

Partnership of a Home Tube Feeding Provider and Home Health Agency: Making a Difference in Rural Communities

Vicki Emch, MS, RD, CNSD, Littleton, CO; Angela Olson, RD, Littleton, CO. Apria Healthcare, Inc.



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Introduction

Providing appropriate care for patients on specialized nutrition support in the home is challenging, but even more so when the patient lives in a rural community with limited medical or nutritional resources. Optimally when a patient is discharged on enteral feedings, they should receive education, support and follow up to ensure they will be successful at home. This can be accomplished fairly easily if a patient is in a metro area where there is a good care/support provided by a home nutrition support provider. In a rural community, it is often left up to the local home health agency (HHA) and/or physician who may not be very familiar or comfortable with the art and science of home tube feedings.

Background

Coccidioidomycosis is a fungal infection that is caused by the inhalation of *Coccidioides immitis*. This illness is often referred to as “valley fever” and is endemic in the southwest portion of the United States, Northern Mexico and Central America. In most cases, the infection causes only mild, flu like symptoms that resolve without treatment in healthy individuals; but those who are chronically ill or immunocompromised are at higher risk for complications.

In a small percentage of patients, the infection can progress to disseminated coccidioidomycosis. The skin, lymph nodes, bones and joints are most commonly affected, but if the infection disseminates to the central nervous system, it usually results in coccidioidal meningitis. The symptoms may include fever, headaches and meningeal irritation. Cognitive impairment or personality changes are also possible. It is estimated that meningitis occurs in 30 to 50 percent of patients with untreated disseminated disease and is often fatal without prolonged or life-long treatment with an antifungal drug such as fluconazole.

Fluconazole is a synthetic triazole antifungal agent and most commonly used for the treatment of vaginal candidiasis, oropharyngeal and esophageal candidiasis and Cryptococcal meningitis.

This drug is usually well tolerated, but there is a small incidence of adverse effects such as dry mouth and taste changes. In individuals receiving a dose of fluconazole for seven days or more, the incidence of adverse events occurred at 1 percent or greater for the following:

Adverse Effect	Incident Rate
Nausea.....	3.7%
Headache.....	1.9%
Skin Rash.....	1.8%
Vomiting.....	1.7%
Abdominal pain.....	1.7%
Diarrhea.....	1.5%

Case Study

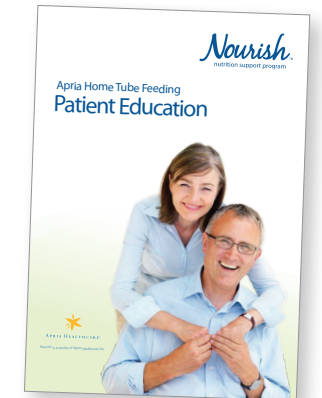
The patient is a 66-year-old woman with complications related to Coccidioidomycosis, commonly known as “valley fever.” During the course of two years, the patient was admitted to multiple hospitals for coccidioidal meningitis, rehabilitation for a subdural hematoma, treatment of *Clostridium difficile* and protein calorie malnutrition. Patient’s weight prior to contracting Coccidioidomycosis was 135 lbs but dropped to 86 lbs. A gastrostomy tube was placed during her last hospitalization in January of 2010. She tolerated tube feedings well and her weight on discharge to home was 105 lbs. The patient was not discharged on tube feedings but on a regular diet with high calorie supplements. Her feeding tube remained in place but her physician/family were not comfortable using the tube due to a belief that this would lead to unwillingness to eat.

The patient struggled at home, and her weight dropped to 90 lbs. The patient did not suffer from nausea/vomiting/diarrhea, but she did have a reduced appetite and problems with dry mouth which is a side effect of fluconazole, an antifungal medication she was required to take on a daily basis to keep her coccidioidal meningitis under control. Along with a reduction in weight, the patient also lost strength and the ability to perform activities of daily living (ADL). She also developed anxiety regarding eating.

Despite aggressive measures from family and a visiting nurse to encourage intake, the patient failed to make any progress. The nurse contacted a Registered Dietitian (RD) at a national home tube feeding company and requested help to convince the physician and family of the benefits of home tube feeding. Working together via phone, fax and email, the RN and RD were able to secure a consult for nutrition recommendations from the physician. To ease the patient’s and family’s fear regarding tube feeding therapy, a conference call was arranged to obtain

information, answer questions and provide education on tube feeding. Detailed written instructions and a step-by-step instructional DVD on home tube feeding were provided to the HHA and family. After viewing the DVD, the family was comfortable with the concepts of tube feeding and agreed to institute therapy. It was agreed that the patient would continue her normal diet and receive a bolus of 1.5 kcal/ml formula after each meal and before bed. This would provide 1500 calories and 65 grams of protein per day in addition to her oral intake. The patient tolerated this schedule well, and at the end of six weeks, the patient’s weight had increased to 105 lbs and she stated she had more energy and was feeling stronger.

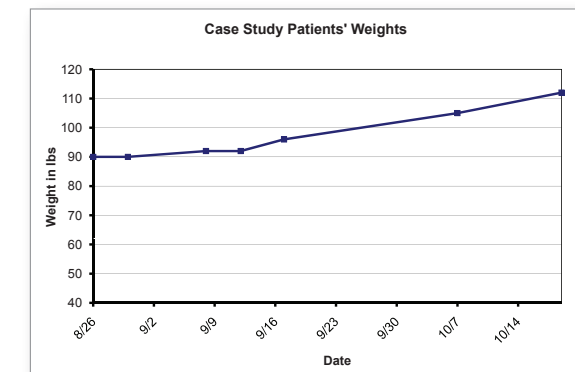
The RD and HHA RN continued to monitor the patient and to work with the family to taper off the tube feeding while closely monitoring oral intake. The patient continued to make progress and was able to discontinue tube feedings after three months of therapy.



Home Tube Feeding Patient Education DVD

Tube Feeding	Start	End	Start	End	Start	End	Start	End	Start	End	Start	End
Tube Feeding	0	0	0	0	0	0	0	0	0	0	0	0
Fluid (ml)	0	0	0	0	0	0	0	0	0	0	0	0
Calories (kcal)	0	0	0	0	0	0	0	0	0	0	0	0
Protein (g)	0	0	0	0	0	0	0	0	0	0	0	0

Nourish Enteral Nutrition Report



Conclusion

This case study represents the benefits of a partnership between a home health agency and a home nutrition support provider that not only has Registered Dietitians on staff but also has a variety of educational tools that can help patients be successful at home on tube feedings in both large and small communities.