FACTOR AFFECTS HOSPITAL SURVEILLANCE HEALTHCARE ASSOCIATED INFECTIONS (HAIS) FILLING FORM COMPLIANCE BY INFECTION PREVENTION CONTROL LINK NURSE (IPCLN) AT INPATIENT WARD IN SANTO YUSUP HOSPITAL

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ABSTRACT
The discrepancy accumulation data report from SIRS by surveillance accumulation forms were 32%. It was affected by uncomplete surveillance filling form not accordance with expectation. The purpose of this research was to discover the description of hospital surveillance Healthcare Associated Infections (HAIs) filling form compliance by Infection Prevention Control Link Nurse (IPCLN) at inpatient ward in Santo Yusup Hospital Bandung City. This research was qualitative description. Total population by purposive sampling methode and snowball sampling till obtained 9 participants, and triangulation to an Infection Prevention Control Nurse (IPCN), head of sub unit quality control , and 3 head of inpatient wards. The main instrument research was researcher takes depth-interview with using voice recorder, handycam, camera and stationary while semi structured interview, and participant observed by checklist. The result was IPCLN in IRS surveillance filling form not yet compliance. It was caused by lack knowledge, infrastructure, motivation, and human resources. IPCLN’s knowledge was lack because the last Basic PPI training was 2 years ago. Incomplete Infrastructure were not yet local website access, only has one computer, the surveillance form small column. Human resources were lack because IPCLN’s have double job as nurse and team leader. IPCLN’s motivations were do responsibility whole-hearted and support from head department, other nurses, and IPCN. Researcher’s suggestions were sustainable training programme for IPCLN and ward nurses, complement infrastructur, upgrade the motivation by management, and upgrade quality and quantity of human resources.

Keywords: Compliance, Healthcare Associated Infections, IPCLN, Surveillance Form

I. Introduction
According to the results of the audit report by the infection prevention control team Santo Yusup Hospital on year 2014, the implementation of activities surveilans Healthcare Associated Infection (HAIs) conducted by the infection prevention control team is not in accordance with the guidelines and technical guidelines of HAIs surveillance.

According to the Infection Prevention Control Team report, the report gap between report collection through Hospital Information System with collection of surveillance forms in first semester of 2015 was 27%, while in 2016 the first semester was 32%. The compliance of the surveillance form entry when it will be collected will be completed by IPCLN or section head before it is sent to the Infection Prevention Control Team. In the second semester of 2015 there were 3 HAIs incidents found and reported from outpatient when the patient was in
control, after the investigations, surveillance form were found absent or the filling of the surveillance was inappropriate or the data did not support.

The researcher then undertook a preliminary study at Santo Yusup Hospital which is a fully accredited type C hospital with a more complete service facility than standard C type hospitals. The complexity of services and illnesses such as type B hospitals so that surveillance activities can cover the entire HAI's. IPCLN is the focus of research to find out more in depth surveillance activities. IPCLN is a trained nurse and gets regular socialization or additional knowledge on infection prevention control especially HAI's surveillance compared to other implementing nurses. IPCLN has a very important role in controlling the incidence of HAI's directly to patients in each room in order to make the service quality is according to predetermined standards.

The survey results percentage of 11 hospitals in DKI Jakarta conducted by Perdalin Jaya and Infectious Diseases Hospital Prof. Dr. Sulianti Saroso Jakarta in year 2003, the rate of Surgical Site Infections (SSIs), was 18.9%; Urinary Tract Infection (UTI) 15.1%; Primary Blood Flow Infection (PBFI) 26.4%; Pneumonia 24.5%; other respiratory infections 15.1% and other infections 32.1%. The study showed that 9.8% of inpatients received new infections during hospital admission.

According to Alvarado in Lelonowati Dewi's research; Mulyatim Koeswo and Kasil Rochmad (2015) in which a study of the HAI's conducted by WHO in 2002 showed that approximately 8.7% of 55 hospitals from 14 countries from Europe, the Middle East, Southeast Asia and the Pacific indicated the existence of the HI and for Asia Southeast as much as 10.0%. HAI's numbers continue to increase to about 9% (variation 3-21%) or more than 1.4 million hospitalized patients in hospitals worldwide. This infection causes 1.4 million deaths every day worldwide (WHO, 2005).

That HAI's event has an impact on patients, families, health workers, even on hospitals. These impacts include increased morbidity and mortality, increased care and treatment financing, increased day care, decreased patient productivity, decreased hospital outcomes, lawsuits, reduced quality of hospital services (Pandjaitan, 2016).

Proper surveillance activities in accordance with the data obtained in the field can be use as an accurate information to obtain HAI's data and can be used to improve infection prevention and control systems. The HAI's event surveillance was performed on daily inpatients to monitor the incidence of the infection early (CDC, 2016).

Based on the problems described above, the researchers is interested to examine factor affects hospital surveillance healthcare associated infections (HAI's) filling form compliance by infection prevention control link nurse (IPCLN) at inpatient ward in Santo Yusup Hospital.

- **Method**

The type of research conducted were using qualitative research methods with phenomenological approach. The sample used is purposive sampling to 9 IPCLN participants in 9 inpatient rooms and snowball sampling triangulation to 1 person IPCN, 3 heads of hospital unit and 1 head of hospital quality sub unit.
**Instrument**

The main instrument in qualitative research is the researcher in-depth observation and in-depth interview. The interview instruments is using:

- **Notebook and Stationary**
  
  Serves to write and record everything that is important in research such as non-verbal movement.

- **Voice Recorder**
  
  Using a voice recorder with 1 Giga byte (Gb) memory capacity that capable of recording at least 4 hours of recording for a single participant. Voice recorder to record the sound of all conversations conducted by researchers and participants.

- **Camera**
  
  Function to documented photos between researchers with participants. Camera that used is a 5 megapixel camera phone with 1 Gb of memory capacity.

- **Handycam**
  
  Serves to document non-verbal conversations and movements of participants during the interview.

**Data Collection**

Data collection is done by technique:

- **Semistructure Interview**
  
  This interview aims is to find the problem more openly, in which the party in the interview asked for opinions and ideas. In this interview the researcher listens carefully and records what the participants are saying.

- **Observation Participant**
  
  The researcher is involved with the daily activities of the participant. Researchers make observations, do what the participants do and being empathy.

**Documentation of Study**

Documents that used is include patient files and surveillance forms that IPCLN has written. The document is also obtained from the monthly activity report of the Infection prevention control team, the Infection prevention control team training report, the Infection prevention control manual or guide and the research journal discussing HAIs surveillance.

**Triangulation**

Triangulation is done to validate the negative data and increasing the researcher's understanding of what has been found. Triangulation conducted by researchers among others are:

- **Triangulation of Resources**
  
  Using trained resource persons with insight and knowledge on HAIS and Infection prevention control team as Head of Unit, IPCN, and Head of Sub-Unit Hospital.

- **Triangulation Technique**
  
  Triangulation technique is done by checking data that obtained from interviews with participant crosschecked with observation where the researcher participate to serve at the place of participant duty on other day when participant in duty. The researcher validated the data from the surveillance form completed by the participants validated with the patient's file.

- **Triangulation of Time**
  
  Researchers checked the results of interviews with observations in different times. The researcher participates in the section where
the participants are on duty the other day when the participants are on duty. The researcher validated the interview data by filling out the surveillance form by the participant with the patient’s file.

Data Analysis

Analysis technique that is used is by using content analysis method. The steps in performed content analysis are:

- Make an Data Transcripts
  The data recorded in the voice recorder, handycam, field notes or other documentation then transcribed into a narrative text containing the participant's statement or observation note

- Determine Meaning Unit
  The Researchers conduct content analysis by determining the meaning unit that is by sorting out some words, sentences or paragraphs that contain the meaning of the whole transcript. Irrelevant data can be eliminated without reducing the meaning of the data as a whole.

- Summarize and organize the data
  The Researchers make arrangements and groupings of data that contain meaning unit in accordance with the topic or question that will be asked to facilitate researchers in analyzing the data.

Conducting Data Abstraction

The Researchers classify data that have the same meaning and then make a label against the data. Data abstraction is divided into 3 stages, which is coding, creating a category and setting themes.

Identify variables and relationships among variables qualitatively

The Researchers group and formulate these themes into variables. At this stage the researchers verifies the data as a whole to support a causal relationship qualitatively.

Drawing conclusions

At this stage the researcher re-understands the entire contents of the data and identifies the common thread of a collection of categories, themes, relationships between themes and variables. To be more easily understood researchers using the fishbone diagram.

Results

Data analysis begins with making verbatim transcripts from in-depth interviews and field notes and then creating themes. The theme analysis uses the steps developed by Collaizi. Themes that found are knowledge, infrastructure, human resources (HR) and motivation.
**Discussion**

The results of the existing data analysis got 4 major themes namely:

- **Knowledge**
  
  IPCLN knowledge and understanding of surveillance activities is still lacking on job description and authority, policies, HAIs criteria, HAIS type and how to fill out surveillance forms. Based on the results of interviews on 9 participants, there were 7 participants who received training for more than 2 years, and 2 participants felt that they had not received any training on Infection prevention control. After validation been done it was found that all participants who had received Infection prevention control training, and most recently in 2016 there were inhouse training activities concerning Surveillance that were not attended by all participants. The basic knowledge of HAIs surveillance is that all participants have not been able to specify the HAIs criteria, HAIs types, HAIs activity policies, and how to fill surveillance forms.

  From the results of in-depth interviews, the researches obtained data which is: All participants can name most of job descriptions while IPCLN authority can not mention whereas for the most part of content of the surveillance policy. Completion of surveillance forms most participants know that are often filled in the section such as the activities of infusion and catheters and surgery.

  Most participants can not be able to fully state the HAIs criteria. This is possible because the basic Infection prevention control training was over 2 years ago. In house training activities or monthly meetings were not attended by some participants. And the result of in-depth interview participants want to get the addition knowledge and refreshing knowledge.
The results of this study are in accordance with research that has been done by Kartika, Yuni; Hariyanti and Pujiastuti (2015) where surveillance activities have not been in line with the established standards of Minimum Hospital Service Standards (2008) and Technical Surveillance Guidelines (2011), 63.2% got no idea of job description and authority as Infection prevention control team. This is in accordance with the theory of Notoatmojo (2014) that knowledge-based behaviors will be more lasting than behavior that is not based on knowledge.

Facilities infrastructure

Insufficient infrastructure are surveillance forms (with columns that too small) and computer facilities. Another inadequate infrastructure is access (email) to the hospital information system program for participants.

From the results of indepth interviews, obtained data: Participants said difficulties in filling out surveillance forms, when reporting to hospital information system program there is participants that still do not enter data every day and do not enter data independently by computer every day.

Based on triangulation with resource persons, we acquire information that report that been sent to Infection Prevention Control team was done by participant and head of section because not all participants had access using hospital information system, only 1 computer availability in head room section and participant had not mastered computer operation or hospital information system program. Participants who have not done reporting on the computer, using an hard copy form to calculate data either daily or monthly then to input it on the computer. Participants who have e-mail (access) to hospital information system is 1 participant, while 8 participants do not have email (access) to hospital information system.

The results of this study are in accordance with research that has been done by Kartika, Yuni; Hariyanti and Pujiastuti (2015) where surveillance activities have not been in line with the established standards of Minimum Hospital Service Standards (2008) and Technical Surveillance Guidelines (2011), it was found that 68.4% stated not yet complete facility of surveillance activity.

Motivation

Based on the result of interviews, participants' motivation to conduct surveillance activities because they feel sincere to run it as a task and responsibility (intrinsic factor). There are participants that feel they have not received any rewards from the hospital but they are sincere and responsible for carrying out their duties. There are participants feel that they have received rewards which is the Key Performance of Individu (KPI), support from IPCN and ease of time from the head of department.
The results of the field record of HAIs surveillance filling conducted by participant through participant observation by the researcher to the room is done only 1 (one) time / day in each participant while on duty. This is because there are 3 participants who will come out in early January 2017 (P3, P6 and P8), and 1 room is being renovated so that the patient is diverted to another room.

Based on the results of field notes, the completion of surveillance forms by participants are as follows:

<table>
<thead>
<tr>
<th>Partisipan</th>
<th>Complete</th>
<th>Not Complete</th>
<th>Not Filled</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>0%</td>
<td>67%</td>
<td>0%</td>
</tr>
<tr>
<td>P2</td>
<td>80%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>P3</td>
<td>100%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>P4</td>
<td>12.5%</td>
<td>87.5%</td>
<td>0%</td>
</tr>
<tr>
<td>P5</td>
<td>40%</td>
<td>60%</td>
<td>0%</td>
</tr>
<tr>
<td>P6</td>
<td>60%</td>
<td>40%</td>
<td>0%</td>
</tr>
<tr>
<td>P7</td>
<td>40%</td>
<td>60%</td>
<td>0%</td>
</tr>
<tr>
<td>P8</td>
<td>75%</td>
<td>20%</td>
<td>0%</td>
</tr>
<tr>
<td>P9</td>
<td>10%</td>
<td>50%</td>
<td>40%</td>
</tr>
<tr>
<td>Total</td>
<td>37%</td>
<td>50%</td>
<td>9%</td>
</tr>
</tbody>
</table>

Of all surveillance surveys that were observed and validated using the current patient files in which participants were assigned were 37% complete, 50% incomplete, 9% not filled, and 4% of the surveillance forms not present in patient files. The incomplete section is on the 17% risk factor column, 47% infusion fluids, 33% antibiotics and 8% surgery (time, sequence).

The 3rd participant fills 100% completeness because the patient is only 1 person, where the room is being renovated so the patient is diverted to another room. The 9th participant filled the completeness of 10%. The 9th participant worked in a room with a total of 30 people, 60 beds, divided into 3 teams, with 12 bed classification, 5 isolation rooms and 43 beds 3rd class beds with child illness, surgical, internal diseases and separate building forms.

The results of this study are in accordance with research that has been done by Kartika, Yuni; Hariyanti and Pujiateuti (2015) of research result got 63.2% stated no evaluation of surveillance implementation.

The results of this study also in accordance with research conducted by Aisyah, Z and Satyabakti, P (2012), obtained the results there are deficiencies in the data collection, especially on the accuracy of the report and completeness of form filling. This is because the busy IPCLN who also must serve as a nurse resulting in negligence. Therefore, it is necessary to improve the motivation of the surveillance officers through training, attendance of form gathering, reward and punishment system, and various other methods that can raise awareness of IPCLN to implement infection prevention and control in Hospital X Surabaya.

This is in accordance with the theory of Herzberg in Notoatmojo (2014) where factors that can improve or motivate a person in improving its performance is a group of motivational factors (satisfiers)
that is sincerity and sense of responsibility. Although the rewards are in the form of KPI, the infrastructure facilities are incomplete. IPCLN seeks to conduct surveillance activities with all its limitations.

### Human Resources (HR)

Based on the results of the interviews, participants mentioned that they wanted to another training either to IPCLN or to all employees. So far, IPCLN feel like has been working alone so that it is overwhelmed because of unfamiliar friends who not quite knows about surveillance activities.

The results of this study are in accordance with research that has been done by Kartika, Yuni; Hariyanti and Pujisastuti (2015), results of surveillance activities have not been in line with the established standards of Minimum Hospital Service Standards (2008) and Technical Surveillance Guidelines (2011 ), 63.2% did not know the job description and authority as the Infection prevention control team, and 63.2% stated that there was no evaluation of the surveillance implementation.

Based on the theory that sufficient human resources in terms of quantity and quality both in terms of knowledge of skills and attitudes is the driving of an organization to achieve organizational goals and function. HR is an asset that must be trained and developed ability.

- **Conclusion**

Field observation results obtained, that complete filling surveillance form by 37%. Based on the depth-interview, there are 4 major themes that influence the compliance of the HAIs surveillance form, namely: knowledge, infrastructure, motivation and human resources. The research results of these themes are:

- The participant’s knowledge is still lack about surveillance activities (job description and authority, policy, HAIs criteria, HAIs type and completion of HAIs surveillance form). This is possible because inhouse training activities as a refresher of knowledge are not followed by all IPCLNs.
- Infrastructure facilities are incomplete. The columns on the surveillance form are too small, the participants have no access to Hospital Information System (email) and the availability of computers is only 1 in the head section.
- Motivation of participants. Participants conduct surveillance activities with sincerity and perform duties as a form of responsibility. And already have a reward from the hospital that is KPI.
- Human resources (HR) is still lacking. Participants feel overwhelmed by being alone in carrying out surveillance activities, where other tasks are as IPCLN, as an executing nurse and team leader. After the triangulation that there are limitations of human resources in the room.

### References


