EXTENDED ABSTRACT

Implementation of Hazard Analysis Critical Control Point (HACCP) in Nutrition Department of Hospital "X", Batu City, Indonesia

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SUMMARY

Hazard Analysis Critical Control Point (HACCP) is a proven food safety management system based on preventive measures which aim to identify possible hazard in each stage of the food supply chain. The food management in hospital institutions is more complex and requires special handling. The purpose of this research is to evaluate the application of HACCP principle in the provision of food in Nutrient Installation of Hospital X in Batu City. The research design used is descriptive qualitative which was conducted in the Nutrition Installation of Hospital X in July 2015. Total information sources of this research are 9 informants who were selected by the universal sampling which is the whole employees in Nutrition Installation of Hospital X, Batu City. The data collection was done through interview and observation. The results that HACCP Principle has not been implemented maximally because it is not supported by the policy that should be owned by X Hospital of Batu City. It can be concluded that Hospital X has not applied the principle of HACCP maximally because the Hospital does not have a standard implementation of HACCP Principle.

Keywords: HACCP, Nutrition Installation, Hospital

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INTRODUCTION

Food and beverage are one of the basic human needs. Food and beverage contain nutrients needed by the human. In addition to having important benefit, food and beverage are also highly susceptible to harmful substances or microbiology that can harm human health. Generally, diseases which are always closely related to the provision of unhygienic foods are diarrhea, gastritis, and food poisoning. These diseases occur when the food consumed is contaminated by chemicals, physical, and biological substance [1].

In 2016, Indonesia has 1068 food poisoning cases [2]. In order to minimize the risk of food hazard which is contaminated by substances that can endanger health, a good and standardized sanitation system is needed. System which is able to minimize the hazard contamination in food and ensure the quality of food is Hazard Analysis and Critical Control Points (HACCP). HACPP is a quality assurance system based on awareness or appreciation that hazard can arise at certain production point or stage, but control can be implemented to control those hazards [3].

The food management in a hospital institution is more complex and requires a special handling. In the hospital, food is served directly to the patient at his place treated or in the ward of care. In addition, the provision of food to the patients requires special handling as it relates to the healing process of the patient. Thus, the cleanliness and quality of food are very important because the food served also plays a role in the patients healing process. In order to provide a quality food that is contamination-free of hazardous substances, HACCP becomes an important system in minimizing the risk of harm that can arise from food management.

Several studies have shown that hospital patients tend to have a decrease in their nutritional status during their hospitalization period. Patient satisfactions to the food service in the hospital will influence the food intake and this food intake will have an effect on the nutritional status [16].

As one of the referral hospitals in Batu City, the "X" Hospital should have attention to the quality of service to the patient because the main target of the food management in the hospital is the patient of the hospital. In the food management, the nutrition section is faced with a potential danger such as from bacteriological

food, water, equipment, staff and food handlers or contamination of the surrounding environment. Therefore, the researchers are interested to examine the implementation of the 7 principles of HACCP in Nutrition Installation of Hospital X in Batu City of 2015.

MATERIALS AND METHODS

The research design used in this research is qualitative descriptive method. This study aims to gather detailed information by describing all existing facts, identifying problems, making comparisons or evaluating the information or data obtained [5]. Sources of research in this study are 9 informants selected by the universal sampling which is the whole employees in the Nutrition Installation of Hospital X in Batu City. Data collection is done through interview and observation. The tool used in this research is observation sheet and interview guide, while the data analysis used is triangulation. Should include the QA/QC for the research tools used.

RESULTS

Hazard Analysis Critical Control Point (HACCP) is a proven food safety management system based on preventive measures which aim to identify possible hazard in each stage of the food supply chain. Hazard Analysis Critical Control Point (HACCP consists of 7 principles. First, Identifying the Hazard, Second, Determining the Critical Control Point, Third, During the supervision of the critical limits, Fourth, The determination and implementation of a monitoring system, Fifth, Corrective action, Sixth, System verification, Seventh, Documentation.

Among the 7 principles of HACCP, 4 principles have been applied well, those are the principle of determining critical control points, determining critical boundaries for each CCP, establishing and implementing the monitoring system, and corrective actions. Meanwhile, the HACCP Principles that have not been applied consist of 3 principles, those are Hazard Identification, System Verification, and Documentation. That principle cannot be applied because there is no written policy on HACCP Principles.

DISCUSSION AND CONCLUSION

Hazard Analysis Critical Control Point (HACCP) In Nutrition Departement Of Hospital "X", Batu City, Indonesia consists of 7 principles.

1. Identifying the Hazard Based on SNI ISO 22000: 2009 [5] the flowchart should be prepared for the product or process categories covered by the food safety management system. Flowchart should provide a basis for evaluating the likely occurrence, increase, or inclusion of food safety hazard. Hazard is identified by considering the biological, chemical and physical hazard. A team identifies a physical hazard of foodstuff starting from the receipt of foodstuff, to some chemical hazard examined such as borax, formalin, and also food coloring. Each food receipt is immediately tested for new items. food that has been checked is not tested every day, but the chemical and physical hazard should be controlled. Meanwhile, laboratory examination for food contamination is never conducted because of the limitation of equipment owned by the Hospital. In this case, the Nutrition Installation of X Hospital continues to propose to the equipment supplier to provide the equipment needed by the Nutrition Installation.

2. Determining the Critical Control Point. This stage is a key in reducing or eliminating the identified hazard. CCP or critical control point is defined as any stage where if it is not properly monitored, it may lead to unsafe food as well as economic damage and loss. In the process of food production, many stages can enable the occurrence of hazard contamination. However, not all stages can be used as CCP, only certain stages can be used as CCP [6].

The measurement that CCP is well established in the hospital's nutritional installations is by looking at the quality of the food produced so far and the absence of any problems arising from the food produced. Information sources used derived from the study of scientific literature and also research on contamination of food hazards.

Recording activities in the supervision of critical borders should be done to show that the critical limits have been well supervised. However, the nutrient installations have not carried out the act of recording the critical limits monitoring.

3. During the supervision of the critical limits. There has never been a problem that has ever happened. If there is any problem, the nutritional installation has planned to do food withdrawal action even if the food has been presented to the patient. However, if the food not been presented to the patient yet, an evaluation will be performed.

4. The determination and implementation of a monitoring system. Monitoring activities are carried out daily by the quality control section. It is performed daily to monitor food processing by a series of visual observations, sensory tests, chemical tests, and physical hazards observations.

Nutrition head office think that the food contamination equipment not complete yet. It also does not have any metal detector and some equipment for the necessary chemical test. However, the nutrition installation will propose the equipment needed to the hospital so that all monitoring activities can be done well.
The result of the monitoring activities is that no event

has passed the predetermined parameters and all food processing activities are in accordance with the flowchart. The monitoring frequency should be considered as a part of the control system. Monitoring frequency depends on the type of critical control point specified. Monitoring frequency is sufficient because monitoring is done daily to prove that the food products produced have no problem and complaints made by the patients in the hospital.

5. Corrective action. Corrective action is very important to be performed if the critical limit parameter is exceeded. So far, no corrective action has been taken yet, since there is no problem occur during the monitoring. In addition, there has never been a problem with manufactured food products. Thus, there are no reported or documented corrective action.

6. System verification. Verification must be performed to ensure that HACCP design is properly implemented. For this purpose the verification activities shall include all the specified critical control points [3].

The activity of the verification procedure has not been clearly defined since there is no validation activities have been performed on the specified CCP. However, a team of nutritionists has been convinced that CCP determination has been able to ensure food safety because CCP determination comes from scientific literature.

An audit of the HACCP system has not been done. The food testing in case of microbiology has never been done as well. The verification activities performed so far include reviewing the implementation of food processing whether it is in accordance with the existing provisions or not, so that it ensures the compliance with the program.

7. Documentation. The HACCP system should be documented and its record should also be maintained to show that the system is properly organized and functioning properly. The HACCP documentation system must have a good standard, for example, it can be read clearly and there is no scrawl or eraser. All documents must be signed and dated. Notes are essential for analyzing trends, which will later be needed when reviewing and improving the system [7].

Documentation is also useful to indicate whether there is a change in HACCP design at the time of its adoption. Nutrition installation itself has never made any changes to the HACCP design so there is no documentation of it. The HACCP principle in X Hospital of Batu City has been implemented, but so has not been applied as a whole. Among the 7 principles of HACCP, 4 principles have been applied well, those are the principle of determining critical control points, determining critical boundaries for each CCP, establishing and implementing the monitoring system, and corrective actions. Meanwhile, the HACCP Principles that have not been applied consist of 3 principles, those are Hazard Identification, System Verification, and Documentation. That principle cannot be applied because there is no written policy on HACCP Principles. Hospital management should prepare and apply the HACCP Principle as a whole. It can be started by preparing policies and Standard Operating Procedures of HACCP System Implementation as a means of minimizing hazard contamination on food and ensuring the food quality. Cleanliness and quality of food are very important to note because the food served to the patient also plays a role in the healing process of the patient.

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