The field of clinical dietetics, like all sciences, is in a constant state of flux with new evidence based guidelines emerging.

To communicate these updates, the registered dietitians at Charlotte Hungerford Hospital decided to implement a quarterly clinical nutrition update for the medical community here at CHH.

Charlotte has three RDs on staff in the Food and Nutrition Department contracted through Morrison Healthcare Food Services.

Carla Angevine MS, RD is the Clinical Nutrition manager and has been at CHH for 11 years. She covers the ICU, patients services and provides Medical Nutrition Therapy (MNT) to out patients.

Glenell Morris RD CDE, has been at CHH for 6 years and provides MNT to Diabetic patients at the Hungerford Diabetes Center Tuesdays and Thursdays and covers inpatients on Wednesdays.

Natalie Hopkins is the newest RD at CHH and joined the team September 2011. She covers inpatients and provides MNT to out patients.

We hope to share our knowledge of expertise with you and help the interdisciplinary team provide excellent care to our patients.

QUARTERLY CLINICAL NUTRITION NEWSLETTER

DIET UPDATE: FULL LIQUID DIETS

In accordance with the Manual of Clinical Nutrition, the full liquid diet consists of foods that are liquid at body temperature, including gels and frozen liquids.

The diet provides nourishment that is easy to consume and digest with very little stimulation to the GI tract. The diet is intended for short term use only and used as a postoperative transitional diet.

Items that are NOT included on the full liquid:
- EGGS (of any kind)
- mashed potatoes
- applesauce
- oatmeal

If your patients can tolerate these foods, then their diet should probably be advanced.

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According to the current federal regulation for hospitals, therapeutic diets should be prescribed by a qualified practitioner. A dietitian may assess a patient’s nutritional needs and provide recommendations, but the patient’s diet and any nutrition supplements must be prescribed by the practitioner.

The hospital governing body can approve medical staff bylaws which can include RDs as one of the allied health professionals who are permitted to accept delegated MD orders. This allows the MD to delegate to the RD to write an order for a therapeutic nutrition (diet) order or other pertinent orders such as applicable labs related to nutrition interventions, dietary supplements, or nutritional supplements.

CHH Executive Committee passed a policy delegating RDs nutrition orders however most Physicians are unaware of the policy.

The following study was conducted by Natalie Hopkins RD, as evidence for the immediate implementation of the policy.

**Introduction:**
Acute Care Setting average LOS: 4-5 days
RD interventions include nutrition recommendations to physicians within 24-72 hours of admission. RDs follow up within 48hrs and contact the physician if not addressed. Rapid response by physicians to nutrition recommendations is needed to ensure high quality inpatient care.

**Methods:**
Nutrition recs. were written in the EMR and communicated to physicians on the front of patient charts per protocol. Patients and recs. were recorded and monitored for MD speed of response.

**Results:**
13 days, 45 recommendations
11% pts recs were no longer applicable due to a change in the pts. status.

**Conclusion:**
In this case study, the RD recommended nutrition interventions for an average of 3.5 patients a day. Less than a third of these were implemented. If physicians were to delegate nutrition orders to RDs, appropriate early nutrition intervention could improve patient outcomes. Communication of the policy to the medical staff is needed. See policy below!

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**POLICY NO: 100.015**

**05/01/2011**

**SUBJECT:**
Delegation of Orders

In order to provide more timely action on expert recommendations within The Charlotte Hungerford Hospital, the following policy delineates the delegation of orders to appropriate personnel by ordering providers.

The following applies to dietary and nutrition orders:
1. Only a licensed physician, APRN, or PA may delegate an order. The licensed physician, APRN or PA must explicitly:
   a. Order a nutrition consult, and
   b. State that nutrition orders may be delegated to the registered dietitian.

2. All delegated orders must be authenticated and co-signed by the prescribing practitioner (or designee) or supervising physician (in the case of APRN or PA) within 24 hours of the order being placed.

3. Only a licensed physician, APRN, or PA may begin parenteral/enteral nutrition.

4. Only a licensed physician, APRN, or PA may modify electrolytes in parenteral/enteral nutrition.

5. Only the following orders can be delegated to the registered dietitian:
   a. Liberalization of oral diets
   b. Restriction of oral diets
   c. Changes in solid and/or liquid diet consistency
   d. Initiation, modification, or discontinuation of oral dietary or nutritional supplements
   e. Pertinent nutrition laboratory orders, excluding patients assigned to behavioral health
   f. Adjustment to enteral/parenteral orders initially ordered by the medical provider can be made by the registered dietitian, and will be limited to:
   i. Fat Emulsion
   ii. Glucose/Calories
   iii. Amino Acids

**Approved By:**
Medical Executive Committee
Hospital Policy & Procedure Steering Committee

⇒ If a physician would like to delegate orders simply order a Nutrition Consult and specify delegation of orders to RD

⇒ MD Order Sets are currently being revised to include the delegation of orders to RDs

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**Sample Documentation**
Dietitian Consult:
Nutrition Orders Delegated to RD
Gastroparesis involves the disruption of nerve stimulation resulting in the interruption of the stomach's pacemaker rhythm. Normal pacemaker rhythm originates in the fundus of the stomach radiating to the antrum causing it to contract, grind and expel food from the stomach into the duodenum. The stomach contracts about 3 times per minute with normal vagus nerve impulses.

In gastroparesis the pacemaker rhythm is severely delayed causing fewer contractions. Food therefore lies in the stomach. Stomach acids and digestive enzymes break food down and gravity is needed for stomach emptying. If food remains in the stomach too long bacterial overgrowth may occur from fermentation of food. Bezoars may also form leading to nausea, vomiting and stomach obstructions.

The exact cause of nerve damage is unknown. The most common link related to gastroparesis is diabetes. 20% of patients with type 1 diabetes develop gastroparesis.

Common symptoms of gastroparesis are feeling of fullness with small amounts of food, bloating, excessive belching and nausea. Serious delays in gastric emptying will cause erratic blood sugars. Postprandial hypoglycemia may occur.

Diagnosis methods include a radioisotope gastric emptying scan. Gastroparesis is diagnosed if more than half of the radioisotope containing food is detected in the stomach after 2 hours. Tests should be repeated as gastric motility may vary from day to day.

Another test involves a barium x-ray. After a 12 hr fast, a barium beefsteak is given. The food can then be followed by a radiologist. This test may be useful in detected diabetes-related gastroparesis where often times liquids are much better tolerated than solid foods.

EGDs and breath hydrogen tests are also used as diagnostic tools in people suspected to have gastroparesis.

Medical Nutrition Therapy:
- Optimizing glycemic control
- Small frequent meals
- Limiting intake of dietary fiber
- Replacing solid food with liquid meal replacements.
- Avoiding fatty foods
- Limit or avoid alcohol and caffeine

Pharmacotherapy: Reglan, Propulsid, Erythromycin, Zelnorm
Stomach Pacemakers also known as Gastric Electrical Stimulation can also be used.

The most common link related to gastroparesis is diabetes. 20% of patients with type 1 diabetes develop gastroparesis.

Diet Order: Consistent Carbohydrate, Low fiber, 6 small meals
<table>
<thead>
<tr>
<th><strong>Oral Supplements:</strong></th>
<th><strong>Enteral Products:</strong></th>
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<tbody>
<tr>
<td><strong>Ensure Clinical Strength</strong></td>
<td><strong>Jevity 1.2 Cal</strong></td>
</tr>
<tr>
<td>* Helps maintain &amp; rebuild lean body mass, supports immune health</td>
<td>* House Tube feed</td>
</tr>
<tr>
<td>* 350 kcal, 13gm protein</td>
<td>* 1.2cal/ml, 55.5gm protein/L</td>
</tr>
<tr>
<td>* Lactose and gluten free</td>
<td>* 18 gm fiber/L and prebiotics</td>
</tr>
<tr>
<td><strong>Glucerna Shake</strong></td>
<td><strong>Glucerna 1.2 Cal</strong></td>
</tr>
<tr>
<td>* Indication for glucose control</td>
<td>* Indicated for glucose control</td>
</tr>
<tr>
<td>* 220kcal, 9.9gm protein</td>
<td>* 1.2cal/ml, 60gm protein/L</td>
</tr>
<tr>
<td>* Lactose and gluten free</td>
<td>* 16.1gm fiber/L and prebiotics</td>
</tr>
<tr>
<td><strong>Carnation Instant Breakfast</strong></td>
<td><strong>Nepro</strong></td>
</tr>
<tr>
<td>* Milk based supplement to help augment regular diet</td>
<td>* Indicated for people w/ CKD stage 5</td>
</tr>
<tr>
<td>* 280 kcal 13gm protein (8oz whole milk)</td>
<td>* 1.8cal/L, 81gm protein/L</td>
</tr>
<tr>
<td><strong>Ensure Pudding</strong></td>
<td>* Fluid, Potassium, Sodium controlled</td>
</tr>
<tr>
<td>* 4oz 170kcal, 4gm protein</td>
<td><strong>Vital AF 1.2 Cal</strong></td>
</tr>
<tr>
<td>* Lactose and gluten free</td>
<td>* Peptide-based elemental formula</td>
</tr>
<tr>
<td><strong>Ensure Enlive</strong></td>
<td>* 1.2cal/L, 75gm protein/L</td>
</tr>
<tr>
<td>* Clear liquid supplement</td>
<td>* Helps manage inflammation and improve GI tolerance</td>
</tr>
<tr>
<td>* 200 kcal, 7gm protein</td>
<td><strong>JUVEN</strong></td>
</tr>
<tr>
<td>* Lactose and gluten free</td>
<td>* Supports wound healing, LBM.</td>
</tr>
<tr>
<td><strong>JUVEN</strong></td>
<td>* 1pk: 80kcal, 14gm amino acids</td>
</tr>
<tr>
<td>* Supports wound healing, LBM.</td>
<td>L-Glutamine/L-Arginine, HMB</td>
</tr>
<tr>
<td>* 1pk: 80kcal, 14gm amino acids</td>
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</table>

The Department of Food and Nutrition Services provides quality service to all customers of Charlotte Hungerford Hospital in a caring and professional manner. The department is a leader in the nutritional care and education of patients, staff and students. Our hospitality focus extends to the community through our efforts to support community nutrition needs.