

# Evaluation of Implementation Occupational Health and Safety (Use of Personal Protective Equipment) in Panembahan Senopati Hospital

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## ABSTRACT

**Background:** Hospitals are required to provide services that prioritize safety for patients and health workers as a step to provide assurance to patients, visitors to hospitals and protect themselves from hospital work-related accidents. at present Hospital employees are still at high risk of experiencing. There are around 337 million workplace accidents and 160 million work-related illnesses every year. Fatalities related to work are around 1.95 million per year. The government, represented by the ministry of health seeks to ensure the quality of services in hospitals through accreditation and one component of the accreditation assessment is through the implementation of OHS.

**Objectives:** This study aimed to investigate OHS is one of the important components for assessing the quality of hospitals. Seeing this phenomenon, researchers are interested in knowing the implementation OHS in Panembahan Senopati Bantul Hospital.

**Methods:** This research is observasional survey design. The sample used 86 respondents then sampling the fraction cluster.

**Results:** The results were obtained by employees using personal protection 75.40% of health workers, 100% in medical technology, other health workers and non-health workers. Nearly 22.95% incidence of injuries to health workers, 27.27% to medical technicians, 20% to other health workers 11.11% to non-health workers.

**Conclusions:** The incident OHS in 2017 amounted to 12. Until now the implementation of OHS was in the good category except that the staff in the hospital still had the potential to incidents.

**Keywords:** *Occupational Health and Safety of the Hospital*

## INTRODUCTION

The hospital is one of the health facilities that provide services to the community. Hospitals are required to provide services that prioritize safety for both patients and health workers as a step to provide guarantees to patients, hospital visitors and protect themselves from hospital workers from work-related accidents (1). Supported (2) hospital efforts required to implement and Safety so that the risk of occupational diseases can be prevented as well as in avoiding. The results of research conducted by (3) at Salewangang General Hospital in Maros Regency using a sample of 83 nurses obtained from occupational accidents in terms of work units, most accidents occur in child care installations which 12 people (14.4%) of 16 respondents, in terms of age, the most frequent occupational accidents are nurses aged between 21-26 years, namely 21 people (25.3%) out of 45 respondents, in terms of work accidents work more frequently among nurses who work between 1-5 years namely 34 people (40.9%) of 66 respondents. Although the results of this study have not been able to provide a real picture of the problems that occur in Indonesia, at least these results can be used to provide an illustration of how health gas, including nurses, are very vulnerable to work safety incidents. The results of the study showed that the risks recognized by health workers (4) were 64% of health workers experiencing at least one needle stick injuries (NSIs) during work, 73% reported NSIs twice or more. The results of this study support the results of previous studies that the magnitude of the risk of health workers working in hospitals experiencing accident. Supported by the results of previous studies the overall pattern of hazard exposure is similar across workplace types but respondents who work in public hospitals have greater exposure, on average, to hazards such as blood pathogens and other infectious agents, radiation, chemical agents and cytotoxic drugs (5).

Efforts made by the hospital in carrying out prevention of work accident according to (2) hospitals must meet the requirements one of which is human resources, pharmacy and equipment as well as implementing occupational safety and health management systems. In 2010 Indonesia in collaboration with the International Labour Organization (ILO) issued a manual on ergonomics due to data throughout the world, there were around 337 million work-related accidents and 160 million work-related diseases each year. Fatal illnesses are work-related about 1.95 million per year

(6). In Indonesia, including the Panembahan Senopati Hospital in Bantul, they have tried to implement Occupational Health and Safety Management Systems (OHSMSs) known as the Hospital Occupational Safety and Health Team. The Team always carries out the task of trying to prevent work accident, with various efforts, one of which is OHS training as well as implementing promotive, preventive, curative and rehabilitative programs for hospital employees. It's just that the evaluation of the implementation of occupational health and safety is very important to ensure employee safety.

Data from Panembahan Senopati Bantul District Hospital from a preliminary study obtained data on the number of employees totaling 577 employees and 70.88% or as many as 409 consisting of health workers at risk with various Occupational illness. Hospitals including Panembahan Senopati Hospital Bantul have the majority of health workers in the hospital. Data from the World Health Organization (WHO) shows health workers 3 million were exposed to blood pathogens 2 million of which were exposed to the HBV virus and 0.9 million were exposed to the HBC virus and 170 thousand were exposed to the deadly HIV/AIDS virus (1).

Based on the above background the researcher is interested in researching with the title Implementation of the Implementation of the Occupational Safety and Health of the Hospital at Panembahan Senopati Hospital. The purpose of this study was to determine the description of the implementation of occupational safety and health in Panembahan Senopati Hospital Bantul by health workers, medical technicians, other health workers, non-health workers and safety and occupational health incidents.

## MATERIALS AND METHODS

This type of research is a quantitative study with a cross sectional survey design that is taking research data in one particular time each research subject is only one data collection for all variables studied during the study (7). The location of the study was conducted at Panembahan Senopati Hospital Bantul, which was conducted in July 2018 until September 2018.

Population (8) in this study were employees at Panembahan Senopati Bantul District Hospital who worked as health and non health workers, as many as 577 employees. The sample was then divided into 4 groups. Namely health workers (doctors, nurses,

midwives, pharmacists, pharmaceutical analysts), medical engineering (radiographers, electromedics, health analysis, medical records, blood transfusion technicians), other health workers (Sanitation, Environmental health, Speech therapy, Nutrition, Dietisation en, Occupational Therapy Physiotherapy) and non health workers. The minimum sample size is determined using the Slovin formula (8) of 85.22 (rounded up to 86 people). For proportional samples Researchers will calculate the sample size of each group using the fraction cluster sampling formula.

**Table 1. Proportional sample for each group (ni)**

Group	Ni	N	fi	n	ni
Health workers	409	577	0.71	86	61
Medical engineering	74	577	0.13	86	11
Other health workers	35	577	0.06	86	5
Non health workers	59	577	0.10	86	9
<b>Total sample</b>					<b>86</b>

## RESULTS

**Table 2 . Implementation of OHS personnel or employees at Panembahan Senopati Hospital Bantul**

Group Employee	Following Periodic Checks		Use Of Personal Protective Equipment (PPE)		The Incident Was Almost Injured	
	n	%	n	%	n	%
Health workers	39	63.93	46	75.40	14	22.95
Kete knisian medical	10	90.90	11	100	3	27.27
Other health workers	2	40	5	100	1	20
Non health workers	6	54.54	9	100	1	11.11

**Table 2.** shows the implementation of OHS personnel or employees in Panembahan Senopati Bantul District Hospital in training activities, conducting periodic inspections, the use of PPE as well as data during work having experienced near-work injuries.

**Table 3 List of incidents of OHS Panembahan Senopati Bantul 2016-August 2018**

Year	Incident	Number of cases
2016	OHS incident	7
2017	OHS incident	12

2018 OHS incident 4

Source: primary data of Panembahan Senopati Bantul OHS Team.

**Table 3** is a list of OHS incidents that have been documented by the Panembahan senopati OHS team in Bantul. This value is a sign that hospital employees are very at risk of experiencing incident. The hospital through the OHS Team mentioned that the number was just that for the occurrence the type of detail was not disclosed. The data shows how important the application of OHS is to prevent and reduce accidents and occupational diseases (9) .

## DISCUSSION

Occupational safety and health incidents during the last 1 year in 2017 there were 12 cases and from 2018 to August there were 4 cases of OHS incidents. Hospitals in Indonesia are places that should be made for employees (9,10) . Hospitals in Indonesia are still at risk from the health of their workers as evidenced by the results of previous studies in the hospital laboratory at work accidents in the clinical pathology laboratory in Aceh RSUZA in 2009 amounted to 69.6% (11) .The implementation of occupational safety and health in Panembahan Senopati Bantul District Hospital by health workers.

The results of this study obtained the results of health workers attending training as many as 60 (98.36%), conducting periodic examinations as many as 39 (63.93%) using PPE as many as 46 (75.40%) had an almost injury incidence of 14 (22.95%). (3) mentioned that in Salewangang General Hospital, Maros Regency using a sample of 83 nurses obtained from occupational accidents in terms of work units , most accidents occurred in child care installations, namely 12 people (14.4%) of 16 respondents, in terms of age the most work accidents are nurses between the ages of 21-26 years, namely 21 people (25.3%) out of 45 respondents, in terms of work accidents more often occur in nurses who work between 1-5 years, namely 34 people (40, 9%) of 66 respondents. Although the results of this study have not been able to provide a real picture of the problems that occur in Indonesia, at least these results can be used to illustrate how health workers are very vulnerable to work safety incidents. Including in panembahan senopati hospital with OHS Incident cases in 2017 totaling 12 cases. Including in this research, there was

a result that there was a near miss injury experienced by nurses, namely finding a needle in an infectious trash should be put in a safety box that is at risk of almost injury.

To ensure the implementation of occupational safety and health at the hospital, it is necessary to carry out the company's OHS, including hospitals, must carry out OHS management, among others (9) : leadership and administration, training for management, planned inspection, job analysis and work procedures, investigation of events and occupational accidents, work observation , emergency response, company regulations, analysis of events and accidents, employee training, personal protective equipment, health control, program evaluation systems, technical control, individual communication, group meetings, public campaigns, appointment and assignment of employees, control purchasing and safety outside of work.

The implementation of occupational safety and health in Panembahan Senopati Bantul District Hospital by medical technicalities participated in training 8 (72.72%), conducted periodic checks of 10 (90.90%) using PPE as many as 11 (100%) had nearly 3 injuries (27.27%). From 11 medical techniques, it turns out that the results of this study indicate that while working in a hospital it turns out that as many as 3 respondents who experienced injury. For the use of PPE by medical engineering is very good.

Every employee has the same right to get protection, especially safety at work (2,10). One of the technical personnel, namely research radiographers (12) mentioned that as many as 11 people were all permanent radiographers of the Dr. Radiodiagnostic Hospital. Soetomo Surabaya. The results of the study showed the radiographer's behavior in the diagnostic radio installation at Dr. Soetomo Hospital, Surabaya 100% in the safe category. This is because management has used good behavioral intervention efforts, by applying activators and consequences to direct and motivate the radiographer's behavior. External factors of radiodiagnostic installation are known to support radiographers to behave safely. From this research, the results show that good management will bring behavior in a safe direction to employees and is supported by (12) .

The implementation of occupational safety and health in Panembahan Senopati District Hospital by other health workers, Other health workers conduct periodic examinations as many as 2 (40%) using PPE as many as 5 (100%) have incidents of almost injury as much as 1 (20%). Implementation of occupational

safety and health at Panembahan Senopathic Hospital in Bantul by non-health workers, do periodic checks 6 (54.54%) using the PPE as much as 9 (100%) experienced a near-miss incidents of injury as much as 1 (11:11%). The process of organizing OHS is the implementation of OHS activities such as employee health checks conducted routinely every year for employees in high-risk units such as laboratory, nutrition, pharmacy, and radiology units. Activity OHS form of implementation of work safety dibukti right by the availability of personal protective equipment in each unit, there is a fire protection systems such as fire extinguisher, hydrants, sprinkel, fire alarm, and the assessment of identification and control of hazards in each unit and there is a response team darura t in each units as an effort to prevent and combat fires and standard operational procedures (SOP) on OHS in each work unit (13) .

Added by (13) Dissemination to employees is carried out during morning apple, through routine training, and outreach to work units in hospitals. The training is realized by having routine training held once a year by the OHS team in cooperation with the hospital training section on fire disaster management as well as facilities provided by hospitals such as fire extinguisher, hydrant, field, room and stretcher and for the OHS team to be sent outside to conduct OHS training.

## CONCLUSION

Implementation of safety and occupational health at Panembahan Senopati Hospital Bantul by health workers: attended 60 training (98.36%), conducted periodic checks of 39 (63.93%) using PPE as many as 46 (75.40%) experienced almost 14 injuries (22.95%). The implementation of occupational safety and health in Panembahan Senopati Bantul Hospital by medical technicalities: attended 8 training (72.72%), conducted periodic checksof 10 (90.90%) using PPE as many as 11 (100%) had incidences of 3 injuries. (27.27%) . The implementation of occupational safety and health in Panembahan Senopati Bantul Hospital by other health workers: attended 5 (100%) training, conducted 2 (40%) periodic examinations using PPE as many as 5 (100%) experienced almost 1 incident (20%) .

Implementation of occupational safety and health in Panembahan Senopati Bantul Regional Hospital by non-health workers: attended 6 (66.67%) training, conducted 6 (54.54%) periodic examinations using Occupational illness as many as 9 (100%)



experienced almost 1 incident of injury (11.11%) . Occupational safety and health incidents during 2017 until 2018 still occur incidents.

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