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Strategies to eliminate foreign objects in hospital kitchen food

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ABSTRACT

It is everybody's right to receive safe food irrespective of the industries. Foreign objects in food are a never-ending issue. This article emphasizes the Strategies to Eliminate Foreign Objects in Hospital Kitchen Food. Patients trust and believe that the food served to them will be safe. It is the responsibility of the food service provider to ensure that safe and hygienic food is provided to the patients and foreign objects should never find a place in the patient food.

Keywords— Foreign object, Hospital kitchen, HACCP, Hospital food

1. INTRODUCTION

Hospital is a place where sick patients get hospitalized to get treatment for their ailment. Food becomes an integral part of their treatment, hence it becomes extremely important to provide safe and hygienic food to the patients. Everything revolves with trust. Patients trust and believe that the food served to them is safe and allowing a foreign object on the patient's food tray is highly an unpleasant experience both to the patient as well as the food service provider. Foreign objects in food vary from harmless to hazardous, may it be a harmless small hair in the tray or a hazardous metal piece or a sharp glass piece. Damage can be catastrophic when it is hazardous. Foreign objects should not find a place in the patient food tray. Preventing foreign objects is everyone's responsibility. It is very embarrassing for any foodservice operator to handle a complaint on foreign materials in the patient food, which invariably suspects the food safety implementation policy of the foodservice operator. The food service operator has all the rights and liberty to ensure in the hospital kitchen itself that the food sent to the patient is absolutely safe for consumption. Problems occur only when enough attention is not provided inside the kitchen. One particular incident spoils the reputation of the food service provider as the reputation for any institution is always very fragile. This article enlightens on the probable sources of origination of foreign objects and briefly explains as to what should be done.

2. FOREIGN OBJECTS SOURCE

Foreign objects (FO) can emerge/originate at any point of receiving the materials to cooking/preparation or during the distribution process.

2.1 The probable source of foreign objects in the kitchen may be in the form of:

- Employees (Fingernails, hairs, jewelry etc.)
- Materials (sand, mud, adulterated materials etc.)
- Insects (ants, cockroaches, flying insects etc.)
- Physical (screw, bolt etc.)

It is deemed mandatory for the service provider to ensure that there are no foreign objects at every step.

2.2 What can be done to completely eliminate foreign object?

The answer to this is to judiciously follow the HACCP protocol.

2.2.1 Hazard Analysis Critical Control Point (HACCP Guidelines): HACCP is a preventive approach to quality assurance based on good manufacturing practice. HACCP guidelines to be judiciously followed. HACCP guidelines cultivate a consistent Foreign Object elimination culture amongst all levels of staff involved in Food Service.

- **Hazard analysis-** The first and foremost step in eliminating foreign object is to conduct a hazard analysis. The purpose of performing hazard analysis is to identify the potential hazards. A thorough hazard analysis should be carried out effectively and failing to do the analysis might prove ineffective.

- **Critical control points-** A critical control point is a step used to eliminate the food safety hazard. Critical control points must be carefully developed and planned.

2.2.2 Strategies for Foreign Objects Elimination: It is immaterial for the patients to know where the material originated. Patients believe and trust that any food that comes from Hospital Kitchen will be safe and hygienic. Any food served to the patient should be safe for consumption and should be free of Foreign Objects.

Employees: The food service operation should function in such a way that hazards are eliminated completely. It should right start from the employees. Personal discipline should strictly adhere. Fingernails, hairs, and jewelry are the potential hazards that can enter food at any time of processing.

- **Finger Nails:** It is important to practice good fingernail hygiene. Fingernail should always be kept short and clean.
- **Hairs:** Hair restraints should be worn by the food service employees to avoid the employees' hair getting in contact with the exposed patient food. Hairnets should be worn correctly to completely avoid employees' hair finding a place in the patient's food.
- **Jewelry:** Jewelry accidentally falling into the food causing Foreign Object is one of the major hazards.

Grooming standards of the employees should be predetermined by the food service operator. Day to day grooming of the employees should be checked at the workplace to ensure there are no deviations. The same should be documented. Any work which is not documented is said to be **Not Done**. Hence it is mandatory to maintain Employee Grooming Records.

3. MATERIALS

Approved supplier programme should be in place by the food service operator. Vendors play a vital role in providing the raw materials to the food service provider on a day to day basis for perishables and on a weekly or fortnightly basis for non-perishables. Food service cannot function in isolation; it requires raw materials which can be provided only by the vendors. Are we getting the right raw materials from the right vendor is the first and foremost question that arises? The food service operator primarily should identify potential vendors and deploy an exclusive team to perform an audit as mentioned below.

Vendor Audit: A vendor audit is an effective tool to assess and evaluate the Vendor's Quality Management system, as well as its practices, products, and documentation. The need for performing vendor audit starts from a desire to receive the highest quality. The vendor audit should be carried out by the Health Safety Environment and Quality (HSEQ) team before entering into the contract agreement with the vendor. HSEQ team should the final green signal after evaluation to proceed further with the vendor when all the mandatory norms are met. When a vendor audit is correctly done, it provides great value to the receiver. Vendor audit also ensures compliances with procedures, policies, standards, rules, regulations, and laws.

Step 2: Quality Check: Quality of all the materials procured should be checked by the Store Keeper. This step allows ensuring only right quality materials are allowed into the food service.

Step 2: Sanitization: Washing perishable food such as eggs, raw vegetables and fruits with chlorine solution not only eliminate microorganisms present; it also helps in removing the soil, stones or small insects. Proper sanitization is an extremely important step in preventing FO Complaints. This step has to be very strictly monitored and documented.

Step 3: Sorting: All the dry ingredients should be sorted to check for pests before storing. The storage room should be kept clean and orderly. This will minimize the harborage of pests and the storeroom should be in such a way that is proofed against pest ingress. The sorted ingredients should be stored accordingly. This step is very crucial and it has to be strictly monitored and documented and FIFO (first in first out) should be followed.

As part of hazard analysis, unintentional foreign objects like cling film, paper etc should also be taken into consideration and be completely eliminated.

3.1 Insects

In food service operations, the possibility of pests will be always on the higher side. Effective pest control mechanism should be in place to ensure zero pests in the food service premises to eliminate crawling insects like ants & cockroaches, flying insects fruit flies, moth/drain flies and bees and rodent control like rats, cats etc. It is only by effective pest and rodent control measures these can be eliminated in toto. Pest control should be carried out only by the pest control experts. The entry of pest and rodents into the premises should be strictly controlled by having quality window screens, door sweeps, air curtains etc. Automatic door closures should be in place to ensure that the doors of the food premises are always kept closed. Effective garbage clearing mechanism should be in place giving no room for the entry or harborage of insects. Scheduled pest control should happen and should be documented.

3.2 Physical

Physical hazards in foods are mostly unintentional may it be a screw, bolt, a piece of broken light bulb etc. Food industries are trying their level best to reduce the number of foreign object incidents. Foreign objects remain to be a cause of concern for the food industries despite best efforts. Frequent preventive maintenance audits should be carried out to keep the potential foreign objects away from the food. Preventive maintenance will ensure that all the structural fittings are intact and would not enter food at any level. These audits should be carried out very frequently and diligently. Special attention and importance should be given and there should not be any room for compromise.

3.3 Biological and chemical hazards

Unlike other hazards discussed, biological hazards which include harmful bacteria, viruses, bacterias and chemical hazards like the presence of chemicals and its compounds cannot be seen through the naked eyes. It is the responsibility of the food service operator to ensure that the food that is prepared and sent to the patients is safe enough for consumption.

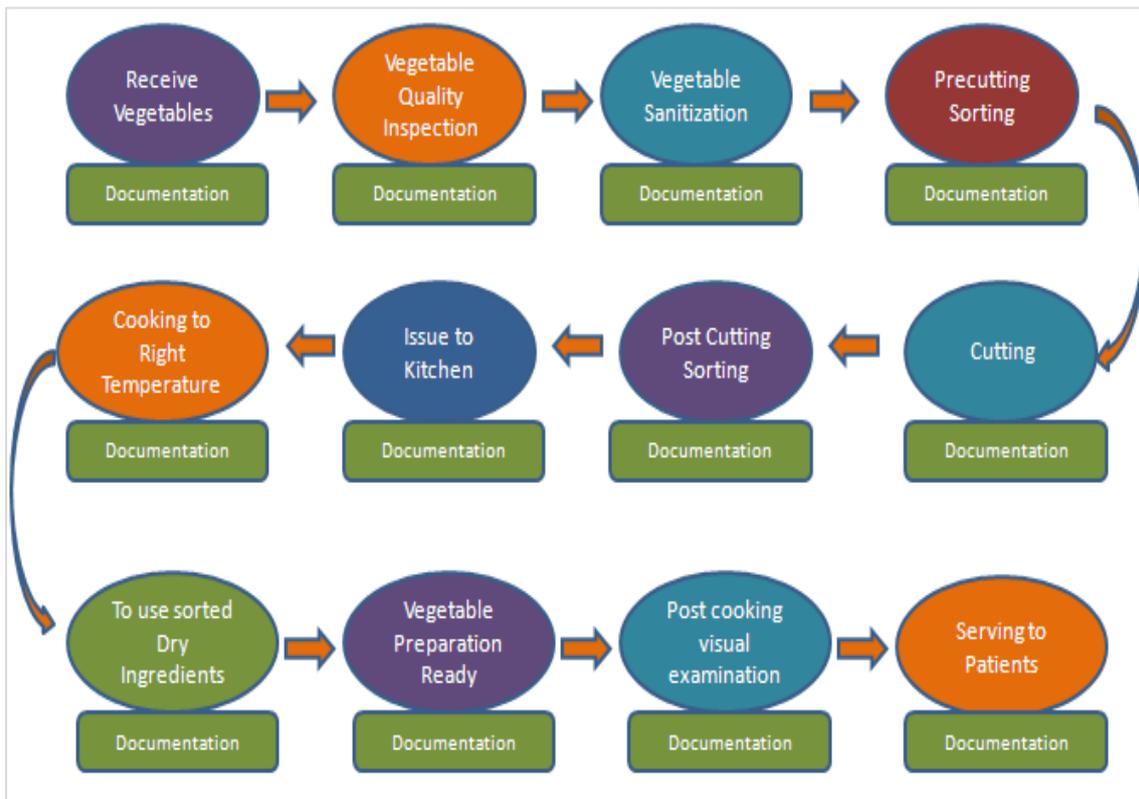


Fig. 1: Example of a flow diagram of dry vegetable preparation

3.4 Incident Reporting

Even though whether there are going to be every system in place, foreign objects cannot be totally eliminated. Hence it becomes extremely important to have an incident reporting mechanism. An incident report is a form that is used to fill the unusual event that had taken place. The purpose of incident reporting is to document the exact details of occurrence to take corrective/preventive actions.

3.5 Root Cause Analysis (RCA)

Root Cause Analysis is a problem-solving methodology used to identify the root causes of problems. If there are going to be any complaints about foreign objects, then Root Cause Analysis is a useful process to understand the nature of the problem and troubleshoot the problems. It facilitates to find out the negative events that had occurred. Lastly, finding solutions to address the root cause of the problem.

3.6 Audits

Regular safety audits should be carried out to ensure that the food safety programmes and procedures are working well. It also provides an opportunity to find out whether the employees and management are continuously engaged in safety programs. It also paves the way to find out whether the incidents are documented properly and whether the number of incidents/accidents has come down. Also, it enables to discover and identify potential hazards.

3.7 Behavior-Based Safety Observation (BBSO)

A behavior-based safety observation is a safety observation to relate the behavior of the employees with the conditions or facilities available. This is to ensure whether the employee is following the training received. These observations pave the way to provide immediate feedback to the employees of what is going right and what is not and the same is documented.

3.8 Training and Retraining Employees

For any quality initiative, employees of the food service should be given adequate formal training in the process and have to be retrained frequently. Employees should be trained and retrained again and again to ensure that the basics of food handling and safety are not compromised.

4. DISCUSSION AND CONCLUSION

Hospital food service kitchens are one of the busiest kitchens. The hospital kitchen prepares healthy, safe and hygienic food to the patients. The workload for the hospital kitchen workers is always on the higher side. This is because of the volume and the number of dishes varieties cooked to meet the individual requirements of the patients. It is extremely important to make/realize the hospital food service staff to understand their responsibility in keeping the food away from foreign objects amidst a busy schedule.

All the systems and processes will succeed only when all staff executes their work diligently as per protocol. Vigilant monitoring is very important and the hospital food service should have HSEQ executive in the kitchen who can vigilantly monitor all the processes and take proactive corrective and preventive actions before it becomes a problem. All the documents pertaining to all the processes should be under direct supervision of the HSEQ to ensure that there are no deviations in the standards.

One way of keeping Zero Foreign Objects is to continuously ponder on the problems again and again. There should be a troubleshooting mechanism for every problem and the same should be documented. It is very important to revisit the list of problems faced every day to ensure that the problem that had occurred earlier has not occurred again. Corrective actions taken will go in vain if due importance is not given over a period of time. To accomplish food safety goals, properly managed safety program is very important to show the commitment to safety by the food service provider.

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6. REFERENCES

- [1] Mark Gravesa Alex Smitha Bruce Batchelor. Approaches to foreign body detection in foods. Trends in Food Science & Technology. Volume 9, Issue 1, January 1998, Pages 21-27.
- [2] Natasha Rowley-Phipps. Foreign-Material Reduction Programs—An Integrated Approach Using Teamwork. Food Safety Magazine. August / September 2017.
- [3] Joanna Trafialek, Sylwia Kaczmarek, Wojciech Kolanowski. The Risk Analysis of Metallic Foreign Bodies in Food Products. Journal of food quality 39 (2016) 398-407.
- [4] Stier R.F. Foreign Material Control: Food Quality, Safety or both. Food Safety Mag. 20 (April – May): 2, 2014.
- [5] Environment, health, and Safety: From Wikipedia, the free encyclopedia.
- [6] Ramesh S and Manimegalai B. Role and Importance of Health, Safety, Environment & Quality (HSEQ) Executive in a Tertiary Care Hospital Food Service. Vol-4, Issue-1, 2018 (IJIR) p 155-158.
- [7] M.R. Adams, M.O. Moses. Text Book on Food Microbiology. Chapter 11. Controlling the Microbiological Quality of Foods. New Age International (P) Limited, Publishers.
- [8] S. Ramesh, B. Manimegalai. Effective Safety Management Practices of an Outsourced Catering Group in a Hospital Kitchen of a Tertiary Care Hospital. *International Journal of Advanced Research and Development*, 2018 Vol 3, Iss 2 p 145-148.
- [9] Richards J, Parr E, Riseborough P. Hospital food hygiene: the application of Hazard Analysis Critical Control Points to conventional hospital catering. J Hosp Infect. 1993; 24: 273–282. doi: 10.1016/0195-6701(93)90059-9.