Just over two months ago, we had no idea that this country and the world would be facing a pandemic brought on by the deadly COVID-19 virus. At press time in mid-April, the Centers for Disease Control and Prevention (CDC) reported that the United States alone had over 750,000 cases of COVID-19 and more than 40,000 related deaths.

No doubt we will learn much from this difficult experience about how to provide “best practices” for food service, infection control, and nutritional care to our clients. We are all discovering how crucial it is to have an effective management plan in place to address pandemic issues, and the importance of working as a healthcare team using credible sources to guide our decisions.

General guidance for managing COVID-19 has included:

- Staying home (self-quarantine)
- Avoiding close contact with others (social distancing)
- Washing hands often per CDC guidelines
- Cleaning and disinfecting surfaces
- Wearing protective masks and gloves
- Not touching your face
- Getting proper rest
- Being as physically active as possible
- Eating a nutritionally-balanced diet to keep your immune system healthy
COVID-19 has necessitated government directives for healthcare providers from both the CDC and the Centers for Medicare & Medicaid Services (CMS) for discontinuing communal dining and group activities. For most facilities providing post-acute care (PAC), this has required meal service systems being quickly revised to deliver food to clients in their individual rooms while also controlling transmission of the virus.

In addition to altering meal service, the pandemic has heightened the focus on nutritional care to prevent and manage malnutrition. Long-term care facilities have already been sharing that they are seeing increases in unplanned weight loss and reduced intake. Most of it appears to be related to feeling isolated from their family and other visitors, and social isolation in general.

This article provides information on what we have learned so far about how a pandemic such as COVID-19 impacts nutritional care, and how we can work together for positive outcomes related to nutrition and overall quality of life.

NUTRITIONAL NEEDS AND COVID-19

The CDC has noted that COVID-19 is a new disease and there is limited information regarding risk factors for severe disease. Based on current information and clinical expertise, older adults and people of any age who have serious underlying medical conditions may be at higher risk for severe illness from COVID-19.

Based on present available information, those at increased-risk for severe illness from COVID-19 include:

- People aged 65 years and older
- People who live in a nursing home or long-term care facility
- Other high-risk populations could include:
  > People with chronic lung disease or moderate to severe asthma
  > People who have heart disease with complications
  > People who are immunocompromised, including those undergoing cancer treatment
  > People of any age with severe obesity (body mass index [(BM]I) ≥40) or certain underlying medical conditions, particularly if not well controlled, such as diabetes, renal failure, or liver disease
  > Women who are pregnant; they should be monitored since they are at risk if faced with severe viral illness

Many conditions can cause a person to have a compromised immune system, including cancer treatment, bone marrow or organ transplantation, immune deficiencies, poorly-controlled HIV or AIDS, and prolonged use of...
corticosteroids and other immune-weakening medications.

We know that COVID-19 cannot be prevented through diet; however, a healthy lifestyle including a balanced diet has a positive role in helping to protect the immune system against virus attack.

From clinical observations in China reported from the National Health Commission of China, the mortality of some COVID-19 patients with underlying diseases is relatively high, which is partly due to insufficient nutritional support. It was noted that novel coronavirus patients are often observed with problems of olfactory failure and poor appetite. At this point, they noted that patients need to be reminded about the importance of taking in adequate nutrition. For critically ill and emergent patients, enteral and parenteral nutrition support is particularly important.

These observations from China support the significance of maintaining a balanced and nutritious diet, regular exercise, and getting enough sleep to optimize the immune system to fight off infection, whether it is the flu or something potentially more serious like COVID-19.

As nutrition and foodservice professionals, we can help our clients by offering foods and beverages that enhance immune system function. For example, eating a diet with plenty of different-colored fruits and vegetables helps supply the immune system with the antioxidants and anti-inflammatory phytonutrients which help fight infection. A high-fiber diet, including grains and yogurt, can strengthen the gut microbiome (the so-called “good bacteria” in the digestive tract) and boost immune defenses.

Clients can be assessed to determine the need for additional vitamins and minerals, such as vitamin D. Vitamin D has been shown to play a role in immune health, and many people do not get sufficient amounts in their diets.

The potential benefits of supplements like echinacea and vitamin C for immune health have not been validated in existing studies. As healthcare providers, the RDN and MD must help in proper assessment of the need for vitamins and minerals or any other type of supplement to ensure it is safe for clients. Many supplements could interfere with prescribed medications or other interventions in place for that individual.

LEARNING AND RECOMMENDATIONS

Some noted areas of learning in regards to overall foodservice management, infection control, and nutritional care for our clients during this pandemic include the following:

Clear communication, both internally and externally, is critical.

Clear and consistent communication will help minimize confusion and frustration, and will produce better outcomes. This applies to the food and nutrition services department, other departments and staff in the facility, and external groups (such as families, vendors, etc.).

Teamwork is essential for effective nutrition management.

This is especially true with the CDM, CFPP and the RDN and NDTR in identifying and managing clients at nutritional risk. Teamwork applies not only onsite in the healthcare facility, but through remote documentation and other methods of communication. In some facilities, RDNs are unable to provide onsite facility visits so there must be a process in place for proper identification and implementation of medical nutrition therapy (MNT).

A few recommendations for effective nutritional management with the CDM, CFPP and the RDN and NDTR include:

- Identify and know how to access information needed for review of nutritional status and to make recommendations (labs, physician orders, progress notes, etc.).

LOOK FOR NEW CMS INFECTION CONTROL PRECAUTIONS on the COVID-19 Resource Page on the ANFP website. You’ll also find links to tools and other guidance relating to the coronavirus. This is an active page, so check often for updates at ANFPonline.org
• Discuss how and when you plan to communicate and what you will be discussing, such as weight fluctuations, appetite changes, changes in status, etc.

• Identify how you will document nutrition reviews, progress notes, nutrition assessments, etc. in the medical record. If a nutrition assessment cannot be conducted onsite, then note that the RDN is unable to perform the physical assessment at that time.

• Identify how nurses, therapists, and physicians will be notified of any recommended changes in nutrition interventions. How will you follow-up to confirm the interventions were put in place?

**Enhancing resident enjoyment of meals and snacks can help with factors such as social isolation.**

Residents miss seeing their families and friends, which can result in depression and reduced intake. They are not able to participate in facility group activities, which also may lead to depression. Think of some fun snacks and treats to help brighten their day. Even the addition of festive meal tray liners or colorful garnishing on foods can help lift spirits. Take time to reassure residents and convey how you plan to continue monitoring their individual food and beverage preferences.

**Effective management of food, equipment, and supplies is paramount due to the market and overall ability of manufacturers to meet demand.**

During this COVID-19 crisis we have seen a lack of availability for many food and nonfood items such as disposables, sanitizers, beef, etc. The facility must utilize inventory levels wisely and have back-up plans in place to find alternate procurement sources.

**Credible resources must be used to guide care to our clients.**

COVID-19 has heightened the importance of providing credible and “best practice” information to our clients and to guide us in effective decision-making. We have seen lots of misinformation about items such as face masks, sanitizers, and disinfectants. It has been confusing to sort through all the advice found on the Internet and social media. As healthcare providers, we must use best practice resources such as the CDC, FDA, CMS, state health departments, and other credible sources to guide our actions.

**SUMMARY**

Undoubtedly, we have all learned much from this experience. We will continue to learn and improve as leaders in the profession, as team players, as compassionate healthcare providers, and as caring individuals. Nutritional care and services require timely risk assessment, prompt referral for nutrition assessment, and effective person-centered interventions. We need to continue to focus on prevention and management of malnutrition, which includes helping our clients maintain a healthy immune system. We will learn the importance of ensuring that each of us has the needed skills and competencies to oversee food and nutrition services. We have seen that with COVID-19, there has been a need for enteral and parenteral nutrition if the disease progresses. Does the facility’s registered dietitian have the skills and competencies in those areas? These are questions we must ask ourselves and then implement a plan to strengthen any areas requiring improvement.

The current pandemic will provide research and recommendations that we need to review and apply as healthcare providers as part of Performance Improvement. We must each apply the knowledge using “best practice” for readiness, whether it is understanding what is required to modify meal service, or how to properly provide adequate nutrition and hydration to prevent and manage malnutrition. It truly ‘takes a village’ to meet the needs of people with COVID-19, and each of us is an essential contributor in our healthcare communities.

**REFERENCES**

- Centers for Disease Control and Prevention, CDC COVID-19 webpage: https://www.cdc.gov/coronavirus
- United States Environmental Protection Agency, Products that meet EPA’s criteria for use against SARS-CoV-2, the cause of COVID-19: https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2
- United States Food and Drug Administration, FDA Food Code: https://www.fda.gov/food/retail-food-protection/fda-food-code
1. COVID-19 is a __________
   A. Sanitizer
   B. Foodborne illness
   C. Virus

2. The best defense to control transmitting COVID-19 and for overall infection control is:
   A. Proper handwashing
   B. Additional supplements
   C. Sterile gloves

3. Some credible sources of information about COVID-19 include:
   A. Centers for Disease Control and Prevention (CDC)
   B. Food and Drug Administration (FDA)
   C. Both A and B

4. Those at a higher risk for severe illness from COVID-19 include:
   A. People aged 65 years and older
   B. People that live by themselves
   C. People with healthy immune systems

5. Additional dietary supplements need to be individually assessed for safety because the supplement may:
   A. Be too expensive
   B. Interfere with the person’s medications or their current overall prescribed treatment plan
   C. Not be available in that demographic area

6. One major risk factor for unplanned weight loss in residents has been associated with:
   A. Social isolation during mealtime and not having visitors
   B. A lack of fresh fruit
   C. Not having adequate snacks available

7. COVID-19 requires that healthcare providers keep current on “best practice” from __________ sources.
   A. Global
   B. Credible
   C. Internet

Reading COVID-19: How it Impacts Food, Nutrition, and Dining and successfully completing these questions online has been approved for 1 hour of continuing education for CDM, CFPPs. CE credit is available ONLINE ONLY. To earn 1 CE hour, access the online CE quiz in the ANFP Marketplace. Visit www.ANFPonline.org/market and select “CE Articles.” If you don’t see your article title on the first page, then search the title, “COVID-19: How it Impacts Food, Nutrition, and Dining.” Once on the article title page, purchase the article and complete the CE quiz.