

Hospitals

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I'd like to get away from the system and talk about the clinical applications. We originally began using the system as a means of enhancing our nutritional assessment program in the hospital.

We wanted to obtain more information about what patients were eating in the hospital. Intakes are only a small portion of nutritional assessment, but certainly a very important one. Prior to the use of the Nutrient Data Base, we were relying on average values to calculate intakes. We have seven units within our hospital and in each unit dietitians were using different bases of information including Bowes and Church, Handbook 8, Handbook 456, etc. So the system initially provided us with a standardized base of information for use in calculating intakes. That was probably the most important initial outcome that we achieved. The system also allows us to do a greater number of intakes that are more accurate and certainly more consistent within the hospital. After this initial achievement, the possibilities became endless and as was alluded to this morning, the more we work with the system in the hospital, the more uses we envision.

In addition to the daily monitoring of intakes, one of the primary uses at the current time is in the analysis of diets in our diet manual. We are in the process of revising our diet manual and with a little modification, the system allows us to evaluate the nutrient composition of diets in a greater number, detail and for a wider range of patients than was previously possible. It allows us to evaluate the diets that we currently recommend and make changes as necessary. The major problem that we encounter in this type of in-depth evaluation is lack of data. We continually receive printouts that show deficiencies of the lesser known vitamins and trace minerals. However, the system can actually help to solve these problems because after we receive the nutrient summaries and comparison to the RDA, we generally request nutrient detail on each food item for each nutrient which is grossly deficient. In almost all cases, deficiencies are due to lack of data and generalities can be made based on known knowledge of other food composition. These evaluations have been an eye opener for us, but the analysis of both the quantity and detail would be difficult at best without the use of the Nutrient Data Base.

Other uses alluded to this morning include the evaluation of cycle menus, recipes and for patient education. Patient education offers a wide range of applications for the Nutrient Data Base and we have only begun to recognize and develop some of these applications. This is the major direction that we would like to take at the present time. The printout itself can show patients what they have consumed in the hospital, if it is adequate or inadequate, and if it is something useful for planning meals at home. Many patients in the hospital want to take their menus home to help them plan their diets. Giving them their menu, printout, or both can be a very helpful educational tool. Using a slight modification of our present system, we can also produce individualized instructional materials to answer patients' own questions about their own diets and food habits. Some of these patient education ideas have been used on a limited basis at the present time but the usefulness of this type of material and the imagination and creativity that it allows makes this type of development very appealing.

The intake system is very sound right now and it is ripe for further development. I think that we were very shortsighted when we first evaluated the use of the Nutrient Data Base in the hospital and we felt that it had limited use in the hospital setting. What you actually can do with a good data base in a hospital is phenomenal.

Questions and Answers:

- Q: You were talking about working with the menu cycle. Can you call up a menu cycle for a given menu type and meal and process both the recipes and the menu cycle to give you a nutrient content for that meal, assuming that the entire meal was consumed, in order to give you a profile?
- A: One of the problems that we have is that our recipe file and menu file is on one computer and the nutrient data base system is on another. The two systems don't access each other, but our entire menu cycle and a portion of the recipe file are included in the nutrient data system. This allows us to look at an individual patient's intake of a given menu which will also include those recipes that were added.
- Q: What I'm thinking is to obviate the necessity for pulling the menu information out and having to get into another computer for nutrient analysis, in essence, take a menu for a given meal and do a nutrient analysis and file that analysis back in the computer for that meal so that whenever you want to look at a pattern throughout the day for a given menu type and cycle it displays the information?
- A: It is extremely difficult to work on assumptions about intakes of hospitalized patients and even more difficult when a selective menu is being used.

Q: I realize that you have to make certain assumptions but it does give you certain capabilities for looking at patterns and doing this interacting, then, would allow you to do your menu planning in such a way to at least give you patterns.

A: We have about seven menus which are all selective menus. What we have done to establish patterns, for instance in our diet manual evaluation, is to allow patients who have had instruction in a given diet to select menus, and then take these menu selections and analyze them. Because we function in a very narrow setting, we can establish some eating patterns, however this is only useful in our individual hospital.

Q: You haven't yet been able to achieve the union of the various data bases so that you've got an integrated system for the dietitian?

A: No, but we would certainly like to get all of our systems functioning simultaneously and accessing one another.