**P/T Spring 2014**

**Cases to Accompany Nutrition Lecture (will discuss on Tues 2/11/14)**

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1. You have been asked by the attending physician to calculate a fluid requirement for a 52 yo female patient who weighs 122 pounds and is 67 inches tall.
   1. Calculate using the daily maintenance equation, and
   2. Calculate via estimate.
2. Using HBE, what is the estimated calorie (in kcal) requirement of the patient in question 1? She is an infected, confined to bed patient.
   1. Also, give me an estimated calorie amount without using HBE.
3. The above patient is doing worse. She is now not eating, and has not been for about 2 weeks. She has been placed on an enteral feed.
   1. Using a 1.5 cal/ml formula and the information you have thus far, figure out how much volume this patient will take in via the enteral feed.
   2. Is her protein needs OK? Assume the enteral feed supplies 50 grams per liter.
   3. Is her fluid needs OK, based on how many calories she is getting in the enteral feed?
4. The hospital ran out of enteral feeds. Now you have to give her TPN. Her situation has also changed; weight is now 115 pounds; infection is gone but she is out of bed.
   1. Calculate this patient’s
      1. Caloric needs
      2. Fluid needs
      3. Amount of protein needed (in grams and % total calories)
      4. Amount of lipid needed (in grams and % total calories)
      5. Amount of carbohydrate needed (in grams and % total calories)
5. The technician called out sick and now you have to make the TPN too. Calculate a formula (in terms of ml for AA, CHO, lipids) that meets this patient’s macronutrient and volume needs.
   1. Finally, what is the infusion rate? Assume the bag is going to be infused over 24 hours.