

# Does the Diabetic Home Enteral Patient Need a Disease-Specific Formula? A Retrospective Observational Review

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## Introduction

Currently there are no formal recommendations for enteral formula selection in the home care setting for patients with diabetes. While formula trials have been conducted in the past, they have varied in method, design, and sample selection. Trials of a standard formula for individual patients may be important as some payers require documentation of a failed trial of a standard formula prior to reimbursement of a disease-specific formula. The purpose of this review was to examine home care diabetic patients' tolerance of a standard tube feeding formula, as well as to propose a best practice method for trialing diabetic patients on a standard product.

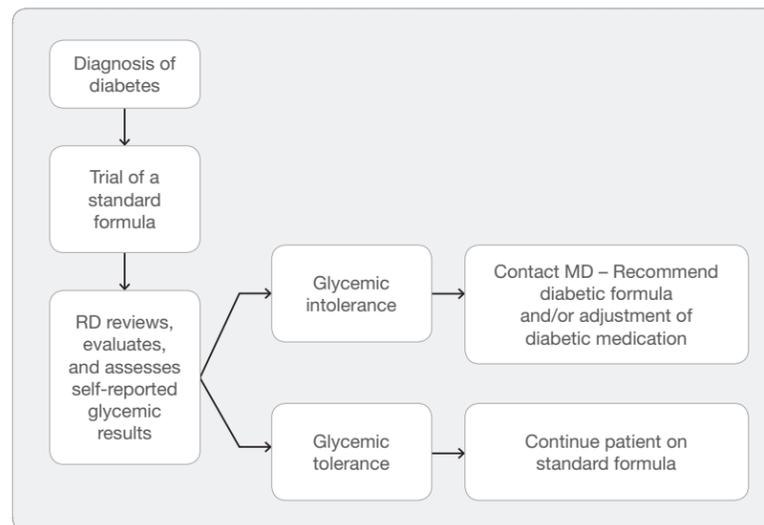
## Methods

- A retrospective, observational review of data was conducted for 104 enteral adult patients with diabetes newly referred to a home infusion company over a 90-day time period (February 1 through April 30, 2014). Of the 104 patients, 59 were evaluated; these patients had previously been trialed on a standard formula at some point in their care. These 59 patients were trialed on standard formula in two settings.
- Forty-nine patients were trialed on a standard formula while hospitalized.
  - For those patients previously on standard formula, hospital clinicians evaluated tolerance of standard formula based on the hospital care plan, and home tube feeding formula was prescribed accordingly.
  - Once discharged home, all patients received a telephonic follow-up call from a Registered Dietitian (RD) within 72 hours to perform a nutrition assessment and evaluation of tolerance of the current prescription.
  - If intolerance was reported, the physician was contacted and recommendations were provided to change to a diabetic formula and/or make adjustments to medications.
- Ten patients were trialed at home post-discharge. All 10 patients had previously been on diabetic formula.
  - Six of the in-home trial patients had a home start-of-care prescription for a standard formula. The other 4 patients had verbal approval from their physician for a 3- to 5-day in-home trial of a standard formula. All 10 patients had requests from their doctor for the patient to be monitored closely for tolerance of a standard formula.
  - In-home trials were conducted by a home care RD. All patients were trialed according to the proposed best practice guidelines (above right).
  - A calorically equivalent, full-strength standard tube feeding was initiated in place of the diabetic formula.
  - All patients received a telephonic follow-up call from a Registered Dietitian within 72 hours of the formula change. The RD performed a nutrition assessment and evaluation of tolerance of the new prescription.
  - Subsequent follow-up calls were made to the patient to assess glucose control, and blood glucose logs were reviewed.
  - If the patient experienced abnormal blood glucose levels based on their individual care plan, the patient's doctor was contacted.

## Proposed Best Practice for Conducting an In-Home Trial of a Standard Formula

- Select a full-strength formula that is calorically equivalent to the diabetic formula.
- Initiate standard formula based on same rate or dose of diabetic formula.
- Have caregiver or patient monitor finger sticks for hyperglycemia results.
- Have caregiver or patient monitor for signs and symptoms of hyperglycemia. Signs and symptoms of hyperglycemia include frequent urination, increased thirst, blurred vision, fatigue, headache, nausea and vomiting, and confusion.
- Base tolerance results on the patient's individual care plan for blood glucose control.
- Conduct trial for 48 to 72 hours.

## Algorithm for Trial of Standard Formula in Diabetic Enteral Patients



## Results

### Overall Trial

- Forty-seven of the 59 patients analyzed (80%) had a prescription for a standard formula at the time they were referred to the home infusion company. After the trial, eight of those patients (17%) required a diabetic formula as their final prescription in the home. (See Chart 1.)
- Twelve of the 59 patients analyzed (20%) had an initial prescription for a diabetic formula at the time they were referred to the home infusion company. After the trial, six of those patients (50%) required a diabetic formula as their final prescription. (See Chart 1.)
- For all patients trialed, 45 patients (76%) could be prescribed a standard tube feeding formula in the home, while 14 patients (24%) benefited from a lower carbohydrate diabetic formula. (See Chart 2.)

Chart 1. Initial Prescription versus Final Prescription

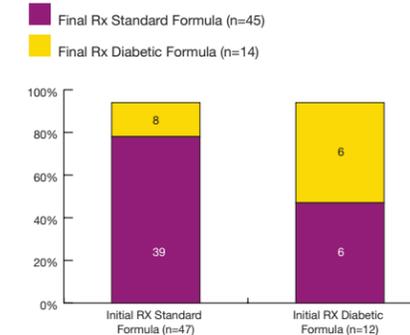
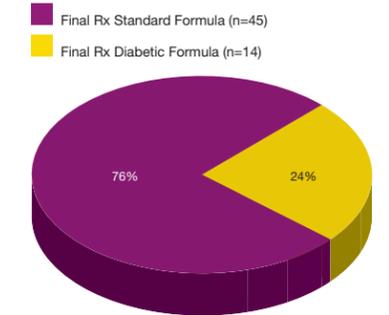


Chart 2. Final Outcomes of Standard Formula Trials (n=59)



### Hospitalized Trial

- Of the 49 patients who trialed a standard formula in the hospital, 41 of those patients (84%) tolerated a final prescription of a standard formula, while eight of these patients (16%) required a final prescription of a diabetic formula. (See Chart 3.)

### In-Home Trial

- Ten of the patients with an initial prescription of a diabetic formula completed an in-home trial of a standard formula. Four of these patients (40%) successfully converted to a standard formula, while six of these patients (60%) required a final prescription of a diabetic formula. (See Chart 4.)

Chart 3. Hospital Trial of Standard Formula (n=49)

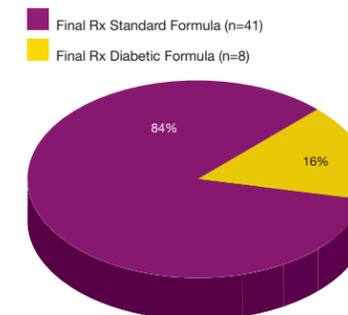
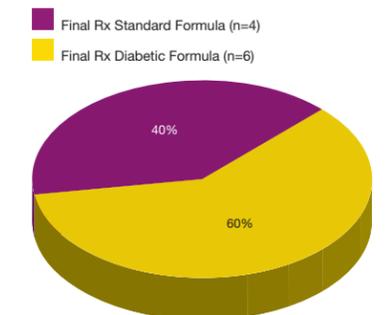


Chart 4. In-Home Trial of Standard Formula by RD (n=10)



## Conclusions

This study indicates that many home tube feeding patients with diabetes can achieve desired glucose goals while receiving a standard tube feeding formula. Patients with diabetes can be trialed on a standard tube feeding formula using a proposed best practice method to systematically determine the most appropriate formula for long-term use. A standard tube feeding trial can be accurately and safely conducted in the home by a home care Registered Dietitian. The outcome of the standard formula tube feeding trial (either successful or failed) can be appropriately documented in the patient's medical record by the RD and the MD to meet specific insurance requirements.