

few defaulting, back-sliding patients whose defence is—' I did not come back because I was afraid of a scolding '. Even so, there are, inevitably, some defaulters ; a district visitor trained in dietetics is invaluable for rounding them up periodically and bringing them back to the clinic. Finally, the dietitian must be able to tell when the patient is not making progress or is developing trouble from one of the complications of obesity ; like the district nurse, she must know when the patient ought to be sent back to the doctor.

There are no contra-indications to dietetic treatment. Nearly all obese patients, whatever else their trouble, will benefit from a proper limitation of their caloric intake. Likewise there is no alternative treatment to dieting. Amphetamine sulphate by mouth is sometimes a temporary help in reducing excessive appetite ; dried thyroid gland by mouth can be tried in selected cases as a stimulant to metabolism ; restriction of salt intake may reduce a retention of water which sometimes occurs in the obese ; but these provide no satisfactory substitute for dietetic treatment.

Conclusion

Obesity is a common and most important psychosomatic disease. Its satisfactory treatment usually requires the skill of an experienced dietitian trained not only in the science of dietetics but also in the art of handling patients.

REFERENCES

- Best, C. H. (1952). *Proc. int. Congr. Diet. 1 Amsterdam*. (To be published.)
 Colowick, S. P., Cori, G. T. & Slein, M. W. (1947). *J. biol. Chem.* **168**, 583.
 Dublin, L. I. & Lotka, A. J. (1936). Quoted by L. H. Newburgh (1944). *Physiol. Rev.* **24**, 18.
 Gilbert, J. A. L. (1949). *Brit. med. J.* **i**, 702.
 Grafe, E. (1933). Quoted by E. H. Ryneerson & C. F. Gastineau (1949). *Obesity*, American Lecture Series no. 36. Oxford : Blackwell.
 Keys, A. (1952). Personal communication.
 Marriott, H. L. (1949). *Brit. med. J.* **ii**, 18.
 Ogilvie, R. F. (1935). *Quart. J. Med.* **28**, 345.
 Spence, A. W. (1952). *Practitioner*, **169**, 260.
 Young, F. G. (1948). *Lancet*, **255**, 955.

Hospital Diet Departments in the United States of America

By MOLLY TRUSSELL, *School of Dietetics, Diet Department,
 Royal Infirmary, Edinburgh*

My American experience was confined to 20 months in one hospital. However, I was able to see and hear enough of methods in other American hospitals to know that the practice in the hospital where I was stationed was somewhat better than the average. While I was there we entirely revised the hospital diet manual, using as our principal references the most recent editions of the Mayo Clinic Manual (Committee on Dietetics of the Mayo Clinic, 1949) and Proudfit and Robinson's (1950) *Nutrition and Diet Therapy*, and adapting the diets to our own needs.

Washington Hospital, Washington, Pennsylvania, is a modern community general hospital with 250 beds. Pennsylvania is one of the most industrialized and prosperous States and one of the most advanced in hospital administration. This hospital, according to American custom, aims to employ two dietitians, one for catering and one for therapeutic work. The catering includes buying of all food, feeding of all staff and patients, and management of a dietetic department staff of about thirty-six; the therapeutic work, to which I was appointed, includes lectures to student nurses. For 7 months I did both catering and therapeutic work, because of the severe shortage of dietitians.

On the whole, American dietary standards are much higher than ours in nutritional adequacy, in variety, in hygiene and in cooking. This is especially true of the more prosperous States and is well illustrated by the following reproductions of menus.

WASHINGTON HOSPITAL MENU GENERAL DIET

NAME..... DATE..... Room Number.....

Breakfast

$\frac{1}{2}$ ORANGE

BLENDED CITRUS JUICE

CREAM OF WHEAT

40% BRAN

SOFT BOILED EGGS

BROILED CHICKEN LIVERS

TOAST : White, Whole Wheat, Rye.

JELLY

BEVERAGE : Coffee, Tea, Cocoa, Milk, Buttermilk.

PLEASE CIRCLE EACH FOOD DESIRED—ONLY THOSE FOODS CIRCLED WILL BE SERVED

NAME..... DATE..... Room Number.....

Dinner

CONSOMME JULIENNE

TANGERINE JUICE

CHOICE OF ONE EACH :

SKYFLAKE CRACKERS

1. BEEF & VEGETABLE STEW WITH BISCUITS

COLESLAW WITH MAYONNAISE

2. BROILED LAMB CHOPS

BAKED POTATOES

BUTTERED SPINACH

LEMON MERINGUE PIE OR APRICOTS

BREAD : White, Whole Wheat, Rye.

BEVERAGE : Coffee, Tea, Milk, Buttermilk.

PLEASE CIRCLE EACH FOOD DESIRED—ONLY THOSE FOODS CIRCLED WILL BE SERVED

NAME..... DATE..... Room Number.....

Supper

CHICKEN GUMBO SOUP

BLACK CHERRY JUICE

CHOICE OF ONE OF EACH :

RITZ CRACKERS

1. GRILLED SAUSAGE MASHED POTATOES STEWED TOMATOES

2. CREAMED SWEETBREADS ON RUSK BUTTERED ASPARAGUS SPEARS

SHREDDED LETTUCE SALAD WITH HOLLAND DRESSING OR CRADLE SALAD

PEARS OR BAKED CUSTARD

BREAD : White, Whole Wheat, Rye.

BEVERAGE : Coffee, Tea, Milk, Buttermilk.

PLEASE CIRCLE EACH FOOD DESIRED—ONLY THOSE FOODS CIRCLED WILL BE SERVED

SOFT DIET

NAME..... DATE..... Room Number.....

Breakfast

RIPE BANANAS

PRUNE JUICE

CREAM OF WHEAT

RICE KRISPIES

SOFT BOILED EGGS

BROILED BACON

TOAST : White

JELLY

BEVERAGE : Coffee, Tea, Cocoa, Milk, Buttermilk.

PLEASE CIRCLE EACH FOOD DESIRED—ONLY THOSE FOODS CIRCLED WILL BE SERVED

NAME..... DATE..... Room Number.....

Dinner

STRAINED CREAM PEA SOUP

APPLE JUICE

CHOICE OF ONE EACH :

CRACKERS

1. PLAIN BAKED MEATLOAF

WHIPPED POTATOES

2. BROILED VEAL CUTLET

BUTTERED POTATOES

PUREED SPINACH

JELLO OR PEARS

TOAST : White

BEVERAGE : Coffee, Tea, Milk, Buttermilk.

PLEASE CIRCLE EACH FOOD DESIRED—ONLY THOSE FOODS CIRCLED WILL BE SERVED

NAME..... DATE..... Room Number.....

Supper

STRAINED CREAM OF CELERY SOUP

CHERRY JUICE

CHOICE OF ONE EACH:

CRACKERS

1. PLAIN CHICKEN SANDWICH

BAKED POTATOES

2. CREAMED EGGS ON TOAST

BUTTERED ASPARAGUS SPEARS

PUREED BEETS

WHITE SEEDLESS GRAPES OR JUNKET

TOAST : White

BEVERAGE : Coffee, Tea, Milk, Buttermilk.

PLEASE CIRCLE EACH FOOD DESIRED—ONLY THOSE FOODS CIRCLED WILL BE SERVED

The patient on these diets has a choice of foods throughout ; this is customary, in fact some large hospitals also run a special order kitchen for private patients. About fifty of our patients, in wards of four to eight beds, were given the cheaper alternatives without option, as also were children from 6 to 13. Children from 2 to 6 were fed from the special diet kitchen and those still on strained foods had their own kitchen. In all about 140 patients in semi-private rooms were each given a preference menu sheet for the next day ; the patient or nurse would mark the foods desired and return the menu to the kitchen for counting. The sheets were perforated so that the menu for each meal could be kept on the patient's tray for checking, until just before it was served.

This sounds complicated, and it occupied more than half the time of at least six of our staff, but I found it well worth while. For one thing, it enabled me to use many foods in what one might term the 'love or hate' class—offal, for example—because an alternative was always available. For another, the psychological effect was good, and I usually found that patients in need of a high-calorie diet would achieve a better intake on this menu than on a carefully planned but arbitrary special diet. I think some such scheme would prove valuable in this country, especially in sanatoria, in orthopaedic hospitals and in institutions for the chronic sick.

Attractive service of food is another feature in American hospitals ; we used plastic trays with fresh paper tray-cloths and napkins for each meal, and coloured china. These refinements are due to the fact that most American hospitals were founded by a community for its own use, and not, like ours, as charitable institutions. I feel that we should not make this an excuse for continuing to accept as our standard in this country the bare white butcher's tray with its crude, slithering china and cutlery.

In these smaller American hospitals the trays are served in the main kitchen ; they go to the floors in heated trolleys which have a special compartment for ready-served cold dishes. Relatively unskilled and low-paid kitchen personnel carry

the trays to the patients, the nurse's sole duty being to see that the patients are ready. In larger hospitals the system is similar but decentralized, and a few have conveyer-belt systems.

I have dealt thus fully with the general arrangements to emphasize the practical expression in the United States of the idea that all hospital food is therapeutically important. Differences between their special diets and ours are largely due to this divergence in general standard, which I have tried to illustrate. There is no variance in principle.

Our main kitchen served full, light, soft and straightforward fluid diets. All other diets were served from the special kitchen, usually about fifty, including from five to fifteen diabetic diets. No choice of food was possible here, but to offset this I visited every patient on special diet at least once weekly; my student nurses also saw them about twice weekly as an important part of their training. It is impossible to overestimate the value of personal visits in teaching and understanding the patient. Complaints are forestalled, and, incidentally, the education of the dietitian is improved.

We had no out-patient department, but I have seen excellent teaching material, including films, sponsored by the same bodies who produced the diet book we used. When asked to do so by the patient's own doctor, it was my task to teach each patient in his room before discharge. The diet sheets were printed with little alteration from our diet manual as this book had been designed partly to serve this purpose. We always encouraged patients to consult us after discharge. This they could do by telephone or in person, but very few did. A follow-up clinic would have been most valuable. To ask his own doctor for advice would probably cost the patient the equivalent of about £1.

We issued recipes for diabetic discharge diets in booklets prepared and sponsored by the American Diabetic and Dietetic Associations. These cost about 2d. The aim of these societies is to simplify and standardize the diets. The diet is calculated by the method given in the 1951 edition of the text book by Proudfit & Robinson. Six simplified exchange lists are used. These lists are illustrated in the booklet, which also has suitable recipes. Busy doctors can obtain six printed basic diet lists for use with this booklet. The following are the simplified exchange lists: (a) milk in various forms, (b) fruits, (c) vegetables, (d) bread exchanges, including potatoes and all cereal products, (e) meat exchanges, including fish, eggs and cheese, and (f) fat exchanges, including bacon and margarine. In hospital we weighed the exchanges, except 3% vegetables, but the patient was taught to measure because American cooks use a graduated measure where we use scales. There is some loss of accuracy in measuring and in simplification of the lists; but I, and many others, found this more than balanced by the flexibility and clarity gained, especially in dealing with the foreign patients who thought in their own language and had their own food habits.

In our own special-diet kitchen I used eight basic special menus. These were derived from the general menus of the day, and examples are copied below.

Type of special diet

	Diabetic	Low-sodium	Low-fat	Edentulous, soft
Breakfast				
Pineapple juice	+	+	+	+
Farina	+	+	+	+
Soft-boiled egg	+	+	+	+
Toast	+	+	+	—
		(salt-poor)		
Bread	—	—	—	+
Dinner				
Roast veal	+	+	+	+
				(minced)
Parsleyed potatoes	+	+	+	+
		(with salt-poor butter)		(with butter)
Brussels sprouts	+	+	+	+
Carrots	+	+	+	+
				(pureed)
Apricots	+	+	+	+
				(peeled)
Supper				
Loganberry nectar	—	+	+	+
Broiled liver	+	+	+	+
				(minced)
Riced potatoes	+	+	+	+
				(escaloped)
Tomato-lettuce salad	+	—	—	—
Peach salad in red jello	—	+	+	+
Sherbet	—	+	+	—
Ice cream	—	—	—	—
Pears	+	—	—	—
	Bland	Convalescent ulcer	Soft	Children
Breakfast				
Pineapple juice	+	+	+	+
Farina	+	+	+	+
Soft-boiled eggs	+	+	+	+
Toast	+	+	+	+
Dinner				
Roast veal	+	+	+	+
				(cut-up)
Buttered parsleyed potatoes	+	+	+	+
Carrots	+	+	+	+
		(pureed)	(pureed)	(sliced)
Peeled apricots	+	+	+	+
				(stoned)
Supper				
Loganberry nectar	+	+	+	+
Broiled liver	+	+	+	+
				(cut-up)
Escaloped potatoes	+	+	+	+
Peach in red jello salad	+	+	+	+
		(no lettuce)	(no lettuce)	
Ice cream	+	+	+	+

Most of these diabetic, salt-poor and pureed foods are available in cans. These special foods may also be bought in many retail food stores and make a very varied menu possible.

From these the student nurses prepared individual menus on sheets coloured differently for each type of diet and corresponding in colour to the tray cards. Checking was thus simplified. Menus were adapted to the exact diet prescription and to the patient's idiosyncrasies. These were recorded in a card index. For a diabetic patient a basic calculation of exchanges was used. The students drew up menus a day ahead and I used their drafts as a basis for practical teaching. These student nurses, two or three at a time, spent a month in the diet kitchen, working a 48 h week including 10–15 h away at lectures. Two cooks were on the permanent staff of the special diet kitchen. They worked overlapping 8 h shifts. There was a waitress to prepare and serve the trays; the cooks, the waitresses and the students also cleaned the entire kitchen except the floor, and wrote daily food orders. I did the weekly orders.

Every tray left the diet kitchen complete and was checked by a dietitian. For this reason, and because the recipients were scattered through four floors in varying numbers, service in heated trolleys was impracticable and we endured many complaints of cold food until we bought special plates. These were sectional Pyrex plates which were preheated, filled, checked and enclosed in an insulated, sealed and labelled metal case. The plates kept hot for 3 h, though we usually kept them only 20–30 min. They would also, if chilled first, keep a salad crisp and fresh—a great boon where shade temperatures in June to September are often over 90°F. These plates cost about £4 each.

There are some few minor differences in special diet practice between the Americans and ourselves. The most commonly used low-sodium diets have either 200 or 500 mg of sodium; the general opinion is that less drastic restriction is largely useless. The 200 mg sodium diet has largely replaced the Kempner rice diet, which American patients think is terrible! The 200 mg diet has 70 g protein and is achieved by choosing vegetables carefully, by limiting meats and omitting eggs, and by making good use of dialysed milk. This is available as powder, having 13 mg sodium to 100 g powder, compared with 410 mg sodium in 100 g of ordinary dried milk. This milk does not make a palatable drink but can be used on cereals and in flavoured milk puddings. In Washington Hospital we had to use distilled water throughout this diet as the local water was extremely hard and the hospital water-softener was of the ionic exchange type; this means an appreciable amount of sodium in the tap water.

In treatment of diseases of the liver, many hospitals, but not ours, used a higher fat level than formerly to make the high-protein, high-carbohydrate diet more palatable. Only easily-digested fats in dairy foods were used and a total of 100–120 or even 150 g fat daily was reached.

In diets for diabetic patients we used only fruits or sugarless jellies for desserts, the range of these being such that we did not need to use milk puddings. A much more rigid arrangement of the day's intake of carbohydrate is made than is usual

here. The routine depends on the form of insulin used. The doctor often specifies the arrangement in his diet order, and also gives the figures for fat and protein. Americans eat three main meals, omitting our afternoon tea. When regular (soluble) insulin is given, usually in three doses, the carbohydrate is divided evenly between the three meals. When zinc-protamine insulin (Z.P.I.) is given, an allowance must be made for a bed-time snack of about 30 g carbohydrate with some protein and fat. After deduction of the 30 g of carbohydrate the rest of the carbohydrate is distributed in the ratio $\frac{1}{5}$, $\frac{2}{5}$, $\frac{2}{5}$. For about a year before I left, a new insulin, 'N.P.H.' was being increasingly used. Its effect resembles that of Z.P.I. with a morning addition of soluble insulin, but reaches its peak earlier and wears off sooner. For this we placed the carbohydrate in the ratio $\frac{1}{5}$, $\frac{2}{5}$ and $\frac{2}{5}$ without a bed-time snack.

On occasion changes in the dosage and type of insulin were not reported to the special diet kitchen. True, few patients suffered any consequent reactions; however, since supper is at 5 p.m., the bed-time snack is essential when Z.P.I. is used.

As it will be seen from any American textbook, there is a tendency there to make low values for nutrients lower and high ones higher than we do, e.g. an American high-protein diet would include at least 150 g protein daily, whereas in Britain we are rarely able to give more than 125 g. With the foods available it is possible to do this without distorting and limiting the diet as we would have to do in this country.

Our hours of duty at Washington Hospital compared favourably with those of dietitians in larger hospitals of the district and were as follows. We worked a 44 h week, actually 48 h one week and 40 the next. One week we had 2 days off at the weekend, the other week we had a weekday free. One of us worked from 6.30 a.m. to 3.30 p.m. and the other from 8.30 a.m. to 5.30 p.m., thus covering all three meals. When one dietitian was off duty the other usually worked a split shift, approximately 6.30 a.m. to 1.30 p.m. and 3.30 p.m. to 5.30 p.m.

The text books I have already mentioned, together with Cooper, Barber & Mitchell's (1950) *Nutrition in Health and Disease* are standard, at least in the eastern States. The most recent editions represent what is being taught and practised there. Most hospitals find it a good plan, as we did, to compile from these sources a manual of diets to meet their own requirements, so that doctors can order diets by name and number with any required modifications. They then know exactly what the patient will receive. This systematic organization is very typical of American methods and has much to be said for it if it is accompanied by personal contact between patient and dietitian.

REFERENCES

- Committee on Dietetics of the Mayo Clinic (1949). *The Mayo Clinic Diet Manual*. Philadelphia: W. B. Saunders Co.
- Cooper, L., Barber, E. M. & Mitchell, H. P. (1950). *Nutrition in Health and Disease*, 10th ed. Philadelphia: Lippincott.
- Proudfit, F. T. & Robinson, C. H. (1950). *Nutrition and Diet Therapy*, 10th ed. New York: The Macmillan Co.