2019 VOLUME 1 ISSUE 8

the EXCHANGE

ASPR
ASSISTANT SECRETARY FOR PREPAREDNESS AND RESPONSE

TRACIE
HEALTHCARE EMERGENCY PREPAREDNESS INFORMATION GATEWAY

Nutrition and Meal Plans: An Often Neglected Pillar of Healthcare Emergency Planning

An Interview with Lee Tincher, MS, RDN and Jo Miller, MPD, RDN, Meals for All

Abstract: *During and after a disaster, numerous challenges are placed on hospital nutrition services. Patients, family members, and providers all need food and fluids causing a surge in demand. Some may need prolonged shelter from a storm or mass casualty incident, and the facility may lack power or potable water, limiting options for feeding. In prolonged events, healthcare providers and facility support staff are often held over or have no option other than sheltering in place while new supply deliveries may be impossible. TRACIE interviewed Lee Tincher and Jo Miller to learn more about how disaster nutrition planning and response has evolved over the years, particularly in light of the Centers for Medicare & Medicaid Services (CMS) Emergency Preparedness Rule (EP Rule).*

John Hick (JH): Please give us some background on disaster nutrition planning for healthcare facilities and how it has changed over the years.

Lee Tincher (LT): The first emergency food plan I wrote in the mid-1970s basically said "Offer everyone a peanut butter or cheese sandwich and wish them luck." A decade later, diet orders would include a statement that read "In case of emergency or holiday, diet can be liberalized," thereby eliminating the need for therapeutic emergency diet planning. Extensive plans for nutritional needs were not required back then and it was assumed we would be able to rely on our food service skills to get through any disaster. Over the years, and as we have seen and been through numerous disasters, the thought process and the industry have both changed. During Y2K, 9/11, and Hurricane Katrina, I was responsible for the food and nutrition for more than 400 healthcare facilities in California and along the west coast. Over time, my thinking changed and it became my goal to find a better way to truly be prepared for any disaster.

After the major disasters over the past two decades, data shows post-disaster exacerbation of many health conditions and increased mortality and morbidity, possibly because we weren't able to deliver the therapeutic dietary care disaster victims needed.

We now know that providing a more restrictive diet may be more therapeutically appropriate for some of these patients and could save lives.

Jo Miller was one of the consultant registered dietitians I deployed to assist hospitals, and in the early years of her practice, one of her monthly responsibilities was checking on the emergency food supply in these facilities.

Jo Miller (JM): This important task generally falls on a registered

continued on page 3

continued from page 2

dietitian. For example, in a 100-bed skilled nursing facility that stockpiles resources for three days, it takes about four hours per month to count emergency food supplies. Then the list is shared with the food service director who is responsible for ordering the missing and expired food supplies. Once received, everything must be recounted and stored. It's a time-consuming process when it is done properly. In California, the expectation is that food is available on site and that facilities are prepared 24/7, regardless of the nature of the disaster.

The following categories provide a general overview of diets for patients in a hospital setting:

- Regular/normal: used for patients who do not have special needs associated with illness or injury
- Short-term liquid: can be clear liquid, full liquid, or pureed and used for patients that need foods easier to swallow and digest
- Soft transitional: typically includes foods that can be mashed with a fork
- Restricted or special: based on individual patient requirements (e.g., limited fat or salt intake)
- Therapeutic: can help treat patients (e.g., increase fluid intake or accommodate food allergies)

LT: We have also seen changes over the years with regards to regulations and survey emphasis. Planners are now questioning how much they need to stockpile. There is no "standard of practice;" different states have different standards. Some plans are very prescriptive and require a seven-day dedicated supply in a separate storage area. Others are more laissez faire.

In addition to needing to estimate how much food to have on hand, I want to know who is going to be preparing it, how it's going to be served, and what the facility's plan is when traditional food service staff are not able to report to work—will they be able to make the necessary staffing changes on the fly? Coordinating everything—from the design of the menu to the food, who is going to prepare it, how you're going to ensure food safety, can the plan be deployed easily (regardless of who is in the facility) is no easy task. For example, we had a situation in a major U.S. city where hospitals that were flooded were relying on untrained hospital staff to prepare contingency food – which was egg salad sandwiches – a poor menu choice that is labor intensive, has known food handling and safety concerns, requires a huge volume of bread, is not suitable for all therapeutic diets, and has poor patient acceptance.

JH: What percent of hospitals have backup power that can be used to supply kitchens?

In this article, Lee Tincher highlights the "EP Tags" that were published as part of the CMS EP Rule survey process with a focus on those tags that affect healthcare facility food and nutrition.

JM: The full kitchen is generally not included on hospital backup power systems, but some may have a few "red plugs" (sockets in healthcare facilities that indicate they are connected to emergency backup power). Cooking is not always considered a critical part of the facility and it's important to note that most hospital kitchen equipment may be powered by gas or steam generators versus electricity.

LT: In California, as well as other states, we have learned that there may be random interruptions of power, even if your campus hasn't been directly affected by an incident. Utilities may be discontinued while authorities verify the extent of damage and safety of restoring power throughout the community. I like the process that the CMS EP Rule mandates—having each facility create their own plan. With so many large entities overseeing healthcare systems—where the corporate office may be five states away—I really like having the team in the facility working through their

continued on page 4

continued from page 3

individual plans and drilling and practicing it at the local level.

JM: Recently in California, utility providers have shut off power to select areas on days where there is a high wildfire risk; all California hospitals are expected to be able to operate without power and without trained food service staff at any time. We recently did a wide-scale disaster drill at Santa Clara Regional Medical Center, where we prepared meals for 80 people without a full staff and without electricity. It was nice to see how easily you can feed people in a matter of 20-40 minutes if you have a good plan in place and a system that includes simple, step-by-step instructions.

LT: The key factor is training and practicing the food and nutrition plan. There is nothing like actually preparing, serving and tasting some food to have people really get the sense of what it takes to accomplish disaster nutrition. And, the food should be familiar, comfort foods that are well accepted in the local population; this is especially important in behavioral health and pediatric units.

JM: Another thing that is very important to note: reading and scaling a recipe can be very difficult for people who do not have experience in this. It is so important to have people trained to understand how food service works in a disaster. Typically, dietitians, whether on staff or consultants, have limited hours and it is challenging to meet patients' various dietary needs (therapeutic, textures, puree, and other specifics) even during non-disaster times. Different diagnoses call for different diets. For example, too much sodium can negatively affect patients with congestive heart failure. After Hurricane Katrina, we found managing patients with diabetes extremely challenging. The therapeutic dietary needs associated with patients who receive renal dialysis are the most complex to manage. Ideally, with careful menu planning you can create one menu that can be tailored to account for sodium, texture, and other special diet needs and be simple to deploy in an emergency.

LT: The thought process has shifted significantly over the past two decades, with the realization that those who are critically vulnerable are likely to be in situations where they don't have access to their medication or their food, and their conditions can worsen quickly.

JH: Can you tell us more about how patients' nutritional needs are documented and tracked?

LT: Virtually every hospital and skilled nursing facility uses an electronic meal ticket to provide food to patients. For planning purposes, it's key for the facility to determine how they will handle creating tailored meal tickets in an emergency if computers are down and tray tickets can't be printed. Facilities need a backup system to help identify diets and dispense meals. Printing an extra set of tray tickets once a week, backing up diet plans on a USB device, or even printing a list of patients and their diets on a daily basis would be helpful.

LESSON LEARNED

We find that people eat a lot more and not less in these situations. When Hurricane Irma struck the State of Florida, one of our clients (a tertiary hospital) hunkered down and the dietician was well prepared to feed all 750 patients and staff. What she had not anticipated was the number of physicians who reported to support the response, accompanied by their family members who also needed food and shelter.

I recently reviewed the after-action report from the Oroville Dam evacuation (February 2017). On a Sunday afternoon, entire communities were told that the dam was going to break and 180,000 people downstream were at risk. The skilled nursing facilities dutifully printed out patients' emergency care orders, and sent them with the patients who were then evacuated to outlying areas. Unfortunately, those orders did not include diet orders, and no one noticed before the patients were evacuated.

continued on page 5

continued from page 4

Dietary orders should not only include the therapeutic aspect, but also any necessary texture modifications to ensure patient safety. Conditions such as dysphagia not only do not go away in a disaster, but can be exacerbated by the stress of the event.

JH: What are some of the challenges associated with stockpiling food and how can they be overcome?

LT: Some menus call for certain foods that are not possible to purchase from grocery distributors. Some foods we had been able to purchase in the past have been discontinued by the manufacturers (e.g., salt-free tuna and pureed items).

JM: In the last decade, we've seen big swings in what our primary vendors keep in stock. Some therapeutic foods are considered special orders and not stocked or take weeks for delivery. It is important for facilities to revisit any memorandums of understanding and consider whether you should rely on a single MOU to be the backup to your disaster nutrition plan. Following Hurricane Katrina, and when CMS was working on the EP rule, they mentioned that hospitals may need to plan to be self-sufficient for longer than the previous 72-hour recommendation in widespread disasters. Some hospitals didn't receive help for five days after Katrina. During Super Storm Sandy in 2012, parts of New York and New Jersey were without power for 11 days. Current recommendations encourage facilities to have a minimum of 72 hours' worth of supplies stocked on hand, but also have MOUs in place for an extended disaster.

Section E-0015 of the CMS Interpretive Guidelines (p. 21) indicates that, "Facilities must be able to provide for adequate subsistence for all patients and staff for the duration of an emergency or until all its patients have been evacuated and its operations cease."

JH: We know that facility staff, family members, and patients might need snacks if they are sheltering in place. Do you have any suggestions for affordable snacks with longer shelf lives?

LT: I will never forget when a food service director called me, and said "I just moved here, and there are 600 cases of expired nutritional drinks in the attic—that is the total emergency plan for patients and staff to drink for the first 72 hours after an emergency." Those drinks had been stored in a non-temperature controlled attic for months. In general, items like these need to be thought of as a supplement, or an additional item, but they must always be rotated to ensure they are suitable for consumption.

Twenty years ago, nutritional bars did not exist. Today, there are many available. There is one bar with a five-year shelf life and the highest nutritional value. Facilities may or may not store supplemental drinks. Canned fruit and perishables can also be used as snacks. Freeze dried and dehydrated foods with an extended shelf life have come a long way over the past two decades, especially with the increase in individual home disaster planning. In addition to serving as snacks, with careful planning, a registered dietitian can incorporate these foods into a delicious, healthcare-friendly emergency menu plan.

JH: A hospital may have a large volume of patients who need to be tube fed; they may have to puree more foods than they are used to. Are there any preparedness tips you can offer facilities?

LT: You would be remiss to think in a disaster it would be ok to just "blenderize" a "typical" diet and get it through the feeding tube without clogging it. If a patient is already being tube fed, it is highly likely that there are significant challenges with their intestinal functions, so this is a true concern. Commercial tube feeding products would be much safer in terms of food handling, supply rotation, straining, and consistency. It is important to note that most facilities use very small tubes for

continued on page 6

continued from page 5

feeding; many require a pump to be administered. Staff can use hand-cranked blenders and food mills to make puree food texture in the event of a power outage or evacuation. It is critical to incorporate these factors and any needed equipment into a disaster nutrition plan.

JM: We work with a lot of campuses that perform a significant amount of tube / enteral feeding. I often recommend they maintain a "par stock." This is a great way to meet daily operational and contingency needs by determining the par for a reasonable number of days (e.g., 7-10), and always keeping that amount of enteral feedings available. We also recommend against keeping formula in a separate storage area—it's much easier to manage inventory you can rotate before stock expires.

JH: Tell us more about evacuation scenarios. Are there lessons learned and best practices you can share?

LT: I watched Katrina unfold in New Orleans, followed by Rita in Texas. In the Gulf area, evacuees spent approximately eight hours in transport. During the recent wildfires here in California, it took some six hours to travel 39 miles. This would be trying for the average person, let alone more vulnerable populations. During the Sonoma County fires in 2017, they took a lot of patients from our nursing facilities to general shelters, and I'm not sure these

shelters are set up to meet the needs of vulnerable, older people. After wildfires in particular, survivors may have to live in shelters for weeks or longer.

JM: The CMS EP Rule indicates that facilities must have adequate sustenance for sheltering in place and/or evacuation. The overall interpretation is that this responsibility lasts until the patient is admitted to another facility. We have seen campuses set up disaster carts on wheels that include snacks on top and can be transported at the same time as other materials during evacuation.

The Paradise (CA) fires were very close to home—many evacuees came to our county. Within a week of the evacuations, shelters experienced a significant number

One thing that continuously gets overlooked in planning efforts is the use of disposable supplies and how to handle the mountains of garbage that accumulate during a disaster. Work with your facility to plan ahead for the aftermath of your large feeding operation.

of norovirus outbreaks from poor food handling processes, lack of personal sanitation facilities, and so many people in close quarters. These outbreaks can exacerbate morbidity and mortality. It all comes back to ensuring that these shelters have good handwashing

continued on page 7

continued from page 6

guidelines and trained staff and volunteers. **Safe food handling practices (including signs that can be posted throughout shelters and kitchen areas) must be worked into disaster and evacuation plans.** It is important to remember that hand sanitizers are not a substitute for proper handwashing and some products are not safe for food preparation or workers. The best practice is to have disposable food handling gloves readily available.

JH: Are there any closing thoughts you would like to share with readers?

LT: I'm a huge fan of healthcare coalitions and we have both spoken with a number of them. As a single facility, you are only as prepared as the other facilities in your community. It is important to encourage healthcare facilities to work in their communities as a whole to improve resilience. Some of the very forward-thinking healthcare systems (e.g., Kaiser Permanente) accomplish this well.

JM: Surge is a very real concern and one of the biggest challenges for a medical campus. One tool that I use universally is California Hospital Association's emergency food supply planning tool. It is Excel-based and helps users cover basic needs, surge targets, and account for increases in staff, family members, and volunteers. This tool can also help the facility's safety team with their surge planning, making it an invaluable interdisciplinary tool.

Disaster nutrition planning shouldn't just be the responsibility of the food and nutrition services director, or delegated to an incident commander without training in food and nutrition. We need to build a culture of preparedness and the food service professionals must be integrated into the facility's total emergency plan. Whether we are at work or home, having a good disaster and food plan is critical for everyone's comfort and survival. ■

Check out the California Hospital Association's Hospital Emergency Food Supply Planning Guidance and Toolkit. These resources can help hospital food services directors/ dietitians plan for and track emergency food supplies and comply with regulatory requirements.