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Food Safety Guidelines

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ABMT-GEN-022

FOOD SAFETY GUIDELINES

1 PURPOSE

- 1.1 To outline the purpose and guidelines for food safety in the adult blood and marrow transplant patient population.

2 INTRODUCTION

- 2.1 The goal of this diet is to minimize the risk of infection and food borne illness.
- 2.2 The USDA Food Safety Guidelines should also be followed before, during and after transplant.

3 SCOPE AND RESPONSIBILITIES

- 3.1 The ABMT physicians, advanced practice providers, dietician, clinical nurse specialists, nursing leaders and staff nurses are responsible for ensuring the patients, families and caregivers are educated about the guidelines and the requirements are successfully met.

4 DEFINITIONS/ACRONYMS

- 4.1 NA

5 MATERIALS

- 5.1 NA

6 EQUIPMENT

- 6.1 NA

7 SAFETY

- 7.1 NA

8 PROCEDURE

8.1 Patient Assessment

- 8.1.1 All patients undergoing blood or marrow transplantation will be evaluated by the unit registered dietician. The registered dietician will follow each patient for the duration of the transplant per unit protocol.

8.2 Food Safety Guidelines

Four Basic Steps to Food Safety

- 8.2.1 Clean: Wash hands and surfaces often. Bacteria can spread throughout the kitchen and get onto cutting boards, utensils, counter tops, and food
 - 8.2.1.1 To ensure that your hands and surfaces are clean, be sure to:

- Wash hands in warm soapy water for at least 20 seconds before and after handling food and after using the bathroom, handling garbage, and touching pets
- Wash cutting boards, utensils, and counter tops with hot soapy water after preparing each food item and before going on to the next food. Cutting boards are sanitized weekly using a solution of 1 part household bleach to 10 parts water.
- Use liquid dish soap when washing dishes and pans
- Replace sponges at least weekly
- Consider using paper towels to clean up kitchen surfaces. If using cloth towels, you should wash them daily in the hot cycle of the washing machine.
- Do not store chemicals and cleaning solutions near food supplies.
- Do not store food under the sink.
- Your caregiver will handle, wash, and peel all produce (see list of allowable *raw* fruits and vegetables). Wash fruits and vegetables thoroughly under running tap water for at least 30 seconds. Cut away bruised areas.
- With canned goods: remember to clean lids before opening.
- Wash can opener after each use with warm soapy water.
- Keep appliances free of food particles
- Keep counter and kitchen surfaces free of food particles
- Check microwave oven, toaster, can openers, and blender/mixer blades. Blender blades and bottom should always be removed when washing the jar. Use bleach solution to sanitize these items.

8.2.2 Separate: Don't cross contaminate

8.2.2.1 Cross-contamination occurs when bacteria are spread from one food product to another. This is especially common when handling raw meat, poultry, seafood, and eggs. The key is to keep these foods- and their juices – away from ready-to-eat foods.

8.2.2.2 To prevent cross-contamination, remember to:

- Separate raw meat, poultry, seafood, and eggs from other foods in your grocery-shopping cart, grocery bags, and in your refrigerator.
- Use one cutting board for fresh produce and a separate one for raw meat, poultry, and seafood.
- Never place cooked food on a plate that previously held raw meat, poultry or eggs without first washing the plate with soapy water.

8.2.3 Cook: Cook to proper temperatures

8.2.3.1 Foods are safely cooked when they are heated to USDA-recommended safe minimum internal temperatures.

8.2.3.2 To ensure that your foods are cooked safely, always:

- Use a food thermometer to measure the internal temperature of cooked foods. Check the internal temperature in several places to make sure that the meat, poultry, seafood, or egg product is cooked all the way through. Color of food is not a reliable indicator of safety or doneness.
- Cook whole pieces of Veal, Beef, Pork, Lamb, Rabbit, Goat, and Game to at least 160°F.
- Cook Ground beef, veal, lamb, pork, rabbit, goat, game to at least 160°F and ground poultry to a safe minimum internal temperature of 165°F. Cook Chicken and Turkey: whole bird and dark meat (thigh & wing) to 180°F. Breast, Roast to 170°F.
- Cook Fresh (raw) Ham to 160°F.
- Reheat fully cooked hams packaged at a USDA-inspected plant to 140°F. For fully cooked ham that has been repackaged in any other location or leftover fully cooked ham, heat to 165°F.
- Cook Seafood to 145°F. Cook shrimp, lobster, and crab until they turn red and the flesh is pearly opaque. Cook Scallops until they turn milk white or opaque and firm.
- Cook eggs until the yolks and whites are firm. Use only recipes in which eggs are cooked or heated to 160°F.
- Bring sauces, soups, and gravy to a boil when reheating. Heat other leftovers to 165°F.
- Reheat hot dogs, luncheon meats, bologna, and other deli meats until steaming hot or 165°F.
- Stuffing to 165° (always cook in separate container outside the bird)
- During food preparation, do not taste the food with the same utensil used for stirring
- Never taste food that looks or smells strange.

8.2.4 When cooking in a microwave oven, cover food with a lid, stir, and rotate for even cooking. If there is no turntable, rotate the dish by hand once or twice during cooking. Always allow standing time, which completes the cooking, before checking the internal temperature with a food thermometer. Food is done when it reaches the USDA recommended safe minimum internal temperature.



8.2.5 Chill: Refrigerate promptly

8.2.5.1 Cold temperatures slow the growth of harmful bacteria. Keeping a constant refrigerator temperature of 40°F or below is one of the most effective ways to reduce the risk food borne illness. Use an appliance thermometer to be sure the refrigerator temperature is consistently 40°F or below and the freezer temperature is 0°F or below.

8.2.5.2 To chill foods properly:

- Refrigerate or freeze meat, poultry, seafood, and other perishables within 2 hours of cooking or purchasing. Refrigerate within 1 hour if the temperature outside is above 90°F. Egg dishes and cream-and mayonnaise-based foods should not be left unrefrigerated for more than 1 hour.
- Never thaw food at room temperature, such as on the counter top. It is safe to thaw food in the refrigerator, in cold water, or in the microwave. Use a dish to catch drips when defrosting in refrigerator or microwave. Use defrosted foods immediately; do not refreeze.
- Divide large amounts of leftovers into shallow containers for quicker cooling in the refrigerator.
- Refrigerate only as much as can be eaten in 2 to 3 days; freeze the rest.
- Clean spills in refrigerator or freezer immediately; keep shelves and doors sanitized. The area of the refrigerator most likely to harbor pathogenic bacteria is the produce bin, followed by bottom shelves, and meat drawers, be sure to clean frequently.
- Do not store foods like milk, butter or eggs in the door shelves because the door temperatures are consistently warmer than other areas of the refrigerator.

- Discard eggs with cracked shells
- Discard entire food packages or containers with any Mold present, including yogurt, cheese, cottage cheese, fruit, vegetables, jelly, and bread or pastry products.
- Discard freezer-burned foods.
- A faulty door seal is among the most common fridge problems, creating condensation, mold and inconsistent temperatures. Check door seal, if dry and cracked have the seal replaced by a repair service.
- Follow the recommendations in the abridged USDA Cold Storage Chart.

Cold Storage Chart			
These time limit guidelines will help keep refrigerated food safe to eat. Because freezing keeps food safe indefinitely, recommended storage times are for quality only.			
Product		Refrigerator (40 °F)	Freezer (0 °F)
Eggs	Fresh, in shell	3 to 5 weeks	Doesn't freeze
	Hard cooked	1 week	Doesn't freeze well
Liquid Pasteurized Eggs, Egg Substitutes	Opened	3 days	Doesn't freeze well
	Unopened	10 days	1 year
Deli or Vacuum-Packed Products	Egg, chicken, ham, tuna, & macaroni salads	3 to 5 days	Doesn't freeze well
Hot Dogs	Opened package	1 week	1 to 2 months
	Unopened package	2 weeks	1 to 2 months
Luncheon Meat	Opened package	3 to 5 days	1 to 2 months
	Unopened package	2 weeks	1 to 2 months
Bacon & Sausage	Bacon	7 days	1 month
	Sausage, raw — from chicken, turkey, pork, beef	1 to 2 days	1 to 2 months
Hamburger and Other Ground Meats	Hamburger, ground beef, turkey, veal, pork, lamb, & mixtures of them	1 to 2 days	3 to 4 months

Cold Storage Chart			
These time limit guidelines will help keep refrigerated food safe to eat. Because freezing keeps food safe indefinitely, recommended storage times are for quality only.			
Product		Refrigerator (40 °F)	Freezer (0 °F)
Fresh Beef, Veal, Lamb, Pork	Steaks	3 to 5 days	6 to 12 months
	Chops	3 to 5 days	4 to 6 months
	Roasts	3 to 5 days	4 to 12 months
Fresh Poultry	Chicken or turkey, whole	1 to 2 days	1 year
	Chicken or turkey, pieces	1 to 2 days	9 months
Seafood	Lean fish (flounder, haddock, halibut, etc.)	1 to 2 days	6 to 8 months
	Fatty fish (salmon, tuna, etc.)	1 to 2 days	2 to 3 months
Leftovers	Cooked meat or poultry	3 to 4 days	2 to 6 months
	Chicken nuggets, patties	1 to 2 days	1 to 3 months
	Pizza	3 to 4 days	1 to 2 months

8.3 Becoming a Better Shopper

8.3.1 Follow these safe food-handling practices while you shop.

- Carefully read food labels while in the store to make sure food is not past its “sell by” date.
- Place all fresh produce in plastic bags; do not place directly in the cart.
- Put raw packaged meat, poultry, or seafood into a plastic bag before placing it in the shopping cart, so that its juices will not drip on – and contaminate – other foods.
- Buy only pasteurized milk, cheese, and other dairy products from the refrigerated section. When buying fruit juice from the refrigerated section of the store, be sure the juice label says it is pasteurized, it may also say flash pasteurized.
- Purchase eggs in the shell from the refrigerated section of the store. (NOTE: store eggs in their original carton in the main part of your refrigerator once you are at home.)
- Never buy food that is displayed in unsafe or unclean conditions.
- Avoid tasting free food samples, and avoid foods from self-select bulk containers

- When purchasing canned goods, make sure that they are free of dents, cracks, or bulging lids. (Once you are home, remember to clean each lid before opening the can.).
- Purchase frozen & refrigerated foods last, especially during the summer months.

8.3.2 When shopping for food, reading the label carefully is key.

8.3.3 Food Product Dating

8.3.3.1 Open dating is found primarily on perishable foods such as meat, poultry, eggs, and dairy products. “Closed” or “coded” dating might appear on self-stable products such as cans and boxes of food.

8.3.3.2 Types of Open Dates

- A “Sell-by” date tells the store how long to display the product for sale. You should buy the product before the date expires.
- A “Best If Used By” (or Before) date is recommended for best flavor or quality. It is not a purchase or safety date.
- A Use-by date is the last date recommended for the use of the product while at peak quality. The date has been determined by the manufacturer of the product.
- “Closed or coded dates” are packing number for use by the manufacturer.

8.3.4 Transporting Your Groceries

8.3.4.1 Follow these tips for safe transporting of your groceries:

- Pick up perishable foods last, and plan to go directly home from the grocery store.
- Always refrigerate perishable foods within 2 hours of cooking or purchasing.
- Refrigerate within 1 hour if the temperature outside is above 90°F.
- In hot weather, take a cooler with ice or another cold source to transport foods safely.

8.3.5 Storing Food in Cupboard/Pantry: Discard without tasting any bulging, leaking, or cracked cans, or those deeply indented in the seam area.

- Rotate food stock so older items are used first. Monitor expiration dates.
- Make sure food storage areas remain reasonably clean; no obvious insect or rodent contamination should be evident.
- If home-canned foods are used, review the processing procedure to be sure it was appropriate for pH of the food, size of bottle, and elevation above sea level. Look for mold and seals. If you suspect a home-canned food may not have been processed properly, if the

lid bulges, or if the food has any bad odor or unusual characteristics after opening, discard it.

8.3.6 Tips for Transporting Food

- Keep cold foods cold, at 40°F or below. To be safest, place cold food in cooler with ice or frozen gel packs. Use plenty of ice or frozen gel packs. Cold food should be at 40°F or below the entire time you are transporting it.
- Hot food should be kept hot at 140°F or above. Wrap the food well and place in an insulated container.

8.3.7 Being Smart

*Dining out is not recommended during stem cell transplant recovery. Always check with your healthcare provider first.

8.3.7.1 Basic Rules for Ordering

- Check grades at restaurant; look for “A” rating in the 90’s.
- Eat early to avoid crowds.
- Ask whether the food contains uncooked ingredients such as eggs, meat, poultry, or fish. If so, choose something else
- Ask how these foods have been cooked. If the server does not know the answer, ask to speak to the chef to be sure your food has been cooked to a safe minimum internal temperature.
- Request single serving condiment packages
- Avoid buffets, which may contain undercooked foods or foods that have been at room temperature too long. Order from a menu to minimize risk.
- Avoid garnishes, salad bars, delicatessens, smorgasbords, pot lucks, and sidewalk vendors.
- If you plan to get a “doggy bag” or save leftovers to eat at a later time, refrigerate perishable foods as soon as possible – and always within 2 hours after purchase or delivery. If the leftover food is in air temperature above 90°F, refrigerate within 1 hour.

8.3.8 Personal Hygiene

- Have available liquid or bar soap for hand washing
- Wash hands with soap and warm, running water before and after every step in food preparation.
- Wash hands before eating, especially when eating hand-held foods.
- Wash hands after using the rest room, handling the garbage, and touching pets.
- Use paper towels for drying hands.

8.4 Water Safety Guidelines

- 8.4.1 Tap water: Water from your home faucet is considered safe if your water is from a city water supply or a municipal well serving highly populated areas.
- 8.4.2 Well water: Well water must be tested for coliforms and *Cryptosporidium* yearly. The water should be tested immediately prior to your return home and results must be negative to be used for drinking.
- 8.4.3 Municipal Wells: Drinking well water from municipal wells serving highly populated areas is considered safe because the water is tested more than two times each day for bacterial contamination.
- 8.4.4 Private wells and community wells: The quality of well water from these sources cannot be guaranteed. It is recommended that other approved water sources be used to ensure a safe water supply, including: boiled water, bottled water, or distilled water.
- 8.4.5 Not considered safe: Most water filtration devices will not make water safe if the private well water or smaller community well water is not chlorinated.

8.5 The following sources of water are suggested if your water is not from a city water or municipal well supply

- 8.5.1 Boiled water: At home, safe water can be made by bringing tap water to a rolling boil for 15-20 minutes. After processing, the water should be stored in a clean, covered container in the refrigerator; discard water not used within 48 hours (2 days).
- 8.5.2 Distilled water: Water may be distilled using a steam distillation system. After processing, the water should be stored in a clean, covered container in the refrigerator; discard water not used within 72 hours (3 days).
- 8.5.3 Bottled water: Acceptable forms of bottled water have been processed to remove organisms known to cause stomach or intestinal infection. Bottled water labels reading "well water", "artesian well water", "spring water", or "mineral water" do not guarantee that the water is safe to drink. Water labeled as having been treated with one or more of the following are considered safe:
 - 8.5.3.1 Reverse osmosis treated
 - 8.5.3.2 Distillation
 - 8.5.3.3 Filtered through an absolute 1 micron or smaller filter (NSF Standard #53 for cyst removal)
 - 8.5.3.4 To confirm that specific bottled water has undergone one of the above processes, contact the International Bottled Water Association (IBWA) at 1-800-928-3711, or visit their home page at <http://www.bottledwater.org/>. If the IBWA does not

have the information on a specific brand, call the bottling company directly

8.5.4 Water Filters

8.5.4.1 If you use a water filter located on household water taps the following specifications must be met:

8.5.4.1.1 The filters must be designed to remove coli forms and Cryptosporidium. Any of the following are acceptable:

- Reverse osmosis filter
- Absolute pore size of 1 micron or smaller
- Tested and certified by NSF Standard #53 for cyst removal

8.5.4.1.2 The water tap filter must be installed immediately before the water tap.

8.5.4.1.3 Manufacturer directions must be followed for filter maintenance and replacement.

8.5.4.2 Most water filtration devices will not make water safe if the water supply has not been chlorinated. Portable water filters (such as Brita® or Pur® system) as well as refrigerated-dispensed water and ice machines do not meet filtration standards. Portable water systems filter for impurities, but not for bacteria.

8.5.5 Calorie Intake AND Body Weight

8.5.5.1 Weight goal:

8.5.5.1.1 If patient is within range of ideal/desirable body weight, the goal is to maintain weight maintenance.

8.5.5.1.2 If patient is less than ideal body weight; the goal is to gain weight to BMI within normal limits (BMI 18.5-24.9).

8.5.5.1.3 If patient is overweight, it is recommended pt that maintain weight until medically stable following stem cell transplant recovery.

8.5.5.2 Dietitian will discuss calorie and protein needs with each patient.

8.5.5.3 Patients will be weighed daily and input and output will be closely monitored on the ABMT inpatient unit.

8.5.5.4 Patients should monitor their weight weekly when at home.

9 RELATED DOCUMENTS/FORMS

9.1 NA

10 REFERENCES

10.1 Fred Hutchinson Cancer Research Center, Clinical Nutrition Department and Swedish Medical Center, Nutrition Services Department.

10.2 US Department of Agriculture August 2011

11 REVISION HISTORY

Revision No.	Author	Description of Change(s)
05	J. Frith	8.1.1 Changed bone to blood and added registered dietitian

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