoice analysed by the auditor of the health company, either when the auditor considers the charge incorrect or illegal, or in cases in which the auditor cannot clarify doubts raised by rules and practices of the health institutions⁽⁵⁾.

OOP can be administrative and technical. Administrative out-of-pocket payments come from operational failures at the time of collection, due to lack of communication between the

health insurance and the service provider, or even from failure at the moment of the bill analysis of the company. Technical OOP are related to the presentation of the values of services directly linked to the care provided to the patient and medications used and not to the medical procedures adopted^(3,6).

The medical procedures conducted are compared with diagnosis and analysed to see if these procedures correspond to the actual costs foreseen in established tables. Medical fees, regarding procedures or visits, are evaluated by the medical auditor and the payment is directly made to the doctor who performed the assistance⁽⁷⁾.

Based on these premises, medical OOP are frequent in the routines of health care auditors of health companies, since they draw up a retrospective analysis of medical records. At the same time, health companies seek, restless, to reduce these rates and optimize the use of resources.

After searching three databases — Pubmed/Medline, Lulacs and Scielo, using the descriptors "nursing audit" and "hospital costs" and the keyword "hospital OOP", in a combined and isolated way, by published research between 2005 and 2015 — 10,996 articles were found. Thereafter, we applied the inclusion criteria, selected only 10 that fulfilled the purpose of the search and addressed the theme presented. Thus, it lacks knowledge about this topic. Furthermore, we consider that referring to the professional practice of nursing and costs management, research about hospital out-of-pocket payments is justified, in order to broaden this field of scientific research.

Considering these thoughts, our study sought to answer the question: *What are the characteristics of out-of-pocket payments (OOP) by a health insurance company in hospital bills?* The purpose was to identify the OOP made by a health insurance company in hospital bills.

OBJECTIVE

To identify out-of-pocket payments (OOP) by a health insurance company in hospital bills.

METHOD

Ethical Aspects

The study was approved by the Ethical Committee in Research Involving Human Beings from the State University of Londrina-PR.

Research design, place and period

This is a descriptive, cross-sectional study with quantitative approach. We chose as object of this investigation a health insurance company, classified as small (less than 20 thousand

beneficiaries), in the north of Paraná State. We chose this company since it was the institution that made the research possible, besides having a comprehensive hospital network in a relevant region in health services for the state.

The company had 19,001 beneficiaries by October 2016. Its accredited network encompassed 8 hospitals, 55 clinics and 22 laboratories throughout 30 cities.

Table 1 presents the characteristics of hospitals of the accredited network by the health insurance company under research.

Table 1 – Characteristics of the hospitals which belong to the health insurance company network in the north of Paraná State, Brazil, 2013-2015

Hospital	No of Beds				Monthly Average Invoiced Bill
	Overall	Adult ICU	Neo/Ped. ICU	Total	
1	207	18	10	235	1,427
2	49	12	16	77	172
3	44	9	5	58	162
4	25	0	0	25	37
5	52	0	0	52	28
6	42	0	0	42	18
7	30	0	0	30	03
8	29	0	0	29	02

Sample; inclusion and exclusion criteria

We analysed all the data related to OOP made in hospital bills, which belong to the eight hospitals that are part of the insurance company, referring to the period from 2013 to 2015. The variables included in the study were: type of hospitalization; type of OOP; type of health insurance plan; classification of OOP and the International Statistical Classification of Diseases and Related Health Problems (ICD- 10).

Study protocol

The hospitalization was categorised as: emergency room care; clinical internment; surgical internment; obstetrics and paediatrics. The classification of hospitalization time regarding the enforcement of hospital OOP was categorised as: \leq 1 day; 2 to 3 days; 4 to 7 days; \geq 8 days.

As for type, OOP were categorised by segments: medical-hospital material (all items that compose the hospital bill, both common and special materials); medications (all medications that compose the hospital bill, including antibiotics and chemotherapy); daily and/or hospital fees (emergency room fees, nursing and apartment fees, surgical costs and other fees negotiated with the insurance companies); and medical fees (hospital examinations and visits, surgical fees and anaesthetic costs).

As for health plans, they were categorised in: location – in which patients assisted in the network are in the portfolio of the company under research; and exchange – when patients have contracts with insurance companies of other regions and were assisted in the network of the company under research.

Regarding the ICD-10 classification, OOP were analysed according to the tabular list of inclusions and subcategories. The categories of diseases with less than 1,000 items of OOP were all grouped under *Another Category*. The diseases grouped in

this category were: infectious and parasitic diseases; diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism; endocrine, nutritional and metabolic diseases; mental and behaviour disorders; diseases of the nervous system; diseases of the eye and adnexa; diseases of the ear and mastoid process; diseases of the skin and subcutaneous tissue; certain conditions originating in the perinatal period; congenital malformations, deformations and chromosomal abnormalities; external causes of morbidity and mortality⁽⁸⁾.

The classification of OOP was performed according to the name of the literature: technical OOP (resulting from the procedures conducted by the nursing or medical team), and administrative OOP (due to operational failures at the time of collecting the bill)⁽³⁾.

Results analysis and statistics

Secondary data provided by the Information Technology sector of the company under study were used. The variables were imported from the program *OlikView* into *Microsoft Excel*[®] spreadsheets. The data were reviewed and incorporated into the research database.

The data were analysed in the program *Statistical Package for the Social Sciences/20.0*, by calculating absolute and relative frequency for the categorical variables, and the analyses were stratified by OOP classification (technical or administrative). For the analyses of associations, contingency tables were compiled with the observations about the categorical variables of the study, and the Cramér's V test is a measure of association between two nominal variables, based on the chi-squared statistic. In health studies, categorical data are frequently compared using the chi-squared test. However, it does not represent the strength of the association effect between variables. Thus, the application of Cramér's V test provides, in addition to statistical significance, information on the effect identified as significant⁽⁹⁾. Cramér's V test may vary from 0 to 1. Test values \geq 0.2 represent a small effect; \geq 0.3 a moderate effect; and \geq 0.5 a large effect⁽¹⁰⁾. For all the analyses, a significance level of 95% ($p < 0.05$) was considered.

RESULTS

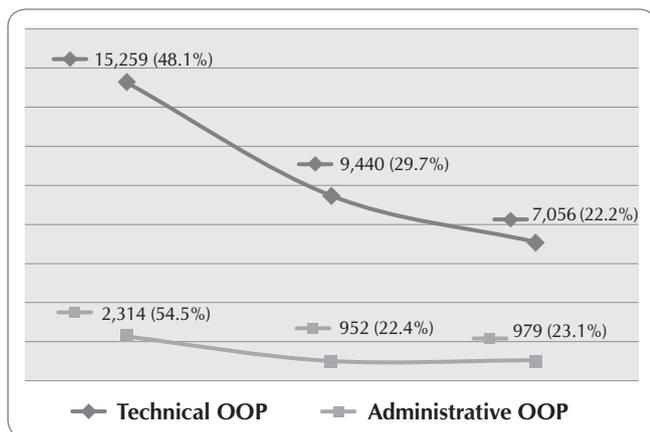
The analysed data totalled 36 thousand OOP items in the eight hospitals accredited by the health insurance company under study.

Table 2 shows the OOP classification according to hospital characteristics (network hospitals, type of hospitalization, length of hospitalization, type of OOP and type of health insurance plan). Regarding hospitals accredited in the network, institution 1 had the highest number of hospital OOP (67.6%). Technical OOP were the most frequent for all the hospitals under study. Moreover, the unit of service with the highest rate and frequency of OOP was the emergency department (50.1%), and the length of hospitalization with the highest OOP occurrence was \leq 1 day (70.8%). The most frequent type of OOP was related to medical-hospital materials (59.2%). As for health insurance plan, technical and administrative OOP were similarly frequent (data not in the tables).

Table 2 – Characteristics of out-of-pocket payments made in hospital bills of a health plan company from the north of Paraná State, Brazil, 2013-2015

Variable	Gross technical		Gross administrative	
	n	%	n	%
Network hospitals				
Hospital 1	20,834	85.6	3,500	14.4
Hospital 2	3,583	93.9	233	6.1
Hospital 3	3,057	93.6	209	6.4
Hospital 4	2,908	95.4	139	4.6
Hospital 5	805	89.4	95	10.6
Hospital 6	360	85.9	59	14.1
Hospital 7	193	99.5	01	0.5
Hospital 8	15	62.5	09	37.5
Unit of service				
Emergency Room	14,915	82.6	3,136	17.4
Surgery	7,524	96.1	305	3.9
Clinic	5,629	89.4	670	10.6
Obstetrics	2,919	98.3	49	1.7
Paediatrics	768	90.0	85	10.0
Length of hospitalization				
≤ 1 day	22,038	86.4	3,463	13.6
2 to 3 days	6,926	94.5	402	5.5
4 to 7 days	1,720	89.3	206	10.7
≥ 8 days	1,071	86.0	174	14.0
Type of OOP				
Hospital materials	19,812	92.9	1,512	7.1
Medications	8,743	91.0	861	9.0
Daily rates and Fees	2,056	62.2	1,250	37.8
Medical Fees	1,144	64.8	622	35.2
Type of Insurance Plan				
Exchange	15,941	88.1	2,144	11.9
Location	15,814	88.3	2,101	11.7

Note: OOP - out-of-pocket payments.



Note: OOP - out-of-pocket payments

Figure 1 – Type of out-of-pocket payments made in hospital bills by health plan company in the north of Paraná State, 2013-2015

As for the period of analysis of OOP, we found that there was a higher number of technical OOP in all years. However, we observed a reduction of this type of OOP in 2014 and 2015. For administrative OOP, we verified the reduction in 2014 (22.4%) and the value remained similar in 2015 (23.1%). We highlight 2013 as the main indicator of OOP, both technical and administrative (Figure1).

Table 3 shows the records for the hospital bills paid out-of-pocket according to ICD-10. We In that study, we observed higher frequencies for the codes of the chapters “Factors influencing health status and contact with health services” and “Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified”, for both classifications. Technical OOP showed the highest frequencies (83.0% and 82.4%) when compared to administrative (17.0% and 17.6%).

Regarding statistical associations in accordance with the hospital OOP classification, we observed greater expressiveness for the technical OOP and found statistical significance for all variables, except for the variable named type of health insurance plan ($p=0.078$). In relation to the effect coverage of the association, the variable named “type of OOP” (categorised as: medical-hospital material; medications; daily rates and/or hospital and medical fees) was the one with the greatest effect in terms of classification (0.317) in relation to other variables with $p < 0.000$ (Table 4).

Table 3 – Classification of International Statistical Classification of Diseases and Related Health Problems (ICD-10) in hospital bills paid out-of-pocket by health insurance company in the north of Paraná State, Brazil, 2013-2015

ICD Classification	Hospital OOP Classification			
	Technical		Administrative	
	n	%	n	%
Factors influencing health status and contact with health services	6,199	83.0	1,270	17.0
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	4,625	82.4	987	17.6
Other ICD categories	3,555	86.9	536	13.1
Pregnancy, childbirth and the puerperium	3,056	97.3	85	2.7
Diseases of the genitourinary system	2,915	92.9	224	7.1
Diseases of the respiratory system	2,712	92.3	225	7.7
Diseases of the digestive system	2,487	93.2	181	6.8
Injury, poisoning and certain other consequences of external causes	2,348	87.5	335	12.5
Neoplasms - Tumours	1,544	92.8	119	7.2
Diseases of the musculoskeletal system and connective system	1,309	86.6	202	13.4
Diseases of the circulatory system	1,005	92.5	81	7.5

Note: *ICD - International Statistical Classification of Diseases and Related Health Problems; OOP - out-of-pocket payments

Table 4 – Statistical analysis of out-of-pocket payments made in hospital bills by the health plan company in the north of Paraná State, Brazil, 2013-2015

Variables	Cramér's V Test	
	Value	p value
Type of OOP	0.317	0.000
Type of hospitalization	0.191	0.000
ICD-10	0.155	0.000
Network hospitals	0.125	0.000
Length of hospitalization	0.101	0.000
Year	0.053	0.000
Type of Insurance Plan	0.002	0.708

Note: *For the Cramér's V test, crosses between all variables were performed, considering the hospital OOP classification (technical and administrative); *ICD - International Statistical Classification of Diseases and Related Health Problems; OOP - out-of-pocket payments

DISCUSSION

Hospital 1 showed the highest rates for OOP items (67.6%), followed by other hospitals which belong to the accredited network (Table 1). It also has the highest number of monthly invoiced bills. This hospital was considered a standard for the coverage area of the company, since it is the only provider with an internal audit team. Nevertheless, there are not standardized collection of bills and continued education with the assistance and administrative staff yet, which can explain the data found.

Notwithstanding the periodicity of the auditors' guidance to the billing and internal auditing of this hospital, we observed that initiatives aimed at reducing the OOP rate and improving processes are not yet effective, leading to a repetition of undue collection and invoice error.

In hospital 1, it was difficult to develop a profile of care to the institution; this was probably due to a high expressive turnover of professionals. Thus, nurses need to develop the intervention methods, from the management point of view, associating cost-effectiveness of the care given.

Results presented⁽¹¹⁾ showed that, in case of no internal audit to perform adjustments prior to collection, the institution studied would have had a deficit of R\$628,554.55 in the income of hospital bills. Therefore, we highlight the importance of using audit as an instrument for subsidizing the cost management of institutions.

As for classification, technical OOP were predominant in all hospitals under study (Table 1). Hospital 1 concentrated the highest absolute frequency of technical OOP. However, considering the relative frequencies, 4 hospitals had frequencies above 90% of technical OOP when compared to those administrative.

Nursing notes demonstrate the preparation of the team and provide the follow-up of care provided to the patient. Research⁽¹²⁾ showed that the problems did not occur only due to the lack of time to complete the documents, but mainly because of technical difficulties in the development of writing. Effective and active continuing education is recommended in hospital institutions to address these difficulties in writing the notes.

The devaluation of records routinely performed by the nursing team affirmed that nurses take few notes and, thus, collaborate to their own invisibility, since they do not detail information in the patients' records; they limit it to be fulfilled minimally, leaving blank spaces and contributing to hospital OOP⁽¹³⁾.

For the nursing auditor, what is written is what counts: if there is no record, it is assumed that the procedure was not conducted, influencing the quality of assistance, as well as the billing of expenses of the treatment performed⁽¹⁴⁾.

Regarding the type of hospitalization (Table 1), the unit of service that had the highest rate of OOP was the emergency room (50.1%); along with this data, the time of hospitalization had the highest incidence of hospital OOP for ≤ 1 day (70.8%). These results could be explained by the fact that it is a service with high flow of patients, the gateway to hospitals, receiver of urgencies and emergencies and provider of services with average complexity.

The three fields of the Health System (basic care, medical and high complexity), showed us that when there is lack of communication between them, the overcrowding of hospital emergencies and emergency rooms happens, making this service full of problems and complex for the health system⁽¹⁵⁾. When notes of the nursing team in this unit are compared, it is observed, through audit practice, that they are often not prioritized, leading to collection of items that are not described in the medical records.

Nursing audit aims to standardize, guide, discipline, rationalize and identify deficiencies in hospital records, directly intervening in expenses and unnecessary OOP, especially in the most critical departments⁽¹⁶⁾.

Nursing audit is also an activity to control the items used — which will be collected — and to standardize packages, the so-called kits. Study results⁽¹⁷⁾ identified that a large number of nurses working in care did not have any know-how about administrative issues, such as hospital costs, even those related to the hospital unit where these professionals work. These results suggest that when nurses are not appropriate for management issues, they may create control deficits of items used, that are likely to involve hospital OOP.

Nurses need to acquire know-how about cost management, so that they acknowledge their role as agents of change. Raising awareness and making this professional part of processes is essential to rationalize costs in a health service, to use the minimum possible resources without losing the quality of services provided. Cost management is itself an administrative process whose purpose is to know the costs at every stage, become a differential in the decision-making of nurses and provide an effective role in the rationalization of resources, control waste and optimize results⁽⁶⁾. Managing costs, if not properly done by the professional, consequently causes hospital OOP, causing damage to health institutions.

Cost auditing should not specifically act on reducing costs: the professional's view should be broadened, based on experiences, scientific knowledge and institutional protocols, always seeking to value and promote improvements in care planning.

As for the type of OOP (Table 1) we observed that medical-hospital materials had the highest rates (59.2%), followed by

medications (26.7%). Both items corresponded to technical OOP, which were made specifically by lack of records kept by nurses and physicians. Technical OOP are based on OOP applied by items used directly in patient care, according to the literature^(3,6). Thus, the prominence of nursing notes and medical records is highlighted, since both are essentially linked to technical OOP when applied.

In the hospital environment, it is nursing professionals who use virtually most of the materials of consumption, and must therefore pay attention to the cost of keeping all services supplied, considering that the provision and adequacy of the use of materials correspond effectively to a planning to assist the patient⁽¹⁸⁾.

A study conducted⁽¹⁹⁾ showed that antibiotics are more representative in OOP. Common materials were mostly paid out-of-pocket for lack of records on the procedures performed. The OOP made were due to lack of notes, nursing check and justification. Such mistakes have occurred because, possibly, nursing acts with some inattention to the notes, in addition to the issues that involve work overload, lack of supervision and structure for the work environment. Unreadable or incomplete reports of nursing developments do not inform the way they should and create doubts about the treatment given.

Incomplete checking of the medications prescribed by the physician produces uncertainties as to whether it was performed, which can lead the patient to receive the drug twice or even stop receiving it. Medication checking is vital since it involves risks and losses to the patient's evolution and prognosis. In the economic field, incomplete checking of medications prescribed causes OOP, leading to financial damage to the institutions⁽²⁰⁾.

Regarding the health insurance (Table 1), the values found do not vary if they are from local or exchange companies. Although the local company prioritizes low and average complexity care, many patients from different regions are assisted in this network. Local companies may not receive the payments of exchange care, because each company has its own contracting with clients. Given that, all procedures must have previous authorization to be conducted, and documents must be complete.

The regulation of access to health services must be directed to the promotion of the principles of equity and completeness of care, through control over the flow of demand and assistance in all health units, including supplementary health care. For that, the supply must be resized according to the needs of the population, in order to optimize health resources⁽²¹⁾.

The initiatives of the nurse auditor should be recognized as an essential instrument to raise the professional's awareness who acts in the field. Care management, when developed and guided in the planning of actions, benefits patients by improving the care performed. It also reduces OOP and, consequently, the waste of resources.

On the other hand, there are problems related to the coverage of materials, medications and tests in some health plans, such as delay in authorization for the procedures and hospitalization to be conducted. As a result of these difficulties, the institutions responsible for patients avoid the beginning of the prescribed treatments or interrupt some already started, also making it difficult to perform home care⁽²²⁾.

We found that in 2013 (Figure 1) OOP were higher, and administrative values were more substantial (54.51%) than

technical (48.05%). This may be due to the publication of the Normative Resolution n° 305 by the ANS, establishing the mandatory standard for Information Exchange in Supplementary Health (Private Health Insurance and Plans Information Exchange Standard).

A study conducted in 2009 aimed to demonstrate the results of implementing the Standard in Brazil until that year and found that the main result was the possibility to reduce transaction costs and paper expenses, especially in companies where the billing process was the element of impact on the resources made available⁽²³⁾.

The mandatory Standard made companies of the health sector to adapt their environments for the main changes, besides including new fields in the forms. Complete and mandatory automation of the OOP process was required, and the Unified Terminology in Supplementary Health (UTSH) for materials, medications and other expenses for the detailed sending of information and assistance to the ANS⁽²⁴⁾ should be implemented.

Regarding the ICD-10 classification (Table 2), we observed that the category with the majority of hospital OOP was related to *Factors influencing health status and contact with health services*, responding for technical OOP at 83% and administrative at 17%. The second category was *Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified*, in which technical OOP represent 82.4% and administrative 17.6%.

These results showed the characterization of the reason for hospitalization, reaffirming that the largest number of OOP was related to emergency room visits, for which, most of the time, there was no diagnostic confirmation, only hypotheses. Thus, we highlight that the possibility of underreporting this field exists, once the global items presented a higher frequency of OOP.

In a study carried out, problems related to diagnosis of hospitalization and diagnosis coding by ICD-10 due to lack of data were found. The diagnoses related to ICD-10, evidenced in medical records, presented errors in notes, which caused the loss of information and inability to identify the core diagnosis. There may also have distortions about hospitalization's justification⁽²⁵⁾.

As for the statistical analysis performed in this research using the Cramér's V test, significance in all variables was observed, except for type of health plan ($p=0.708$). The strength of association, variable which presented the strongest association when compared to the OOP classification, referred to the categories: medical-hospital material; medications; daily rates and/or hospital and medical fees. It was the highest frequency observed in the category "medical-hospital material".

Authors of a survey conducted⁽¹¹⁾ identified significant additions of items that should be collected in hospital bills, due to pre-analysis of medical records. The consumption of these materials should have been recorded in a debit invoice by the nurse or the nursing assistant, but the documentation was inadequate.

It is important to highlight that nursing is responsible for the performance of all patient care, and it remains 24 hours assisting patients. This contributes to the increase of rates of divergencies in information due to the larger volume of notes taken. Therefore, it is crucial to implement protocols and standards in the institutions, to homogenize the assistance and the resulting records.

The data analysis pointed out the importance of nursing records as an essential element in the patient's record, which

serve as a quality indicator to measure and intervene in the planning of the care provided. In this context, the nurse is part of the process to reduce hospital OOP by acting as organizer of clinical data in the hospital environment.

Companies, on the other hand, must act effectively in the continuing education of institutions, demonstrating indicators and reports to contribute to improve processes. In the pursuit of excellence in patient care, the challenges to be faced in the relations between health companies and institutions are immense, and much remains to be achieved.

We highlight that raising awareness of the teams is essential to reduce OOP rates. Standardization must be linked to continuing education of professionals who provide care. Managers must monitor the rates and the reasons that involve hospital OOP to reduce waste and, therefore, resource allocation.

Study limitations

The main limitation of this research was the small amount, temporality and high level of evidence of the studies found to support the discussion of results. The theme has not been much explored as scientific evidence, also because they are particularities of the supplementary health, still little known in literature. However, the discussion was developed based on the experience of authors in this field and the results of the referenced studies. We also emphasize that hospital out-of-pocket payment is not an indexed descriptor.

Contributions to the nursing field

The OOP seen in hospital bills identify aspects that must be worked to reduce financial losses of the institutions and to know what units of service need continuing education, proven an effective strategy to be adopted in institutions. In training,

professionals must ponder about everyday care practices to develop effective methods for building quality care, valuing nursing as a profession that promotes health care. Assistant nurses and auditors must be aware of the functions they perform. The nurse auditor can use the medical record as an instrument to identify gaps in care and, therefore, assist in the planning of appropriate care. On the other hand, the nursing assistant needs to broaden know-how about health costs, to optimize resources available in the institution and reduce waste. Considering that, the study provided knowledge for the nursing audit about the main reasons for hospital OOP made by a health insurance company. Through quantitative data, it was possible to verify a descriptive analysis that shows how auditing can be used as an intervention method to reduce the rates of hospital OOP of the institutions. Therefore, it provided data on how to improve performance and provide subsidies for the management of costs.

CONCLUSION

We conclude that, in the company under study, the highest rates presented were for technical OOP. We highlight Hospital 1 as the main responsible for the number of out-of-pocket payments. As for service, the emergency room had the highest frequency and consequently the length of hospitalization was ≤ 1 day. Regarding the year, 2013 had the highest rates of both technical and administrative OOP. Out-of-pocket payments are substantial indicators for the institutions to verify critical issues to be improved in the processing of health information. The high rate of OOP in certain services deserves the attention of managers, signalling where to work aspects that are leading to financial losses, as a way to prevent greater losses. This study points out the importance of developing more research in the field.

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