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## Section 11. Transition of Care

### Background

A major goal of transitioning the EN patient to home or an alternate care site is to prevent readmission to the acute facility. Therefore, many factors need to be considered to ensure that patients have everything for the safe and successful admission of EN at home or in another setting. Institutions play a critical role in ensuring the safe transition and adequate education of patients and caregivers to home EN therapy. Optimal transition to home EN requires a collaborative approach among all disciplines and professions involved in the care of the patient.<sup>1,2</sup> Disciplines involved in the transition of home EN patients can use guidelines, policies, and procedures to best serve the interests and safety of these patients. It is advisable to commence the education of the patient and caregiver as early as possible so potential problems and concerns can be identified.<sup>3</sup>

**Question 11.1. What are the criteria and factors to consider to safely transition a patient on EN from the hospital to home or an alternate care site?**

### Practice Recommendations

1. Establish tolerance to EN at the goal regimen prior to discharge.
2. Provide written and verbal instruction to the patient and/or caregivers well before discharge.
3. Ascertain that the patient/caregiver demonstrates competence in all components of the EN therapy.
4. Assess safety of the home environment by including home care provider and case manager in the process.
5. Utilize competent nutrition clinicians to monitor home EN therapy.
6. Prior to discharge, educate the patient/caregiver on how to obtain necessary supplies.

### Rationale

To ensure a safe transition of the EN patient from the hospital to home setting, multiple conditions must be met. Most important, the patient must tolerate the EN therapy (formula, rate,

and volume) to be continued in the home or alternate care setting. Patients experiencing EN intolerance are at much greater risk of developing complications that may require hospital readmission, including tube blockage, GI issues, and underhydration or overhydration. The patient/caregivers will need education about the EN therapy to be used in the new setting. Written and verbal instruction can begin well before discharge and will include the following: all elements of the EN prescription, including water-flushing regimen and treatment plan; care of the feeding tube; troubleshooting of common complications; and who to contact for help at any time. Instruction to specifically address water requirements and flushing is important. In a study of older adults receiving EN at home, 73% of patients reported decreased urination and 63% reported constipation.<sup>1</sup> As part of the instruction process, educators must evaluate the patient/caregiver's ability to demonstrate competence in the fundamental aspects of EN therapy.

Prior to discharge, the home environment must be screened for safety. A clean water supply, refrigeration and electricity, a sanitary environment, sufficient space to administer feedings and store supplies, and telephone access are required to safely administer EN at home.<sup>2</sup> In addition, the home must have resources available for use during emergencies. For alternate site care, the care team at the hospital thoroughly discusses the patient's plan of care with the receiving facility's nutrition support expert.

The lack of professional nutrition services in the home setting may increase the risk of preventable complications. In 1 report, one-third of older adult patients receiving EN at home reported tube clogs or leaks, problems that increase the risk for underfeeding, dehydration, or stoma complication. Almost one-third of patients using an EN pump reported pump malfunction, which increases the risk of underhydration and underfeeding.<sup>1</sup> The need for tube changes is another common complication of EN.<sup>3</sup> These patients need to be managed and monitored by healthcare professionals who are competent in nutrition support and are available to respond to complications. In addition, collaboration and communication between these professionals are essential.<sup>2,4</sup>

Patients receiving EN at home often feel isolated as a result of their therapy.<sup>5</sup> To help prevent such isolation, clinicians involved in preparing patients for EN at home can refer them to a support organization, such as the Oley Foundation or the Feeding Tube Awareness Foundation, which can help patients when the need for EN at home is established and prior to hospital discharge.<sup>5</sup> When preparing patients for home, the care team can also establish an initial and ongoing process for obtaining all necessary supplies, including initial review and verification of insurance and/or third-party coverage prior to discharge. In addition, the home medical supply company or alternate site must be able to supply formula, equipment, and supplies prior to or upon discharge. It is certainly advantageous to the patient's safety and comfort if the home supply company provides competent nutrition clinicians to address education needs, tolerance, complications, and nutrition adequacy of EN at home.

**Questions 11.2–11.4. What components of EN education are important to promoting efficacy, safety, and quality of life for the caregiver/patient? What are the most effective methods of caregiver/patient EN education/instruction considering literacy and safety? When should education/instruction for patients receiving EN at home be performed?**

### *Practice Recommendations*

1. Begin the referral process once the decision for EN therapy is made.
2. Begin education for the patient receiving EN at home prior to placement of the EAD.
3. Provide patient and caregiver education that is comprehensive, includes education materials related to EN therapy, and uses a standard checklist.
4. Provide the patient and caregiver with verbal and written education that covers the following topics:
  - a. Reason for EN and short-term and long-term nutrition goals (ie, weight goal)
  - b. Feeding device, route and method, formula, and feeding regimen
  - c. Identify necessary supplies needed to administer enteral tube feedings at home
  - d. Use and cleaning of equipment, including administration/feeding set, infusion pump, and syringe
  - e. Care of the feeding tube and access site such as securing, flushing, and unclogging the tube and stoma care
  - f. Nutrition and hydration guidelines: feeding plan/regimen, water flushes, hydration monitoring
  - g. Weight schedule, lab work recommendations
  - h. Safe preparation and administration of formula
  - i. Safe preparation and administration of medications
  - j. Proper position during and after feedings
  - k. Recognition and management of complications (mechanical, gastrointestinal, and metabolic)
  - l. Available resources, emergency care plan, and healthcare contacts
5. Use demonstration and teach-back method of patient education to assess comprehension.
6. Use various methods of education for EN to take into account various learning styles.
7. Implement an EN education checklist to assist with the discharge coordination process.

### *Rationale*

Effective patient and caregiver education is an integral part of discharge for patients going home on EN and can start soon after the decision is made to transition a patient. Inadequate initial EN education and follow-up have been reported as

challenges associated with EN at home.<sup>6</sup> A study of parents of children receiving EN at home reported that most parents indicated a need for improved EN services. Parents wanted a more structured follow-up and would have preferred that 1 healthcare professional coordinate EN education and discharge.<sup>7</sup>

Institutions need guidelines, protocols, and policies for the safe provision of EN to adult and pediatric patients as well as procedures for ensuring a safe discharge to home on EN. Home care and supply companies should continue this process after discharge. When possible, it is advisable to provide training for more than 1 person on all aspects of tube care and feeding management. Essential components of the education process include training on feeding tube and access site care, preparation and administration of formula, medication administration, enteral pump operation, monitoring and troubleshooting complications, and emergency care plan and contact information.<sup>6,8–12</sup> Thompson et al<sup>13</sup> have emphasized the need for clinicians to evaluate the effectiveness of their EN education process, provide comprehensive EN education and patient resources, proceed over more than 1 educational session, and prepare patients and caregivers to resolve foreseeable problems, such as tube occlusion and dislodgement, skin care issues, and psychosocial challenges.

Patients receiving EN at home may cope more effectively and comply more successfully with the EN plan when clinicians actively seek their input regarding the feeding plan and craft a plan that is as flexible as possible to conform with the family's lifestyle. Flexibility within feeding regimens may alleviate some of the stress that patients have and has the potential to improve the impact of EN on quality of life. Simplifying the EN regimen, minimizing the infusion time, and providing an ambulatory pump or feeding tube that best fits the patient's physical and lifestyle needs may help reduce EN-associated life disruptions.<sup>13</sup> For some patients with gastrostomy tubes, transition to home may be made easier by employing the syringe/bolus feeding method. Feedings are ideally scheduled to fit as conveniently as possible with the patient's home and/or work routine. In addition, the clinician can help the patient/caregiver understand why changes to the enteral or medication regimen could result in adverse outcomes.<sup>6</sup> Another opportunity to help patients cope with the day-to-day living on home nutrition support is to refer the patient to a support group or organization specific to the disease or therapy the patient is experiencing.

Various methods may be used to deliver education for the patient receiving EN at home. The most effective methods for a given patient or caregiver will take into account the individual's specific learning styles and provide visual demonstration and reinforcement with graphics, video, online tutorials, nutrition education handouts, or other approaches that best suit the learner. Language and health literacy are factors to consider in the instruction process. Clayton<sup>14</sup> authored an invited review to aid selection of effective patient nutrition education materials and has identified some key features of the healthcare delivery system that may detract from the effectiveness of EN education

and negatively affect the patient's ability to safely administer EN at home, including decreased patient-provider contact time, length of hospital stay, and increased patient responsibility for self-care. When selecting education materials, it is important to evaluate them for content, literacy level, graphics, layout, and typography. The motivating principles, cultural relevance and primary language, feasibility (cost, equipment needs), and accessibility are other factors to consider in patient education. When online sources are used, educators need to evaluate the references' credibility and help patients find reliable Internet resources. For example, websites can be reviewed for potential conflicts of interest, disclaimers, and disclosures, and the ease of navigation and interactivity can also be evaluated.<sup>14</sup>

An EN discharge checklist helps the educator and patient/caregiver document and track stepwise instruction. Use of a discharge checklist has been shown to enhance patient care and help streamline the discharge coordination process.<sup>15</sup> The Agency for Clinical Innovation and the Gastroenterological Nurses College of Australia clinician's guide provides an example of an EN checklist.<sup>16</sup> Items detailed in this example include tube/device and site care, the nutrition and hydration plan, regimen details and preparation instructions, procedures for supply procurement and refills, monitoring, follow-up care, and contact details. The checklist can also document the date(s) that instruction was given and whether the patient and/or caregiver can demonstrate the instructions, as indicated by patient/caregiver and educator signatures.<sup>16</sup>

Optimal EN education begins before the EAD is placed. Preoperative education may increase the patient's comfort level, allay anxiety, reduce the hospital length of stay, and improve patient satisfaction. Whenever possible, the patient and family must be made aware before the procedure of potential complications and scope of care of the feeding tube, as well as what costs of care will be reimbursed.<sup>17</sup> Identifying concerns early can help alleviate some of the patient's fears and potential misconceptions about having a feeding tube. Early educational interventions also provide opportunities to assess the ability of the patient to care or obtain care for the tube and administer feedings.

**Question 11.5. What is the best method to communicate enteral prescriptions and care instructions during patient transfer or discharge home or alternate care site?**

*Practice Recommendations*

1. Determine the safest and most effective mechanism for communicating the EN care plan. See Figure 12.
2. Involve representatives of the discharging site (nutrition support clinician, case manager, or prescriber) and the accepting site or home care team (nutrition support clinician, home supply company, home health agency) in planning the care transition.

3. Transfer the EN prescription and regimen to the accepting home care team (nutrition support clinician/home supply company/home health agency) via standard electronic information systems accessible to all healthcare providers and suppliers associated with the patient prior to discharge.
4. Communicate the EN regimen to the home care team caring for the patient.

*Rationale*

Adequate and timely transfer of information between inpatient and community settings is imperative for safe care of EN patients.<sup>18</sup> Incomplete or incorrect communication of the EN prescription and regimen during patient transfer may delay the administration of adequate and appropriate nutrition. It may also lead to hospital readmissions and emergency department visits that may have been preventable.<sup>1</sup> See Figure 12 for a template of information that should be available for safe transitions. Ideally, the enteral prescription and regimen are transferred to the accepting home care team via standard electronic information systems that are accessible to all healthcare providers and suppliers associated with the patient.<sup>19</sup> Use of these systems may improve communication; however, they may not be universally available or accessible due to technical limitations or institutional policies. The EN prescription and regimen are best communicated in the available medical record. Effective communication of the EN plan is written in plain language, includes all essential elements, and does not use abbreviations that might lead to misinterpretation and error. Ideally, the EN plan is provided to the home health agency or medical supply company prior to discharge.<sup>1,19</sup> If a change or clarification of the EN prescription must be communicated by phone, the person receiving the new information should repeat it back to ensure that it is received and interpreted correctly.

Clear and complete communication of the EN prescription will cover the feeding method, the name of the formula and any modular additives, the calorie concentration, the rate in milliliters per hour if pump fed, and the volume of formula per feeding or per day, as well as the duration of the feeding—for example, [full name of specific formula product, including concentration] at 75 mL/h times 22 hours to provide 1650 mL daily. Clear and complete instructions about water flushes are also part of the EN prescription and regimen communicated to the patient or caregiver and the home care team.<sup>1</sup> An example of these instructions would be as follows: 250 mL of water 4 times daily plus 50 mL water before, with, and after each medication. If feeding tubes are included in the EN prescription, instructions about the brand, type, French size, and length, if applicable, are also communicated.<sup>16</sup> Communication of the home EN regimen, including guidance on tube replacement and medication administration, is relevant to all healthcare providers and suppliers involved in the patient's care. An interdisciplinary team consisting of the case manager, prescriber, nurse, dietitian, and homecare provider can facilitate the effective communication of the nutrition prescription.<sup>20,21</sup>



**Question 11.6. If the patient is going home on a different formula (or different feeding method) than the one used in the hospital, is it advisable to try it first in the hospital?**

### Practice Recommendations

1. Use the type of formula that will be administered at home for a trial period prior to discharge.
2. Use the feeding method that will be administered at home for a trial period prior to discharge.
3. Avoid making last-minute changes to either the formula or method just prior to discharge.

### Rationale

The hospital provides a safe setting in which patients are closely monitored for tolerance to EN. However, the patient may go home on a different enteral formula or feeding method due to patient preference, lifestyle or ability, insurance coverage, or product availability through the home health agency or the supply company. In this case, the new formula or feeding method should be used in the hospital setting for a trial period to avoid potential complications related to intolerance.<sup>21</sup> A trial may be more important when the patient is to transition from a more specialized formula to a standard or less-specialized product or to bolus or gravity feeding from continuous pump feeding. For example, a patient transitioning from a peptide-based to a standard formula may be at risk for intolerance and GI complications that may be more safely handled in the hospital setting. GI complications are common with EN at home and have the effect of reducing the amount of nutrition delivered to the patient, increasing the risk of malnutrition.<sup>1</sup>

Adequate instruction of the patient or caregiver on the feeding method and formula to be used at home can optimize safety and adherence to the treatment plan. Ideally, the method or regimen chosen for home care is one that fits well with the patient or family's ability and lifestyle.<sup>8</sup> Planning for discharge throughout the patient's hospital stay can reduce the risk of readmission.<sup>22</sup> Inpatient administration of the EN to be used at home and education on the EN regimen for home are part of the planning process.

### Topics for Future Research

- Patient and caregiver ability, attitudes, and experiences
- Effect of insurance coverage for EN at home on outcomes
- Evaluation of EN patients' experience regarding the discharge process at home
- Evaluate support systems and potential interventions for caregivers of tube-fed children
- Appropriate mechanism for follow-up and monitoring for patients receiving EN at home
- EN and EHRs
- Ideal feeding method and formula for EN at home

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