

# Evaluating Fall Prevention for Patient at Nam Dinh Hospital in Vietnam

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**Abstract: Purpose:** *Assessing the reality of nursing knowledge and practice about falls prevention for patients at Nam Dinh General Hospital.*

**Method:** *Descriptive study cross-section with the participation of 170 nurses directly taking care of people in clinical departments of Nam Dinh General Hospital from December 2019 to June 2020.*

**Results:** *The percentage of nurses with general knowledge is 56.5%. Of these, 51.8% of nurses said that there was no risk of falling for the patient in the hospital, 91.2% of the nurses said that the hospital should not develop a fall risk assessment form and only 3, 5% of nurses said that the patient's risk of falling due to physiological problems could be prevented by providing a safe environment; for example: clear road to the bathroom, no clutter room, good shoes. The proportion of nurses who self-assessed practice for general fall prevention for patients was 48.8%.*

**Conclusion:** *The level of nursing knowledge and practice of falls prevention is not high in the nursing home. There is a relationship between knowledge and practice of falling prevention in the patient. The research results show the need to strengthen nursing knowledge about fall prevention in patients.*

**Keywords:** *Knowledge, Practice, Fall Prevention, Patient, Nursing.*

## GLOSSARY and ABBREVIATION

AHRQ	Agency for Healthcare Research and Quality
ASEAN	Association of South East Asian Nations
FPTK	Fall Prevention Tool Kit
HIT	Health Information Technology
ICN	International Council of Nurses
IPF	Interdisciplinary Falls Prevention Program
MFS	Morse Falls Scale
QI	Quality Improvement
WAPS	World Alliance for Patient Safety
WHO	World Health Organization

## 1. INTRODUCTION

In Vietnam, there are no specific statistics, but it is estimated that every year about 2 million people over 65 years of age fall. Falls-related accidents account for about 4.6% of common incidents. Falling accident leading to death ranks high in the category of common incidents. According to a statistics at Ho Chi Minh City University of Medicine and Pharmacy Hospital in 2017, falls accounted for 92.31% of medical incidents commonly found in hospitals (Ho Chi Minh City University of Medicine and Pharmacy Hospital, 2017). Falls bring great consequences not only to the health of the patient but also adversely affect the treatment costs for the patient so the Circular No. 19/2013 / TT-BYT of the Ministry of Health provides practical guidance. Currently, managing the quality of medical examination and treatment services at hospitals, regulating the implementation of measures to ensure the safety of patients and medical staff. Preventing the patient from falling is one of the contents of establishing programs and building specific regulations to ensure the safety of patients and medical staff (Ministry of Health, 2015).

In Nam Dinh province, over the past years, Nam Dinh Health sector has taken measures to improve the quality of medical examination and treatment services. However, assessments on the prevention of falls for patients in hospitals in general and at Nam Dinh General Hospital in particular and especially on the current state of nursing knowledge and practice about prevention of falls for the patient is not much and not sufficient. To obtain specific data on the current state of nursing knowledge and practices in preventing falls for patients as well as providing evidence of patient safety practices in the hospital, we perform this study.

## 2. LITERATURE REVIEW

A fall is one of six medical incidents classified by expertise according to the World Association for the Safety of the Patients. Each year, about 37.3 million falls require medical attention, leading to 646,000 fall deaths globally. Falls are the second leading cause of death from unintentional injury following a road traffic crash and are common in people 65 years of age and older (WHO, 2018). Although falls are common in daily life. In the community, but in health facilities, the prevention of falls for the sick is an indispensable activity. Nurses have a higher time to care for patients compared to other subjects, and a particularly important role in minimizing medical incidents for the following reasons: (1) Nursing services, midwives granted by WHO as one of the pillars of the health service delivery system; (2) Most of the orders of the treating doctor are through the nurse to perform on the patient; (3) Nursing professional work always takes place before and after treatment and ensures safe treatment.

Beside, Hemsley et al (2019) pointed that Two thirds of the studies examining falls risk identified communication disability as contributing to falls. Commonly, patients with communication disability were actively excluded from participation; measures of communication or cognition were not reported; and reasons for any increased risk of falls were not discussed. There is some evidence that communication disability is associated with increased risk of falls. However, the role of communication disability in falls is under-researched, and reasons for the increased risk remain unclear.

Last but not least, Najafpour et al (2019) showed patient falls are considered a challenge to the patient's safety in hospitals, which, in addition to increasing the length of stay and costs, may also result in severe injuries or even the death of the patient. It seems that a combination of both patient-related factors and history of medication should be considered. Moreover, modifiable clinical characteristics of patients such as vision improvement, provision of

manual transfer aid, diabetes control, regular toilet program, and drug modification should be considered during the formulation of interventions.

### 3. METHOD AND DATA

Sample size: The total number of nurses currently working at Nam Dinh Hospital is 305 people (According to data from the general planning department), however, there are only 200 nurses meeting the selection criteria. The study took all 200 nurses as research subjects. There were 30 nurses participating in the tool testing, so the sample size was not included, so the final sample size was 170 nurses.

#### Variables in the Study

The independent variable includes: age group, sex, professional level, type of training, seniority of service, training in fall prevention.

Dependent variables include: classification of knowledge (4 levels), knowledge level (pass and fail), classification of practice (pass and fail).

#### Methods of Data Management, Processing and Analysis

Data collected will be analyzed based on SPSS 22.0 software. Data are depicted by tables and graphs as numerical values / percentages for descriptive variables. Correlation squared test was used to determine the relationships between the variables with the significance level <0.05.

### 4. MAIN RESULTS

Table 1: Classify nursing fall knowledge by group

Knowledge group	Percentage by classification	
	Non Pass	Pass
Risk factor	44,7	55,3
Risk assessment	93,5	6,5
Provision	45,9	54,1
Management	68,3	31,7

The results showed that the percentage of subjects with scores in the risk assessment group was almost at zero (93.5%), the risk factor group had the highest level (55.3%).

Table 2: Divide nursing knowledge levels of fall prevention knowledge According to each group of knowledge (n = 170)

Knowledge level	Percentage by classification			
	Risk factor	Risk assessment	Provision	Management
No knowledge	0,0	17,6	1,8	4,1
Poor knowledge	44,7	75,9	44,1	64,2
Average knowledge	21,8	5,3	44,7	27,6
Good knowledge	33,5	1,2	9,4	4,1

Table 2 shows that the risk group has the highest level of knowledge (33.5%), the risk group has the highest level of knowledge (75.9%).

Table 3: General classification of nursing knowledge about falls prevention (n = 170)

Knowledge classification	Classification of levels	Number	Ratio %
Non pass	No knowledge	0	0,0
	Poor knowledge	74	43,5
Pass	Average knowledge	96	56,5
	Good knowledge	0	0,0

The results in the table above show that up to 43.5% of nurses have poor knowledge about falling prevention for patients. None of the nurses had a good level of knowledge.

Table 3: Current status of nursing activities in assessing patients at risk of falls (n = 170)

Work	Performance level (Ratio %)				
	Never	Rarely	Sometimes	Regularly	Usually
Evaluate and record patients at risk of falls (age, drug history, history of falls, ...)	3,5	9,4	32,9	38,2	15,9
Evaluate and record the risk of falls from the patient care environment (wet floors, lack of light, ...)	0,6	7,1	24,1	50,0	18,2
Identifying specific patients who need additional safety precautions	0,6	7,6	32,4	43,5	15,9
Observe and or monitor a person's risk of falling	0	3,5	38,8	35,3	22,4

The content of the fall risk assessment activity that nurses performed the most was the activity "Conducting observation and or monitoring the falling risk of the patient". Accordingly, 22.4% of subjects continuously performed; 35.3% regularly implement it. The activity "Assessing and recording the risks of falls from the patient care environment (wet floors, lack of light,...)" was also done relatively well with 18.2% and 50% subject persistently and regularly performed. Table 3.14 also shows that still 3.5% of nurses never evaluated and documented patients at risk of falls.

## 5. DISCUSSION

### Some of the Research's Strengths and Limitations

This is a new study, quite comprehensively evaluating nursing knowledge and practice about fall prevention in Nam Dinh province. Research tools are tools that have been studied by experts in this field. The tools before use are tested to ensure high value and reliability. The research content covers the basic requirements for falls prevention knowledge and practices in hospital. The results of the study provide a fairly comprehensive picture of this problem. These data can be used to develop future intervention programs.

However, this study still has certain limitations. First of all, the practical assessment only stops at the interview without conducting direct observation. The study has not used regression model analysis to control confounding factors and interaction factors that can affect knowledge and practice of subjects. In addition, the study has not determined the nature of the factors related to nursing knowledge and practice because qualitative research was not performed.

## 6. CONCLUSION

### Current State of Nursing Knowledge and Practice about Falls Prevention for the Sick

Nursing knowledge about falls prevention for the patient is moderate. The proportion of nurses with knowledge reached 56.5%, in which the nursing sector with the best knowledge was the risk factors for falls (55.3%), followed by risk prevention (54 ,first%). The most critical areas of nursing knowledge are falls management (31.7%) and risk assessment (6.5%).

Nursing practices for falls prevention in patients are moderate. The rate of nurses achieving general practice is 51.2%, of which risk assessment practice has the highest rate with 58.2%, falls management rate 51.2%; Nursing field for practice of fall prevention only reached 39.4%.

### Several Factors Related to Fall Prevention Knowledge and Practice

Two factors about the demographic of the knowledge-related object are the age group and the working age. The higher the age, the better, and those with 10-20 years of age have higher knowledge than the other groups.

Two factors that belong to nursing professional characteristics are updating knowledge and training needs related to knowledge. Those who need training have lower knowledge than those who don't; Those who have attended training have lower knowledge than non-participants.

Service years and training needs are related to the nurse's fall prevention practices. The higher the working period, the better the practice, and the nurses with good practice have higher training needs than the unsatisfactory practical nurses.

There is a link between nursing knowledge and practice of fall prevention. Nurses with knowledge achieved, the practice achieved 3.97 times higher than those with unsatisfactory knowledge.

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