


Infection Control Manual		
	Policy Name	Guidelines for Infection Control in Nutrition and Food Services
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	Responsible for Content	Hospital Epidemiology

I. Description

Describes the infection control guidelines followed by Nutrition and Food Services to prevent food-related illnesses.

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II. Rationale

Unsanitary food service can play a significant role in disease transmission. Maintenance of a sanitation standard is of paramount importance in medical care facilities. Prevention of infection in a food service department requires healthy personnel, properly maintained equipment, uncontaminated supplies, and an ongoing awareness of proper sanitation and hygiene.

III. Policy

A. Personnel

- Personnel should adhere to guidelines in the policy: "Infection Control and Screening Program – Occupational Health Service."
- Food service personnel are required to report to their supervisor information about their health as it relates to diseases that are transmissible person-to-person especially through food. Reportable symptoms include: vomiting, diarrhea, jaundice, sore throat with fever or lesions containing pus such as a boil or infected wound that is open or draining. Reportable diagnoses include Norovirus, Hepatitis A virus, *Shigella* spp., Shiga toxin-producing *E.coli*, *Cryptosporidium*, and *Salmonella*. Food service employees must be free of communicable

diseases such as hepatitis A, skin lesions, boils, respiratory infections or diarrhea. Personnel with a suspected communicable disease should report to their supervisor and be cleared by OHS before returning to work. It is the Supervisor's responsibility to observe personnel daily to ensure compliance with this policy and to ensure personnel are knowledgeable about reporting to Occupational Health Service (OHS) for known/suspected communicable disease.

3. Proper attire for food handlers should include hair-covering (hair net or cap, beard restraints), freshly laundered uniforms, and safety shoes. Fingernails are to be short and clean. Mustaches, beards and sideburns must be kept trimmed. Artificial fingernails and nail polish are not to be worn in the Nutrition and Food Services Department.
4. The use of any form of tobacco products is not permitted.
5. Hand hygiene will be performed with soap and water before work, after using the toilet, before and after eating, after contact with unclean equipment, work surfaces, soiled clothing, washcloths, etc., and after handling raw food. In patient care areas, an alcohol-based handrub may be used (e.g., Purell) if hands are not visibly soiled. Adequate numbers of handwashing sinks with soap dispensers and single use towels are provided. Food personnel may not clean their hands in a sink used for food preparation or ware washing. Refer to the policy: "Hand Hygiene and Use of Antiseptics for Skin Preparation."
6. Restrooms should be conveniently located near the department and should not open directly into food service areas.
7. Annual inservice education should include personal hygiene, sanitation and hand hygiene. Education on infection control practices are presented by department educators or Epidemiology staff as needed and documented. Basic orientation for all new Nutrition and Food Services personnel should include personal hygiene, sanitation, hand hygiene, and isolation precautions (refer to section III.B.1.) and when to notify their supervisor and OHS of illness with an infectious disease.
8. Nutrition and Food Services personnel in direct contact with food will wear plastic or vinyl disposable gloves. Gloves should be removed upon leaving the work area and hand hygiene performed. When returning to the work area, hand hygiene should be performed and new gloves worn. Gloves should be changed and hand hygiene performed whenever the gloves are contaminated by touching potentially soiled surfaces such as floors, waste cans, cardboard boxes, etc.

B. Patients

1. Isolation Patient Service
 - a. After appropriate training, dietary personnel may enter the rooms of patients on Airborne Precautions (requires medical clearance and fit-testing), Droplet Precautions, Contact Precautions, Enteric Contact Precautions or Protective Precautions. A sign will be posted outside the patient's door stating the type of isolation precautions required.
 - b. Contact Isolation/Enteric Contact Precautions: Clean exam gloves are worn to deliver and pick up the tray for patients on Contact and Enteric Contact Precautions. Gowns should be worn if there will be direct patient contact or whenever clothing may contact surfaces in the room. Gloves/gown should be removed and hand hygiene performed upon leaving the patient's room and before handling the food tray for the next patient. For patients on Enteric Precautions, hand hygiene must be performed with soap and water.
2. Regular Patient Service

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- a. Individual portions of food not consumed by the patient will be discarded.
 - b. Nutrition and Food Services personnel are responsible for clearing the bedside table, serving the food tray to the patient and removing the tray at the completion of the meal. Hand hygiene should be performed prior to entering and after leaving each patient room. Gloves should not be worn except to deliver and pick up trays for patients on Contact Precautions/Enteric Contact Precautions. If gloves are worn they must be changed and hand hygiene performed between each patient room.
3. Pediatric Patient Formula Room
- For guidelines for the Formula Room, refer to the [NFS Policy 3107: Human Milk Procurement, Handling, Dispensing and Storage](#).

C. Food Supplies

1. All food and food supplies should be obtained from an approved source. An approved source is one that is inspected based on federal, state and local laws and has appropriate HACCP procedures in place. In all cases, the source should be identifiable from labeling or from bills of sale.
2. Products should be delivered in appropriate vehicles (refrigerated, enclosed vehicles).
3. Suppliers should be selected by the facility that offer quality products derived in safe and sanitary conditions.
4. Raw eggs or undercooked eggs should not be served to patients. Poached or fried eggs will NOT be prepared for patients. Only pasteurized eggs are to be used in preparing foods such as meringues.
5. All shellfish and crustacean meat shall be obtained from sources according to law and the requirements specified in the U.S. Department of Health and Human Services, Public Health Service, Food and Drug Administration, and National Shellfish Sanitation program guide for the control of molluscan shellfish. If the source of clams, oysters, or mussels is outside the state, the shippers name shall be on the Interstate Certified Shellfish Shippers List. If the source of cooked crustacean meat is outside the state, the establishment in which the crustacean meat was packed must be approved by the state or territory of origin, attested by the appearance of an official permit number on the container.
6. Only "Grade A" pasteurized milk and milk products will be used. These are to be served in the individual, original containers in which they were received from the distributor, so that the name and grade of the contents and the name of the milk distributor may be readily observed by the consumer. Exceptions are those patients on fluid restriction. These patients will be served limited amounts in a cup. Milk and milk products should be stored in a sanitary manner and kept refrigerated except when being served.
7. Only pasteurized juices should be served.
8. The USDA Food Safety and Inspection notifies the public of a recall. Suppliers may also notify the facility. Items for recall should be separated in the storeroom from products that may be used. Ensure that the product is not used. Follow the recall procedure of discarding or returning the product to the supplier.

D. Food Products and Storage

1. Upon arrival, all food should be inspected for damage, rodent or insect infestation and spoilage. Anything in a damaged container should be rejected.

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2. Store food only in designated areas, never in locker rooms, toilet areas, garbage rooms, mechanical rooms, under sewer lines (that are not adequately shielded), under open stairwells, or near any other source of contamination.
3. All food should be stored in clean wrappers or containers with covers.
4. If products are removed from original container that has the lot number, it is important to maintain lot numbers to be able to track and recall in the event of an identified problem.
5. Store eggs in original container in the refrigerator at 33°F to 41°F.
6. Keep storage areas and vehicles to transport food clean. The area must have variable lighting, ventilation and air circulation.
7. Food must be stored 6 inches above the floor on clean racks.
8. Shelving must allow for cleaning under the bottom shelf (6 inches above the floor) or be flush with the floor and away from walls to facilitate cleaning and reduce places for pests to find refuge. Floor drains that may allow for contamination by sewerage backflow are prohibited.
9. All stock should be rotated and goods used in the order in which they are received.
10. All goods should be checked on a periodic basis for expiration dates.
11. All non-food items and chemicals should be properly labeled and stored away from food products. Toxic cleaning material should be appropriately labeled, stored and used in such a manner as not to contaminate food.
12. Refrigerate cut leafy vegetables because of outbreaks of *Salmonella* and enterohemorrhagic *E.coli*. These foods are now considered hazardous.
13. Whole tomatoes may still be stored and ripened at room temperature, but they must be refrigerated once cut or sliced. Recipes using cut tomatoes must be refrigerated. Processed foods containing cut tomatoes must be refrigerated unless the manufacturer does not require refrigeration.
14. Leaves from leafy green vegetables should be removed from the head and cut, shredded, sliced, chopped or torn. This standard does not include whole heads from which leaves are removed and discarded or fresh herbs such as cilantro or parsley. Handle fresh cut leafy greens with care, including washing. When washing, use running potable water. If soaked or "crisped," potable running water rinse must follow. Keep refrigerated, as cut leafy greens are potentially dangerous foods.
15. Low temperature storage maintenance
 - a. Fruits and vegetables (except those in dry storage): 33°F to 41°F
 - b. Dairy products, eggs, meats and poultry, fish and shellfish: 33°F to 41°F
 - c. Stored frozen foods shall be maintained frozen.
16. Refrigerator and freezer temperatures must be monitored and recorded on a daily basis to assure that appropriate temperatures are maintained. The refrigerator and freezer daily temperature logs will be kept for 90 days. The Maintenance Department should be notified immediately if the temperature is above or below the acceptable range.
17. Home-canned foods may not be used.
18. Food should be protected from rodents and insects.
19. Lighting, ventilation and humidity should be controlled to prevent both condensation and the growth of microorganisms (e.g., temperature and relative humidity are not excessive

(temperature >90°F, relative humidity >80% for longer than 48 hours)). Implement cleaning schedules and monitor for cleanliness, temperature, ventilation and pest infestation.

E. Food Preparation and Service

1. Raw, unprocessed fruits and vegetables should be thoroughly washed under running water before use.
2. Frozen foods are thawed at refrigeration temperatures of 41°F or below, quick-thawed as part of the cooking process, or completely submerged under running water at a water temperature of 21°C or below per NC Food Code. Thawed food should not be refrozen.
3. Food coming from broken packages, swollen cans, and food with an abnormal appearance or odor, should be discarded.
4. Personnel may not contact exposed, ready-to-eat food with their bare hands and shall use suitable utensils such as deli tissue, spatulas, tongs, gloves or dispensing equipment. Cooked foods should reach an internal temperature compliant with the North Carolina Food Code Manual. Reheated food should reach an internal temperature of at least 165°F for 15 seconds. If sous-vide methods are used, Nutrition and Food Services and FDA Food code 2013 guidelines are followed. Prepared food should be transported to other areas in covered containers. Hot held foods will be kept above 140°F. Cold held foods will be kept at 41°F or below.
5. Unwrapped foods should be protected from contamination by sneeze guards.
6. When food scoops used for food service are kept in the product served, the handle should be kept out of the product.
7. Food should be served as soon as possible, but no longer than four hours after the final product is presented for service.
8. All unwrapped or unenclosed food for customer self-service shall be protected by a glass or similar shield to prevent public handling or other contamination except for a hand opening on the counter-front.

F. Equipment

1. Separate cutting boards for raw and uncooked foods/meats are necessary, and are color coded according to the food prepared. Prepared foods should not be cut on the same boards as raw foods. Cutting boards used in food preparation should be made of plastic, and cleaned in the pot washer.
2. All equipment and utensils should be designed as to be smooth, easily cleanable, and durable and kept in good repair. Any plastic-ware, china and glassware that have lost their glaze or are chipped or cracked are to be discarded.
3. All reusable eating and drinking utensils should be thoroughly cleaned and sanitized after each use.
4. All food grinders, choppers and mixers should be cleaned, sanitized, dried and reassembled after each use per manufacturer's recommendations
5. All kitchen ware and food contact surfaces of equipment used in the preparation or serving of food or drink, and all food storage utensils should be thoroughly cleaned after each use. Cooking surfaces should be cleaned once a day with an approved germicide. Non-food contact surfaces should be cleaned at such intervals to keep them in clean and sanitary conditions.
6. All utensils and equipment should be stored so as to drain, dry and be protected from splash, dust or contamination.

7. Disposable containers and utensils should be discarded after one use.
8. Dishwashers should be drained and flushed after each meal period. The machine should be maintained and operated according to manufacturer's instructions. The dishwasher should maintain a final sanitizing rinse of at least 180°F and wash cycle of 160°F. Contact time shall be consistent with those on EPA-registered label use instructions. Stacking and emptying of the dishwasher should be done by separate personnel to prevent recontamination of dishes. In exceptional circumstances with only one person available he or she must perform hand hygiene and put on a clean apron before handling clean dishes. Clean utensils and pans will be stored on clean surfaces at all times. All items stacked for storage will be allowed to completely air dry before stacking or cross-stacked.
9. Steam tables must maintain hot foods at temperatures of 140°F or above and must not contaminate food held therein through splashing or condensation. Steam tables are not for warming food, they are for holding hot foods hot.
10. Cold tables must keep cold foods below 41°F and are not used to refrigerate foods; they are for keeping cold foods cold.
11. Ice machines should be of a type that eliminates contamination during ice manufacture, storage and dispensing. Ideally, ice should be dispensed by an ice machine. The outside of ice machines should be cleaned and sanitized daily. The inside of ice machines should be cleaned and preventive maintenance performed at a frequency specified by the manufacturer. . If an ice scoop is necessary, hand hygiene should be performed before and gloves must be worn during the procedure. The scoop used with the ice storage chest should be held by the handle only. Unused ice should not be returned to the ice storage chest. The access door should remain closed except when removing ice. The ice scoop should be washed daily with detergent and hot water or run through a dishwasher. Alternatively, the scoop may be disinfected by immersing in a 1:100 dilution of bleach and water. The ice scoop should be stored in a tray or holder when not in use. The ice chest should be cleaned after use and when visibly soiled with detergent and hot water. See Appendix 1 for Procedure for Sanitary Care and Maintenance of Ice Chests and ice scoops
12. Knives should be cleaned, sanitized, and dried before storing in fabric knife bags. The fabric knife bags should be cleaned and sanitized once weekly and when soiled.
13. The blades and shafts of the non-electric can openers are sanitized daily in the dishwasher. The electric can openers are wiped daily with a sanitizing solution.

G. Daily Cleaning

1. Ranges and grills should be cleaned daily with grease-release cleaner.
2. All work surfaces and counters are cleaned and sanitized daily and more frequently as needed. Utensils and equipment should be cleaned and sanitized after each use.
3. Holding refrigerators and hot holding units will be cleaned daily.
4. All floor surfaces must be wet-mopped daily and as needed with an EPA-registered germicidal detergent. Mops and brooms should not be left in food preparation areas when not in immediate use.
5. All agents used for cleaning equipment and utensils must be approved for that use.
6. All garbage is removed and handled safely for sanitation purposes. Refer to Nutrition and Food Services Policies and Procedures Sanitation Program. Garbage cans should be stored away from food preparation areas.

H. Environmental Culturing

1. Environmental culturing should be done as necessary. A foodborne outbreak or suspicion of such should be grounds for culturing possible sources. Hospital Epidemiology will perform environmental culturing as indicated.

I. Suspected Foodborne Outbreak

1. Responsibilities of the Nutrition and Food Services during an outbreak are as follows:
 - a. Notify Hospital Epidemiology of any reports of gastrointestinal complaints from patients, visitors or HCP at 984-974-7500 or pager 123-7427.
 - b. Save suspected food for culturing.
 - c. Document departmental conditions at the time of preparation of suspected food. Provide a list of foods served during suspected time interval, as well as a list of food handlers.
 - d. Implement and supervise control measures to prevent further occurrence of the illness.
 - e. Follow state and local laws/regulations when reporting to local health authorities.

J. Food Prepared and Stored Outside of Nutrition and Food Services (i.e., clinic areas, inpatient care areas)

Refer to the following Infection Control Policies: [Infection Control Guidelines for Inpatient Care](#) and [Infection Control in Ambulatory Care](#).

K. Vending Machine will be maintained according to all federal, state and local health codes and regulation.

IV. References

[Rules Governing the Sanitation of Restaurants and Other Foodhandling Establishments](#)U, Section .2600 of the NC Administrative Code, Title 15A, Department of Environment and Natural Resources, Environmental Health Services Section, effective April 4, 1990 (Amendment April 1, 2005).

[Food Code 2013 Recommendations of the United States Public Health Service Food and Drug Administration](#), Available from:

<http://www.fda.gov/downloads/Food/GuidanceRegulation/RetailFoodProtection/FoodCode/UCM374510.pdf>[North Carolina Food Code Manual, Adoption of the US Food and Drug Administration's](#)

[2009 Food Code, Effective September 1, 2012](#), Available from:

<http://ehs.ncpublichealth.com/faf/docs/foodprot/NC-FoodCodeManual-2009-FINAL.pdf>

[Puckett, R. \(2014\). Nutrition Services. In P. Grota\(Ed.\), APIC text of infection control and epidemiology 4th edition \(pp. 109-1 – 109-15\). Washington, DC: APIC.](#)

[Rules Governing the Food Protection and Sanitation of Food Establishments, 15A NCAB 18A .2600, North Carolina Department of Health and Human Services Division of Public Health, Environmental Health Section, effective September 1, 2012.](#) Available from:

<http://ehs.ncpublichealth.com/rules.htm>

V. Reviewed/Approved by

Hospital Infection Control Committee

VI. Original Policy Date and Revisions

Revised on June 2005, Oct 2007, Aug 2010, June 2013, July 2016, Feb 2017_{edit}

Appendix 1: Procedure for Sanitary Care and Maintenance of Ice Chests

Ice handlers must use the following precautions:

1. Wash hands and don clean gloves
2. Hold scoop used with ice chest by handle only.
3. Do not handle ice with hands.
4. Do not return unused ice to the ice storage chest.
5. Keep access door closed except when removing ice.
6. Wash the scoop daily with detergent and hot water or run through a dishwasher. Alternatively, disinfect the scoop by immersing in a 1:100 dilution of bleach and water. Rinse with tap water.
7. Place scoop in a tray or holder (e.g., Tupperware container) when finished (i.e., do not leave within the ice).
8. The ice chest should be cleaned after use and when visibly soiled with detergent and hot water.

Approved by Hospital Epidemiology

Appendix 2: Farmers Market

No potentially hazardous foods should be offered for sale. This includes the following: meats, cheese, milk and eggs. There is no means of mechanical refrigeration of these items to maintain a safe temperature.

Home prepared food items must be non-potentially hazardous and capable of being stored safely at room temperature. Items such as jams, jellies, pickles and baked goods must be produced in a facility or kitchen permitted by the NC Department of Agriculture and Consumer Services and properly labeled in accordance with their laws and rules.

Vegetables and fruits should be free of pests and vermin.

In order to be compliant with North Carolina rules that apply to the handling of foods, the following steps will be implemented for food sampling:

- Fruits and vegetables that are to be sampled raw must be washed and cut in one of the inspected Nutrition and Food Services facilities within the hospital complex. It is important that the fruits or vegetable are washed in the facility because we do not know the bacterial quality of the water that the produce was washed in by the vendor. Nutrition and Food Services must use sanitized knives and cutting surfaces and the samples must be placed on a sanitized plate or tray. Fruits and vegetables must be sliced in an area that is dedicated to produce preparation only. The samples must be displayed in such a way as to keep them below 45°F (place the platter on a pan of ice) and samples not consumed within 4 hours must be discarded. Shield the samples with some type of sneeze guard to prevent contamination.
- Clean, single-use disposable utensils such as plastic forks, sample prongs or toothpicks must be made available for the consumers who wish to sample the cut produce. These utensils must be stored in a clean and sanitized container such that the handles are in the “up” position to prevent contamination of the utensils’ eating surfaces. In lieu of using utensils for sampling, the samples may be made available in clean, single-use disposable cups that are designed for food.

The sponsors (e.g., Wellness Committee, Nutrition and Food Service Department) will observe the vendors and their items at each event to determine their compliance with the policy.