King Edward's Hospital Fund for London

THIRD MEMORANDUM

on

HOSPITAL DIET

For consideration by hospitals

April, 1959

King Edward's Hospital Fund for London

THIRD MEMORANDUM

on

HOSPITAL DIET

For consideration by hospitals

April, 1959

INTRODUCTORY NOTE

The First Memorandum on Hospital Diet was published in July, 1943. It embodied recommendations of the Sub-Committee appointed by the Fund a year earlier under Sir Charlton Briscoe, Bt., to review the dietary provided in hospitals in the light of recent advances in the science of nutrition. Both it and the Second Memorandum, published a year later, emphasised that catering should be regarded as a single important function or department of a hospital, requiring an experienced officer in charge with suitable staff. It is not too much to claim that this recommendation was the origin of the hospital catering department as it is today.

Since 1943 the Hospital Catering and Diet Committee of the Fund has been actively concerned with the development and improvement of hospital dietary. The Committee's responsibilities today include the work of the Hospital Catering Advisory Service which affords free advice on all catering matters to any hospital within the four Metropolitan Regions, as well as that of the School of Hospital Catering where a variety of courses is conducted for the benefit of catering staff of every grade. The Committee are also charged with investigating applications for financial help from hospitals within the Fund's area and up to the end of 1958 £227,572 had been distributed in grants towards catering schemes on their recommendations.

INDEX

FOREWORD

The two previous memoranda on hospital diet were prepared by the King's Fund in 1943 and in 1945 and many of their recommendations concerning the structures and functioning of catering departments of hospitals have passed into current practice. Their practical application has been assisted in part by the activities of the King's Fund Hospital Catering Advisory Service and the King's Fund School of Catering.

This third memorandum has been written from the experience of these organisations with hospitals in the four metropolitan hospital regions during the first ten years of the National Health Service. While it must be emphasised that the views which this memorandum expresses, as also the recommendations put forward, are solely those of the King's Fund, grateful acknowledgment is due to the Ministry of Health for advice received in its drafting. None can deny that there have been considerable improvements in the hospital catering service since 1948. Nevertheless, the stimulus to publish a third memorandum comes from the increasing realisation that those catering problems which have been solved are being offset by new ones which have developed under the present administrative system.

The outstanding current problem is the structural inadequacy of kitchens in many hospitals which are not only poorly equipped but also badly designed. Improvements have been effected in many places, but until hospital capital expenditure is appreciably increased, the overall picture of hospital kitchens will remain unsatisfactory. Linked with this, but more serious, is the problem of staff shortage. The existence of national salary scales has an obvious administrative appeal but results in inflexibility when dealing with special local conditions and also makes it impossible to recognise outstanding flair and skill. These problems are accentuated when the national scales compare unfavourably with current commercial levels. It is fair to say that staff loyalty is making an appreciable contribution to the present situation but there is a widespread feeling that the hospital service will fail to continue to attract its proper proportion of talent. The present big turnover of kitchen staff reduces efficiency and lowers morale. This problem affects many other departments of hospitals to an equal extent and constitutes a major anxiety for the future among those who have the interest of the hospitals at heart.

F. AVERY JONES, M.D., F.R.C.P.,

Chairman of the Hospital Catering and Diet Committee.

CHAPTER 1

CATERING IN GENERAL HOSPITALS

Good food, well cooked and attractively served, is an important part of treatment and the catering department makes a big contribution towards the well-being and full recovery of everyone in the hospital. It does so in a small part by providing therapeutic diets, but its main contribution is in the feeding of the general medical and surgical patients. It provides not only the necessary calories for heat and energy, but also protein and vitamins essential for making good the losses from body tissues which are part of the normal response to injury or infection.

The Catering Department of today must maintain considerable elasticity and resourcefulness in dealing with the varied demands made on it. The usual menus ordered for patients in general hospitals are full, light and soft; in addition there are some fluid and special diets. The ratio of these one to another will vary according to the type and condition of the patients and according to the interest of their doctors in diet as a means of treatment. Eighty per cent of all meals provided in a general hospital to staff and patients are normal meals; the patients' meals include 10-15 per cent special diets, 10-25 per cent light diets, and usually not more than 5 per cent soft and fluid diets.

Many hospitals provide a complete medical service for their neighbourhood and the catering department has to feed not only patients in the general medical and surgical wards, but also those in the maternity, tuberculosis, paediatric and geriatric units. Patients nursed in these wards have different needs which must be met and which can be met in practice by an intelligent modification of normal meals. The following paragraphs summarise the main needs of various groups of patients nursed in a general hospital.

Normal or Full Diets

The normal or full diet is needed for patients who are far enough along the road to recovery to eat meals which offer a complete range of foods prepared and cooked in a normal manner. Menus should aim at a high standard of nutrition, partly because many of these patients still need building up after illness and partly because a well planned and balanced main dietary can form the basis of dietaries for special patients, e.g., maternity and tuberculosis and for some therapeutic diets, notably diabetic, reducing and high protein. It must also be remembered that the majority receive a full diet and hence more people are affected if it is a poor one.

The full or normal menu should meet the recommended dietary allowances as set out in the B.M.A. Committee report on

Nutrition (see Appendix). These allowances can be provided by a variety of foods and dishes, to suit differing food habits and costs, but in general terms, an adequate diet should contain animal protein food, i.e., meat, bacon, ham, offal or cheese, fish or eggs to be served daily at each of the three main meals. Of these foods, it is advisable to include liver once a week and fish at least twice. Each patient should receive a pint of milk, the kitchen retaining approximately a quarter for cooking purposes and the remainder used for beverages. A wide variety of fresh, canned, dehydrated or frozen vegetables should be served at least once daily in addition to potatoes and to ensure the maximum retention of vitamins there should be the minimum delay between cooking and serving. Whole oranges and/or tomatoes should be served at least twice weekly and other fruits, both fresh and cooked, as frequently as costs allow. Remaining nutrients and energy needs can be supplied by fats (butter, margarine and dripping, etc.), by bread, cereal and other puddings, preserves, sugar, biscuits, cakes, etc.

Hospital routine will decide meal times but it is important to ensure that patients are not awakened too early for breakfast, and that the last meal or snack of the day is served late enough. Suppers served too early may mean hunger, which delays sleep.

(a) Food for Maternity Patients

The dietary to be considered is for the mother who is eating normal meals but who requires additional protein, calcium and protective foods, and whose energy needs also must be met. To ensure an adequate supply of protein it is recommended that at least two pints of milk per head are allowed (for use in cooking and drinking) and that servings of animal protein foods, contained in the three main meals are about one-third more than for ordinary menus. Two pints of milk daily, and fresh vegetables, including potatoes, fresh fruit, green salads, together with the other foods already listed, will provide sufficient mineral salts and vitamins. Appetite usually ensures that enough energy foods are eaten, but sufficient butter and margarine must be allowed to make bread palatable. Mothers who are feeding their babies often feel thirsty and whilst tea is neither nutritious nor a food, it is invaluable for increasing the fluid intake. An extra allocation of tea should, therefore, be made to the maternity wards.

(b) Food for Children

Infant feeding is the concern of the paediatrician and he will prescribe the foods and formulae required for individual infants. For the purpose of this section, children between the ages of 18 months and five years are called toddlers. From the age of 12 or 14 onwards children are usually nursed in adult wards, where they receive the normal adult diet.

In comparison with their size, toddlers have a high requirement for protein foods. According to the B.M.A. table, their protein allowance is 56 grams per diem (the average for adults in the same scale is between 70 to 85 grams). A child of this age has a much smaller capacity for food than an adult; accordingly, if he is to obtain the required amount of protein, which may well be increased owing to illness, his appetite should not be dissipated on foods of little value—soups, bone broths, or jellies made with water. The basis of the toddlers' diet should be protein in the form of milk: 1-1½ pints daily, in drinks, with cereals, as puddings or jellies, etc. The remaining protein of the diets should be made up with solid foods, i.e., eggs, fish, bacon or ham for breakfast, suitably cooked meat, fish or liver at midday and cheese, egg or meat at tea time. Bread, butter and jam sandwiches, which are so often provided for children's teas, are merely fillers and impair the appetite for the more nourishing protein foods. Children should eat protein foods first and then fill up with carbohydrates, bread, cake, jam, and so on.

There is still a mistaken idea that the "goodness" of meat is in the gravy and that potato mashed in gravy is just as good as meat. This is incorrect, for the gravy contains meat extracts and flavour, but little else. It is also undesirable for children's meat always to be minced, since they should be encouraged to chew. In the case of young children particularly, meals can form an important link between hospital and home. Whilst children should be discouraged from developing food fads, individual likes and dislikes should be studied, as far as possible. To achieve this, there must be close liaison between the children's ward and the catering department.

Meals for children of age group 5-14 should follow the same pattern and include the same foods as for adults, with more milk; the total quantity recommended (for cooking and issue to wards) is not less than 1½ pints per head per day.

(c) Food for Patients with Tuberculosis

Ordinary food is usually allowed for patients with pulmonary tuberculosis unless there is some complicating condition (e.g., surgical intervention) necessitating a change of diet. There should be a liberal allowance of protein, especially animal protein, with a total of between 95-110 gms. To provide this, the diet should contain at least two pints of milk daily and a larger than normal serving of the animal protein foods at each of the three main meals. For patients with small appetites, nourishing between-meal snacks of milk and eggs or protein concentrates may be necessary. The carbohydrate and fat in the diet should be within normal limits, as nowadays physicians do not wish their patients to gain weight unduly.

It is notoriously difficult to cater for T.B. patients, for their appetites, affected by their disease and by drugs given in its treatment, are fickle. Moreover, as they are a long time in hospital they inevitably tend to become dissatisfied with even the most varied and best chosen of menus. As food is so important in their treatment, it is wise to allow more money than for general patients, partly because more animal protein foods are needed and partly to allow for a wider and better choice. An occasional luxury does much to keep up the morale of these long-stay patients.

(d) Food for the Elderly

Patients nursed in the geriatric wards vary in physical condition from those in the terminal stages of disease to many who are up and about and leading fairly active lives. Appetite for food naturally varies with their physical condition.

In catering for the elderly, it should be borne in mind that whilst the requirement for calories falls with age, there is no evidence that the need for vitamins and other nutrients falls in like manner. In fact, some nutrient requirements may be increased; bedsores increase the need for protein and the mere fact of keeping a patient immobile in bed causes a loss of protein and calcium from the tissues. Many old people are malnourished when they enter hospital and in some digestive and absorbtive powers are lessened. For all these reasons the dietary for the elderly should be equal to that for younger adults (calories excepted).

Some patients may not be able to eat the normal quantities of meat, fish, cheese, bacon or ham and they should receive extra milk and eggs. It may also be necessary to alter the meal pattern, giving a light supper in place of the usual full diet supper. Many old people prefer a milk drink, or bread and butter and milk puddings for this meal. Patients with small appetites should be encouraged to eat nourishing snacks between meals and for this purpose milk is particularly useful.

(e) Light Diets

Light diets are intended for people who are too ill to eat a normal meal and whose digestive functions and appetites are likely to be upset. Their nutritional requirements are probably greater than normal yet their appetites are frequently less, hence the food chosen must be appetising and must contain the maximum nourishment in the minimum bulk. Also, to encourage poor appetites, it is wise to offer patients small feeds at frequent intervals. Milk drinks, or egg beaten in milk or one of the proprietary concentrated protein foods, suitably flavoured, are all useful for this purpose.

A separate menu for light diets should be planned, and should include a cooked breakfast dish of egg or lean ham, or fish, and if appetite allows, cereal and milk in addition. There should be a two-course midday meal of fish, chicken, offal, veal or tender lamb, served with vegetables and a light sweet. Supper should consist of at least two courses, either soup and a main dish or a main dish and a sweet. Soup should not be regarded as a main dish, but rather as an appetiser, and the main course should contain at least the usual portion of a suitable fish, meat, egg, or cheese dish. As appetites may be smaller than usual, less vegetables and bread are likely to be eaten, but patients should be encouraged to eat as much of the protein foods as possible. At least 1½ pints of milk (for cooking and ward use) should be allowed for light diets and the ward sister should be able to order more for those patients who are not eating enough of other foods.

By planning a menu which offers alternatives to the full menu and circulating it to all wards, many of the "ward extras" such as baked custard, steamed fish, minced meat, etc., will become unnecessary. Ward sisters should be encouraged to use the two menus (full and light) intelligently and to order from them the number of dishes or meals required. For example, a dish like curry or liver may be disliked by some patients on full diets, for whom the light menu could offer an acceptable alternative. Light diets, when properly planned, are also suitable for patients needing third stage or convalescent gastric diets.

Although notoriously indigestible items such as fried food, rich pastries, pickles, curries, pork and other fatty meats should be omitted from a light diet, the list of forbidden foods should nevertheless be kept as short as possible. Every omission restricts the choice of food and hence the variety of the menu.

Soft food, prescribed for those with difficulty in chewing or swallowing, can be adapted from full or light diets. Any meat or fish is suitable if minced and most vegetables and fruits (apart from those containing many hard pips or seeds) are also suitable if mashed or sieved.

It is unnecessary for light diets to be prepared in a diet kitchen, which should only be used for individual therapeutic diets and never for bulk cooking, as this can be carried out equally well and more economically in a main kitchen.

Appendix to Chapter 1

SUMMARY OF DIETARY ALLOWANCES AS RECOMMENDED BY THE COMMITTEE ON NUTRITION

British Medical Association, 1950

Age and Sex	Requirement *Class	Calories Dly.	Protein g. dly.	Iron mg. dly.	Calcium g. dly.	Vit. A and Carotene i.u. dly.	Vit. D i.u. dly.	Vit. C m.g. dly.
Both—								
0— 1		1,000	37	6.5	1.0	3,000	800	10
2— 6		1,500	56	7.5	1.0	3,000	400	15
7—10		2,000	74	10.5	1.0	3,000	400	20
Males—								
11—14		2,750	102	13.5	1.3	3,000	400	30
15—19		3,500	130	15.0	1.4	5,000	400	30
20 plus	0	1,750	51	12.0	0.8	5,000		20
	1	2,250	66	12.0	0.8	5,000		20
	2	2,750	80	12.0	0.8	5,000		20
	3	3.000	87	12.0	0.8	5,000		20
	4	3,500	102	12.0	0.8	5,000		20
	5	4,250	124	12.0	0.8	5,000		20
	6	5,000	146	12.0	0.8	5,000		20
Females—								
11—14		2,750	102	13.5	1.2	3,000	400	30
15—19		2,500	93	15.0	1.1	5,000	400	30
20 plus	0	1,500	44	12.0	0.8	5,000		20
	1	2,000	58	12.0	0.8	5,000		20
	2	2,250	66	12.0	0.8	5,000		20
	3	2,500	73	12.0	0.8	5,000		20
	4	3,000	87	12.0	0.8	5,000		20
	5	3,750	109	12.0	0.8	5,000		20
Pregnancy—								
First half		2,500	93	12.0	0.8	6.000	400	40
Second half		2,750	102	15.0	1.5	6,000	600	40
Lactation		3,000	111	15.0	2.0	8,000	800	50

*Description of Class Requirement	
Men	
0	No work, almost basal (e.g., lying in bed).
1	Sedentary work (30 Cals./hr.) and little travelling (65 Cals.).
2	Light work (70 Cals./hr.) and travelling (130 Cals.).
3	Medium work (100 Cals./hr.) and travelling (130 Cals.).
4	Heavy work (200 Cals./hr.) and travelling (130 Cals.)
5	Very heavy work (300 Cals./hr.) and travelling (130 Cals.).
6	Extremely heavy work (450 Cals./hr.) and travelling (130 Cals.).
Women	
0	No work, almost basal (e.g., lying in bed).
1	Sedentary work (30 Cals./hr.) and little travelling (50 Cals.).
2	Light work (70 Cals./hr.) and travelling (100 Cals.).
3	Medium work (100 Cals./hr.) and travelling (100 Cals.).
4	Heavy work (200 Cals./hr.) and travelling (200 Cals.).
5	Very heavy work (300 Cals./hr.) and travelling (100 Cals.).

CHAPTER 2
CATERING IN MENTAL HOSPITALS

The most difficult catering problems encountered in mental hospitals, the majority of which are large units with more than a thousand and in some cases more than two thousand beds, are (a) the large numbers who have to have their meals at the same time; (b) a shortage of skilled cooks; (c) unsuitable kitchens, and (d) difficulty in the distribution of food.

(a) Too large numbers at one time

As it is customary to serve meals to all patients at approximately the same time, e.g., breakfast at 8 a.m., dinner at noon, supper at 6 p.m., the problems of cooking and distributing the food are often acute. Most of these large hospitals have one central kitchen in which the food for all the patients and staff is cooked. This leads to many complications owing to the need to prepare, cook and despatch a great quantity of food for set meal times. It is not so difficult when cold dishes are on the menu, but when hot food is required there is always the risk of its losing not only its appetising appearance but also its nutritive value. For example, eggs fried and kept warm for half-an-hour or more become hard; cabbage cooked long in advance frequently deteriorates in appearance and loses much of its vitamin C.

These deficiencies in the appearance and nutritive value of the food might be prevented to some extent by the installation of suitable equipment, the staggering of the meal times over a period of two hours, and by dividing the hospital into two or more areas, each having a different menu, involving the use of different pieces of equipment and different methods of cooking. At the present time, however, many hospitals might be unable to operate such a system owing to the staffing and administrative difficulties to which it would give rise in both the wards and the kitchen.

(b) Insufficient skilled cooks

There is a general lack of skilled staff in mental hospital kitchens to cover all meals satisfactorily, which inevitably is reflected in the menu, the methods of cooking and the food served. In the evening, cooked dishes are reduced to a minimum and it would seem that whenever possible tinned or ready-prepared foods such as cake and pudding mixes, fish cakes, etc., are used. It is hard to say whether this lack of skilled staff is due to a shortage of cooks in the area or to the reluctance of trained cooks to work in kitchens which are badly equipped and in many instances very large, or to a subconscious fear of coming into contact with mental patients. Whatever the principal reason, the appearance and size of the kitchens are undoubtedly important factors in attracting or repelling suitable applicants.

(c) Unsuitable kitchens

In addition to the lack of trained kitchen staff, the kitchens themselves are often too large for efficient operation and contain a good deal of unsuitable equipment. There are still a number of kitchens in mental hospitals with 80- and 100-gallon boiling pans and new pans of similar capacity are still being installed. This size of pan is really only suitable for a stock pot or the boiling of food which requires to be cooked for a long time, such as boiled hams, chickens or silversides. Cabbages, cauliflower, eggs and many other foods should be cooked in small quantities at a time in a shallow depth of water and should never be put into large boiling pans.

In some mental hospital kitchens there is insufficient oven capacity and consequently food has to be taken to the bakery. Apart from the inconveniences of such an arrangement, it requires great co-ordination between the bakery and kitchen staff, which is not easily achieved.

The distances between the various sections of the single central kitchen of a hospital with more than 1,000 patients are the cause of inefficiency and inadequate supervision. Decentralisation through the creation of two or three kitchens in place of the one large one would improve both efficiency and the degree of supervision (see Chapter 10).

(d) Difficulties in food distribution

In most mental hospitals difficulties are encountered at every stage in the distribution of food to the wards and villas. First there is the difficulty of finding space in the main kitchen for a fleet of forty or more food trolleys, which usually results in the trolleys being kept in the corridors outside the kitchen and being brought in only at the last moment for loading. In the meantime food is kept inside and on top of the hot cupboard or on tables and on the kitchen floor. This also occurs when insulated food boxes are used, and in either case there is an obvious risk that hot food will lose some of its heat even before it leaves the kitchen.

The next problem in distribution from a large central kitchen is one which varies according to the design of the hospital. In the case of the pavilion or villa type of hospital with easy access from the kitchen to the connecting road, trolleys have been designed with easily carried containers which largely overcome the problem of conserving the heat of hot food. Many of the older mental hospitals, however, have two or three storeys but no lifts, while upstairs wards are on different levels or are without any direct means of inter-communication. The installation of a sufficient number of lifts to carry food trolleys is prohibited by the cost, so that trolleys or insulated food boxes have to be left at the

bottom of the staircase, and the actual food containers carried upstairs, which not only leads to loss of heat but also has an adverse effect on the appearance of the food.

In such circumstances consideration should be given to having a central dining-room for selected patients on the ground floor, near a kitchen if possible, provided there is no objection on medical grounds. To make the best use of this arrangement it is recommended that meals be served in two or three sittings and that the patients using this dining-room are put in the wards on the upper floors, leaving the ground floor for those who must be fed on the wards.

The advantages of this would be:—

(i) A considerable reduction in the number of trolleys, with a corresponding reduction in the area required for parking in the kitchen or corridors. (Probably one or two would suffice for each dining-room.)

(ii) A better service could be provided from a well-equipped servery specially designed for the purpose.

(iii) Crockery and cutlery could be hygienically washed as the numbers fed in the central dining-room would warrant the installation of a dish-washing machine.

(iv) There would be less strain on the nursing staff at meal times.

The cost of fitting and equipping a servery for such a dining-room should be considerably less than equipping 10 ward kitchens. Indeed, to equip a servery for a central dining-room for 500/600 persons, feeding in two or three sittings, would probably cost about £2,500, while it is estimated that to equip a ward kitchen today with hot cupboard, double compartment sink, water boiler, refrigerator, cupboards, shelves, etc., would cost between £400 and £500 or about £5,000 for ten wards.

In short, the provision of two or more kitchens and the opening of one or two central dining-rooms for selected ambulant patients would go a long way towards raising the standard of feeding in the larger mental hospitals to the level of the average general hospitals.

Dietary for Mental Patients

The majority of the patients in mental hospitals are still long-stay cases and for this reason alone it is important that they should be well fed. Meals must be nutritionally adequate, because over long periods even minor dietary deficiencies give rise to symptoms of ill health. A well-nourished patient comes to little harm if his diet is deficient in vitamin C, iron or any other essential nutrient for a few days, but over periods of months or years such

a diet inevitably leads to ill-health. Long-stay patients also need a varied diet. It might be thought that some mental patients are not sensible enough to know what they eat, but in fact many are adversely influenced by monotony to the point of refusing food.

On the whole, mental hospitals spend less money than general hospitals on milk, fruit and vegetables. Smaller purchases of these commodities result in a lower nutritional standard and probably in a less varied and appetising menu. Caution is needed, however, in comparing feeding standards in general and mental hospitals. In the former, the majority of patients are physically ill and hence need more of the expensive foods, such as eggs, milk, poultry, etc. Appetites need tempting with better quality (and hence dearer) fish and meat and also proprietary foods are frequently prescribed.

The majority of mental patients, on the other hand, are not physically ill and have good appetites, but even when due allowance is made for these differences, there is still evidence that the standard of feeding in many mental hospitals is lower than could be desired. There is no shortage of calorie foods and no patient need be hungry, but the dietary is low in animal protein and vitamin C. It should be improved by giving more fresh fruit, especially oranges and tomatoes and vegetables also by providing more animal protein at breakfast and supper.

Two arguments are frequently advanced against cooked suppers. One is that additional kitchen and sometimes ward staff are needed to prepare and serve them, which in turn means more expenditure, not to mention the difficulty of recruitment; the other, that the patients' recreational activities and interests, so important in their rehabilitation, may be curtailed by time spent in eating a large meal in the evening. To offset these difficulties a high tea could be served at 5.30 or 6.30 p.m. in place of supper, consisting of bread and butter with cold meat, made-up dishes (sausage rolls, etc.), cheese or eggs and salad or tomatoes in season. Cake, buns or cold sweets or fruit might be added and possibly soup in winter. For those who require it, a hot drink and sandwich or bread and butter could be served at bed time. In any event, whether high tea or supper is served, patients should not go from 5.30 or 6.30 p.m. to 7 or 8 a.m. without food.

Therapeutic diets are seldom needed in mental hospitals although a few patients require diabetic, gastric or low salt diets. The Fund's Memorandum on Special Diets gives directions for these, which, of course, should only be used on a doctor's orders. Some mental and quite a number of mentally deficient patients refuse solid food and everything for them must either be mashed or a pureé. These patients must receive sufficient nourishment, particularly protein, in a suitable form. Should it prove imprac-

ticable to provide meat or fish in a sufficiently liquified form, then additional milk and eggs to make fluid feeds should be supplied to the wards. In this connection it may be useful to note that 1 pint of milk is equal in protein value to about 3 ozs. of cooked lean meat and that 1 egg is equivalent to $1\frac{1}{4}$ oz. Vegetables for these patients should also be either mashed or done as a pureé.

APPENDIX to Chapter 2

SUGGESTED MINIMUM QUANTITIES FOR PATIENTS IN MENTAL HOSPITALS

Meat, Fish, etc.

These are the main items of food around which the day's meals (breakfast, dinner, supper) are planned. The quantities shown below are for a week's consumption. To some extent the items are interchangeable as shown in columns A, B and C, but the overall quantity of these protein foods should remain more or less constant.

	A		B		C	
	No. of Meals	Wkly. Qties.	No. of Meals	Wkly. Qties.	No. of Meals	Wkly. Qties.
Meat, fresh	6	24 oz.	7	28 oz.	7	28 oz.
„ offal	1	3 oz.	1	3 oz.	-	-
„ sundries	2	8 oz.	1	4 oz.	2	8 oz.
Fish, fillets	3	12 oz.	4	16 oz.	3	16 oz.
Ham	1	4 oz.	-	-	1	4 oz.
Bacon	5	7½ oz.	4½	7 oz.	4	6 oz.
Eggs	3	3	3½	3½	3	3
Cheese	-	-	-	-	1	2 oz.
	21 meals		21 meals		21 meals	

Meat. This includes a proportion of bone. Meat sundries include such items as sausages and tinned meat, but exclude pies, etc. If pies are included the quantity should be increased accordingly.

Eggs. Eggs over and above the allowance shown will be required for cakes, puddings, etc.

Cheese may be served as an extra or in place of sweet.

Milk. Five pints of fresh milk per week and 4 oz. of dried milk is recommended, but if preferred, more dried and less fresh could be used, and conversely.

Potatoes and Bread. The recommended amount is 8 oz. of each daily, which gives a consumption of 3½ lb. per week of each. If potatoes are served more often, the quantity of bread may be decreased.

Green Vegetables. These include cabbage, cauliflower, sprouts, curly broccoli, etc., and should be served five times a week on the basis of an edible portion of 3 oz. This is equal to about 25 oz. per week purchased weight, depending on how they are bought.

Peas. A 2-oz. portion of shelled peas is recommended and is equivalent to approximately 5 oz. purchased in pod. Fresh or frozen peas are recommended, but not dried.

Root Vegetables. Roots, which for the purpose of this paragraph include onions, leeks, etc., should be served not more than twice a week as a vegetable—approximately a 4 oz. portion is recommended, making a consumption of 8 oz. per week. In addition to the 8 oz. served as a vegetable, probably another 8 oz. a head is required for garnishes and soups, stews, etc. Therefore the total for the week should be approximately 15 oz.

Fruit. Fresh fruit should be served on the basis of 4 oz. portions approximately four times per week. The total weekly consumption would then be 16 oz. If tinned fruit is served a 3-oz. portion is adequate. Oranges and tomatoes are the only common fruit available all the year round which add material amounts of vitamin C to the diet.

CHAPTER 3

SERVICE OF MEALS TO PATIENTS

Catering officers and ward sisters are equally involved in the problems concerning the service of meals on the wards and their task is often made more difficult by factors outside their control. Of these the most obvious and the most intractable are the distances and the means of communication between the wards and the main kitchen. All too often complaints about the patients' food are directed at the cooking when the real fault lies in the delays and difficulties encountered in transporting cooked food considerable distances, perhaps through the open air, to wards which are in blocks without lifts.

Whatever these difficulties may be, every effort should be made to ensure that food sent to the wards is kept at its correct temperature and for this electrically heated food trolleys are generally the best means. The requirements of individual hospitals vary, so the standard types of trolley are not always suitable, but in some instances manufacturers have produced insulated, pre-heated food conveyors specially designed by the Fund's Catering Advisory Service to meet the conditions of a particular hospital.

The catering officer is responsible for the delivery of food to the wards and he must therefore ensure that the porters who take the trolleys do the job speedily yet carefully. He should also be ready to advise ward sisters on the serving of meals. An understanding of each other's responsibilities and difficulties will promote good relations between catering and ward staff and eliminate many of the complaints which arise from badly served meals.

There are various ways in which this co-operation can result in better meals being served to the patients. For instance, ward diet sheets and requisitions* should be compiled accurately and should contain all the data concerning the number and type of the various diets required. If there is no dietitian, the ward sister should also indicate the content of each of the special diets ordered. The catering officer, for his part, should circulate copies of the menu to the wards and should notify all concerned of any last-minute alterations. As some ward staff may not be familiar with the different sauces or garnishes, the catering officer should explain the method of service whenever necessary. One way of doing this is by a note to the sister sent up with the food trolleys.

The serving of meals to patients is so much a part of the ward sister's duties that it becomes her responsibility to see that her staff are trained to give the best service. Some ward sisters hold the

* See next chapter.

view that nurses would benefit by advice from the catering officer on the serving of meals and it is obviously in the interests of all that more consideration should be given to this part of the nurses' work.

Ward Kitchens

There are still many ward kitchens which are not adequately equipped to meet the present-day standard of menu, i.e., three cooked meals per day in addition to mid-morning and evening drinks and afternoon tea. The combination of boiling top and hot closet is more suitable than the domestic gas cooker often found. The former provides ample space for heating beverages, while the hot closet is preferable as a means of keeping plates warm. Except on large wards, where it may be necessary to have a hot water boiler for tea making, a boiling top should be adequate.

Inevitably a certain amount of food is stored in ward kitchens, e.g., butter and milk and sometimes eggs, and suitable storage facilities are therefore essential. For this a refrigerator is the only satisfactory answer. Likewise, there should be storage cupboards for current requirements of groceries, condiments, bread, etc.

Washing-up facilities in ward kitchens are seldom satisfactory and all too often this operation is carried out in one sink, the drying of crockery and cutlery being done by hand with tea cloths. Two sinks should be installed, one for washing and the other for rinsing, the latter being fitted with a steam injector or other means of raising the heat of the water to sterilisation temperature. As an alternative to the sterilisation sink, there are several types of small automatic washing machines, which are efficient and easily worked by one domestic assistant.

Freshly made toast is always a popular addition to the normal menu in wards. Admittedly it takes time to prepare toast for anything up to 25 patients, but this can be done reasonably quickly in the ward kitchen if there is a gas or electric toaster.

Meal Service on the Wards

The method of serving meals to patients is a matter for the sister to decide in the light of the available facilities. Many sisters prefer to have the food trolley in the centre of the ward and to serve from there, nurses or orderlies taking the plates to the beds. In such cases it is desirable to have a power point in the ward into which the trolley can be plugged to ensure that the food is kept hot while serving. Bed tables, or meal trays, should be laid in advance and in carrying the food to the patients, plate covers should be used. The advantage of this method of service is that the food is kept hotter and it may also help the sister in

gauging sizes of helpings. Some sisters like to wheel the trolleys round the ward as they feel that this gives the patients the opportunity of saying how much or how little they would like.

On the other hand, many sisters prefer to serve from the trolley within the ward kitchen if it is large enough. The nurses then either take the trays, which have previously been laid, or the plates, into the wards. In serving from the ward kitchen there is inevitably a risk of the food not being as hot as it should be and also that the patient does not have the same opportunity of stating his wishes as he does when the trolley is in the ward.

There is no reason why patients' trays should not look attractive even if tray-cloths cannot be provided. Some of the enjoyment which a patient derives from his meals depends on a well-laid tray with attractive china, adequate cutlery, including fish knives and forks and condiment sets. In these days of early ambulation, many patients, particularly in surgical wards, have their meals sitting at table, but since many hospitals have no day rooms they have to eat on the wards. Whether ambulant patients take their meals on the ward or in a day room, it is equally important that their tables are correctly laid and look pleasant.

Ward sisters are usually fully aware of the importance of these matters and catering officers can do much to assist them by seeing that the correct serving utensils and equipment are made available. A high standard of meal service to patients can only be achieved if the catering department and the wards collaborate fully to this end.

CHAPTER 4

WARD REQUISITIONS

Suggested forms for ward requisitions are shown in Appendix A(1) and A(2). These requisitions should be completed in duplicate by the ward sister and should reach the catering office not later than 9 a.m. on the day they are to come into operation. The catering officer or his clerk should check the requisitions by comparing the total number of patients with the bed state. It is not uncommon to find a difference of as much as 5 per cent., which must, of course, be investigated. Likewise the number of diets, including special diets, must be checked against the total number of patients as again it quite often happens that more diets are ordered than there are patients. Where there is a diet kitchen the number of patients fed from it must be checked against total numbers and against those fed from the main kitchen. Checks of this nature are necessary to avoid food for patients being provided from both kitchens at the same time.

In general there are two methods by which a sister can order food from the kitchen. She can either order the total number of diets for the day as shown in Appendix A(1) or she can order individual meals as in A(2). The latter method gives the sister greater latitude to order from the menu according to her patients' needs. For example, the full diet breakfast may be acceptable to only half the patients on full diets, while the remainder would prefer the light diet menu. With the former method, to avoid waste, the sister should be encouraged to state particular requirements for meals in a "Remarks" space provided—thus: " only x portions kipper for breakfast ". In her own interests the sister should take care to complete the daily ward requisition accurately, as it is her main link with the catering department.

For kitchen use a summary of ward requisitions must be made and this summary must correspond exactly with the requisitions. A summary can be made conveniently on a blackboard, for prominent display to the whole kitchen (for specimen layouts see Appendix B(1) and B(2)).

Ward requisitions should also give details of food ordered from the stores. Milk is frequently issued according to a scale, i.e., so many pints for full diets and additional quantities for light and some special diets. Where there is a dietitian, she should be consulted on quantities allowed for special diets.

Some items, such as milk and bread, must be issued daily whereas others can be conveniently issued once or twice a week, according to the way they are controlled in the ward and the storage facilities available. Obviously supplementary issues to

wards are to be avoided if possible. Beer, stout and alcoholic beverages generally should be issued daily and only against a signed medical certificate for specific patients. Other items such as cocoa, marmalade and other preserves are better issued on a weekly basis as they can then be provided in larger packs which are more economical. Orders on ward requisitions should be transferred to a summary sheet, which should be authorised and signed by the catering officer and then passed to the stores. The original ward orders should accompany the goods to the ward for checking and signature of receipt by the sister or her deputy; the duplicate copy being retained by the storeman.

Appendix A(1)

.....Hospital

Ward..... **Food Requisition** Date.....19...

DIETS	No.	MILK PTS.	SPECIAL DIETS NO.	MILK PTS.	SPECIAL DIETS NO.	MILK PTS.
General			Gastric 1		Fluid	
Light			Gastric 2		Others	
Soft			Diabetic			
			Reducing			
			Low Salt			
TOTALS						

REMARKS

DAILY ISSUES	WEEKLY ISSUES	
Milk pints	Cocoa lbs.	Jam lb.
Bread: Brown loaves White loaves S.F. bread	Coffee lbs.	Marmalade lb.
	Horlicks tin	Syrup lb.
Margarine oz.	Ovaltine tin	Mustard oz.
Butter oz. S.F. butter	Bovril bot.	Pepper oz.
Sugar oz.	Marmite jar	Salt lb.
Tea oz.	Oxo cubes	Sauces bot.
Beer bot.		Squashes bot.
Stout bot.		Biscuits oz.

Signed..... ....., Sister i/c.

NOTE 1. There are 20 slices per loaf.
2. Concentrated orange juice is available for children.
3. Beer and stout, etc., must be accompanied by a medical certificate

Appendix A(2)

.....Hospital

Ward..... **Food Requisition** Date.....19...

MEAL	GENERAL DIET	LIGHT DIET	SOFT	TOTAL
BREAKFAST				
DINNER				
SUPPER				

SPECIAL DIETS	
Gastric	Fluid
Diabetic	Others
Reducing	
Low Salt	

REMARKS

STORES ORDER

Daily

Bread—White

Brown

S.F. bread

Milk

Butter

Margarine

S.F. butter

Sugar

Tea

Eggs

Beverages (Alcoholic)

(Day(s) of week specified for these)

Cocoa

Coffee

Other beverages

Squashes

Special Squashes

Jam

Marmalade

Salt

Pepper

Sauces

Biscuits Plain

Sweet

Signed.....Sister i/c.

Appendix B(1)

Suggested layout of Blackboard for Main Kitchen where there is a separate Diet Kitchen

Ward No.	TOTAL	General	Light	Soft	Special	Ward No.	TOTAL	General	Light	Soft	Special
1						13					
2						14					
3						15					
4						16					
5						17					
6						18					
7						19					
8						20					
9						21					
10						22					
11						23					
12						24					
Ttl.						Ttl.					

Appendix B(2)

Suggested layout where Special Diets are prepared in the Main Kitchen

Ward No.	TOTAL	General	Light	Soft	Gastric 1	Gastric 2	Low Residue	Low Salt	High Protein	Diabetic	Reducing		
1													
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
Ttl.													

CHAPTER 5

CATERING FOR STAFF

It is often said that hospital staff, particularly the nurses, should have a different menu from the patients. Having seen the food and served it to the patients they will not enjoy their own meal if exactly the same dishes are served to them in their dining-room. To meet this difficulty a few hospitals prepare a separate staff menu, while others provide patients on general diets with a choice of two meat dishes, two vegetables, two kinds of potatoes and two sweets and offer this choice to the staff as well. Some hospitals would like to carry this choice still further but are precluded from doing so by various difficulties. For example, the number of staff taking meals in small hospitals, the division of the staff in larger hospitals between a number of dining-rooms, inadequate service facilities in the dining-rooms, staff wishing to eat a three course meal in ten minutes and lastly, insufficient money for the catering department. Whatever the difficulties may be, it is important for the staff to have a good standard of feeding, perhaps even better than the patients on normal diet, since the hospital is their home where they have to eat their meals in the same surroundings year in and year out. Moreover, it is common experience in all spheres of catering that the greater the choice of food the less the tendency to complain.

It is not always easy, however, to provide a good standard and an adequate choice. Inevitably a small hospital has a small staff and a wide selection of dishes cannot be given economically. On the other hand, in the larger hospitals where the staff are divided between several dining-rooms, there is a tendency for food waste to increase if more than two choices are offered. If, however, all these diners could feed in one room it should be possible to offer a greater choice. Again, if a quick service with alternatives is required, a cafeteria system is better than a waitress service, provided the facilities are adequate. In every case, the choice of dishes will also be limited, of course, by the amount of money allowed by the hospital for the purchase of food.

To sum up:

(a) Staff should be offered a choice of dishes at all meals.

(b) To do this effectively there should be a common staff dining-room with a cafeteria service. There might be a smaller room near the service point for special parties, or part of the communal room could be screened off.

(c) To ensure a quick service, the service counter must be properly planned and equipped.

(d) The meal service should be continuous and spread over a period, the length of which would vary with the numbers to be served.

(e) Acoustic treatment of a large dining-room is most desirable.

It is obvious that the changes necessary to introduce a system of this kind cannot be made overnight, but can only be introduced by stages as part of a long term plan. In the meantime the following suggestions are offered as a guide to the short term policy which might be followed under present conditions. These suggestions are intended for medium and large, rather than for small hospitals, where although it may be difficult to offer the staff a wide choice, it should usually be possible to cater for individual likes and dislikes.

(i) Menus

There should be a choice of dishes for each course. This could be hot and cold for the meat course, potatoes cooked in two ways, two kinds of vegetables such as root and a leaf vegetable and milk pudding or cheese and biscuits as an alternative to the sweet. Whenever possible the dishes offered should cost about the same to ensure that due control is maintained on the amount spent per head and the amount of money allowed for provisions should be sufficient to provide occasional expensive dishes.

(ii) Service

At the present time there are three types of service—full waitress, part waitress and cafeteria. When there is adequate staff the full waitress service might well be continued in the senior staff dining-rooms if the choice of dishes is not too great to make this impracticable, for the comfort and niceties of a waitress service are appreciated and senior staff do not usually mind taking a longer time over their meals.

In the junior staff dining-room, where there may be numbers of diners who want to eat quickly, it is better to have a cafeteria service. With the operation of a full or part waitress service the attempt to give a quick service can easily lead to the introduction of slipshod methods. For example, vegetables are placed on the table before the meal is served, resulting in their becoming cold before they can be eaten. Vegetables should always be taken to each diner as required, or in the case of a cafeteria service, served from the counter. Again, in order that the service shall not be delayed, more food than is actually required at any given time is sent to the dining-room, which has an adverse effect on both taste and nutritive value. When the kitchen is near the dining-room a steady flow can be maintained by batch cooking, but if the dining-

room is a long way from the kitchen, consideration should be given to installing suitable equipment in the servery.

The serving of tea or coffee in the dining-room after meals should depend on whether smoking is permitted. If there is a no smoking rule, which certainly should be the case whenever there is more than one sitting for a meal, an adjacent sitting-room provides the most convenient place for the service of coffee.

An evening meal or snack should be available for staff who have had an evening out and on their days off nurses should be able to have breakfast in their rooms when required. Ingredients for making hot drinks last thing at night should also be available in the nurses' home.

(iii) Supervision of Meals

There is virtually a 24-hour service of meals seven days a week in hospitals which inevitably adds to the problem of adequate supervision. As already stated, in those hospitals where the matron has control of the dining-rooms, full supervision is provided by administrative nursing staff. Where the catering officer has charge, however, it is usually necessary to employ dining-room supervisors, particularly where there are two or more dining-rooms. Even with an assistant, a catering officer cannot be expected to supervise a meal service running continuously from approximately 7 a.m. to 9 p.m. Lack of supervision often leads to criticism, especially of the breakfast and supper meals, which in the absence of supervisors, cannot be given the attention they require.

(iv) Dining-room and cafeteria staff

No matter how good or well prepared the food may be, the enjoyment of a meal is dependent in no small degree on the manner in which it is served. A catering officer must therefore ensure that the dining-room staff receive training in at least the elementary techniques of waiting or counter service. The importance of providing an attractive uniform should also not be overlooked. Apart from the psychological effect on its wearers, the general impression of a dining-room or cafeteria will depend to an appreciable extent on the appearance of the maids.

(v) Night Meals

In all hospitals there are staff on duty throughout the night and arrangements must be made for their feeding. Normally kitchen staff on day duty can prepare and cook both the first and last meals for night staff, but extra help is required to prepare food for service during the night. The number and type of catering staff employed at night will vary directly with the number

of people fed centrally. When this number exceeds twenty a cook should be employed. For smaller numbers, it may be possible for day staff to prepare food which is then finished and served by a domestic or kitchen assistant.

Nurses are the largest group on night duty, although there are usually some doctors who require emergency meals and also one or two maintenance staff. The latter often bring their own food, but if not, there should be little difficulty in preparing their meals along with the nurses'. Meals for nursing staff are therefore the main problem at night. Menus for their meals must be planned in the knowledge that night duty upsets normal mental and bodily rhythms and causes loss of appetite. As far as possible, therefore, each course should provide a choice of light and attractive dishes.

Night meals must always be freshly cooked. Whilst it is permissible for day staff to prepare food, even to the point of mixing dry ingredients for puddings, the final cooking should be left until as near to the time of service as possible. This particularly applies to vegetables, so if there are three services for the midnight meal, three batches of vegetables should be cooked.

In those hospitals where for one reason or another night staff cannot or will not come to a central dining-room, a cold meal is suitable, with the provisos that hot meals are available both before and after night duty and that the meal is well chosen and is properly packed so as to avoid contamination or drying, i.e., of bread. Such meals should contain meat, ham, cheese or egg sandwiches or sausage or meat pies with rolls or bread and butter; and cakes or tart, fruit or salad. Hot beverages or soup can be reheated or kept until required in thermos flasks. As an alternative, easily cooked food such as bacon, sausages, eggs, etc., can be issued to individual wards.

Ideally, nurses should eat all night meals away from the wards as a more quiet and relaxed atmosphere is possible in the dining-rooms. Most hospitals serve at least the main night meal in a dining-room, although in many it is still customary for the tea meal to be taken in the ward. In some instances, however, because of staff shortages which are made worse by large and dispersed buildings (as in mental hospitals) it is impracticable for nursing staff to leave the wards during the night. In such cases careful planning is needed to ensure that satisfactory meals reach the wards and that patients are not disturbed by noise or the smell of food. Hot cooked food can be distributed in insulated cans or boxes from the main kitchen, but this is only possible in small compact units. In large, scattered buildings, nurses can collect their midnight meal as they go on duty. Such meals should consist of foods as listed above.

It is impossible to dogmatise on so controversial a subject as night meals because individuals differ even in their preferences for breakfast, some liking it when they awaken and others when they come off duty. In general, however, those responsible for catering should not only keep in constant touch with the matron and the night sister, who can report current likes and dislikes, but should also see the night meals at frequent intervals.

CHAPTER 6

FACTORS AFFECTING FOOD COSTS

Certain factors affecting food costs are common to all catering, such as methods of buying, stores control, and preparation and cooking methods which are reflected in the amount of waste. The first part of this chapter deals with these common factors and the second part with those items which affect food costs in hospitals, such as the number of staff, special diets, the standard of feeding and the type of patients.

PART I

Buying

It is still the custom in some hospital groups to enter into period contracts for a large variety of foods, not only on the ground that there is less chance of malpractices occurring, but in the belief that better prices are obtained. While period contracts may still be advantageous in a few cases, they are not generally to be encouraged where large-scale buying is practical, as in the bigger Groups or where Groups have co-operated for the purpose of joint tendering.

The issue of contract forms to cover the supply of a great variety of a rather indefinite quantity of foodstuffs over a period of six months limits the choice of supplier to those wholesalers or retailers who are willing to deal with the large bulk of the goods required. In these circumstances, prices cannot be obtained from manufacturers, importers and growers. As a general rule perishable foods are better purchased in the free market. The trade is highly competitive and many foods fluctuate in price and quality according to supply and demand. Furthermore, there are some foods for which it is difficult to prepare an accurate specification. A good example is the daily fluctuation in prices of fresh fruit and vegetables. The quality, too, varies and to arrange a contract, even though short term, is a mistake. It is not possible for the tenderer to forecast accurately the price he himself will have to pay, and therefore if the markets go against him he is likely to supply poorer quality goods. In such circumstances the hospital might well have obtained better value for money by purchasing more expensive vegetables with a higher edible yield, resulting in a lower cost per portion.

Fruit and Vegetables

One method of buying fruit and vegetables sometimes adopted is to order as required at prices shown in a trade journal. The disadvantages of this method are first that the purchaser does not know the prices when ordering, and secondly that the trade

journals, which publish prices weekly in arrears, usually state the maxima and minima paid during the week in the respective markets. It is therefore impossible to assess whether value for money has been received as it could well be that the buyer has paid an average price for a poor quality vegetable. Accordingly fruit and vegetables are best bought in the open market if within reasonable distance. Otherwise purchases should be made from two or three nominated suppliers on daily quotations.

Largely because of the apparently high price, frozen fruit and vegetables are rarely bought by some hospitals, but in order to assess their true value it should be remembered that the price paid is for a 100% edible yield, whereas some fresh vegetables such as peas in shell may have a high percentage of waste and produce only 30% or even less edible yield. Other frozen produce which provides welcome variety, particularly in the January quarter, are sliced beans, raspberries and blackcurrants.

When ordering and receiving potatoes, care should be taken not only to see they are of uniform size and of an approved quality, but also that there is a minimum of earth and no stones in the sack. Potatoes are often ordered in tons at a time and in such circumstances adequate storage is necessary. They should not be left in the kitchen or in the open. All vegetables should be stored where they are protected from heat, damp or frost.

Fish

Fish prices fluctuate according to supply and quality and the season of the year has an effect on both. In winter bad weather causes fish to be scarce and in the spring the quality depreciates and often the fish are full of roe. Care must be taken to ensure that fillets are properly trimmed and free from roe, or alternatively it might be preferable to order frozen fillets. As with vegetables, it is better to buy daily direct from the wholesalers either at the ports or in the central markets, if reasonably near. Otherwise it is usually better for a hospital to buy from a local supplier.

Meat

Meat should also be bought in the central markets, if within reasonable distance, where advantage can be taken of spot purchases at bargain prices, but if it must be bought locally, a weekly quotation from two or three suppliers would be helpful. In general it is advantageous for larger hospitals, i.e., those catering for more than 600 people, to buy meat in carcase, but it is essential to have adequate cold storage accommodation for fourteen days' supply in order that joints which are suitable for various purposes can be selected. When buying in carcase it is also essential to take into account the quantity of bone, gristle and excess fat.

Further, in considering the price, due allowance must be made of porterage, vehicle maintenance and the possible employment of a butcher.

For smaller units meat is better bought in joints and care should be taken to specify the particular cut and grade of meat required according to the purpose for which it is to be used. Smaller hospitals frequently order stewing or roasting meat, leaving it to the butcher to supply joints or cuts in whatever grade he thinks fit. However, if the person receiving the meat is unable to identify the various cuts the only safeguard is to establish a relationship of mutual trust with the butcher and rely on him to supply appropriate meat at fair prices.

Milk

Milk is perhaps the biggest single item of expenditure in most hospitals and therefore requires special consideration. The different grades are known as pasteurised, T.T., homogenised, Jersey and Channel Islands, sterilised and T.T. (farm bottled) and each is sold at a different price. Homogenised milk, which is used by some commercial firms to ensure a more equitable distribution of cream, is slightly more expensive than pasteurised or T.T. It is not considered essential for hospital use. Jersey or Channel Islands milk has the highest cream content and is more expensive still. Pasteurised milk meets the needs of most hospitals and it is recommended that milk in churns be purchased for kitchen use, but bottled milk for the wards. This latter recommendation is made on the grounds that bottled milk is more hygienic and saves a certain amount of labour. Moreover, many hospitals which have changed over to bottled milk for the wards have found that less is required. Full cream dried milk for cooking purposes would also show a saving of nearly 50% over fresh milk, on the present prices, and as far as is known, is equally nutritious. Consideration should therefore be given to using dried milk on the grounds of economy for puddings, sauces, etc.

Control of Stores

All food received should be checked for weight, number, quality, etc., and a full description should be clearly stated on the delivery note. As already stated, the person receiving the goods must be able to identify the quality, otherwise the time and trouble taken in the careful selection and purchase of goods at a reasonable price may be largely wasted.

The manner in which goods are stored and issued can affect costs. In some hospitals ward sisters and heads of departments indent directly on the stores and issues are made accordingly.

These requisitions may or may not have been approved by the matron or the secretary, but the catering officer or whoever is to be held responsible for the food costs should be the person to authorise all requisitions and nothing should be issued from the stores without that authorisation.

Waste

In an efficiently run hospital catering department with a good standard of menu the waste per head per day should not normally exceed 8 to 10 oz. if care has been taken at all stages. Where the swill figure exceeds this amount it may be due to:—

(a) The method of buying, such as cauliflower untrimmed, or peas in shell at a cheap price with little edible yield.

(b) Undrained waste being added to the swill, such as tea leaves or potato peelings.

(c) Incorrect storage.

(d) Wasteful preparation.

(e) Bad cooking.

(f) Food issued in excess of requirements or unpalatable food being served.

Bread and potatoes often form the principal contents of swill tubs. In the case of bread some hospitals have reduced their waste by buying ready-sliced loaves, or if they have their own bakery, by slicing bread by machinery. There are instances where as much as 10% has been saved in this manner.

Cooked left over food is frequently thrown away, particularly from the wards. If wards receive too much, the food left in the dishes should be returned to the kitchen, subject of course to medical consent, so that the catering officer may see the quantity left and ascertain the reason. Frequent weighing and checking of swill helps greatly to control the amount of waste.

PART II

The reasons given by hospital officers for a higher cost per head for provisions often include one or more of the following:—

(a) A high proportion of staff.

(b) A large number of special diets.

(c) A large number of private patients.

(d) A higher standard of dietary than other hospitals.

All indeed, are relevant factors, but the extent to which each affects the cost per head varies from hospital to hospital.

(a) Staff

The number of staff taking meals can seriously affect the overall cost per head only where the standard of feeding for staff is appreciably higher than for patients and/or the proportion of staff to patients is high. In teaching hospitals the ratio of staff to patients is frequently as high as 2 : 1. In a general hospital it is usual to find one staff to one patient, but in mental hospitals it is about one staff to every four or even five patients. It follows therefore that as far as teaching or general hospitals are concerned, any preference that may be given to the staff's dietary will be reflected in higher provisions costs. In a mental hospital, however, it would need a marked difference in standards to make any noticeable increase in these costs.

In assessing the effect of the number of staff on the overall cost per head, consideration must also be given to the method of costing. Whereas meals are provided for all patients every day, many resident staff may well miss one or more meals during the week. If a resident is absent from hospital not through sickness or leave but merely for normal rest days, account cannot be taken of this absence in the Finance department when calculating the cost of feeding.

It has also been said that the number of non-resident staff taking meals can increase the overall cost. Assuming that meals have been accurately recorded, this can only happen if the weighting for the various non-resident meals supplied is incorrect. On the other hand, in some hospitals non-resident meals might well have the effect of reducing the cost per head because of the overvaluation of the points allotted for the midday meal. Again, some hospitals cater for many more staff functions and meetings than others, but this should have no effect on the cost per head if due allowance is made for these meals.

(b) Special Diets

Those hospital officers who contend that special diets increase the cost per head may have in mind both light and therapeutic diets. The extent to which these diets affect the overall cost per head will depend on the standard of dietary for the special diets as compared with the general diets, the proportion of special to general diets, and the co-ordination of the special diet menus with the general and light diet menus. In hospitals where the standard of feeding for the general diet patient is indifferent, it is frequently found that, by comparison, the dietary for light and special diets is more expensive and also that the proportion of light and special diets to general diets is greater. The higher cost is usually due to the use of more milk, more chicken which may be completely omitted from general diets,

better cuts of meat, the use of more expensive fish such as plaice and halibut as opposed to cod, and more fresh fruit and vegetables. Costs are further increased by special prescriptions for spirits, beer, squashes and fortified foods. By contrast, in those hospitals where the standard of feeding for patients on general diets is high, the overall cost is only slightly increased by light and special diets, the principal items causing the increase being milk and special foods. In these hospitals it is not unusual to find that the proportion of light and special diets to general diets is low and may well be only 10-12 per cent.

A lack of co-ordination between special, general and light diets is, of course, a factor in the overall cost of feeding, but it is not likely to be a significant one, unless the proportion of special diets is high.

(c) Private Patients

Here again the extent to which private patients affect the overall cost per head is dependent on the standard of their menu compared with the general diets, and also on the proportion of private to general patients. Whilst there are a few hospitals where the private patients have exactly the same food as the general patients, the majority give a higher standard, particularly those hospitals where an " à la carte " menu is provided, and where the cost may run as high as £3 3s. 0d. per head per week. In such circumstances the effect on the overall cost may be as much as 5 per cent.

(d) Standard of Dietary

A lower standard of dietary will produce a lower cost per head provided all other factors are equal. The phrase " standard of dietary " refers to the standard of menu, the kind and quality of food used, and the size of portions served.

It sometimes happens that the cost of apparently similar menus differs quite considerably. One reason for this is that menus show only the variety and type of dishes but give no indication of the quality or quantity of the food actually provided, nor the recipes used in preparation. For example, salad on the menu may only mean a leaf of lettuce and a thin slice of tomato. In the same way, a sponge pudding may be made either with eggs or egg substitute. Such variations of course influence the nutritional value as well as the cost, but it does not necessarily follow that the cheaper foods are less nutritious. For example, there is as much protein in cod as in plaice, or in some of the cheaper cuts of meat as in the more expensive. Similarly with vegetables, cabbage compares quite favourably with the more expensive

cauliflower. It is obvious, however, that a menu based largely on the cheaper foods will be both less varied and less appetising than one which includes a selection of the higher priced items.

In some of the large acute general hospitals the cost of provisions per head is higher than in the smaller hospitals. This seems to contradict the axiom that the larger the numbers the cheaper it is to cater. Whilst to a certain extent the factors mentioned previously contribute to this state of affairs, they are not in themselves wholly responsible. First, there is often a better menu in the larger hospital although the standard of cooking or the food which finally reaches the patients' plates may not be quite as good as that in the very small hospital. This is partly due to the more individual service which can be given in a very small hospital as compared with a large hospital. Further, a much finer control can be kept on the number of meals for patients and staff with the result that waste in a small hospital may be appreciably less than in a large one, where control depends on the co-operation of a great number of people.

The majority of maternity hospitals are small and their costs are often no higher than in general hospitals; once again this would seem to be a contradiction of the generally accepted idea that it costs more to feed a nursing or expectant mother because she requires more expensive foods and because a small hospital would usually have to pay higher prices. One explanation of this is that, in some maternity hospitals, there is a shortage in the issue of protein foods. A more general one is that the matron is in control of the catering and knows how many meals are required on each occasion, and so food is not cooked in excess of actual requirements. In a large general hospital it is obviously impossible to control quantities to quite the same extent or degree.

As a rule the cost per head in tuberculosis hospitals is little more than in many of the larger general hospitals. This suggests that, with the possible exception of extra milk, the standard of feeding now being achieved in these hospitals is adequate. Some years ago, when rationing restricted quantities of essential foods, it was necessary to allow extras for tuberculosis patients and consequently it costs more to feed them.

CHAPTER 7

DUTIES AND QUALIFICATIONS OF CATERING OFFICERS AND CATERING MANAGERS

A catering officer in a hospital should be responsible for all aspects of catering; namely, buying, storing, preparation, cooking and service. In actual fact, however, whilst all catering officers have control of the kitchens and most place orders for perishable foods, only a proportion have charge of the dining-rooms and very few control the stores. This limitation of the catering officer's responsibilities is particularly noticeable in mental hospitals and in those general hospitals with less than 300 beds.

In mental hospitals the catering officer's responsibility is often limited to the kitchen, although there are occasions when he may be given charge of one or more of the dining-rooms. In the smaller general hospital it is not uncommon for the catering officer to have charge of the kitchen only, the dining-room being under the control of the matron, and the stores under the hospital secretary. This is perhaps a reasonable arrangement, irrespective of the efficiency of the catering officer, as the transfer of the dining-rooms to the catering department must mean a further expenditure on the appointment of supervisory staff to assist the catering officer, without any corresponding reduction in the matron's staff. In such circumstances, however, the catering officer is really nothing more than a kitchen superintendent.

When selecting a catering officer for a medium size general hospital, the H.M.C. is often faced with a choice of inexperienced applicants, so it is not surprising if the new catering officer is unable to effect any improvements. Similarly, in many mental hospitals it has been the practice to up-grade kitchen superintendents who have had no experience elsewhere. Their promotion to the grade of catering officer has, however, been in name only, for although they draw more pay they neither exercise any more authority nor bear any greater responsibility than before.

These are all factors which contribute to the many defects still to be found in hospital catering and which, in the opinion of the King's Fund, can only be overcome by the appointment of fully qualified and experienced men and women as heads of hospital catering departments, with responsibilities that enable them to fulfil their duties properly. To achieve this goal and at the same time to make a very necessary distinction between the highly qualified caterer needed for a large hospital and the rather less experienced and younger man or woman suited to a smaller one, it is suggested that the present A and B scales for catering officers should be abolished and that senior catering officers in the larger hospitals should be given the designation of catering

manager. The dividing line between catering manager and catering officer might be drawn somewhere between 500 and 600 midday meals according to the circumstances pertaining at any particular hospital.

The qualifications which it is considered catering officers and managers should possess and the duties which they should perform are shown in the appendix. A catering officer does not need to have quite the same length of experience, although his basic training should be similar to the catering manager's. Catering officers wishing to become catering managers might gain further experience under a catering manager.

The basic training of the catering manager and the catering officer should be the same; so should their experience in cooking, as both will be responsible for the kitchen as part of their work. A higher standard in management, however, is required of a catering manager and whilst it is proposed that the minimum qualification for a catering officer is that he should have been in charge of a kitchen or dining-room for not less than a year, a catering manager should have had control of a complete catering department.

Any boy or girl intending to become a catering officer might well start training at 16½, although 17 to 18 is probably better. At the end of two years he would take his first post as a cook and after four years' kitchen experience with different standards of menus, during which time he should have earned promotion, he might obtain his first administrative or managerial post. After at least a year under a manager, in which he would gain experience in catering administration, including buying, he should be ready to take up his first post in full charge as a catering officer at the age of twenty-four or five. It is considered that this really is the minimum age at which anyone should be made responsible for staff and be given control of the kitchen and stores, as well as having to place orders with suppliers.

The initial years of a catering manager's career would be on similar lines, but he would of course need a higher degree of managerial experience and would not normally be ready for his first post as a catering manager until about the age of twenty-eight.

Hospitals with less than 200 midday meals would not be large enough for the employment of even a catering officer. Either two or more small hospitals might be grouped together under one catering manager or catering officer, or alternatively, the matron or hospital secretary might be responsible, the day-to-day running being in the hands of either a housekeeper caterer, an assistant matron or a head cook.

Appendix to Chapter 7

RECOMMENDED QUALIFICATIONS AND DUTIES OF CATERING OFFICERS AND CATERING MANAGERS

(i) Catering Officers

A catering officer should be employed in hospitals of 200/600 midday meals. Anyone intending to become a catering officer or later a catering manager should have had the following training and experience:

Basic Training

Specialised catering training should not commence before 16½ years of age, and a full-time course of not less than two years should be taken at a recognised technical or domestic science college leading to the examination for membership of the Hotel and Catering Institute.

Experience

Experience should have been gained in all departments of catering and should not be less than five years in all.

(a) COOKING

At least four years, to include good class hotel work or the equivalent and large scale in a restaurant, canteen, residential college or certain hospitals. In any event at least two years should be in a kitchen where there is a full day service.

(b) ADMINISTRATION

At least one year buying or ordering all foodstuffs and store-keeping under supervision for not less than 200 in a hotel, restaurant, canteen, residential college or hospital.

(c) MANAGEMENT

At least one year in charge of a kitchen and/or dining-room with not less than 12 staff, or as a deputy to a manager or equivalent who controls not less than 25 staff.

(N.B.—Experience in administration and management might be obtained concurrently in the same post; similarly management experience might be combined with the fourth year of cooking.)

(d) HOSPITAL CATERING

At some stage during this period of practical experience at least one year should have been in a hospital.

Duties

The catering officer would be responsible to the hospital secretary for the day-to-day running of the department. The sections he would control would be the kitchen and the food stores. He would also be responsible for menu planning and the placing of orders for foodstuffs which would be countersigned by the hospital secretary or the matron.

The dining-rooms would be controlled by the matron and

supervised by her assistants. Catering staff would be engaged by the hospital secretary or the matron in consultation with the catering officer. Rough weekly costs would be prepared by the catering officer and reconciled with the hospital secretary or finance officer monthly.

(ii) Catering Managers

A catering manager should only be employed in hospitals where more than 500/600 midday meals are provided daily between Mondays and Fridays. His training and experience should be the same as for a catering officer, with the following additions:—

(a) Where the prospective catering manager has had a pre-war training, a trainee/apprenticeship in a good class hotel could replace a two-year full-time course at one of the technical colleges.

(b) Management experience should be of longer duration (at least two years) with direct control of at least two sections of catering, e.g., the kitchen, dining-rooms, stores, with not less than 25 staff, or acting as deputy to a manager with full responsibilities. Commercial experience would be an advantage.

(c) Hospital experience should be of not less than two years as catering officer and/or assistant to a catering manager. (The ten months' course at the Fund's School of Hospital Catering could be counted as one of these two years. The certificate granted to those completing this course successfully has been recognised by the Ministry of Health in their circular HM 56(16.)

Duties

The catering manager would be responsible to the Group or hospital secretary, as the case may be, for the administration of the catering department. The sections he would control would be the kitchen, the dining-rooms, the food stores and the catering office. He would also be responsible for menu planning, buying and ordering food. He should make out all orders and, if considered desirable, have them countersigned by the hospital secretary.

The engagement of staff for the catering department is the ultimate responsibility of the hospital secretary, but he should either delegate this to the catering manager or act in consultation with him. The catering manager should prepare rough weekly costs and reconcile them with the hospital secretary or finance officer monthly.

(iii) Assistant Catering Manager

An assistant catering manager should assist the catering manager in all his duties and act as catering manager in his absence.

CHAPTER 8

THE DIETITIANS' ROLE IN HOSPITALS

It is not possible to provide a complete medical service today in general hospitals without the assistance of a dietitian. She is required in order that prescriptions for certain therapeutic diets shall be accurately carried out, for example, low salt diets for heart disease and some cases of cirrhosis of the liver, gluten free diets for coeliac disease and steatorrhoea, and restricted carbohydrate diets for diabetes. Certain diagnostic tests need an accurate assessment of the food intake and this can only be done satisfactorily with the help of a trained dietitian.

As regards other diets, e.g., for gastric and intestinal diseases and for obesity, these can be arranged, if necessary, by the nursing staff, provided that they have full up-to-date information from each doctor on the diets required for his patients. Where there is a dietitian, however, she is able to select a wider range of foods and therefore to provide a more varied diet. The dietitian exerts her influence not only on those who need special diets but also, as a nutritionist and a teacher, on the hospital as a whole.

Since the early twenties, when dietitians were first employed in this country, there has been a considerable change of emphasis in the role of dietitians and equilibrium has not yet been attained. In many hospitals there is still an incomplete appreciation by medical and nursing staff of the way to make the best use of the special training and qualifications of a dietitian. These may be considered as follows:—

(a) **As a Therapist.** The way in which the dietitian carries out this part of her duties is dependent on the facilities available in the hospital. For example, the dietitian in charge of a diet department with a special kitchen, fully staffed with assistant dietitians and trained cooks, can provide a wider and more individual service than one who is working in a hospital without a diet kitchen and with no trained assistance. Basically, however, both are using food as a means of treatment and are adapting the usual or normal diet to the needs of individual patients with specific diseases.

(b) **As a Teacher.** One of the dietitian's most important duties is that of teaching individual patients, both in wards and in out-patients' clinics. Teaching in clinics may take the form of explaining diet sheets to individual patients or of demonstrating to groups of patients; for example, demonstrations for diabetics or for mothers attending ante- and post-natal clinics. She may also lecture to nurses and

cooks and many dietitians arrange 3 - 4 weeks' courses on diet therapy in their department for nurses in training.

(c) **As a Nutritionist.** She can assess the nutritional value of the diet and can advise, not only where it is deficient, but also the means whereby it may be improved. She can help to ensure that the special requirements of certain patients, for example, maternity, children and post-operative cases, are met by foods suitable to their nutritional needs and physical condition. She can also advise on matters of nutritional policy, for example, on the nutritional consequences of food economies, the use of deep frozen or other processed foods and on the use or mis-use of proprietary foods.

Whether the dietitian can take complete responsibility for providing the therapeutic diets or whether she must share it with others depends on the size of her department and the number of trained staff employed. In a few large departments, employing a number of dietitians, full responsibility is taken for calculating the diets, arranging them to suit individual patients and for preparation and service of food. In other departments, where there are only one or two dietitians, responsibility for the diets is shared between the dietitians and nursing staff, the latter doing the serving and where necessary weighing bread and butter, making beverages and preparing special foods according to formulae supplied by the diet department.

Recently as an expedient to save the expense of a separate diet department and also because of the shortage of dietitians, a new type of post has been evolved, namely, that of advisory dietitian. The advisory dietitian may be part-time at one hospital only, or full-time and sharing her services between two or three small hospitals in a Group. The advantages of this type of employment are that it economises in labour, equipment and services, as existing staff, both catering and nursing, are utilised in the preparation, cooking and serving of meals. The dietitian calculates and arranges diets for individuals from prescriptions and using the catering officer's menus as a basis, plans meals for all special diets. She advises as necessary on recipes and quantities to be used.

Caterer/Dietitians

The Second Memorandum on Hospital Diet stated the opinion that a dietitian, whose knowledge of nutrition was supplemented by adequate experience in large scale catering, would be the most suitable person for appointment as a catering officer. However, since the publication of this Memorandum thirteen years ago,

events have made it clear that it is impossible, if indeed it is still desirable, for caterer/dietitians to be appointed to all catering officer posts. Only in the smaller hospitals can one person successfully undertake the full range of duties of a catering officer, combined with those of a dietitian, as set out in this chapter. In larger hospitals the catering officer should be advised in all nutritional and dietetic matters by a dietitian.

CHAPTER 9

SHORTAGE OF DIETITIANS

The shortage of dietitians is perhaps best illustrated by quoting figures which have been compiled with the assistance of the statistical branch of the Ministry of Health and the British Dietetic Association. In England and Wales there are 290 general non-teaching hospitals of over 150 beds with a total of 115,000 beds. In a general hospital it may be assumed that 10-15% of patients require special diets, which means that in this group of 290 hospitals at least 11,500 patients are in need of such diets. Yet in 1956 there were only 72 full-time and 15 part-time dietitians employed in general non-teaching hospitals. The following is a summary of the position at the end of that year throughout England and Wales:—

(i) In the 14 Regions there were 238 H.M.C.'s with one or more general hospitals of 50+ beds. Of these, 180 were without dietetic advice and the remaining 58 employed one or more dietitians. These 14 Regions employed in H.M.C. hospitals 72 full-time and 15 part-time therapeutic dietitians and 8 caterer/dietitians (total 95).

(ii) Provincial and London teaching hospitals employed 106 full-time and 2 part-time therapeutic dietitians and 4 caterer/dietitians (total 112), or, in other words, 54% of dietitians in England and Wales were employed in teaching hospitals.

(iii) The four Metropolitan Regions employed:—
  (i) Including teaching hospitals, 58% of all the dietitians in England and Wales.
  (ii) Excluding teaching hospitals (i.e., H.M.C. hospitals only)—45%.

Four main reasons are suggested for the overall and uneven distribution of dietitians in the hospital service. First there is a nation-wide deficiency of technical and professional workers. Similarly, but looking at the narrower field of hospitals, there are shortages in the ranks of all medical auxiliaries to say nothing of nurses and catering staff generally. Secondly, the loss each year of trained dietitians from hospitals through marriage, emigration and transfers to other spheres of work, namely teaching, school meals service and industry is almost as great as the number who complete their training and enter the hospital service.

Thirdly, the comparatively low salaries of dietitians in the Health Service are unlikely to prove attractive to girls choosing a profession, nor are these salaries likely to encourage recruits

from among nurses, caterers or teachers, all of whom, given the necessary preliminary qualifications, are eligible to train for a diploma in dietetics. Finally, at the present time, few H.M.C. hospitals offer work of sufficiently varied nature to tempt dietitians from the well established and highly developed departments of teaching hospitals.

Whatever steps may or can be taken to increase the number of dietitians, the present shortage is unlikely to be overcome for a long time. Meanwhile, H.M.C.'s might well consider what measures they could adopt to ensure that the best use is made of the services of those dietitians who are available. Such measures include the employment of part-time dietitians, sharing one dietitian's services between two or more hospitals in a Group; and in provincial hospitals, making the dietitian's work more attractive; seconding suitable staff for training in dietetics and, in the absence of a dietitian, arranging for nurses to attend short courses in nutrition and special diets.

There are many married dietitians, either without a family or with grown-up children, who welcome the opportunity of part-time work. These dietitians are for the most part mature women who, in addition to their scientific and dietetic qualifications, are experienced in dealing with people. In consequence, they are particularly suited to posts where the qualities of tact and persuasion are perhaps even more important than technical knowledge, e.g., in out-patients' departments or in advisory work. Employed only in out-patients' departments, they may help to save hospital beds by assisting in stabilising diabetics or in reducing those who are grossly overweight. Dietitians employed in this way may also advise catering and nursing staff as suggested in the preceding chapter.

Shared posts are a means of spreading or sharing the services of one dietitian among a greater number of patients. The dietitian may either be based at the hospital in the Group with the most medical beds and advise other hospitals as the need arises, or she may visit one or two hospitals for certain sessions, these usually coinciding with out-patient clinics.

Whatever the arrangement and however many sessions the dietitian may attend, her duties, functions and status should be made clear to all concerned when she is appointed so as to avoid any likely sources of friction. Much of the frustration experienced by dietitians in H.M.C. hospitals, which all too frequently leads to their return to the more established and highly developed dietetic departments of teaching hospitals, is due to the fact that the dietitian is in an isolated position. She is frequently the only one of her kind and unless she has the interest and support of the

medical staff she can accomplish little. Interest on the part of the medical profession varies greatly from hospital to hospital; in some she rarely sees a doctor, in others she accompanies the physician on his ward rounds. It is not uncommon to find, however, that those who have strongly advocated the need for a dietitian ignore her until she resigns. If the job offered by a hospital or Group is interesting and fully engages the dietitian's specialised knowledge, she is likely to stay, but she is most unlikely to do so if the work she is expected or allowed to do could be done equally well by a cook. (For the suggested duties of a dietitian see Chapter 8.)

One means of increasing the supply of dietitians would be by the grant of study leave to suitably qualified hospital staff, particularly registered nurses, to enable them to take a 15-18 month course at one of the recognised dietetic training schools. A list of these schools and the qualifications required for admission to them are given in the appendix to this chapter. A nurse dietitian could do much to improve diet therapy and to teach patients both on the wards and in out-patient clinics, how to manage their diets at home.

All diet is a basic part of treatment and many special diets are a specific part, hence every effort should be made to arouse and encourage the nurse's interest. To this end it is recommended that, where there is a dietitian in the Group, she should give lectures to nurses during their training and that they should spend a period, however short, in the preparation of special diets. It is also suggested that on sisters' study days some time should be given to the discussion of therapeutic diets, when physicians and dietitians could be invited to speak on the need for and the practical means of catering for patients requiring diets. Special short courses in therapeutic diets might be organised for medical ward sisters in London, and possibly in the diet department of provincial teaching hospitals.

Some help has already been given to a number of catering officers in courses at the Fund's School of Hospital Catering. There is also a useful course in " Nutrition in Relation to Catering and Cooking " sponsored by the Royal Society of Health. Much, however, remains to be done along similar lines before any general improvement can be expected.

Appendix to Chapter 9

QUALIFICATIONS NECESSARY FOR ADMISSION TO AND LIST OF RECOGNISED DIETETIC TRAINING ESTABLISHMENTS

University degree in one of the following:—

Domestic Science

Household Science

Nutrition

Pure Science including physiology and chemistry followed by at least three months' concentrated training in cookery.

State Registration in Nursing, followed by at least three months' concentrated training in cookery.

Teachers' Diploma in Domestic Science.

Institutional and Catering Management Certficate of the Institutional Management Association.

Associate Members of the Hotel and Catering Institute who have completed certain full-time two-year courses in catering and have been elected after passing the Institute's examination.

Students holding these qualifications may proceed to the following Diploma Courses in Dietetics:—

1. At Queen Elizabeth College (University of London), Campden Hill Road, London, W.8.
2. Glasgow and West Scotland College of Domestic Science.
3. The United Leeds Hospitals.
4. The Northern Polytechnic, Holloway Road, London, N.7.
5. The College of Bakery, Catering, Domestic Science and Associated Studies, Bridge Street, Birmingham.

The training taken in two parts as above takes a minimum of $4\frac{1}{2}$ years to complete and includes six months' practical work in a recognised hospital dietetic department.

Integrated Courses:—

1. St. Mary's College of Domestic Science, Cathal Brugha Street, Dublin. (Four years.)
2. Battersea College of Technology, London, S.W.11. (Three years.)

Science subjects at "A" level in G.C.E. required for entry. All students entering on any of the above courses are normally required to take G.C.E. with five passes at "O" level including English and Chemistry.

For further information apply to the British Dietetic Association, 251 Brompton Road, London, S.W.3.

CHAPTER 10

THE SITE AND SIZE OF THE MAIN KITCHEN

(a) The Site

The siting of the kitchen in a single-storey hospital presents no problem as long as the logical sequence of events is followed, i.e., first a reception bay and a provisions store, followed by kitchen storage, preparation and cooking areas and service, and finally, staff dining-rooms. All these areas should be close together and arranged in that order. In a multi-storey hospital the kitchen can be either on the ground floor, on the top of the building or even at an intermediate level. Most of the discussion about the best site, however, revolves round the top or the ground floor and it is the arguments for and against these alternative positions which are considered here.

Approximately three-quarters of a ton (1,680 lbs.) of food are required daily to feed a general hospital of 300 beds and some 200 staff. If the kitchen were on the top floor, this quantity of raw food would have to be conveyed upstairs by lift. Subsequently some 350 lbs. of waste would have to be returned to the ground floor and 800 lbs. of prepared food for the patients would have to be sent by lift to the lower floors. The balance (i.e., 500 lbs.) would be served in the staff dining-rooms which, it may be assumed, would be on the same floor as the kitchen. Thus every day some 2,800 lbs. of raw, cooked and waste food would have to be moved by the lifts. On the other hand, if both kitchen and dining-rooms were on the ground floor the lifts would only be used for conveying 800 lbs., i.e., the food for the wards.

To reduce the load on the lifts it has been suggested that certain foods such as potatoes, cabbage, root vegetables, etc., could be prepared at ground floor level, thus avoiding the conveyance of that part of the food which will become preparation waste. In fact, little, if any, saving is achieved by this method for the amount of preparation waste from potatoes and vegetables would be more or less offset by the weight of the water used in sending peeled potatoes to a top floor kitchen.

It is sometimes said that the number of staff using the lifts for attendance at meals is the same whether the kitchen and dining-rooms are on the top or the ground floor. This is not, however, the case. Whilst the use of the lifts by ward staff generally remains constant, as wards are usually on the intermediate floors, their use by the remaining staff, a large proportion of whom work at ground level, is greatly increased when the kitchen and dining-room are on the top floor. Thus, one of the results of having a top floor kitchen is that it becomes necessary

to install more lifts, some of which have to be reserved for catering use only.

Catering control becomes difficult when catering sections are dispersed and are on different floor levels. If the kitchen is on the top floor the staff dining-rooms would presumably be on the same level. As these two sections occupy more than half the catering officer's time it would seem that the most suitable site for his office would be on the top floor, too. Goods, however, are received at the ground floor level and if the catering officer is to supervise the staff checking deliveries and the stores he has to spend a good deal of his time moving from the top to the ground floor and back. Conversely, if his office were on the ground floor, he would be remote from the kitchen. Similar remarks apply when the preparation rooms and the kitchens are also on different levels.

Whether the kitchen is on the top or the ground floor, there is no difference in the distribution of meals to the patients when the wards are one above the other in a single block. There is, however, a big difference if there are other ward blocks outside the main building. Not only does the food have to be conveyed to the ground floor level but it probably has to be taken along a corridor and into another lift, to be carried to the upper floors of another block. In such circumstances the time taken in distributing the meals is doubled.

Top floor siting has another disadvantage in that it can lead to waste. The kitchen staff are inclined to send too much food to the more distant wards so as to ensure that there are no demands for additional portions which take a considerable time to supply.

It would appear that the only advantage which a top floor kitchen has over one on the ground floor in the main block is in the dispersal of cooking odours. In a top floor kitchen this creates no problem, but with a ground floor kitchen cooking odours are liable to permeate the building. A good system of mechanical extraction and air induction should, however, overcome this, although it can be quite costly, while its success depends on the kitchen staff allowing the system to operate in the way in which it was designed. For example, the system may require all windows and doors to be kept closed. Nevertheless, this condition may not be observed as the staff are tempted to open the windows in the mistaken belief that this will make the kitchen cooler, thereby defeating the system.

From the foregoing it is evident that, in the choice between a top or a ground floor kitchen, the advantages of the latter easily outweigh the former. There is, however, one exception, namely, where a hospital is situated in the centre of a busy town. In such

a case the predominant need may be to place the kitchen and dining-rooms as far above the ground floor as possible because of noise, dust and fumes from the streets and the lack of natural lighting.

In planning a new multi-storey hospital the ideal site for the kitchen is a single-storey building a short distance away from the main block with the goods reception and storage at one side of the kitchen and the service and staff dining-rooms on the other side. The kitchen should be connected to the main block by an enclosed corridor. Supervision is thus greatly facilitated, the whole of the catering can easily be co-ordinated, the problem of ventilation and cooking odours permeating the building is easily overcome, and the use of the lifts reduced to a minimum.

(b) The Size

So long as the present system of feeding all the patients at the same time is continued, the main kitchen of a hospital should not be required to cater for more than about one thousand (patients and staff combined), if a reasonable standard of feeding is to be maintained. A kitchen of this size should be efficient to operate because it could be organised in sections, and because more experienced staff could be employed under effective supervision.

The staff of such a kitchen could include a kitchen superintendent with sectional chefs and the salaries which could be paid should be sufficient to ensure the engagement of more efficient people than could be employed in smaller units. Any cooks not quite up to standard could be helped and supervised by the kitchen superintendent or the sectional chefs, thus ensuring the maintenance of a good standard of cooking.

It might be thought that the greater the number to be catered for in one kitchen the smaller the ratio of staff to meals, but this is only true up to a point, for experience shows that the relative saving in staff ceases at about the 1,000 mark. At this figure the staff employed in the kitchen might be:

1	kitchen superintendent
1	assistant kitchen superintendent
3	sectional chefs
6	cooks and assistant cooks
11	kitchen assistants (cleaners, pot wash, etc.)
22	

Any increase above 1,000 generally means a proportionate increase in the hands required for preparation and probably for cooking duties. Similarly, more equipment is needed, not larger but more individual items, which in turn take up more floor space, thus reducing efficiency because the kitchen becomes less compact, which makes it more difficult for the kitchen superintendent to exercise proper supervision.

To a great extent, the limiting factor in all this is the serving of meals to all the patients at the same time. If the patients' (and staff) meals were staggered, or if there were a continuous service over a period of two or three hours, the peak of efficiency could be raised over the 1,000 mark without increasing either the equipment or the number of skilled cooks. There would still, however, have to be a proportionate increase of unskilled staff for preparation work.

CHAPTER 11

HYGIENE IN CATERING DEPARTMENTS

The necessity for a high standard of hygiene in the preparation, storage and service of food requires no emphasis, particularly in hospitals and other institutions where the dangers of infection and food poisoning can have serious consequences. It is a matter of concern that the number of outbreaks of food poisoning is not diminishing in this country and that in all too many cases they occur in hospitals. Whilst personal hygiene is a major factor in their prevention, it is not always realised that outbreaks are often caused by such harmful kitchen practices as the advance cooking and prolonged re-heating of food, particularly meat. There is no excuse for this dangerous practice which can be easily avoided by using modern slicing machines which operate effectively with hot meat. Recent investigations have also revealed the danger of food poisoning organisms arising from food reaching the kitchen already contaminated. This has underlined the importance of providing adequate cold storage to prevent the growth of bacteria and also for using equipment and techniques which limit the spread of contamination.

Primarily it is of course a question of the education and constant supervision of all those who handle food in the various stages of its preparation and service. In this connection full advice has been given to hospital authorities in the various memoranda issued by the Ministry of Health, as a result of which there has been an improvement in the standard of catering hygiene in most hospitals. It is a fact, however, that there are still hospitals where so little attention is given to this subject that hand-basins with hot water are not even provided in or near the kitchens and food stores.

Particular attention is invited to the appendix of the memorandum [a] published by the Ministry of Health in 1953 which gives practical advice on "food poisoning and its prevention". This memorandum recommends that in every hospital there should be a medical officer who is responsible for advising on hygiene in the kitchens, wards and dining-rooms and for arranging lectures to the staff. It remains the duty of the catering officer to ensure that all his staff are made familiar with the elementary rules of personal hygiene and to exercise strict discipline in their enforcement. This can only be done effectively if proper facilities are provided.

Food hygiene is not only a matter of personal habit but is also concerned with pest control, the disposal of waste food, the safety of milk and the safe handling of food. Advice on all these points has been given in various Ministry circulars [b]. The

Ministry of Health have also published an excellent handbook on " Clean Catering " [c] for the promotion of hygiene in catering establishments which should be read by all who are responsible for the planning of catering services. Mention should be made also of the posters, films and other publicity material obtainable from the Ministry and from the Central Council for Health Education.

REFERENCES

[a] Ministry of Health circular RHB(53)53, HMC(53)49, BG(53)52 " Hygiene in Hospital Catering Departments ".

[b] Ministry of Health Circular

(i) RHB(51)119, HMC(51)110, BG(52)113 " Pest Control ".

(ii) RHB(49)146, HMC(49)124, BG(49)126 " Collection, sterilization and disposal of hospital kitchen waste (Swill)".

(iii) RHB(53)61, HMC(53)57, BG(53)59 " Disposal of Hospital Kitchen Waste (Swill)".

(iv) RHB(52)29, HMC(52)27, BG(52)27 " Safety of milk consumed in hospitals ".

[c] " Clean Catering," a handbook on Hygiene in Catering Establishments, published by the Ministry of Health.

CHAPTER 12

JOINT PURCHASING

Paragraph 36 (a) of the final report of the Central Health Services Council Committee on Hospital Supplies states that as a result of further evidence received since the issue of their interim report in 1957, they now feel there is even wider scope than they had previously thought for joint contracting for certain categories of non-perishable and even possibly for some items of perishable foodstuffs.

There are in fact several Regions where Groups have combined to purchase certain foodstuffs jointly. The London teaching hospitals too have made endeavours to buy many items of food on a joint basis. In those Regions where Groups have entered into joint purchasing it has been claimed that quite substantial savings have been made. However, without full details it is difficult to assess the saving which has actually been achieved.

When assessing any saving, the following factors should be taken into consideration;

(1) The time taken by officers in attending meetings at frequent intervals and their travelling expenses.

(2) The relative overhead costs, such as clerical, supervisory, transport, storage and porterage of the two methods of purchasing.

(3) The difficulty of ascertaining whether the quality and edible yield of the food purchased on a joint basis is in every respect as good as that which was purchased individually.

(4) Whether there are any means of ensuring that the goods delivered to individual hospitals are up to the same standard as the samples which were submitted when the joint purchase was made.

(5) A comparison between prices arranged under a joint contract in one season with prices paid individually in a previous season may be misleading. For example, there have been great fluctuations in the prices of some foods during the past two years, which makes it difficult if not impossible to assess the real value of long term contracts made during that period.

It will be seen from this brief summary that joint purchasing is a complex matter. As the present system has only been tried out in a few Regions so far, it is still not possible to assess its true value in hospital catering.

CHAPTER 13

CATERING BY CONTRACTORS

Commercial catering in hospitals is a post-war development which is widespread in America, but which up till now has only been tried by a few hospitals in this country. In each of these hospitals the main reason for the decision to hand over the catering to a contractor has been the difficulty of obtaining staff for the catering department.

The catering contractors now operating in this country work to a price or to a standard. If the hospital gives a price then the contractor states the standard which can be supplied for it. Vice versa, if the hospital specifies a certain standard, then the contractor quotes the amount he will charge for providing it. One firm prefers to engage all the staff, although they may be willing to take on some of the hospital's employees with due safeguards for their pension rights. Another firm prefers all the staff to be on the hospital's establishment except the catering officer, whom they provide and who must remain their employee for at least three months, after which he has the option of transferring to the hospital establishment. In either case a management fee is charged over and above all the salaries and wages paid directly or indirectly by the hospital.

The hospital provides all buildings, equipment, power, heating and lighting, free of charge, while the contractor takes control of the catering, i.e., the purchase, receipt, storage, issue, preparation and cooking of food. It is also usual for the contractor to control the staff in the dining-rooms. The numbers to be catered for are agreed between the parties and at the end of the month a full statement is submitted to the H.M.C. showing the amount spent on food and wages, together with all the invoices. This statement also includes the fee which is payable monthly.

The contractor's books are open to inspection at any time, either at the hospital or in his head office. There is also an agreement on either the actual number of staff to be employed or on the overall cost which must not be exceeded, this usually being based on the authorised establishment and a normal working week. Overtime is worked at the discretion of the contractor (with the concurrence of the hospital) and is subject to a weekly scrutiny, ex post facto, by the hospital staff. Two factors which help the contractor to provide a satisfactory catering service at a reasonable price are the exercise of regular supervision through experienced supervisors and flexibility in fixing salaries according to the capabilities of each person on his pay-roll.

In conclusion, although it can be said that the introduction of commercial caterers has enabled some hospitals to find an effective solution to their difficulties by overcoming staff shortages and by providing expert advice or supervision for the catering department, it must not be thought that this is the final answer to all hospitals' catering problems.

SUMMARY OF CONTENTS

CHAPTER 1

Catering in General Hospitals

Good food well cooked and properly served is an important factor in the treatment of every patient.

It should be possible to meet the needs of most types of patients in a general hospital by intelligent modification of the main dietary.

Full (or normal) diets are described. Details are given of suitable modifications to the normal dietary for maternity and tuberculosis patients, children and old people. Advice is given on the correct use of light diets.

CHAPTER 2

Catering in Mental Hospitals

The main problems of catering in mental hospitals, with bed complements of 1,000 and more are the large number of meals which have to be served at the same time, the lack of skilled cooks, unsuitable kitchens, and the difficulty of distributing food. Suggestions for dealing with these problems are made, with emphasis on the decentralisation of the cooking and the staggering of meal times.

The importance of a nutritionally adequate diet is explained. Criticisms of the dietary in some mental hospitals are made, together with suggestions for improvements.

The appendix gives the quantities of basic foods which ought to be allowed weekly to ensure an adequate dietary.

CHAPTER 3

Service of Meals to Patients

Some problems concerning the service of meals are discussed. Electrically heated trolleys are recommended as a means of food transport. Standard trolleys are not suitable for all hospitals but food conveyors of various types have been specially designed to meet individual requirements.

Catering and nursing staff share the responsibility for the service of patients' meals. Suggestions are made as to the ways in which they can help one another.

The equipment required for a ward kitchen is listed.

The pros and cons of serving meals from a trolley within a ward or from the ward kitchen are discussed.

CHAPTER 4

Ward Requisitions

The need for care in checking ward requisitions is stressed in regard to both numbers and types of diets.

Sample layouts for ward requisitions and kitchen summary sheets are given. Suggestions are made for the control of ward issues from the stores.

CHAPTER 5

Catering for Staff

The desirability of providing hospital staff with a choice of dishes at all meals is emphasised and suggestions are made as to how this can best be done.

The three types of dining-room service to be found in hospitals today are described and compared.

The importance of the proper supervision and training of dining-room and cafeteria staff is stressed.

The problems of feeding staff on night duty are discussed, particular importance being attached to the provision of freshly cooked meals offering a choice of dishes.

CHAPTER 6

Factors affecting Food Costs

PART I

Whilst certain factors affect cost in all catering establishments, some are peculiar to hospitals. Both types are listed.

Methods employed in buying commodities, including fruit, vegetables, fish, meat and milk are examined.

Control of stores is discussed and the causes of waste are given.

PART II

Reasons for differences in hospital food costs are listed and each is discussed in detail.

The term " standard of dietary " is defined and an attempt is made to correlate cost with standard.

Reasons are given for differences in costs of apparently similar menus.

Observations are made on differences in costs between large and small general hospitals, and between general and special hospitals.

CHAPTER 7

Duties and Qualifications of Catering Officers and Catering Managers

Improvements in the standard of hospital catering largely depend on an adequate supply of efficient catering officers.

Reasons are stated for distinguishing between catering officers in hospitals serving more than 500/600 midday meals who should be competent to take and who should be given full responsibility for all aspects of catering, and those in smaller hospitals with between 200 and 500/600 midday meals whose capabilities and responsibilities are limited.

To mark the distinction between these two grades, it is suggested that those in the larger hospitals be called Catering Managers and in the smaller units, Catering Officers.

Responsibility for the day-to-day catering in hospitals with less than 200 midday meals could best be entrusted to a housekeeper/caterer, an assistant matron or a head cook.

The qualifications which are considered necessary for catering managers and catering officers are given in the appendix, where the duties of both are also described.

CHAPTER 8

The Dietitian's Role in Hospitals

It is not possible to provide a complete medical service in general hospitals today without the assistance of dietitians.

The functions of a dietitian as therapist, teacher and nutritionist are discussed in detail.

Differences in responsibility for therapeutic diets between diet departments of various sizes and complexities are examined.

A comment is made on the present scope for the employment of caterer/dietitians.

CHAPTER 9

Shortage of Dietitians

Figures are given to illustrate the shortage of dietitians in England and Wales and their distribution among teaching, non-teaching and metropolitan regional hospitals.

Reasons for the shortage of dietitians are suggested.

Measures for ensuring the best use of available dietitians are outlined.

Study leave to enable suitably qualified staff to obtain dietetic

qualifications is suggested and details of training are given in an appendix.

Means of increasing the interest of both catering and nursing staff in special diets are suggested.

CHAPTER 10

The Site and Size of the Main Kitchen

The siting of the main kitchen in single- and multi-storey hospitals is discussed.

Arguments for and against a top-storey kitchen are put forward under various headings:

(a) The effect on lifts of having to move bulk food from ground level to the top floor and preparation and other waste down again.

(b) The difficulty of controlling a catering department scattered between various floors.

(c) The distribution of ward meals from a ground floor or a top floor kitchen.

(d) The dispersal of cooking odours.

Reasons are given for the view that, in present conditions, maximum efficiency is most likely to be attained in a kitchen serving about 1,000 persons.

A suitable establishment for such a kitchen is suggested.

CHAPTER 11

Hygiene in Catering Departments

Attention is drawn to the ways in which harmful kitchen practices can cause food poisoning.

Great importance is attached to the constant supervision and education of all catering staff in the observance of the rules of hygiene.

A list is given of various official circulars and handbooks dealing with food hygiene and pest control.

CHAPTER 12

Joint Purchasing

Factors to be taken into consideration in evaluating savings through joint purchasing are listed. Joint purchasing is a complex matter, the true value of which can only be judged in the light of much greater experience than is available at present.

CHAPTER 13

Catering by Contractors

Reasons why some hospitals in this country have had recourse to catering firms are given.

The terms under which catering contractors operate are described.

Two factors which help contractors to provide a satisfactory catering service at a reasonable price are given.

Although a catering firm may be able to help a hospital out of a difficult situation, it should not be thought that the introduction of catering by contract is the answer to all hospital catering problems.

The following catering publications are also available, post free:—

General Hospital Diets	5/-
Memorandum on Special Diets ...	2/-
Memorandum on Light Diets ...	1/-
Care of Catering Equipment ...	1/-
Layout and Design	1/-

OBTAINABLE FROM

THE HOSPITAL CENTRE

24 NUTFORD PLACE

LONDON, W.1

Price 2/- Post free

Published for King Edward's Hospital Fund for London by

CAXTON PRESS OF CHESHUNT LTD., HOLT HOUSE, FLAMSTEAD END, CHESHUNT, Herts.