INVESTIGATION ANALYSIS OF PATIENT SAFETY INCIDENT AT X HOSPITAL JAKARTA

Tata Sutabri[1], Evi Nopiyanti[2], Firman Syah Alam[3], Agus Joko Susanto[4], Ninik Setyowati[5]

[1,2,3,4,5]Faculty of Health Sciences, University of Respati Indonesia, Jalan Bambu Apus I No.3, Jakarta 13890, Indonesia.

***corresponding author : tata.sutabri@gmail.com**

Abstract

Patient safety is patient free from injury that is not supposed to occur or free from potential hazards that will occur incidents, like as Potential Injury Conditions, Non-Injury Events, Near Injuries, Events Not expected, and sentinel events. All incidents that occur must be reported and found the root cause. Hospital X has implemented a patient safety program, but still shows the standards set cannot be fulfilled, there are many events that have the potential to cause harm and even threaten safety patient, and investigative analysis has not been carried out to find the root cause. The purpose of this study is to find out the main cause of the investigation of the incidence of patient safety at X Hospital. Cases found with yellow (high) and red (extreme) risk degrees were carried out with a comprehensive investigative analysis using the Root Cause Analysis (RCA) method, using the help of fishbone diagrams, univariate analysis was also conducted to determine the frequency distribution of each incident that occurred. There were 10 incidents of patients falling (26.3%) consisting of 6 cases falling out of bed, 2 cases falling in the toilet, and 2 cases falling in the corridor. Based on the results of the assessment of risk bands, including the red (extreme) category. The results of the investigation found that the main cause was an installed safety bed fence and a slippery toilet floor. The incidence of falling patients is caused by the bed safety fence that is not installed and the floor is slippery.

Keywords: investigation, incident, patient safety

1. INTRODUCTION

Patient safety is a process in a hospital that provides safer patient services. This includes risk assessment, identification, and risk management for patients, reporting and analyzing incidents, the ability to learn and follow up on incidents, and implementing solutions to reduce and minimize risk arising (Permenkes No.11, 2017). The essence of patient safety, namely avoidance, prevention, and improvement of unexpected events or dealing with injuries from the health service process (Ballard, 2003), so that the main program of patient safety, namely to reduce the number of unexpected events, that often occur the patient while being hospitalized is very detrimental to both the patient and the hospital.

Hospitals are organizations that are at high risk of incidents of patient safety caused by human error, this is caused by the failure of the system in which the individual works (Reason, 2006). Reflected from the 2000 Institute of Medicine report on adverse events at the Utah and Colorado City Hospitals at 2.9% and 6.6% (44,000 per year) in the form of death. In New York City, KTD is 3.7% and 13.6% (98,000 per year) in the form of death (IOM, 2000).

The World Health Organization (WHO) states patient safety is a serious global public health problem. Medical errors can be caused by system factors and human factors. The incidence of adverse patient safety is related to surgical procedures (27%), medication errors (18.3%) and health

care-related infections (12.2%) (WHO, 2017). Whereas in Europe, the incidence of patients with an infection risk of 83.5% and evidence of medical errors shows 50-72.3% (Lombogia, 2016).

The National Patient Safety Agency reported that in the period January-December 2016 the reported incidence of patient safety from the United Kingdom was 1,879,822 incidents. Ministry of Health Malaysia reported that the incidence of patient safety in the January-December 2013 period was 2,769. And for Indonesia in the 2006-2011 period the Hospital Patient Safety Committee reported that, there were 877 KTD (National Patient Safety Agency, 2017). The report reflects that patient safety is poorly implemented, so that many KTD ultimately create poor quality health services.

Problems related to patient safety must be immediately addressed by the hospital. Patient safety goals can be obtained if the factors that contribute to the incidence of patient safety can be minimized and even avoided. The factors that contribute to the incidence of patient safety are external contributors (regulators, economics, regulations and policies of the Ministry of Health, national regulations, and relations with other organizations) and contributors to organizations & management (MOH, 2015). Characteristics of individuals, organizations, the nature of work, management, the external environment, and the physical environment (Henriksen, 2008). Safety and moral climate, work environment factors, such as staffing and managerial support, team factors, such as teamwork, supervision and staff factors (Dugdale: 2009). Angood (2007) revealed that the main cause of KTD in hospitals was communication. Alvarado (2006) revealed that inaccurate information can have a serious impact on patients, almost 70% of sentinel / sentinel event events (events that result in death or serious injury in hospitals) caused by poor communication.

One strategy in designing a patient safety system is to recognize errors, so that actions can be seen and immediately taken to correct the effects. Hospitals are required to record and report incidents that include unexpected events, near-injury events, and sentinel events (MOH, 2008). Hospital patient safety regulations in Indonesia mandate an investigation within 24 hours if there is a sentinel event. The investigation was led directly by the director of the hospital. This investigation is referred to as root cause analysis (RCA), which is looking for what happened, why it happened, and what can be done to prevent repetition of the incident (Cahyono, 2008).

2. MATERIALS AND METHODS

This research is a qualitative study with a descriptive phenomenology study design conducted at X Hospital, Central Jakarta in July 2018. The population of this study consisted of 3 key informants (chairman and secretary of the Patient Safety & Quality Improvement Committee, and Chair of the Patient Safety Committee , and informants as many as 4 champions of patient safety committees (medical, nursing, medical support, and public relations & marketing) .The sampling technique used in this study was total sampling. The instruments used were questionnaires, checklists, and books for recording statements, motion and participant expressions: USB digital 8GB CC010 memory voice recorder frequency 20Hz-20kHz record WAV format for recording all conversations with participants; a 13-megapixel camera for taking photos of interview activities with participants. This activity was carried out with the consent of the participants.

The technique of data collection is carried out, namely in-depth interview to obtain information or establishment verbally from an informant who is directly involved in achieving patient safety goals. Participatory observation to see the actual conditions, see documentation of cases of patient safety incidents, as well as literature studies. Data analysis techniques used with the Root Cause Analysis (RCA) method using the help of fishbone diagrams and univariate analysis to determine

the IKP frequency distribution. RCA method with the following steps 1) Report on the results of KTD and KNC incidents carried out by analyzing risk grading to determine the level of risk of red / extreme, yellow / high, green / medium, and blue / low; 2) Incidents including the red and yellow risk levels were carried out further analysis with the RCA method to determine the root cause of the event. To make it easier to understand, researchers use fishbone diagrams.

3. RESULTS AND DISCUSSION

Based on the data obtained from the X Hospital patient safety committee, during 2017 there have been 38 cases of IKP, this can be seen in table 1 below:

Table 1
Number of patient safety incidents in 2017

NO	Observed parameters	Number of incidents	Percentage
1	Incorrect identification	8	21.1
2	Incorrect communication	13	34.2
3	Incorrect medication	0	0.00
4	Incorrect actions	0	0.00
5	Infection	7	18.4
6	Patients fall	10	26.3
	Total	38	

Based on table 1, the incidence of patient safety was the most common was the incidence of miscommunication of 13 incidents (34.21%), then the incidence of patients fell by 10 incidents (26.3%).

The number of incidents obtained, then identified to determine the type of patient safety incident (IKP) and patient safety goals (SKP). The following table 2 shows the number of incidents based on the type of IKP and SKP:

Table 2
Number of incidents based on the type of patient safety incident and Patient Safety Goals, 2017

NO	Parameters observed by	KPC	KNC	KTC	KTD	SENTINEL	Total
1	Incorrect identification	0	4	3	1	0	8
2	Incorrect communication	0	5	5	3	0	13
3	Incorrect medication	0	0	0	0	0	0
4	Incorrect actions	0	0	0	0	0	0
5	Infection	0	0	0	7	0	7
6	Patients fall	0	0	0	10	0	10
	Total	0	9	8	21	0	38

From table 2, it was found that near-injury events (KNC) were found in incidents of misidentification (4 incidents) and miscommunication incidents (5 incidents). Unexpected events (CWD) were in the incidence of misidentification (1 incident), miscommunication (3 incidents), incident of infection (7 incidents), and incidence of falling patients (10 incidents).

To assess the 2017 patient safety incidence risk bands, the calculated incidence was only the number of near-injury (KNC) incidents and only unexpected events (KTD), this is in accordance with the reporting guidelines (KKPSRS, 2015).

Risk bands are the degree of risk described in four colors, namely: Blue, Green, Yellow and Red (KKPSRS, 2015). Color Bands will determine the investigation that will be carried out. For blue and green bands, a simple investigation is enough, while for yellow and red bands, a comprehensive / RCA investigation is conducted. The results of the calculation of the grading risk matrix can be seen in table 3 below:

Table 3
Risk Bands of Patient Safety Incidents and
Patient Safety Goals, 2017

NO	Parameters observed by	Frequency	Impact	*Bands* of Risk
1	Incorrect identification	Often (4)	Minor (2)	Moderate
2	Incorrect communication	Often (4)	Minor (2)	Moderate
3	Incorrect medication	Rare (1)	Major (4)	high
4	Incorrect actions	Rare (1)	Major (4)	high
5	Infection	Often (4)	Minor (3)	Moderate
6	Patients fall	Often (4)	Major (4)	extreme

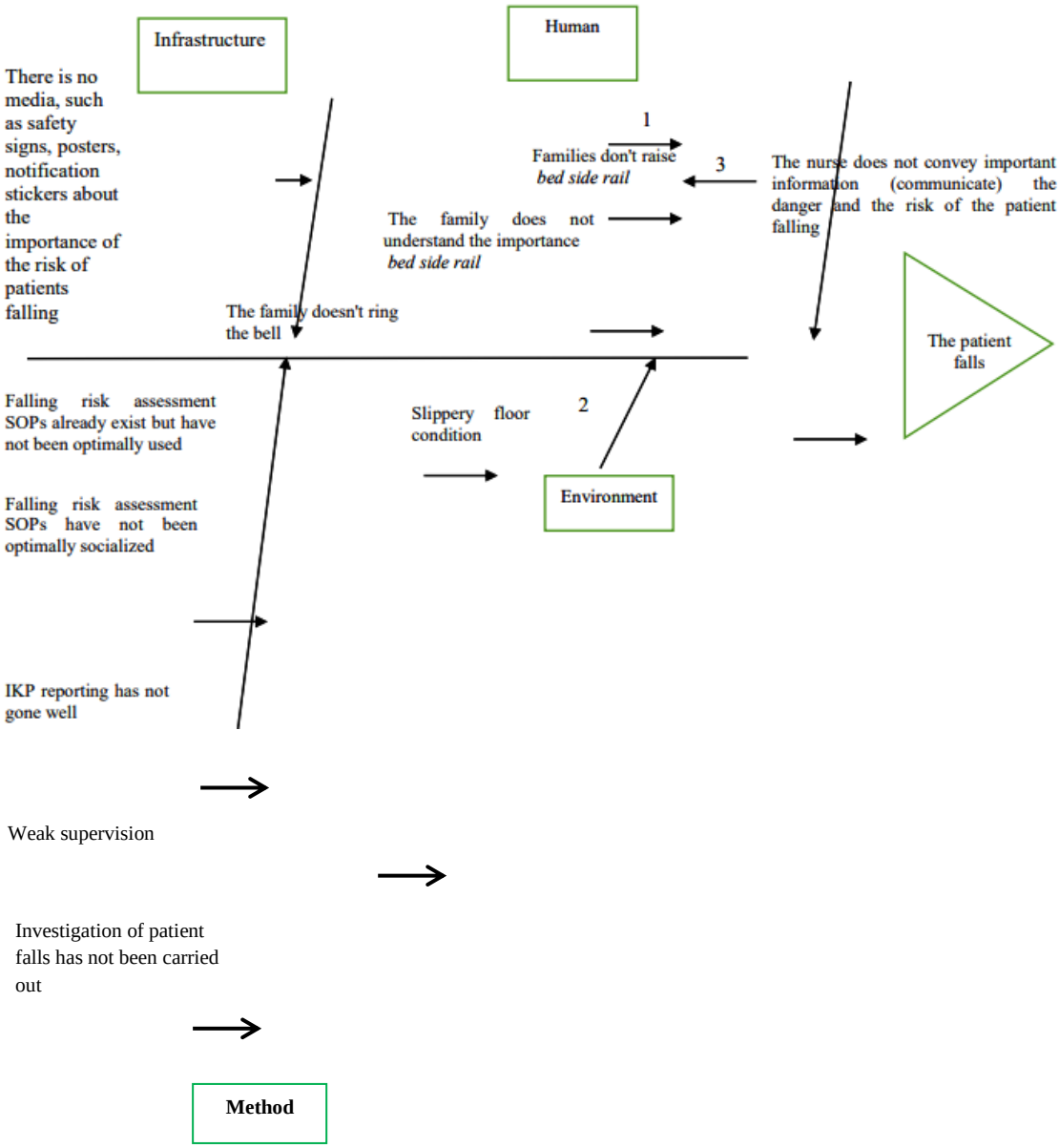
From table 3 it was found that the risk band results on the six safety targets were red (extreme) bands for the incidence of falling patients, yellow bands of drug misuse and misdeeds, and green bands for misidentification and miscommunication and infection. For investigations using RCA, only carried out on yellow and red risk bands, this is in accordance with the guidelines for reporting incidents issued by the Ministry of Health (KKPRS, 2015). Based on the number of incidents that occurred in 2017, there was no incident of the 3rd and 4th patient safety. Based on this, a root cause analysis investigation will only be carried out on the 6th patient safety incident or the incidence of the patient falling.

The results of interviews with informants about the assessment (assessment) of the risk of falling patients, said that "..... Fall prevention efforts have been done since the beginning of entry ... and we also have provided patient support facilities for safety ...". Key informant 3 explained that "The implementation of patient assessment is carried out when patients enter the hospital both inpatient and outpatient care. Nurses conducted a risk assessment to fall using the Morse / Morse Scale Falls (MFS) scale for adults, the Humpty Dumpty Score scale for pediatric patients and the Hendrich scale for elderly patients ". "After the risk assessment has fallen, the patient is given a yellow snap band marker as a sign of the patient at risk of falling," added the key informant 2.

The results of the triangulation between the IKP reporting document and the head of the patient's quality and safety improvement committee and the head of the patient safety committee showed that "Patients fall when the patient is left behind by the patient's family ... and the family does not raise the bed side ... falling asleep the bed side rail is not raised, there is also because the patient's family does not know the bed side rail must be raised, besides because it falls from the sidelines of the bed, as well as the slippery floor condition ". The head of the patient safety committee said "Patient SOP socialization and training has been given to management and hospital

staff, but not optimal and IKP reporting is still not in line with the standards". To find the root of the problem, researchers used a fishbone diagram which can be seen below

Diagram 1
Fishbone diagram of the incidence of falling patients



Based on the results of the RCA and fishbone assistance, the factors that contribute to the incidence of falling patients are from the officer factor (less appropriate / less compliant with SOP), external factors (the patient's family does not understand the importance of bed side rail, family behavior does not increase the bed side rail, and slippery floor conditions).

Discussion

From the results of investigations in cases of falling patient IKPs, nurses did not convey important information (communicating) about the danger and the patient's risk fell to patients and their families as a form of prevention (nurses did not comply with the SOP), so the patient's family did not understand the importance of the side rail. This has an impact on the family behavior of patients who do not raise the bed side rail. In addition, the patient falls also because of the slippery condition of the toilet floor.

Communication is an essential part of health care and is also essential for patient safety. Effective communication is needed by health workers and patients in general so that complete care for patients can be achieved and will improve patient safety (Cahyono, 2008). Communication can threaten patients, but can also prevent patients from health threats. Poor communication is the most frequent cause of side effects in all aspects of health services, so that the potential for incidents of patient safety. The causes of IKP according to Cahyono (2008) are communication failure, ineffective communication which will have an impact of 80% causing the incidence of malpractice, increasing operational costs, healing treatment costs, and inhibiting the process of providing nursing care.

Data collected by the Joint Commission on Accreditation of Healthcare Organization (2008) shows that poor communication contributed to nearly 70% of sentinel events reported in the US in 2005. Research in Germany identified 15% of all events directly related to communication problems, and in more than 50% of events, communication is a supporting factor. The World Health Organization (WHO) & Joint Commission International (JCI, 2007), reported cases of 25,000-30,000 permanent disabilities in patients in Australia 11% due to communication failure. According to the AMA (Australian Medical Association, 2006) that in Australia poor communication is a contributing factor of around 20-25% of sentinel events. Alvarado (2006) revealed that inaccurate information can have a serious impact on patients, almost 70% of sentinel / sentinel event events (events that result in death or serious injury in hospitals) caused by poor communication.

X Hospital is a private type B hospital and has been accredited by KARS (hospital accreditation committee) version 2012 at the level of Plenary and ISO 9001: 2015. The hospital has also provided information and training on patient safety SOPs when employees are first admitted to hospital and has conducted patient safety training aimed at hospital management and staff. Although socialization has been held, but there is still misidentification (21.1%), miscommunication (34.2%), infection (18.4%), and falling patients (26.3%), and not all nurses behave or obedient in accordance with the SOP (Informant 1, 2018).

In the implementation of accredited patient safety programs in hospitals, the incidence of falling patients is one indicator of whether or not the program is running. The implementation of prevention of patients falls one of them is the assessment of MFS and in principle is part of the performance and behavior of nurses in working according to their duties in the organization, usually related to compliance. According to Schaffer, et al (2000) compliance is someone's adherence to a predetermined goal. Compliance is a problem for all health disciplines, one of which is hospital care services. Sarwono (2004) also says that obedience is obedient or disobedient to orders, and is the starting point of changes in attitudes and behavior of individuals. Lombogia (2016) from the results of his analysis showed that there was a significant relationship between the behavior of nurses with the ability to implement patient safety in reducing the risk of falling patients, with a significance level of 95% indicating a value of $p = 0.002$.

Ilyas (2003) argues that socialization can increase insight and knowledge which is the basis of one's motivation to carry out a series of activities by working hard and smartly, in order to achieve certain goals. The effort to implement patient safety depends on the knowledge of nurses. If nurses implement patient safety based on adequate knowledge, then the behavior of patient safety by nurses will be long lasting. A nurse in providing nursing care must have the right knowledge, skills, and attitudes to deal with the complexity of health care. Without adequate knowledge, health workers including nurses cannot implement and maintain a patient safety culture (Myers, 2012). Nurses in providing nursing care to patients must implement patient safety. Nurses must involve cognitive, affective, and actions that prioritize patient safety. Nurses in providing nursing care must be full of care. Nurse perceptions to maintain patient safety play an important role in the prevention, control and improvement of patient safety. (Choo et al., 2011).

Information from informants and IKP documentation data, from 10 cases of patients falling consisted of 6 cases of patients falling out of bed, 3 cases of patients falling in the toilet, and 1 case of patients falling in the corridor. The bed is one of the facilities used by patients. From the patient's bed it can risk falling, especially if the patient is left alone, so that the safety side of the fence (bed side rail) must be installed and the nurse must inform the patient's family. The many cases of falls from the bed, illustrate that the implementation of nursing care to patients safely which refers to patient safety is not optimal. So in an effort to implement prevention of falling risk patients still need to be a concern for nurses in Hospital X.

According to the Ministry of Health (2006) hospital patient safety is a system where hospitals make patient care safer. One important goal is to prevent and reduce incidents of patient safety. Nurse behavior that does not maintain safety will contribute to incidents of patient safety. Nurses who do not have an awareness of a fast situation, exacerbate recognizing what is happening and ignoring important clinical information that occurs in patients can threaten patient safety (Reid, 2012). According to Potter & Perry (2009) some interventions that nurses can do to prevent falls in patients include; orient the patient at the time of admission to hospital and explain the existing communication system, be careful when reviewing patients with reduced mobility, conduct strict supervision at the beginning of the patient being treated especially at night, provide footwear that is not slippery, provide adequate lighting, install safety beds especially in patients with reduced awareness and impaired mobility, and keep the bathroom floor from slippery.

4. CONCLUSION

The incidence of patient safety that occurred at Jakarta X Hospital was the incidence of identification of 8 incidents (21.1%), incidence of miscommunication of 13 incidents (34.2%), incidence of infection 7 incidents (18.4%), incidence of patients falling 10 incident (26.3%), the occurrence of wrong medication and wrong action there were no incidents. Nearly injured events (KNC) were found in incidents of misidentification (4 incidents) and miscommunication incidents (5 incidents). Unexpected events (CWD) were found in incidents of misidentification (1 incident), miscommunication (3 incidents), incidence of infection (7 incidents), and incidence of falling patients (10 incidents). From the risk band results on the six safety targets there were red (extreme) bands for incidents of falling patients, yellow bands of wrong drug and misuse incidents, and green bands for misidentification and miscommunication and infection. The main cause of falling patient safety incidents is a non-raised bed side rail and slippery floor conditions.

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