



Status of recording inpatient medical records by nurses at Hai Duong General Hospital in 2022

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ABSTRACT

Objectives: To describe the current status of medical records by nurses in select clinical departments at Hai Duong General Hospital in 2022. **Methods:** A cross-sectional study was conducted among 402 medical records from 4 internal medicine departments and 4 surgical departments at Hai Duong General Hospital in April 2022. **Results:** The percentage of satisfactory medical records was found to be 84.1%. **Conclusion:** The current status of medical records in certain clinical departments at Hai Duong General Hospital was quite good. Further research and improvements in documentation forms and practices are necessary to enhance the quality of medical records.

Keywords: Inpatient treatment, Medical record, Nursing.

INTRODUCTION

Medical records and care forms which are recorded completely, accurately, and systematically are not only for legal purposes but also for diagnosis, treatment, disease prevention, care, and scientific research and training to achieve high results. Therefore, making medical records is carried out urgently, objectively, cautiously, meticulously, accurately and scientifically by medical staff upon a time when a patient is admitted to the hospital, which is clearly regulated in Decision No. 4069/2001/QĐ-BYT, Circular 50/2017/TT-BYT, Consolidated Document 08/VBHT-BYT on recording medical records to ensure basic principles in medical examination and treatment, prescription, making medical

records, thereby improving the quality of medical records, diagnosis, treatment, monitoring and care for patients at medical facilities ^{1, 2, 3, 4}.

In Vietnam, some studies related to recording medical records were conducted such as research by Le Thi Man (2013), Nguyen Thi So Em (2014) which were cross-sectional mixed qualitative - quantitative studies of the current status of recording medical records and relating factors. It reported that medical records were very crucial, and common errors were pointed out such as bad handwriting, abbreviating, erasures, signature missing, etc. The limitations of the quality of medical record were due to overload, and the specific nature of the hospital. In Vietnam, the recording of

medical record forms, especially nursing care forms, has not been unified in terms of content and recording method ^{5,6}.

Specifically, nurses at Hai Duong General Hospital have been recording care forms according to the instructions of the Ministry of Health and providing comprehensive patient care. However, there are shortcomings and inconsistencies in the way of recording information about the patient's condition and responses. Undetailed care plans have led to missed work and at the same time, the head nurses of the departments do not regularly check and supervise the work of nurses' recording of care notes at the departments, which can lead to problems. Legal disadvantages may occur if a patient complaint due to incomplete documentation of patient information and care actions. Give the lack published research on this topic within hospital, this study was conducted which aims to describe the current status of medical records documentation by nurses at Hai Duong Provincial General Hospital in 2022.

RESEARCH SUBJECTS AND METHODS

Participants: The study analyzed medical records of inpatients at Hai Duong General Hospital.

Inclusion criteria: Inpatient medical records of patients who completed discharge procedures in April 2022 and were saved in the medical record storage team within the General Planning Department, included statistical reports of the department, and reports of medical record test results.

Exclusion criteria: Inpatient medical records of patients who had not been discharged from the hospital.

Research time and location: The research was conducted in April 2022 at 4 internal medicine departments, and 4 surgical departments of Hai Duong General Hospital.

Research design: A cross-sectional descriptive design was employed in the study.

The formula used to calculate sample size was:

$$n = Z_{1-\frac{\alpha}{2}}^2 \cdot \frac{pq}{d^2}$$

Where:

n: was the minimum sample size needed for the study (number of medical records).
 α : Statistical significance level; with $\alpha = 0.05$, the coefficient $Z_{1-\alpha/2} = 1.96$; p = 0.595 (the rate of satisfactory medical records according to Mai Thi Ngoc Lan's research at Binh Minh General Hospital, Vinh Long Province in 2016 was 59.5%)⁷; d: deviation margin, choose d = 0.05. Sample size calculation results was n = 370.

In fact, there were 402 medical records taken from 4 internal medicine departments and 4 surgical departments.

Evaluation standards: Medical records must adhere to the following criteria ^{1,3}:

- Made properly according to medical record forms.
- All items in the medical record form must be recorded correctly and completely.
- All information was accurate and objective.
- Guaranteed on time.
- Clarity, without any tears, alterations, or erasures.
- When conducting examination, assessment, diagnosis and planning, it is necessary to closely associate to functional

and physical symptoms, paraclinical symptoms, and medical history.

* Patient Assessment Forms, Life Function Monitoring Forms, Care Plans, Infusion Forms, and Nutrition Assessment Forms, patient information was divided into 3 levels of assessment: fully and clearly recording; incomplete recording; not recording.

Data analysis method: The collected data was managed, processed and analyzed

using IBM-SPSS version 20.0. The research results were presented by number and percentage of variables.

Ethical issues of research: The study was approved by the Scientific Council of Hai Duong General Hospital. All personal information related to research subjects was kept confidential. The data and information collected were for research purposes only. The research results may be used as a basis for solutions to improve the quality of medical services at the Hospital.

RESULT

Table 1. Current status of nurses' recording of patient assessment forms (n = 370)

Content	Result of evaluation					
	Clearly and completely recorded		Incompletely recorded		Not recorded	
	n	%	n	%	n	%
Record promptly						
Assessment consistent with diagnosis	313	77.9	85	21.1	4	1.0
Pain assessment	241	60.0	133	33.0	28	7.0
Plan according to the assessment	315	78.4	87	21.6	0	0.0
Record fully						
Personal and administrative information	286	71.1	116	28.9	0	0.0
Progressions	354	88.1	47	11.7	1	0.2
Care plans: Health education, hygiene, nutrition, rehabilitation, psychology, appropriate specific care	326	81.1	75	18.7	1	0.2
Record based on agreement between doctors and nurses	349	86.8	53	13.2	0	0.0
Continuous (According to regulations - Decision 4069/2011/QĐ-BYT)	389	96.8	13	3.2	0	0.0

Content	Result of evaluation					
	Clearly and completely recorded		Incompletely recorded		Not recorded	
	n	%	n	%	n	%
Suitable						
Suitable according to disease/specialty	391	97.3	11	2.7	0	0.0
Plan appropriate for patient assessment	309	76.9	89	22.1	4	1.0
Clear						
Clear information, easy to read and distinguish	320	79.6	79	19.7	3	0.7
Name of the person recording the forms	374	93	28	7.0	0	0

Among 402 patient assessment forms which were randomly taken from departments of internal medicine and surgery, most of them were recorded correctly, satisfactorily, appropriately, clearly, and promptly with percentage ranging from 60% to 97.3%. However, the pain assessment and planning according to assessment were recorded but not clear at the percentage of 7% and 1%, respectively.

Table 2. Status of recording planning, monitoring, and care forms (n = 370)

Content	Result of evaluation					
	Clearly and completely recorded		Incompletely recorded		Not recorded	
	n	%	n	%	n	%
Promptly						
Measure and record parameters at the clinic	402	100	0	0.0	0	0
Measure and record parameters when admitted to the department	402	100	0	0.0	0	0
Measure and record parameters according to regulations	364	90.5	31	7.7	7	1.7
Implement care interventions	380	94.5	22	5.5	0	0
Record fully						
Personal and administrative information	267	66.4	131	32.6	4	1.0
All types of parameters as prescribed by doctors	362	90.0	40	10.0	0	0

Content	Result of evaluation					
	Clearly and completely recorded		Incompletely recorded		Not recorded	
	n	%	n	%	n	%
Show parameters according to regulations	357	88.8	45	11.2	0	0
Record correctly as convention	391	94.8	11	5.2	0	0
Record based on agreement among practitioners	388	96.5	14	3.5	0	0
Continuous (monitor indicators as indicated)	344	85.6	58	14.4	0	0
Suitable (Monitoring parameters appropriate according to disease/specialty or according to regulations)	368	91.5	34	8.5	0	0
Accurate (Parameter representation)	384	95.5	18	4.5	0	0
Clear (Clear information, easy to read and distinguish)	326	81.1	76	18.9	0	0

Among 402 forms of monitoring vital functions and patient care randomly taken from departments of internal medicine and surgery, the majority were recorded correctly, satisfactorily, appropriately, clearly and promptly with a rate of 60,4% or more. However, the personal and administrative information still had many shortcomings, recorded but unclearly and incompletely (32.6% of information was incomplete and 18.9% of information was unclear).

Table 3. Status of recording infusion forms (n = 370)

Content	Result of evaluation					
	Clearly and completely recorded		Incompletely recorded		Not recorded	
	n	%	n	%	n	%
Promptly (At the time of starting infusion)	382	95	20	5	0	0
Recording fully						
Assess vital signs before infusion	352	87.6	50	12.4	0	0
All information in the form (Infusion form 17/BV-01 according to Decision 4069/2011/QD-BYT)	348	86.6	54	13.4	0	0
Clearly recorded the amount of fluid infused	354	88.1	48	11.9	0	0

Content	Result of evaluation					
	Clearly and completely recorded		Incompletely recorded		Not recorded	
	n	%	n	%	n	%
Clearly recorded the reason for not fully infused	328	81.6	74	18.4	0	0
Record abnormal progression and complications (if any)	350	87.1	52	12.9	0	0
Accurate (Follow the Medical order - type of fluid, quantity, speed)	401	99.8	1	0.2	0	0
Clear						
Clear information, easy to read, and distinguish	335	83.3	67	16.7	0	0
Name of person performing infusion	391	97.3	11	2.7	0	0

Among 402 infusion forms randomly taken from departments of internal medicine and surgery, most of them were recorded correctly, satisfactorily, clearly and promptly with a rate of 81.6% or more. However, there was still a small percentage that was not fully and clearly recorded.

Table 4. Current status of recording screening and assessing nutritional forms (n = 370)

Content	Result of evaluation					
	Clearly and completely recorded		Incompletely recorded		Not recorded	
	n	%	n	%	n	%
Promptly (weighing and measuring patients upon admission to the hospital)	343	85.3	59	14.7	0	0.0
Recorded fully						
Screening for nutritional risks	358	89.1	43	10.7	1	0.2
All information in the form	322	80.1	80	19.9	0	0.0
Exactly	346	86.1	31	7.7	25	6.2
Clear						
Clear information, easy to read and distinguish	338	84.1	59	14.7	5	1,2
Name of performer	394	98.0	3	0.7	5	1,2

Of the 402 screening and nutritional status assessment forms randomly taken from departments of internal medicine and surgery, the majority were recorded correctly, satisfactorily, appropriately, clearly, and promptly with percentage ranging from 80 to 80.1% or more. However, there was still a small percentage that was not fully and clearly recorded.

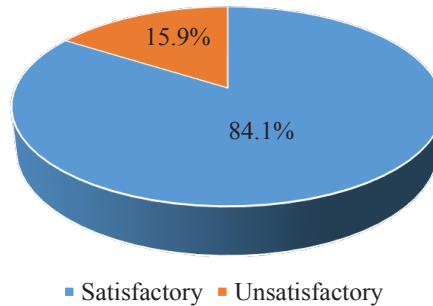


Figure 1, Percentage of satisfactory medical records (n = 370)

Among 402 collecting medical records, 84.1% of them met the requirements and 15.9% did not meet the requirements.

DISCUSSION

Recording forms of assessment and initial hospital admission planning:

According to regulations on the nurses' medical records, assessment and initial hospital admission planning forms are included in all medical records. These assessment and plans should be completed and recorded right upon patients' hospital admission. In this study, the results of 402 patient assessment forms randomly taken from departments of internal medicine and surgical departments indicated that the majority were recorded correctly, satisfactorily, appropriately, clearly, and promptly. However, timely recording of assessment consistent with the diagnosis, pain assessment, and planning based on assessment only reached 77.9%, 60%, and 78.4%, respectively. This could be attributed to delay in recording of nurses and failing to meet the requirements on regulations. Notably, 71.1% of the medical records that fully recorded personal and administrative information demonstrated

errors in completion and submission to General Planning Department without review. Some medical records were directly entered from the Emergency Department so the medical record number was not immediately available. The percentage of recording fully, clearly, continuously, and appropriately according to the diseases/specialty was at a high percentage of 96.8% - 97.3% because nurses knew the regulations, and nurses of that department made the records directly. The proportion of nurses signing their forms was 93%. 7.0% of them did not fully implement it mainly because of their carelessness, signing without writing their full name. In reality, doctors do not currently pay much attention to the recording medical records of nurses, especially assessment and initial planning forms.

Recording forms of assessment, planning, monitoring, and care for subsequent days:

According to the Circular 31/2021/TT-BYT dated December 28, 2021 regulating nursing activities in hospitals;

“Patient management: create paper or electronic management records and update daily for all inpatients and outpatients at hospitals; Carry out full handover of the number and issues that need to be monitored and cared for patients, especially between shifts”⁸. Accordingly, nurses can assess, monitor life functions, and make appropriate plans for each day. The analysis of 402 medical records revealed high percentages of recording forms related to assessment, monitoring, and daily care planning, ranging from 81% to 100% in many aspects. However, recording personal information only reached 66.4%, information that was clear, easy to read, and easy to distinguish reached 18.9%. The above results also presented that nurse had demonstrated their daily routine work such as: contacting patients, taking vital signs, and recording what they had done and intervened. Currently, the forms are hang on the patients’ bed and have also been improved for convenience and to reduce the overload in the patient care process, which the hospital has specific regulations for. The content with a low percentage also indicated that nurses did not record because some information was repeated on the forms: Name, age, gender, medical record number. The proportion of these form was higher than research by Nguyen Thai Ha (2017) which reported that the percentage of successful recording in the administrative section reached 82%, often encountering shortcomings in occupation, workplace, and comorbidities when discharged from the hospital, abbreviating administrative part...⁹. This may explain by Hai Duong General Hospital, the Nursing Council and Nursing Department submitted to the director for approval to promulgate regulations on nursing records, and provided detailed and regular training and guidance to the

departments and also through meetings, head nurses pointed out the advantages and disadvantages in the recording process of nurses, the importance of recording for the nursing care as well as patient treatment,

Recording infusion forms: Among 402 infusion forms randomly taken from clinical departments of internal medicine and surgery, the majority were recorded correctly, satisfactorily, appropriately, clearly and promptly. However, there was still a small percentage that was not fully and clearly recorded. The percentage of recording this form was 81.6% to 99.8% because this form had less content than other forms. This result was similar to the study by Nguyen Thi Thuy at Hoa Binh General Hospital with a percentage of 85.5%¹⁰.

Recording forms of screening and nutritional status assessment: Among 402 medical records whose screening and assessment of nutritional forms were randomly taken from 4 internal medicine departments and 4 surgical departments demonstrated that most of the records were correct, satisfactory, appropriate and clear and prompt. However, there was a small percentage that was not fully and clearly recorded. The rate reached 80.1% to 98% in the complete, clear, and timely contents of the form in the nursing section. This form was supplemented with records of nutritional status assessment according to a set of criteria in Decision No. 6858/QĐ-BYT dated November 18, 2016 deciding on promulgating a set of quality criteria for Vietnamese hospitals¹¹. The form was trained for both doctors and nurses and was applied by the hospital into medical record.

Hai Duong Provincial General Hospital issued and applied regulations on recording in accordance with Decision 4069/2001/

QD-BYT and Circular 31/2021/TT-BYT dated December 28, 2021 regulating nursing activities in hospitals and also improved and put into use nurses' forms⁸. In a total of 402 medical records, 84.1% of them were satisfactory and 15.9% were unsatisfactory. These were similar proportion among the forms, which was consistent with the medical record group in our study because during the April period, the number of patients decreased due to the COVID-19 epidemic and the Nursing Department was fully trained about the content of the Circular 31/2021/TT-BYT dated December 28, 2021 regulating nursing activities in hospitals; guiding regulations, including specific regulations on nursing records and implementing the primary care assignment model, which promoted comprehensive effectiveness in the patient care process⁸. The results in this study were consistent to the research by Trinh The Tien (2017) at Tra Linh District General Hospital, Cao Bang province, on 370 medical records, whose percentage of recording medical record was 80.5%, higher than the study by Ping Lian with the percentage of 58% satisfactory medical records^{12, 13}. The differences between these studies may be from variations in the study's timing and location...

CONCLUSION

In conclusion, the current status of inpatient medical record documentation at Hai Duong General Hospital in 2022 showed that 84.1% of records were satisfactory, with 15.9% deemed unsatisfactory..

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