The need for some corporate body of hospital dietitians was soon mooted, for two main reasons. First of all there was a rival body, the London School of Dietetics, of which many did not fully approve because of its close association with the New Health Society. This School, which in its prospectus offered a great variety of curriculums, did not prosper. The second reason was to encourage and in some way to control the entry of student hospital dietitians, and to draw up a curriculum of training.

A few of those interested called a meeting at the rooms of the Medical Society of London in Chandos Street, and I was in the Chair. Towards the end of the meeting Lord Dawson of Penn, then President of the College of Physicians, came in and requested that he might be heard. The first snag then emerged-should hospital dietitians all be graduates in science or should hospital nurses, after special training, also be eligible ? There was—it is wrong to deny it—very considerable controversy, long since happily resolved. After our first meeting a whole series of odd events occurred, which led to a most voluminous correspondence, which I still have in my files. There was a strong move on the part of the Royal College of Physicians to draw up conditions for, and to grant, a Diploma of Dietetics. This idea, after much discussion, fell to the ground. There were some difficulties with the Department of Household Science at King's College, and also with Sir Frederick Menzies, Chief Medical Officer of the London County Council, about the status of his food supervisors. Altogether there were many small storms in one small tea-cup before the British Dietetic Association was safely launched and drew up its constitution.

Since then many hospital dietitians have been trained in Britain, most of whom remain in hospitals, but others have gone to help industry and some—like Miss Scott Carmichael—to help the Government.

In some hospitals the dietetic needs of all patients come within the purview of the dietetic department, but in most hospitals the trained dietitians are concerned only with the special diets advised by the medical staff. Circumstances vary in different places, but it is the special diets in obesity, in diabetes, in cardiac, renal and hepatic diseases that have naturally interested me.

Those who are not hospital dietitians may find it of interest to be told that on an average about 10% of the patients in a large teaching hospital are on special diets—I think most of the dietitians present will confirm this figure.

Organization of a Diet Department. In-patients

By E. E. RICHARDS, Queen Elizabeth Hospital, Birmingham

During this century great strides have been made in assessing the food requirements of man. Much of this research was carried out in the biochemical, dietetic and metabolic departments of hospitals but, until recent years, the ordinary hospital in-patient received very little benefit. A few patients, who were prescribed special diets, benefited, but the feeding of the majority of the patients was inadequate.

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The expenditure on food had to be kept as low as possible. Only the cheapest foodstuffs were purchased. There was little variety in the meals and the same menus were used week after week. The total daily allowance of food for each patient was often small and of poor nutritional value. As a general rule, only one good main meal was provided—the midday dinner. Breakfast consisted of porridge with bread and butter, and supper was only a milk beverage or soup. In many hospitals, the patients themselves were required to provide butter, sugar, tea and eggs, and other foods were brought in to supplement the meagre fare. These foods were often unsuitable and harmful to the patients. The foods were kept in the bedside locker with toilet and writing materials.

During these years the value of diet therapy in the treatment of disease was becoming very apparent, and various diets were prescribed by physicians for their patients; these diets contained adequate amounts of protein, vitamins, mineral salts and calories, and the good results achieved indicated the necessity for including these foods in the diet of all patients. It took a war, however, to focus much attention on hospital diets and to stimulate some active steps in the right direction. The medical profession began to appreciate the value of good nutrition to the patient and realized that the provision of an optimum diet for every patient, and not for the chosen few on special diet, was of paramount importance in the treatment of all diseases, and as an aid to healing of surgical wounds. A well-nourished patient recovers and goes home much sooner, which is helpful in these days of shortage of staff and of beds. In 1942, the King Edward the Seventh Fund for London prepared a memorandum on hospital diets. This document pointed the way to raising the standard of feeding in hospitals and the managements at last realized that a good food service contributes to the wellbeing of their patients.

Administration of a hospital catering department

A hospital dietary department should be a separate unit with its own personnel. The whole energy of the department is thus directed towards the single purpose of good nutrition. The chain of responsibilities is as follows :

> General control of Board of Governors through House Committee

House Governor

Matron

Dietitian Catering Officer

	Assistant ['] (Catering Officer	Therapeutic Dietitian		
Hospital	kitchen	Provision stores	Records and ration books	Nurses' Home, kitchen and dining rooms	Diet kitchen

Duties of the dietetian catering officer. The dietitian catering officer is in charge of the whole administration of the food service, and is directly responsible to the House Governor. She has also close collaboration with the matron on all matters affecting the food of patients and of staff. The main responsibilities of the dietitian catering officer and her assistants are the following : (a) purchasing of foods and control of stores; (b) menu planning and assessment of the nutritional value of the diets; (c) kitchen supervision and the service of food; (d) therapeutic diet kitchen and dietetic provision for out-patients; (e) teaching of student nurses; (f) engagement and control of all staff connected with the catering department.

Wise purchasing of food is a very important duty of the dietitian catering officer. This is best done by personal contact with the markets, manufacturers and wholesalers, by interviews with representatives of firms and by inspection of samples before orders are placed. Buying may be on a contract or non-contract system. Comparison of prices and of the quality of goods, especially of perishable ones such as vegetables and fruit, are of particular importance. In many hospitals, buying of food is done by a purchasing officer, when close consultation with the dietitian catering officer is essential, and it is desirable that the dietitian should have personal contact with the suppliers.

The reception and checking of incoming stores is done by a storekeeper who is responsible for the issuing of goods against requisitions sent from the wards, departments and kitchens; he also keeps the day-to-day records and is responsible for the maintenance of stores in good condition. Careful records must be kept of all purchases and issues. Stock-taking should be carried out at frequent intervals.

Menus should be compiled in consultation with the chef but the dietitian catering officer is responsible for allocating the amount of food to the wards. These allowances should provide every patient with a daily diet of the highest nutritional value. In order that all patients may receive an adequate diet, a variety of dishes should be supplied so that each person, at whatever stage of illness or convalescence, may be suitably fed. Patients requiring specific dietetic treatment receive their meals from the special diet kitchen.

The diet. At the present time, the diet is influenced by rationing, and this makes the compiling of menus much more difficult. A basic pattern on the following lines is quite possible and is satisfactory.

Breakfast: porridge, cereal, fresh or stewed fruit; one or more cooked dishes including eggs, bacon, fish, sausage, spaghetti in tomato; toast, bread, butter; marmalade, honey; tea or coffee.

Midday meal: soup, chicken broth or beef tea; a choice of three or four main dishes, including a light dish and chicken and fish cooked in a variety of ways; vegetables, at least two cooked in at least two ways, one of them a puree; puddings of all kinds, including a choice of three or four daily, such as egg custard, milk puddings, jellies and ice cream, fruit purees, as well as the more substantial pies and sponge puddings.

Tea: bread, butter; jam, cake; tea.

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Supper: soup, chicken broth or beef tea; a choice of at least two dishes, one of them light, such as chicken, fish, tripe, rabbit, egg dish or cheese dish ; vegetables and salads; vegetable and potato puree; a choice of two or more puddings, one of them a light sweet such as a fruit fool, trifle, creams, egg custard.

Milk drinks and beverages are prepared in the ward kitchen. Milk is ordered by the ward sister as required, patients are not restricted to any particular amount. The average diet, without additions, contains daily $1\frac{1}{2}-2$ pints of milk including that used in cooking. If reasonable helpings of all foods are taken at each meal, the daily food value is approximately : protein 85-95 g, fat 116 g, carbohydrate 300-400 g. The energy value ranges from 2600 to 3000 Cal.

High-protein mixtures and fortified milk mixtures, given as supplements, considerably increase the value of a diet. One pint of a simple high-protein mixture will give 40 g of protein and 600 Cal., and a more concentrated one, 66 g of protein and 700 Cal. With such a basic dietary pattern simple modifications may be made to suit individual requirements of patients who do not need a calculated and weighed diet. By using light dishes, meats and fish, with pureed vegetables, light sweets, such as custards, jellies, fruit purees, ice cream, and supplements of high-protein milk mixtures, a good low-residue diet may be given. Such a diet is also suitable in the treatment of peptic ulceration. A good basic diet, supplemented by highprotein and high-caloric mixtures, with addition of vitamins, is also useful in the treatment of surgical cases. Such diets enable the patient to withstand the stress of operation and, by promoting healing of wounds, they hasten convalescence.

The kitchen. In the kitchen the head chef is responsible for the day-to-day administration. He must be an experienced cook and able to control staff. His duties include indenting for all commodities according to the menu, and supervising the preparation and cooking of the food until the finished article is delivered to the wards and departments. Each section in the kitchen works as a separate unit-for example, there is a unit for entrees and roasts, vegetables and soups and for pastries and sweets. Each is in charge of an experienced chef or cook directly responsible to the head chef. In addition there are assistant cooks and domestic workers who prepare vegetables.

I would like to stress the importance of the kitchen staff. Cooking in bulk for large numbers is highly specialized work. It is essential to encourage well-qualified caterers to undertake hospital work. The status of these workers should be raised to attract the right type of person to hospital kitchens. Salaries, too, should be equivalent to those paid in hotels and in commercial catering establishments.

Equipment is an important factor. Modern appliances of suitable size must be installed. Smaller boilers and cookers should replace the enormous equipment that made it necessary to cook the food in huge quantities. Electric mixing machines, vegetable slicers, potato peelers, meat and bacon slicers, bread and butter machines, and first-class refrigerators are all essential.

Training of kitchen staff. Training of kitchen staff is very important. They must receive instruction in the actual work they are to perform, and they must be taught the principles of simple personal hygiene. There must be suitable facilities, such as: (a) clean and adequate cloakrooms for outdoor clothes, where clean uniforms are put on; (b) lavatories, away from but within easy reach of the kitchen; (c) wash-hand basins, supplied with soap, nail brushes and towels, close to the lavatories; (d) wash-hand basins in the kitchen.

The meals. The actual service of meals is the responsibility of the nursing staff who are best able to judge the needs of the individual patient. There should be close liaison between the ward sister and the dietitian catering officer. A weekly menu should be sent to the ward sister. Each day, on a diet order form, the sister orders the cooked food she requires from the kitchen. Special fortified milk mixtures are ordered from the special diet kitchen and all other groceries and provisions are ordered from the store.

The cooked meals are sent to the wards in electrically heated trolleys. In the wards these trolleys are re-connected to the electricity supply. Thus the food is kept hot during the service of meals. Most ward kitchens have a small gas cooker on which beverages and toast can be prepared. A hot cupboard for heating plates is necessary.

Members of the catering staff should pay frequent visits to the wards during meal times. It is useful if a written report on the meals is made daily by the ward sister and sent to the dietitian catering officer.

The therapeutic diet kitchen

In some hospitals, where there is little room to spare, the dietitian works in the main kitchen and prepares the diets herself with the aid of one or more of the hospital cooks. She visits patients in the wards and interviews out-patients. In other hospitals there is a separate kitchen staffed by one or more dietitians assisted by cooks trained in domestic science. There may also be student dietitians in this kitchen and assisting with out-patient work. An ideal arrangement is as The kitchen for therapeutic diets is entirely separate from the main follows. Such a department has its own office for consultations with the medical kitchen. staff, there is a classroom for nurses and students, and there is also a laboratory. A waiting room is provided for out-patients when attending for treatment and consultation. On the staff are two trained dietitians, two cooks trained in domestic science and five or six student nurses who spend 6 weeks during their general hospital training in the diet kitchen. Two or more student dietitians can also be accommodated.

All stages in the calculation, preparation and service of diets are supervised and checked by the dietitian. The two dietitians share the work taking over the following duties week about. Dietitian no. 1 is responsible for the calculation and construction of all new diets, and for the preparation of, and day-to-day calculations involved in, all special diets. She prepares the daily tray slips. She visits the patients in the wards and interviews doctors and ward sisters. This dietitian has

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with her one or two student nurses and teaches them how to construct and calculate the diets and checks any work they carry out under her direction.

Dietitian no. 2 supervises the diet kitchen itself, she organizes the daily work, orders stores, supervises the cooking and preparation of the special diets and checks them before they leave the kitchen. She also gives practical instruction to students on special procedures.

When one dietitian is off duty, the other takes over the supervision of the whole department. One dietitian is on duty early in the morning to supervise the break-fasts, and one is on duty late to cover evening work. The dietitians work in close consultation with each other and with the senior dietitian.

The cooks carry out the more complicated cooking procedures assisted by a student, each has her own particular duties in connexion with the preparation of the meal. During her six weeks' experience in the diet kitchen, the student nurse gains a good working knowledge of food values, of the construction and preparation of diets used in the treatment of disease and she gains practice in the accurate preparation and weighing of foods. The nurse learns the importance of the actual presentation of the foods and gains a better understanding of the value of the ordinary hospital dietary. Fortified milk mixtures for use in the wards are prepared in the diet kitchen by student nurses.

The diets provided by the diet kitchen fall roughly into two groups. There are the diets used in the treatment of such diseases as diabetes, obesity, nephritis, peptic ulceration and colitis. Secondly, there are diets used in tests and research work for the determination of calcium, fat or nitrogen balances.

The diet is ordered by the physician or surgeon in charge of the case, the prescription may be in general terms, or give specific details. The prescription form is sent to the dietitian who visits the ward and sees the doctor. If necessary, she discusses the patient's history with the ward sister and interviews the patient to explain the diet, and to ascertain his normal food habits, and any likes or dislikes. A basic diet pattern is then constructed and from this the daily list, giving details of every article of food to be placed on the tray, is compiled. This list is made out in some detail to eliminate the chance of error and so that it may be easily followed by students.

When the food is prepared, weighed, and served, each item on the tray is checked by the dietitian. In the ward the nurse or student from the diet kitchen assembles the tray and carries it to the patient. The nurse or student has thus close contact with the person for whom she prepared the diet, and during such visits she can observe the progress of the patient. When the trays are returned to the diet kitchen the quantities of food not eaten are noted and exchanges supplied where necessary.

It is desirable to have a small metabolic ward adjacent to the diet kitchen to which patients may be transferred when very detailed observations are required. To achieve accuracy in this type of work it is essential that the physician, chemist, dietitian and nursing staff work as a team.

SUMMARY

1. The dietary department should be a separate unit with its own personnel; the head of the department should be a trained dietitian.

2. Sufficient money should be allowed in the hospital budget for the purchase of adequate amounts of good-quality foods.

3. Menus should be so arranged that suitable foods of equivalent value are available for a variety of conditions.

4. Efficient personnel must be encouraged to enter the hospital service. Good facilities and equipment are necessary for them to carry out their duties satisfactorily.

5. The therapeutic diet kitchen should be completely separate from the main kitchen and nurses should be given the opportunity to gain experience in this branch of medical work.

6. A small metabolic ward is necessary if accurate work is to be carried out.

Organization of a Diet Department. Out-Patients

By J. H. CROOM, Assistant Physician, Royal Infirmary, Edinburgh

On 31 December 1947, 10,234 persons in Scotland were drawing the extra rations allowed to the diabetic (Croom, 1950). By September 1951, this number had increased to 12,038. It has been estimated, following the mass survey undertaken in 1947, by the United States Public Health Service at Oxford, Massachussets, that, for every diabetic who is aware of his condition, there is another who is not (Wilkerson & Krall, 1947). If one believes that some dietary restriction is desirable in the diabetic, these figures alone suggest that the careful organization of a dietetic out-patient department is worth while. In the Dietetic Out-Patient Department, Royal Infirmary, Edinburgh, during 1951, an average of thirtyone new diabetic patients were seen each month while over a thousand return visits were paid each month by patients suffering from this condition.

The life insurance companies have clear statistical proof that the expectation of life in the obese is below average and any practising clinician is aware of the numerous complications of the obese state, hypertension, recurrent bronchitis, digestive disturbances, impaired carbohydrate tolerance, varicose veins and many orthopaedic complaints. In addition, it is probably fair to say that no surgeon would willingly perform an operation, not immediately essential, on an obese patient before preliminary treatment of the obesity. If, then, an out-patient department dealt only with cases of diabetes mellitus and obesity it would make an important contribution to public health. Though these two conditions form a substantial proportion of the routine work of such a department, the staff have to advise dyspeptics, sufferers from various disorders of the bowels, and those