Seattle Children's Hospital (SCH) Menu Change Recommendations to Support Patients with Cystic Fibrosis

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Background

- Cystic Fibrosis (CF) is a genetic disorder that impacts mucous production resulting in malabsorption and poor growth.[1]
- 23% of children with CF fall below the 10th percentile weight-for-age and sex.[2]
- 22% of adults with CF are underweight (BMI <18.5).[2]
- Normal ranges of weight and height for age percentiles are associated with better pulmonary function.[3]
- CF growth goal is to be at or above the 50th percentile by age two and to maintain that level.[3]
- Recommended energy intake is 110%-200% of energy needs for the population of equivalent age, sex and size.[4]
- Recommended protein intake is 1.5-2.0 times the DRI to compensate for increased protein losses.[4]

SCH Food Policies

The policies below for low-fat, low-calorie diets are not appropriate for CF patients:

1. Meals and menus meet Dietary Recommended Intakes across the age spectrum
2. SCH promotes a heart-healthy menu—low-fat, low-calorie and low-sodium with an emphasis on "plant-based alternatives in menu offerings and…standard meat portions (set) to the DRI across the age spectrum"
3. SCH does not offer sugar-sweetened beverages "because of the strong association with childhood and adult obesity"

Problem

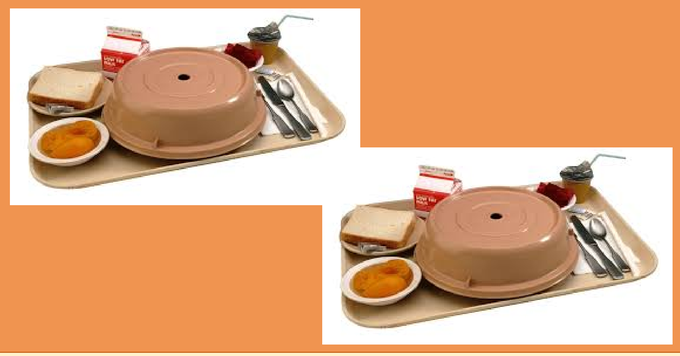
- SCH patient menu guidelines currently provide CF patients double meal portions to fulfill caloric needs
- 2 trays of the same meal are sent to CF patients
- Visually, two full trays of food is unappealing
- Admitted children have reduced appetites and often can't eat large quantities of food
- A large portion of the meals go uneaten; waste is an issue

GOAL

Provide appetizing, high calorie, high-protein meals to SCH patients with cystic fibrosis in an effort to maintain or increase weight while inpatient and to reduce waste.

Menu Change Recommendations:

- Increase total calories, protein, and fat to meals wherever possible
- Add high-calorie condiments to each tray
- Allow high-calorie beverages on tray
- Add butter or olive oil to entrées when possible
- Add extra cheese, cream, or cream cheese to dishes when possible
- Offer high-calorie side options
- Offer high-calorie milkshakes or smoothies
- Ensure that milks, yogurts, puddings and dressings are full-fat versions



Example CF-friendly Menu Changes:

1. Add cream cheese, butter, and extra cheese to the breakfast "cheesy eggs" dish
2. Add optional sides such as: protein bars, Greek yogurt, rice pudding, cottage cheese, cookies, brownies, and muffins
3. Double juice portions from 4oz to 8oz
4. Offer condiments such as: butter, mayonnaise, ranch dressing, peanut butter, hummus, and olive oil to lunch and dinner trays
5. Offer a creamy alfredo pasta dish for dinner with added cream, butter and cheese

References
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3. Stallings, Virginia A., Stark, Lori J., Robinson, Karen A., Feranchak, Andrew P., & Quinton, Hebe. (2008). Evidence-based practice recommendations for nutrition-related management of children and adults with cystic fibrosis and pancreatic insufficiency: Results of a systematic review. *Journal of the American Dietetic Association, 108*(5), 832.
4. Eubanks Tarn, V. (2013). Nutrition Management of Cystic Fibrosis. Center on Human Development and Disability, University of Washington. *Nutrition Focus* 28(3).
5. Seattle Children's Food Policy Draft Version 1 (provided by Susan Casey, RD).

Thank you to Seattle Children's Hospital and Susan Casey, RD