

QUALITY CONTROL OF PATIENTS' MONITORING RECORDS IN A UNIVERSITY HOSPITAL
QUALIDADE DOS REGISTROS DOS CONTROLES DE ENFERMAGEM EM UM HOSPITAL UNIVERSITÁRIO
CONTROL DE CALIDAD DE LOS REGISTROS DE ENFERMERÍA EN UN HOSPITAL UNIVERSITARIO

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ABSTRACT

The present study aims at evaluating the quality of patient's monitoring records at an adult inpatient unit of a university hospital. It is a descriptive, prospective study using quantitative methods, based on secondary data from the hospital's Office of Nursing Care Quality for October 2008, October 2009 and July 2010. The records for October 2008 and July 2010 were considered satisfactory. The ones for October 2009 were deemed unsatisfactory. Although nursing records improved during 2010, items of extreme importance were still unsatisfactory. Such inadequacies should be addressed to improve the nursing work process and ensure reliable nursing records.

Keywords: Nursing; Nursing Records; Quality of Health care.

RESUMO

Objetivou-se com este artigo analisar a qualidade dos registros dos controles de enfermagem realizados em uma unidade de internação de adultos de um hospital universitário. Trata-se de estudo descritivo, prospectivo, de abordagem quantitativa, realizado com base em dados secundários obtidos na Assessoria de Controle de Qualidade da Assistência de Enfermagem da instituição em estudo, referente aos meses de outubro de 2008, outubro de 2009 e julho de 2010. As anotações foram consideradas satisfatórias nos meses de outubro de 2008 e julho de 2010 e insatisfatórias em outubro de 2009. Embora houvesse melhora dos registros dos controles de enfermagem em 2010, alguns itens de extrema importância ainda foram considerados insatisfatórios. As inadequações devem ser revistas para aperfeiçoar o processo de trabalho desenvolvido pelo enfermeiro e sua equipe, garantindo registros dos controles de enfermagem fidedignos.

Palavras-chave: Enfermagem; Registros de Enfermagem; Qualidade da Assistência à Saúde.

RESUMEN

El presente estudio tiene como objetivo analizar la calidad de los registros de controles de la enfermería de adultos de un hospital universitario. Se trata de un estudio prospectivo descriptivo con enfoque cuantitativo realizado en base a datos secundarios obtenidos en la Asesoría de Control de Calidad de Atención de Enfermería de la institución estudiada, referentes a los meses de octubre de 2008, octubre de 2009 y julio de 2010. Las notas consideradas satisfactorias son las de los meses de octubre de 2008 y julio de 2010, e insatisfactorias las del octubre de 2009. A pesar de haber habido mejora en los registros en 2010, elementos sumamente importantes seguían siendo considerados insatisfactorios. Las deficiencias deben ser analizadas para mejorar el proceso de trabajo de los enfermeros y que los registros de control de enfermería sean confiables.

Palabras clave: Enfermería; Registros de Enfermería; Calidad de Atención de la Salud.

INTRODUCTION

Florence Nightingale was an English nurse renowned for treating the wounded during the Crimean War. Her work gained prominence not only in helping the sick, but also in hospital organization and as a statistician, using methods for the visual presentation of information. She brought together the data collected and analysed them so that they were used as vital sources of information to improve care. Besides that, she assigned meaning to nursing records and in her 1856 book *Notes on Nursing*, stated that the facts observed by the nurse should be reported to the physician accurately and correctly.¹

Nursing records are the nursing notes intended for all healthcare team. They are essential to the implementation of the Nursing Process or Nursing Care Systematization (in Portuguese, SAE¹).

Nursing records might include graphics, graphic signs for checking medical and nursing prescriptions, descriptive notes (figures on biological data e.g. patient monitoring), and handwritten notes describing patients care and contacts with family.²

The records are a source of documentation of nursing actions and activities; they are the means to ensure and to verify the delivery and quality of health care provided by the nursing staff. Nursing records offer specific information for the continuity of care as well as support the elaboration of an effective and individualized nursing care plan. Nursing documentation can be used in legal proceedings; they support research and educational programs and are a form of communication between the team besides providing support to medical practices.^{1,3}

The record of actions performed by the health care team indicates the quality of care provided and demonstrates good professional practice. Moreover, records should be in accordance with the ethical and legal demands required by the nursing profession.³

Lack of nursing records or inadequate records indicates an uncommitted attitude to health care that harm the health institution, since it hampers the control of health care provided by the nursing team.⁴

In order to measure nursing care based on pre-established quality standards clinical audit activities are performed.

Audit is a strategy to systematically and formally evaluate the activities carried out and the applicability of the SAE by the nurse. It highlights the activities' deficiencies and it measures the quality of care through the nursing notes/records and the patient outcomes.⁵

The evaluation of quality of care provided by nursing staff includes analysing how the implementation of care is recorded. The notes reflect how health care professionals perform and demonstrate the quality of the health care provided.⁵

The evaluation of the quality of care provided by the nursing staff includes analysing how the implementation of care is recorded. Nursing notes reflect how health professionals perform and demonstrate the service quality.⁵

In the hospital studied, the SAE has been applied since the eighties, so it is incorporated into the philosophy of the Nursing Service.

However, in that hospital's daily practice the nursing prescription – a working and communication tool among members of the healthcare team – is undervalued because of the quality of nursing records. In this sense, the present research poses the following question: "What is the quality of patient monitoring records on nursing prescriptions at the medical surgical unit of a university hospital?"

Therefore, the aim of this study was to analyse the quality of nursing records at an adult inpatient unit of a university hospital.

A detailed analysis on the quality of nursing records – more specifically, patient monitoring records – was carried out. It aimed at providing a basis for future discussions on the influence of nursing records on the promotion of quality of health care.

METHODOLOGY

This is a descriptive and prospective study using quantitative methods carried out in a university hospital for complex care in the north of the state of Paraná. The hospital has 312 beds available to the Unified Health System (SUS) for inpatients and outpatients in all medical specialties.

Data was collected from the data base of the hospital's Office of Nursing Care Quality (in Portuguese, ACQAE) subordinate to the Board of Nursing. That office assesses the quality of nursing care provided at adult and child inpatient units as well as at other special care units.

The research data includes the results of the operational audit on the quality of the records of nursing staff at an inpatient medical surgical unit which has sixty-seven beds and is used exclusively for male patients over the age of twelve. The unit nurse staffing has twenty-six practical nurses, twenty-six auxiliary nurses, five operational assistants, and eight registered nurses.

Data collection was based on audit reports of nursing prescriptions issued by the ACQAE in 2008, 2009 and 2010. Data was collected by trainees (not mandatory in the curriculum) from the third and fourth-year undergraduate course. Trainees were trained and monitored by an ACQAE nurse.

The ACQAE audits nursing prescriptions with the aid of a specific instrument that encompasses six topics: identification; elaboration of nursing prescription; nursing records; patient

monitoring; implementation of doctor's prescription; specific care provided in Adult (units I and II), Paediatric, and Neonatal Intensive Care Units. Each topic has indicators that represent guiding questions in the data collection performed by the AC-QAE. The following criteria are applicable: Complete, Incomplete, Not entered, and Incorrect.

In the present study, analysis was restricted to the topic "patient monitoring," which has thirteen indicators guiding the evaluation process.

Patient Monitoring is printed at the back of the nursing prescription sheet. The thirteen quality assessment questions that gauge the quality of nursing notes were: Are there records of oral hygiene at least three times a day? Are there records of daily body hygiene? Are vital signs controlled at least three times a day every eight hours? Is the weight monitored when needed and in the morning? Is micturition controlled at least every six hours? Was defecation controlled periodically? Was the occurrence of vomiting recorded? Was fluid intake monitored at least every six hours? Was food intake monitored at least every six hours? Was volume of drainage (Penrose, Kehr, external ventricular drainage, tubular) and/or endoscope checked at least every six hours? Was the volume of chest tube monitored every 24 hours? Are invasive procedures dated? Do controlled procedures display time and signature at the front or back of the prescription?

The records were classified according to a study carried out at the same hospital⁶ that suggests five assessment levels for the completion of patient monitoring forms: Not applicable; 2. Complete; 3. Incomplete; 3. Not entered; 5. Incorrect. Records are considered *satisfactory* when 80% or more of the patient monitoring forms are complete; if that do not exceed 15%, records are classified as *incomplete*; a 5%, are considered *Not entered* and 0%, *Incorrect*.

Data were tabulated and analysed in Excel and presented in tables.

The research was approved by the Ethics Committee of the Londrina State University and registered in the National Information System for Ethical Conduct in Human Research (in Portuguese, SISNEP), under CAAE No 0082.0.268.000.06.

RESULTS

Table 1 shows the percentage of each criterion assessed per item, individually; Table 2 presents the mean percentage of all items, i.e. the overall performance.

Table 1 presents the results of the entries for each item on the patient monitoring sheet, analysed in nursing prescriptions for male inpatients at the medical surgical unit, during October 2008, October 2009 and July 2010.

Table 1 - Quality assessment of patient monitoring reports at male medical surgical unit during October 2008, October 2009 and July 2010 – Londrina – PARANÁ

Assessment Questions	* Criterion in %											
	October 2008				October 2009				July 2010			
	C	INC	N/E	I	C	INC	N/E	I	C	INC	N/E	I
1. Is there any record of oral hygiene at least three times a day?	100	0	0	0	98	0	2	0	100	0	0	0
2. Is there any record of daily body hygiene?	100	0	0	0	98	0	2	0	100	0	0	0
3. Is there control of vital signs at least three times a day every eight hours?	100	0	0	0	100	0	0	0	100	0	0	0
4. Is weight monitored in the morning when necessary?	100	0	0	0	-	-	-	-	-	-	-	-
5. Is micturition controlled at least every six hours?	87	3	0	0	78	20	2	0	93	7	0	0
6. Is defecation controlled periodically?	96	14	0	0	93	5	2	0	98	0	2	0
7. Is the incidence of vomiting recorded?	-	-	-	-	100	0	0	0	4	67	29	0
8. Is fluid intake monitored at least every six hours?	55	34	10	0	70	26	4	0	45	50	5	0
9. Is food intake monitored at least every six hours?	93	7	0	0	80	18	2	0	80	18	3	0
10. Is the volume of drainage (Penrose, Kher, external ventricular drainage, tubular) and/or endoscopes monitored at least every six hours?	67	33	0	0	100	0	0	0	100	0	0	0
11. Is the volume of chest tube monitored every 24 hours?	-	-	-	-	100	0	0	0	100	0	0	0
12. Are invasive procedures dated?	100	0	0	0	100	0	0	0	83	0	17	0
13. Do controlled procedures have time and signature at the front or back of the prescription?	13	83	4	0	7	93	0	0	100	0	0	0

Notes: *CP – Complete; INC – Incomplete; N/E – Not entered; I – Incorrect – Not analysed.

Source: Hospital's ACQAE 2011.

Results presented in Table 1 for October 2008 showed that, of the thirteen items analysed, eight were *satisfactory* (80% of the records complete). Those considered *unsatisfactory* presented evaluation with incomplete results ranging from 83% for the largest item incomplete and 33% for the smallest. Incomplete entries were found in the following questions: "Do controlled procedures display time and signature at the front or back of the prescription?", "Is fluid intake monitored at least every six hours?", "Is the volume of drainage (Penrose, Kehr, external ventricular drainage, tubular) and/or endoscope checked at least every six hours?"

A single item from the October 2008 report is considered *unsatisfactory* in criterion Not Entered (percentage greater than 5%). No items described in the October 2008 report were considered *incorrect*.

The questions "Is the occurrence of vomiting recorded?" and "Is the volume of chest tube checked every 24 hours?" were not evaluated in October 2008. The report did not state reasons for not recording such information.

Of the thirteen indicators from October 2009, eight were considered *satisfactory* (80% or more of patients monitoring records complete); four were considered *unsatisfactory* (93% was *incomplete* in question "Do controlled procedures display time and signature at the front or back of the prescription?"). No item was considered *incorrect* or *unsatisfactory* for none reached percentage greater or equal to 5% in criterion *Not entered* or greater than 0% in criterion *Incorrect*.

The October 2009 report presented no record for question "Is weight controlled when necessary in the morning?". No reason was given for the lack of such information.

The quality of patient monitoring records in July 2010, represented in Table 1, demonstrated that nine items are *satisfactory* in criterion *Complete*; three were considered *incomplete* (greater or equal to 15%). Those considered *unsatisfactory* in criterion *Incomplete* ranged from 67% to 18%. The question with the highest *incomplete* percentage was "Is the incidence of vomiting recorded?". Two items from the July 2010 report were considered *unsatisfactory* in criterion *Not Entered*, for not reaching more than 5%. No item described was considered *incorrect*.

In July 2010 there was no record for question "Is the weight monitored in the morning when necessary?" and no reason was given for the lack of this information on the report.

Table 2 presents comparative data between the three periods analysed.

According to Table 2, patients monitoring records were considered *satisfactory* in October 2008 (100% *complete*); in July 2010, 84.91% were *complete*, 11.08% *incomplete* and 4.01% *Not entered*. In 2009, records were considered *unsatisfactory*. The reports did not show incorrect completion levels in none of the three periods studied.

Table 2 - General comparative analysis of the quality of patient monitoring records in the male medical/surgical unit from October 2008, October 2009 and July 2010 – Londrina – PARANÁ

Criterion in %	October 2008	October 2009	July 2010
Complete	100	79,44	84,91
Incomplete	0	19,15	11,08
Not Entered	0	1,41	4,01
Incorrect	0	0	0

Source: Hospital's ACQAE, 2011.

DISCUSSION

The archaic physical structure of the inpatient unit hindered patient health care. Nursing staff consists of experienced technical and auxiliary nurses that have been working in the hospital for over five years. However, short staffing compromises the delivery of an adequate patient care. Health workers based in that unit are responsible for caring for patients with different levels of complexity and across various medical specialties.

It is important to highlight that patient monitoring should be recorded correctly and thoroughly; it should allow patient assessment by all health team and detail the patient's progress after the interventions performed. Information that is incompletely or incorrectly recorded can lead to inadequate and not individualized care.⁷

The reports studied revealed there were items that maintained *satisfactory* results within the periods of time considered: oral hygiene, body hygiene and vital signs records, bowel movements frequency, food intake and dated invasive procedures. The monitoring of these routines is supervised by the nurse responsible for the patient.

Items considered *incomplete* in two or in the three years examined are related to situations that should have been observed during shifts and registered straight away, like incidence of vomiting, liquid intake and the volume of drainage. Complying with the nursing prescriptions is extremely important for the routine of the entire nursing team; it promotes the delivery of high-quality health care to patients, it guides the team's actions and it stresses the vital role played by nurses within the unit.³

In the October 2008 and October 2009 assessment reports, item "Do controlled procedures have time and signature at the front or back of the prescription?" was considered *unsatisfactory* because it was incomplete. Such results proved that many nurses do not identify themselves after carrying out the records.

A research carried out at a teaching hospital in Paraná obtained similar results regarding the identification of the nurse responsible for the care: the medical records analysed proved that nursing notes were not identified with the name of the professional, date and time of registration. The study concludes that those records did not mirror the professionals' performance.⁸

The same gap was observed in a research carried out in a Private General Hospital in the east of São Paulo: the name of the author of the patient records and other data like profession and Regional Nursing Council registration number were incomplete in 53% of the medical records analysed, of which 12% did not provide any identification; only 35% were considered complete.⁹

On the other hand, in the 2010 assessment report, the item "Do controlled procedures present times and signatures at the front or back of the prescription?" was considered *satisfactory* (100% in criterion *complete*), in accordance with the Federal Board of Nursing Resolution No 191/96 that establishes that medical records should have the identification of the registered nurse – name, Regional Nursing Council registration number and identification stamp – who carried out the action.¹⁰

The July 2010 evaluation report demonstrated that there was considerable improvement in patient records compared to the previous year. The past year was considered *satisfactory* (84.91% in criterion *Complete*). The previous year only 79.44% were *complete*.

The *satisfactory* result for 2010 was possible thanks to the work developed by the ACQAE. After data collection and tabulation, the ACQAE writes performance reports and presents them to the respective unit – more specifically, to the nurse manager and the section chief responsible – for discussion with the nursing team.

Additionally, the ACQAE distributes educational folders to the nursing team; training programs that focus on nursing records happen at least once a year. Through auditing, information that reveals the potentialities and weaknesses of the care provided is made available to the health care team. The process proposes solutions and suggestions that give the health care team the opportunity to change the provision of care.⁴⁻⁵

Results are presented also to the Board of Nursing and the Division of Education and Research (in Portuguese, Depe), that, when possible, promotes training courses that address the problems identified during evaluation process.

Although patient monitoring reports improved during 2010, some very important items were still rated as *unsatisfactory*; they should be addressed in order to ensure quality of information and, consequently, quality of care.

The research¹¹ carried out in a university hospital in the south of the country concluded that, although nurses acknowledge the importance of patient reports, the latter are decentralized and insufficient. The present research identified the inadequacy of human resources, the lack of time to carry out the records and the excessive administrative and bureaucratic obligations as factors that hinder a competent recording of the monitoring process. The study suggests the provision of better workplace conditions for the health professionals through the reorganization of the nursing services.

The records analysed demonstrated that the percentage of criterion *Not entered* was 0% in October 2008, 1.41% in October 2009 and 4.01% in July 2010. These results indicate that some important information about the patient was not being recorded. A literature review study¹² concludes that unethical documentation can cause unnecessary expenses as well as degrade the image of the institution. Omitted information can have legal and financial consequences.

The Federal Nursing Council Decree No. 94406 dated 8 June, 1987, Article 14 stipulates that the nurse should "annotate in the patient's report the activities of nursing care for statistical purposes".¹³ COFEN Resolution No. 311/2007 approves the new code of ethics of nursing professionals and specifies in its Article 68 that the nurse should "register in the medical records, and in other nursing documentation, information regarding the process of caring for an individual".¹²

The nursing care provided to clients can be evaluated through nursing records. The quality of the documentation of actions performed by the nursing team reveals the productivity of health professionals that provide direct care to the patient and enables the analysis of the results of these actions.¹³

Registered nurses should improve their knowledge in order to train his/her staff on the ethical, technical and legal aspects of nursing, so that data are correctly recorded in the medical records.¹⁴

It is necessary to register facts immediately to guarantee the quality of the information and to organize timetables so the recording can be performed.¹⁴

The nurse is the health professional able to lead organizational strategies to ensure data quality in the patients' record and to build best care practices.

CONCLUSION

The results demonstrated that there are inadequate patient monitoring records that were evaluated according to a prospective audit at the male medical surgical unit of the hospital in question.

It is necessary to review how records are made in order to improve nursing work process and to ensure a reliable health care record for each patient. The assessment of the quality of records can be used to motivate health professionals to improve the way they document the care provided to the individual.

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