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ASPEN Report on Nutrition Support Practice Processes With COVID-19: The First Response

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Abstract

Coronavirus disease 2019 (COVID-19) has changed nutrition care processes in hospitals and in the home setting. This paper summarizes clinician reports on these changed processes, including overall nutrition care, nutrition assessment, enteral nutrition and parenteral nutrition care steps, and food and oral supplement delivery. Also included are teaching, logistics, and personnel issues around changes in the work environment. Use of safe, standardized, evidence-based processes in the face of altered care patterns is critical. (*Nutr Clin Pract.* 2020;35:783–791)

Keywords

COVID-19; enteral nutrition; nutrition assessment; nutrition support; parenteral nutrition; SARS-CoV-2

Introduction

With the unprecedented pandemic of coronavirus disease 2019 (COVID-19) in early 2020, rapid changes in healthcare practices occurred, requiring an increased demand for nutrition support. In response to this need, the American Society for Parenteral and Enteral Nutrition (ASPEN) President requested a focused review of current clinical nutrition practices. The ASPEN Clinical Practice Committee was assigned this task and reached out via email request to many clinicians on the committee and other clinician leaders for current practice information. The qualitative data were collected during April 2020. With the limited literature in this specific patient population, current practices had to often be extrapolated from previous publications and balanced with the safety and resource constraints in the field. The purpose of this paper is to reflect nutrition support practice processes in these times. These notes from the field reflect 27 clinician reports about hospital-based, outpatient, and home care practices. The reports include issues around nutrition assessment, enteral nutrition (EN), and parenteral nutrition (PN) as well as other clinical nutrition issues such as teaching patients and clinician trainees, food delivery, technology, and personnel stress. The PN and EN practices have been organized around published PN and EN Use Process steps. Any recommendations in this paper do not constitute medical or other professional advice and should not be taken as such. To the extent that the information published herein may be used to assist in the care of patients, this is the result of the sole professional judgment of the attending healthcare professional whose judgment is the primary component of quality medical care. The information presented here is not a substitute for the exercise of such judgment by the healthcare professional. Circumstances in clinical settings and patient indications may require actions different from those recommended in this document, and in those cases, the judgment of the treating professional should prevail. This paper was approved by the ASPEN Board of Directors.

Initially when COVID-19 presented to the healthcare community, an increased demand for nutrition support became apparent. In hospitalized patients with COVID-19 pneumonia, 42% went on to develop acute respiratory

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distress syndrome (ARDS) and remained on the mechanical ventilator for an average of about 10 days, with many of them going on to die.[1] In a more recent study of 5700 hospitalized patients in New York, 14% were treated in the intensive care unit (ICU), 12% required mechanical ventilation, and 3.2% required renal replacement therapy. The overall mortality rate in this cohort was 21%, with an 88% mortality rate in the mechanically ventilated patients.[2] Patients often experience hypermetabolism during the acute phase of this infection, which leads to energy debt and loss of lean body mass. These patients who are unable to eat orally, because of mechanical ventilation, require enteral and/or PN.[3] Although the number of cases may be leveling or even declining at the time of publication of this paper, the Director of the Centers for Disease Control and Prevention states that a second wave of the COVID-19 infection will likely occur late in 2020 and into 2021 before a vaccine can be widely available. That said, these lessons learned and adjustments made in clinical practice will be useful going forward.

Overview of Nutrition Care Issues

Overall nutrition care has changed dramatically for those patients that usually come to a provider's office or clinic. Many outpatient clinicians reported that they were approved and provided with access to technology and tools to work from home, seeing patients through video chats and via telephone. The Centers for Medicare and Medicaid Services has provided details on the expanded flexibilities given to Federally Qualified Health Centers and Rural Health Clinics for telehealth services as allowed under the Coronavirus Aid, Relief, and Economic Security Act for Medicare beneficiaries.[4] Nutrition therapy and diabetes self-management are among the approved telehealth services that can be delivered from any location, including in home. Some challenges with home telemedicine care involve coordinating the appointment with the patient and having them comply with the telehealth visit. These challenges may be leading to a decreased quality of outpatient consultations. Appointments are taking less time, but it is more challenging to provide educational materials. Clinicians are also seeing fewer referrals because fewer primary care and some specialty providers are seeing patients. An upside to telehealth includes seeing the whole family in their home environment, which often provides a different perspective. Fortunately, much of the physical exam can be done via video. Telehealth has been a good alternative for families who live long distances from the hospital or clinic where they are followed and receive care.

Nutrition Support Clinicians Staffing

Prior to the COVID-19 pandemic, the interprofessional nutrition support team rounded on all ICU patients receiving EN or PN therapy at many hospitals. The team consisted of physicians, pharmacists, nurses, and dietitians. The team was able to enter a patient's room and examine the patient and check the enteral formula and/or PN admixture as well to verify accuracy of the EN or PN infusion pumps. Experience and research on nutrition support therapy in patients with COVID-19 has brought about new healthcare practice processes that include telemedicine, personal protective equipment (PPE), and exposure limitations. The healthcare professionals involved in patient care should follow PPE standards and cluster care to limit exposure to COVID-19. Cluster care is defined as providing bundled care (having 1 clinician do as many care tasks at one time as possible) to limit exposure.[3] Guidance set forth for the nutrition care for patients with confirmed or suspected COVID-19 infection should be followed.

To reduce clinician exposure risk, the entire nutrition support team no longer enters a patient's room. The attending provider/physician goes to see patients, and it is on an as-needed basis. The clinicians report that if a patient is on contact isolation of any kind, the nutrition support provider does not see the patient unless absolutely necessary in order to preserve PPE. Some hospitals have divided the teams and have been alternating weeks of working from home.

The respondents reported that hospitals have offered remote work options to the clinicians or furloughs, where work has been drastically reduced. One clinician reported that most of the staff work remotely with only a few to remain in the hospital to be the additional eyes and feet when needed by the remote clinicians. The decision was to maintain the same clinicians working on-site and not to rotate them, since they were already "potentially exposed" and the remote workers were not.

Inpatient nutrition support clinicians working from home have found it challenging to be involved in patient care rounds. Some call in to participate in rounds, and regardless of the physical location, team rounds can be accomplished via video conferencing. Even if clinicians are physically at the hospital, they are maintaining social distancing and staying in their respective offices to attend video conference rounds. Nutrition clinicians are also using telephone or video conferencing to round with the primary medical teams to see patients together and limit going into patients' rooms to minimize COVID-19 exposure.

Hospitals have implemented symptom screening for all employees arriving on-site as well as universal masking. Some facilities have enough resources to test all new inpatient admissions for COVID-19, regardless of symptoms. Others continue to test only symptomatic patients and may know quickly whether a patient is negative if a rapid turnaround time is feasible for their laboratories. Some other clinicians are reporting that inpatient staff continue to come to work in the hospital and do not work from home. Clearly, there is not standardized practice in this area and recommendations are changing frequently.

Nutrition Assessment

Dietitians in the hospital setting are discouraged from entering ICUs or patients' isolation rooms to perform a nutrition-focused physical examination (NFPE). Some are implementing a modified NFPE and instead relying on other clinicians to collect physical data on the patients. When working remotely, dietitians are expected to conduct nutrition assessments, excluding hands-on NFPE; provide patient and family education; and document. Dietitians may contact patients by telephone to obtain information for the assessment. However, this has been challenging at times, especially when patients are not able to participate in a telephone interview. Alternatively, clinicians are calling family members to gather background information when the patient is unable to be on the call. It is often difficult to get in touch with patients and providers; therefore, documented nutrition assessments are based on medical record review. The team members who are in the hospital are helping those working remotely by delivering educational materials, conducting NFPEs as allowed, and entering orders that can only be done through systems not available remotely. For NFPEs, clinicians conduct visual exams that are limited to the upper and lower extremities and to facial areas. Nutrition clinicians rely on the patient's nurse for information on areas they cannot see, such as skin. Clinicians are reporting that follow-up assessments have been modified because of limited staffing. Some dietitians are reporting that patients with COVID-19 infections are in negative-pressure rooms, and therefore they do not need to wear entire PPE on the patient care unit, which allows them greater access to other healthcare professionals. Overall, increased communication is needed with providers, especially with the bedside nurses, to confirm what is happening with the patients. Patient weights are often not obtained or even requested, in an attempt to minimize interaction with infected patients. For the most part, indirect calorimetry is not being used in these patients and energy recommendations are based solely on predictive equations because of the risk of contaminating equipment, increased staff time with infected patient, and increased use of PPE.

Enteral Nutrition Use Process Steps

Nutrition recommendations for critically ill patients include starting early EN, within 24–36 hours of ICU admission or within 12 hours of intubation.[3] Provision of early EN in ICU patients has shown improved mortality and reduced infections when compared with delayed EN or withholding EN.[5,6] Included in the Society of Critical Care Medicine (SCCM)–ASPEN 2016 critical care guidelines was cited a meta-analysis from 2000 to 2013 that demonstrated less infectious risk with EN when compared with PN use in ICU patients.[5] Administering EN has been shown to be safe in most ICU patients on a stable low-dose vasopressor.[7] EN provision in these patients with COVID-19 will be examined using EN Use Process and noted where there are alterations. The steps include (1) assessment of the patient, their enteral access, and recommendation of a regimen; (2) prescribing the EN; (3) reviewing the order; (4) procuring, selecting, preparing, labeling, and dispensing the EN formula and equipment; (5) administering the EN; and lastly, (6) monitoring and reassessing the patient.[8] See Figure 1.

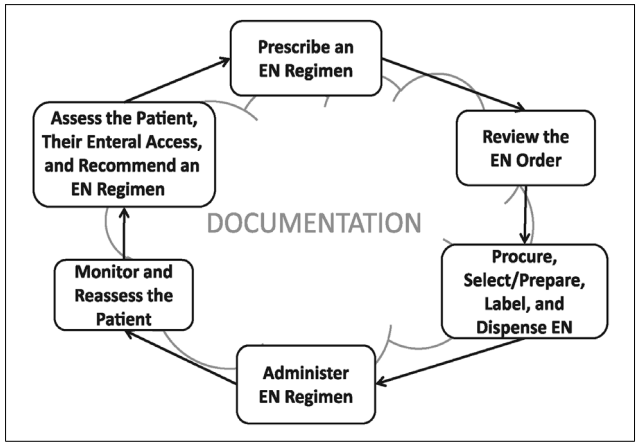

Figure 1. The enteral nutrition (EN) use process. Reprinted from Reference 8.

Enteral Access

Acutely ill patients may have a nasogastric (NG) tube placed for gastric decompression; this same tube may later be used for enteral feeding when gastric decompression may no longer be needed. Replacing the NG suction tube with a nasoenteric feeding tube increases staff risk of contamination.[3] Another issue is percutaneous endoscopic gastrostomy (PEG) tube placement. Respondents reported that centers are not placing PEGs because of a high risk of COVID-19, so many patients will have NG tubes for EN, likely longer than previously experienced. Patients who have gastrostomy tubes (G-tubes) or jejunostomy tubes (J-tubes) and need tubes replaced are having the procedure delayed as much as possible. Interventional radiologist may not be able to do elective G- or J-tube exchanges because of the risk of staff contamination, equipment contamination, and the use of PPE. If an outpatient has an issue with an enteral feeding tube, they may be directed to the emergency department (ED) for x-rays and evaluation.

Recommending an EN Regimen and Prescribing the EN

Clinicians report communicating with other healthcare professionals via a HIPAA (Health Insurance Portability and

Accountability Act)–compliant secure text system. They also report that the advanced practitioners and physicians are relying more on dietitians to enter EN orders and water boluses in the electronic health record (EHR) system.

Procuring, Selecting, Preparing, Labeling, and Dispensing the EN Formula and Equipment

Clinicians reported that they are experiencing shortages of EN formula products, leading to using EN formulas that they might not have used otherwise. Shortages of EN pumps are due to increased demand, with more than twice the number of patients receiving EN than normal. Patients on mechanical ventilation make up a majority of the patients receiving EN. General practice is to infuse EN continuously for mechanically ventilated patients. When an EN pump is not available and a patient needs a continuous EN regimen, it is provided via gravity infusion with the desired flow rate accomplished using a roller clamp in lieu of an enteral pump. If a patient no longer needs a continuous EN feeding regimen, bolus feedings are an alternative mode of delivery. Because of limited availability of the usual variety of formula packaging, EN formulas in Tetra Paks as well as ready-to-hang containers/bags are being used for bolus feeding.

Administering the EN

Because of the high incident of ARDS, more patients are being placed in the prone position (called proning), and there has been an increased need for educating nurses and providers on the safety and appropriateness of EN feeding patients in the prone position. Some nutrition clinicians report that providers are not comfortable with EN in the prone position because of the concern about aspiration. This may lead to lengthy periods during which the patient is receiving inadequate nutrition intake. Nurses caring for patients with COVID-19 infection and respiratory distress may feel the need to hold EN for 1 hour before proning; however, critical care experts in nutrition have recently commented that this practice may not be necessary.[9]

ICU staff are trying to keep all infusion pumps, including EN pumps, outside the patients' rooms. This requires having enough extension tubing with the additional safety concerns of tripping over tubing and tubing on the floor. There is also concern about the short supply of the additional extension tubing. Others are suggesting sharing the limited EN pumps for patients getting bolus or cyclic EN feedings. As a practical strategy to address the need for cluster care described in the SCCM/ASPEN document,[3] one clinician suggested giving all of the daily modular protein or other modular supplements at one time for patients who require this as part of their EN regimen. This is always a helpful approach to minimize additional nursing time required for administration, but it is especially important now to limit nurse exposure to COVID-19 patients. For example, instead of receiving 1 protein packet 3 times daily, the patients are receiving 3 packets once daily to provide the same daily dose with less nursing exposure. Tolerance and efficacy of clustering nutrition modules need to be determined.

Monitoring and Reassessing the Patient

Clinicians report missing visualization of patients. An EN regimen may have been ordered, but because of a shortage of EN pumps or EN administration containers, the prescribed EN regimen may not be infusing. There is also the potential to miss something, as there is a time gap from when a provider sees the patient and documents their findings and observations. A great deal of information is gained by visual examination that may not yet be documented in the EHR. The other striking factor is how unstable these patients are and how frequently their status and therefore nutrition and safety needs change. In instances of hemodynamic shifts, change in the dose of vasopressor medications, and/or difficulty with mechanical ventilator synchrony, patients may need to be much more closely monitored. The EN is often stopped with little documentation in the EHR; thus, it becomes difficult to quantify nutrition intake. The best option to monitor the patient is utilization of an on-site colleague or a team member that is physically going to see the patients and note points of assessment that cannot be gained from the EHR. As with the initial nutrition assessment, communicate with the bedside nurse, as they are already serving as the frontline contact for other teams.

Home EN

Education, delivery of supplies and care, and monitoring of patients receiving EN at home has been challenging. Some home care companies are reporting that their EN supply chain has not yet been affected by COVID-19 and all home deliveries are being made. A big challenge has been for staff that provide inpatient education for patients being discharged from acute care to home with EN therapy. Because of vendor and visitor restrictions, compounded by caregiver fear of entering the hospital (if allowed), home care clinicians are using telehealth technology along with support from the hospital dietitians to provide patients with education on EN pumps and the EN feeding regimen, administration, and device care. Clinicians are using telehealth to teach basic EN feeding administration and feeding-tube site care. In one reported case, an infant needed to start on home NG tube feedings. Normally, that child would have had to be admitted to the hospital to initiate the EN feedings, but the family was very afraid to come to the hospital because of the risk of COVID-19 infection, so the clinician collaborated with a home care company and was able to do a virtual start. The NG tube was placed in the

physician's office, and the home care company did a virtual visit to teach the family about the EN feedings, pump, and supplies. Supplies are being delivered via contactless supply drop to the patient's home.

At home, patient weights and other anthropometric measurements have been challenging to obtain. At home, some families do not have the resources to buy a scale, and the clinician should work with home health to obtain a scale for the patient. For older children, an adult scale can be used, or parents can hold the child and then weigh themselves and subtract the parent's weight to get the child's weight. This method, though, is not accurate enough for infants. Weights are challenging or impossible for patients who are wheelchair bound or too heavy to lift. Sometimes these patients come to a provider's office or clinic to get weighed, and all involved use appropriate precautions such as social distancing and use of masks.

Clinicians report that virtual visits are ideal for follow-up patients who are stable and without any acute symptoms that require close evaluation in person. The face-to-face contact and ability to do a thorough exam remains essential for new patients and those who are acutely ill. One other issue noted was the overall decrease in length of time between patient visits, particularly during the conversion from office visits to telehealth appointments. The significance of these gaps in care remains to be seen, but patients may be missing the care they need. The use of some virtual visits may become a more permanent change in practice overall, even after the resolution of this pandemic.

The Oley Foundation, a national, independent, nonprofit 501(c)(3) organization, strives to enrich the lives of those living with home intravenous (IV) nutrition (parenteral) and tube feeding (enteral) through education, advocacy, and networking. Recently, they conducted a survey of home EN and PN consumers that asked about their home deliveries, supplies, and access to care. The results of the survey can be found at https://oley.org/page/covid19results.

Parenteral Nutrition Use Process Steps

When EN is not an option, there is a need to switch to PN in critically ill patients infected with COVID-19.[3,5,6] The inability to feed enterally may be due to persistent ileus or gastrointestinal (GI) bleeding complications from COVID-19. The threshold for switching to PN or supplementing EN with PN for the patient with COVID-19 infection may need to be lower than for other critically ill patients, especially when EN is not safe or not tolerated. Intubated patients with COVID-19 usually require a prolonged ICU stay and, without adequate nutrition, will incur large energy and protein deficits. As the patient's condition improves, gastric EN should be reattempted. These recommendations vary slightly from statements made in the 2016 guidelines.[5]

The PN Use Process includes the following steps: (1) assessing the patient, (2) ordering the PN, (3) reviewing the order, (4) compounding and dispensing the PN, (5) administering the PN, and (6) monitoring the patient tolerance to the therapy.[10] See Figure 2.

Assessing the Patient

Early EN may not be preferential in a subset of patients with COVID-19 with GI involvement.[3] When PN is used early, review of the use of PN and transition to EN should occur when GI symptoms subside. The nutrition support teams are continuing to assess for and identify refeeding syndrome in those with preexisting malnutrition or other risk factors. They are monitoring patients with ARDS who require mechanical ventilation to assess whether these patients can tolerate EN. In patients with COVID-19, there has been an increase in thrombosis, malnutrition, and renal failure, in which EN therapy was adjusted if needed. Some healthcare organizations are reporting a lower overall number of patients receiving PN and suspect the decrease may be in direct relation to a limited number of elective operations being performed.

Nutrition history and other pertinent information not in the EHR are obtained over the telephone from the patient, family, bedside nurse, or primary team (in order of preference). In an attempt to obtain information from the patient first, EHR resources such as the telephone number to the patient's room were made available and added to the PN census list.

Ordering the PN

The only significant change in prescribing PN therapy was a reported movement from soybean oil–based lipid injectable emulsions (ILEs) to alternative ILE products that have a lower profile of inflammation contributing fatty acids. This recommendation was reiterated in the recent ASPEN and SCCM recommendations for these patients infected with COVID-19.[3]

Reviewing the PN Order and Compounding and Dispensing the PN

Clinicians are making adjustments to the PN order review and compounding process without compromising practices for safe PN therapy.[11] One center reported a shift to using more multichamber-bag PN products due to the need to decrease pharmacist and pharmacy technician time in the sterile compounding area, in order to decrease use of PPE and shift resources to other pharmacy responsibilities. In terms of the supply of PN components, 2 major manufacturers put their products on protective allocation to control distribution in the event of increased demand. Other companies are not reporting overarching shortages.

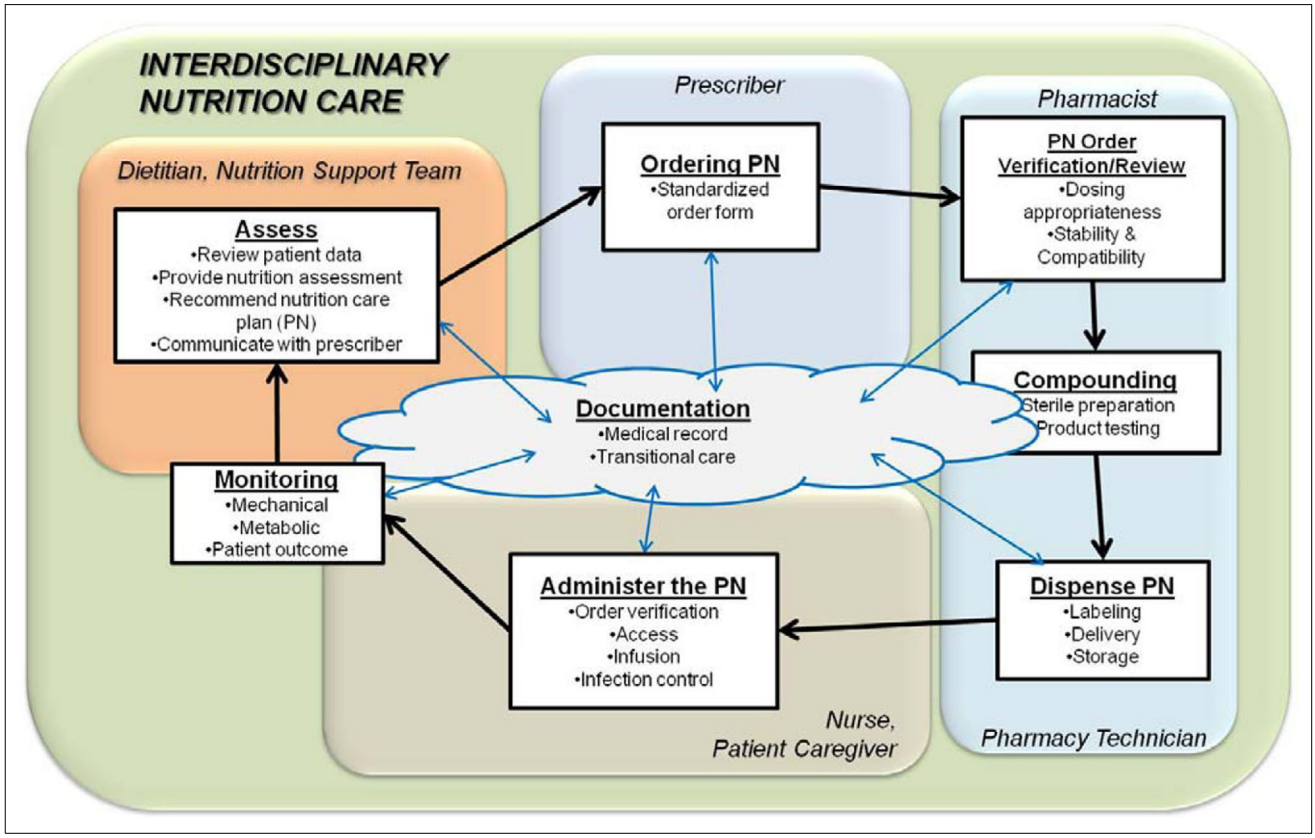

Figure 2. Parenteral nutrition (PN) use process. Reprinted from Reference 10.

Some clinicians are reporting that the biggest challenge is maintaining adequate stock of medications, IV fluids, and electrolytes including calcium, potassium, and phosphorus for patients with COVID-19 requiring continuous renal replacement therapy, along with antibiotics, paralytics, and sedatives for these patients.

Administering the PN

For patients with COVID-19, consolidation of medication administration times is attempted, so the standard administration time for PN may need to be modified. The smart pumps are outside of the patients' rooms so the nurses can control the settings from a distance. Like with EN pumps, there are concerns such as tripping over tubing, determining the priming volume needed, and shortage of extension tubing. For these infusions including PN, nurses are covering the tubing with a protective layer, since it could touch the floor, an important consideration from an infection-control standpoint.[12]

Monitoring

Some patients with COVID-19 have quickly developed hypertriglyceridemia. In patients receiving propofol or PN with ILE, serum triglyceride concentrations are obtained at baseline and within 24–48 hours of initiating therapy.

Home PN

One clinician shared that their home PN team follows about 130 patients at any one time. Nearly half of these patients have long-term PN dependency. This team has an interdisciplinary home PN clinic where patients are seen, and with COVID-19, this clinic is closed. The team adapted to a virtual clinic visit using a cloud-based conferencing service. The physician, nurse, dietitian, and pharmacist each access the platform from their respective location in advance of each scheduled patient, and then the patient (and caregivers) joins the conference at their appointed time. Aside from the inability to perform a physical exam, other than what patients can perform and demonstrate, this has worked well. In fact, the team is considering using this virtual clinic visit format after COVID-19–related restrictions are lifted, for those patients whose geographical location or clinical situation precludes them from attending home PN clinic visits in person.

Some home nutrition support services easily transitioned to working remotely during the COVID-19 pandemic. For

example, one service already had a staff person working from home each week who was responsible for reviewing laboratory results, contacting providers, and making changes to home PN admixtures. Information to support home PN patients is generally available electronically, such as medical records, patient laboratory results, and education information, and thus minimal changes to workflows were needed. The 24-hour emergency service for home PN patients needing treatment for urgent metabolic and catheter complications is unchanged with COVID-19. To respect social distancing, the provider and dietitian no longer complete the visit together in the same outpatient examination room. Instead, the dietitian completes a portion of the visit with the patient, documents in the EHR, and then forwards pertinent information to the provider (as per normal operations). After the provider completes the video virtual visit with the patient, the provider and dietitian work together to implement any changes to the home PN care plan.

Some clinicians reported challenges while taking care of home PN patients remotely. Typical resources are not available when working outside of the institution. Others reported challenges getting home PN patients' laboratory results because patients did not have them done, owing to issues with coordination with home nursing companies or because blood for laboratory tests was contaminated or hemolyzed when inexperienced personnel obtained the samples. This was echoed by clinician respondents, who are extending the frequency of laboratory draws whenever possible. Having a home PN patient with an infection was concerning, as the usual management was having the patient come to the hospital, get evaluated, and be admitted, if necessary. During this pandemic, and with the hospitals so locked down, a clinician might hesitate to send the patient to the ED. However, it is important to continue to recommend ED visits appropriately in the setting of symptoms for central line infections or complications related to home PN that cannot be treated virtually or in a clinic.

One clinician reported that his center is doing a study on patient satisfaction with the virtual visits. He suspects that patient satisfaction will be good with no time wasted driving to the clinic, and the physicians, dietitians, and other members of healthcare team are on time with the virtual visit. Other clinicians are reporting a decrease in new home PN patients over the past few months, and patients receiving home PN are unable to get routine procedures and diagnostic tests.

Like home EN, one of the challenges pediatric clinicians reported is ensuring that caregivers can properly weigh or measure their child. One of the benefits of telehealth is being able to meet all family members, since perhaps both parents could not previously attend clinic appointments with their child. Also, like the hospital, a serious issue is the shortage of PPE, and home care companies are rationing these supplies. As an effort to avoid hospital admissions for central line–associated bloodstream infections, one group of clinicians wanted to use ethanol locks for central catheters but were unable to do this because of the price of ethanol.

Other Clinical Issues

Precepting

One pharmacist reported currently having a pharmacy resident and the challenge to precept with all of the changes in practice. They communicate throughout the day via phone, text, and a virtual conference platform. Much of the training is on PN order entry and documenting securely in the EHR. One of the biggest missing training components is the ability to perform the NFPE and the hands-on learning about enteral feeding tubes, central venous catheters, and body-fluid drains during this pandemic. Teaching dietetic interns remotely does not give them the experiences to develop clinical instinct that something is a mismatch, but had they been able to visualize a patient, the issue might be easily identified.

Security and Technology Issues

Some of the telehealth technology such as video conferencing platforms like Zoom may pose security issues. Some hospitals may have Skype for Business and HIPAA-compliant Zoom licenses available for download. It is important to know what applications institutions are using, especially if discussing patients or screen sharing private health information. Computer issues, including access, internet speed, and bandwidth, can be problematic. Not all software programs available on work computers are available remotely, or they may function differently with home computers.

Food Service Delivery in the Hospital

Food delivery in the hospital has changed as well. Some hospitals previously providing room service for meal delivery have changed to a standard meal delivery time. Food service switched to disposable trays for the patient care units with patients who have COVID-19. This is for the ease of the nurses, who must quickly enter and exit the patient's room, and they can dispose of the used tray in the room trash can. The food service team delivers the cart of trays, and then the nurses deliver the meals to patients when they cluster their care. Breakfast delivery time has been adjusted to an earlier time to allow the evening/night shift nurse to deliver breakfast meals with their final cluster of care. Challenges include the nurse being able to take the tray into the room at mealtime. Disposable trays do not keep food warm like standard hospital meal-delivery systems, and if meal delivery is missed, then an additional entry into the patient's room is required along with additional use of PPE.

There was no reported change in the ordering, delivery, or use of oral nutritional supplements. It might be more difficult to assess the quantity of the supplement consumed.

Stress on Patients and Nutrition Support Clinicians

Several clinicians reported dealing with the challenges and hardship of patients and families not being able to see each other. Patients are hesitant to come into the clinic or hospital when they cannot be accompanied by their spouse or other family members. Clinicians reported this as heartbreaking when imagining coming to the hospital without the physical presence of a loved one, and the difficulty multiplied when managing complications from critical and chronic care such as cancer care.

Clinicians also reported personal stress when adjusting to working at home, including fatigue and back pain. They felt more compelled to stay at the desk with limited time to get up. They adjusted by standing up every few hours for a 10- to 15-minute break and doing stretches before bed. They also noticed it was more difficult to focus with family members trying to interrupt the workday and thus had to establish boundaries/rules. On clinician reported that work takes longer, since most information is by chart review rather than direct observation, along with the added communication efforts with bedside clinicians. One area that will have to be addressed is the financial impact on health systems due to lack of elective procedures and decreased patient load. Clinician respondents expressed concern about economics and job security, as they are reporting decreased number of work hours, mandatory use of paid time off, furloughs, and layoffs.

Resources

Clinicians sometimes reported that with the rapid move to having to work remotely, they left without references, and they are unable to return to the hospital to retrieve them. Nutrition support clinicians created or accessed important resources electronically. One team created a telephone directory on a spreadsheet so frequently used numbers would be easily accessible by clinicians rather than having to look them up one at a time. Many reported the "Nutrition Therapy in the Patient with COVID-19 Disease Requiring ICU Care" being used as an important, timely reference for the nutrition support teams, and this is demonstrated by the large number of downloads of this paper.[3] One dietitian created a tip sheet for the ICU nurses, encouraging them to provide EN to patients who are in the prone position. Another nutrition support team member prepared an algorithm based on the published ASPEN and SCCM recommendations on how to treat the critical care COVID-19 patient so that the outpatient dietitians would have a tool to use and help them care for patients if the surge required them to work in the acute care setting.

Conclusion

This paper characterizes nutrition care issues and process changes that have occurred in response to the COVID-19 pandemic. Nutrition support clinicians are promoting appropriate nutrition in this patient population and making efforts to maintain safe practices in outpatient clinics across the care spectrum to those in ICUs. Using evidence-based practice recommendations while altering standard care processes will serve these patients best as more is learned about this novel virus. Should a second wave of the COVID-19 pandemic occur in late 2020 or early 2021, this call for clinical nutrition process alterations and report will be repeated to assess practice patterns and lessons learned.

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Supplementary Information

Additional supporting information may be found online in the Supporting Information section at the end of the article.

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