in progress ... work in progress ... work

PROMOTING NUTRITIONAL AWARENESS

OPPORTUNITIES PROVIDED BY A HOSPITAL STAY

Brighton ● Camberwell ● Southport ● West Dorset

Nursing Development Units

PROMOTING NUTRITIONAL AWARENESS

OPPORTUNITIES PROVIDED BY A HOSPITAL STAY

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KING's FUND CENTRE

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Going beyond the distribution of meals

Our team works on a care of the elderly ward in Southport General Infirmary. Southport is a seaside town with a large population of retired elderly people. The majority of the patients we nurse are transferred from acute wards for rehabilitation after illnesses, such as a stroke. Some of them are admitted directly from their own homes or residential care homes for investigations or rehabilitation. A few of them are admitted regularly for respite care to allow their carers to have a well-earned rest. We also have five female patients who cannot be cared for in the community for various reasons. Many of our patients are frail or have difficulty in feeding themselves.

Two years ago, we adopted Orem's self-care model as the framework for our care planning. Within Orem's model, fluid balance, nutrition and elimination are closely related. During the assessment, we would note the amount of fluid intake, likes and dislikes, alcohol consumption and skin condition of the patient. We usually asked our patients about the number of meals they ate each day and about any difficulties they had in chewing, swallowing and digestion. Body weight was checked but height generally not, since a true reading of height is difficult to obtain from most of our patients. Elimination habits were also assessed and any difficulties experienced were investigated. This system worked well in giving a general picture, but in discussion among the team we felt it was insufficient to identify specific at-risk areas.

Had we been doing enough?

As we grow older we require less energy. This is due to a decrease in physical activity and a loss of lean body mass. However, elderly

people's requirements for nutrients do not change drastically from the requirements of younger adults. Thus, if a reduced amount of food is eaten, it is vital to make sure that the diet contains enough protein, vitamins and trace elements.

Some individuals may use up more energy than others. The variations in health and life-style need to be considered. Many elderly people are underweight and need extra energy to restore body weight. Very often requirements for nutrients and energy actually increase due to illness, infection, and stress. On the other hand, obesity can be a problem for disabled or elderly people whose mobility is poor. It is important, therefore, that each elderly person is treated individually.

In the 1960s and 1970s, there was widespread concern about the poor nutritional state of some elderly people and several large community studies were carried out[1,2]. These studies showed the incidence of frank nutritional deficiencies in the elderly to be rare, but very low intakes of certain nutrients were found in a small proportion of the survey population. Exton-Smith[3] wrote extensively about the problems and listed the primary and secondary causes of malnutrition in old age:

Primary causes	*Secondary causes*
ignorance	impaired appetite
social isolation	masticatory inefficiency
physical disability	malabsorption
mental disturbance	alcoholism
iatrogenic	drugs
poverty	increased requirements

Some twenty years on from those earlier studies the problem of nutritional deficiencies in the elderly population still exists[4]. Without doubt, it is partly due to the complexity of the problem, as intake of nutrients is influenced by psychological, socio-

economic and medical factors. The question we asked ourselves was: have we been doing enough to detect, correct and prevent nutritional deficiencies in the elderly? We concluded that we had not.

A user-friendly assessment tool...

Individual nutrition assessment is the first step in the detection and treatment of malnutrition. However, it is important to decide which methods are to be employed. Weight, height, serum albumin, total protein, mid-arm area, tricep skin fold, creatinine/height nitrogen balance, and many others are frequently measured. Unfortunately, it is not always practical, economic or desirable to perform some of the complicated tests.

We felt that there was a need for a user-friendly assessment tool and a flexible health promotion programme to meet the special requirements of our patients and their carers. After a long search and a small project to test the feasibility, the Nutrition Assessment Checklist was introduced for routine use at the beginning of July 1992. The checklist was originally designed by the Nutrition Advisory Group for the Elderly, a specialist group within the British Dietetic Association. We have slightly modified the general information section to suit our needs (see appendix).

The checklist enables us to assess patients systematically and to formulate care plans. First of all, the general questions section helps us to gather background information on eating pattern, weight, special diet requirements and medication which may affect nutritional status. These are factors which will influence nursing intervention and advice which can be given to patients.

In spite of the routine practice of weighing patients on admission, the relationship between body weight and nutritional status was not fully appreciated in the past. The checklist highlights the

problem of drastic change of weight, either in terms of gain or loss. For example, when a patient has gained more than one stone in weight in the past year, the extra weight might cause or might already have caused undesirable complications to his or her medical condition. With this knowledge, we can advise the patient to see the dietitian who may recommend a reducing diet if the patient needs to lose weight. A change of eating habits such as avoiding sweet snacks between meals or eating less sugar may be sufficient to prevent further weight gain and to maintain a constant weight .

Information on whether the patient is taking any vitamin supplements, iron tablets or laxatives can give us clues to some other medical conditions such as anaemia and constipation. We have found that some patients, on admission, forget to mention these problems as they may have come to terms with the conditions and taking medication has become a daily routine. Insights into these problems can help us to plan special diets and monitor progress.

The main body of the Nutrition Assessment Checklist is divided into four sections covering specific nutrients: iron, vitamin C, calcium/vitamin D and fibre. Deficiencies in the above may lead to anaemia, osteomalacia and constipation. These complaints are very common in the elderly population and are avoidable. They can be treated by medication but ideally they should be corrected by a change in eating habits.

... and a flexible health promotion programme

Each individual has his or her own food preferences. For many of the elderly people we meet, their choice of food is the result of life-

long habit and may not be easy to change. However, as lack of knowledge can be an important factor in why elderly people fail to select food containing essential nutrients, we consider that health education is a crucial part of our patients' nutritional care. Once a patient is identified as being at risk, the medical staff and the dietitian are consulted. A special diet is introduced if necessary. General information on healthy eating and practical suggestions in choice of food are offered to the patient and relatives.

The timing of meals is very important for many patients as they are often the 'high' spots in their daily routine. In our hospital, it is always taken for granted that patients want their main meal at midday and a smaller meals in the evening. Some of the patients may have had a different routine before their admission into hospital. They may prefer to have their main meal in the evening so that they will not feel hungry during the night. During the assessment, this can be noted and this preference catered for.

In addition, relatives are generally encouraged to be actively involved in patients' nutritional care. We encourage them to bring in fresh fruit and patients' favourite cereals. If necessary, other food can also be brought in to stimulate patients' appetites or supplement their diets. Relatives and friends are often enlisted to help encourage patients to increase their fluid intake. They are informed of progress and are welcome to discuss any aspect of nutritional care.

The above measures can often make appreciable improvements in a patient's general health. For example, constipation is a common problem for stroke patients and is frequently treated with laxatives. However, a high fibre diet with plenty of fluids and an improvement in mobility can ease the problem and a normal routine can be gradually established. A normal bowel routine may be taken for granted for most people but for people on our ward it can mean a lot more. It means dispensing with medical or nursing interventions and retaining dignity and control.

Interestingly, we also find ourselves giving nutritional advice to relatives and friends. The elderly patients we come into contact with are often cared for by their husbands and wives whose own general health is far from perfect. Thus, the relatives themselves need support and advice so that they can maintain their own health to cope with the stress of caring for the patients. We believe care of patients should be extended to include their family.

Without question, we are only at the beginning stage of implementing the nutrition assessment. Thus, the impact of the checklist on patients' nutritional care can not yet be fully appreciated. We have planned to evaluate the effectiveness of the checklist in January 1993; by then we will be able to ascertain what differences the checklist and health education have made to the care we give.

The support of our colleagues and patients has been important in this development. We also have encouragement from nurse managers and the ward consultant. Our hospital dietitian has given us expert advice. We are particularly grateful to the chair person of the Nutrition Advisory Group for the Elderly who has given us permission to use the checklist. Without these helping hands we would not have been able to implement this assessment process.

A new domain for hospital nurses

This development has had a good start, but its future success will depend upon two main factors: the nurses' knowledge of nutrition and how they perceive their roles in health education. Nutritional care of patients occupied little importance in traditional nurse education. Nurses were taught how to recognise signs and symptoms of diseases and how to carry out procedures and treatments. Yet very often basic knowledge about nutrition for

maintaining good health and the effects of poor nutritional status on recovery from illness were not emphasised.

Fortunately, there is now a general increase in awareness by the public with regard to healthy eating, and the Project 2000 nurse education programme has made some improvements in its curriculum. Nevertheless, those of us currently caring for patients still need to improve our knowledge. With a sound knowledge base, we will be able to identify problems and plan interventions accordingly.

In our unit, we have plans to introduce a series of short lectures and discussions on nutritional topics. Both day and night nursing staff will be invited to participate and to share their knowledge and experiences.

More nurses need to be encouraged to take on the health educator role when they are comfortable in so doing. We think that patients' nutrition should go beyond the distribution of patients' meals. Helping patients to understand their own problems and working with them to achieve solutions is a vital part of our job. Unfortunately, some nurses still see health education as the domain of the health visitor and are reluctant to be involved. This attitude needs to be changed because there are not enough health visitors for the 9.5 million people in the UK who are over pensionable age and the number is likely to increase. From the patients' point of view, a period in hospital may necessarily lead to a review of life-long habits as part of the rehabilitation process.

The increase in our elderly population means that elderly people will be the main consumers of other services as well as the care of the elderly services. Thus, nutritional assessment such as the checklist can also be useful in the medical, surgical and orthopaedic wards. In recent years, there is evidence to support the view that nutritional status of patients has a direct effect on the

outcome and recovery from acute illness and injury. Bastow[5] showed that recovery times from a fractured neck of femur were significantly prolonged in malnourished elderly women compared with women considered to be in good nutritional health. The nutritional assessment will enable nurses to identify problem areas such as a low vitamin C intake, this vitamin playing an important part in wound healing and resisting infection in both surgical and medical patients.

There are limitations to this assessment tool. First, the checklist is concerned with only four main types of nutrients and there are other factors which are not being considered. Secondly, using the checklist requires the co-operation of the patient concerned to indicate whether certain foods are consumed. Yet, it is usually the individuals who are most at risk who are least able to provide the necessary information, for example, people who are confused or people with learning difficulties, or who are deaf and dysphasic. Lastly, going through the checklist with an individual patient can be quite time-consuming. It can take between half an hour to forty-five minutes or more to complete an assessment.

The above findings have led us to think that there may be the need for a more comprehensive assessment tool. An assessment tool which takes into account the nutritional, psychological, socio-economic and medical factors would be an enormous help in improving our patient care. A scale similar to Waterlow's scale could be developed to identify patients' requirements. This possible development would need further research and testing of feasibility.It would be an interesting challenge.

Retaining dignity and control

The Nutrition Assessment Checklist proved to be a valuable assessment tool in the care of Mr Smith, aged 72, who was

transferred from an acute ward for rehabilitation. He had had a stroke which had affected the left side of his body. On admission to our ward, he was very apprehensive about his new environment and it took some reassurance before he began to feel at ease.

It gradually became clear that Mr Smith was badly affected by the loss of his independence. After his stroke, he found he could not turn in bed without help so he decided he would sleep in the armchair. He was also distressed and embarrassed by episodes of urinary incontinence so he requested to have a catheter inserted.

I assessed Mr Smith using the Nutrition Assessment Checklist. Several risk areas were identified. First, he was moderately overweight. His extra body weight compounded problems of poor balance and mobility. Secondly, he did not take sufficient fluids. Prior to his hospital admission he used to drink about six cups of fluid a day and there was an indication that he had been taking less than six cups since his admission. Finally, he was known to have suffered from constipation in the past. This complaint had affected him badly, requiring him to take laxatives and sometimes to use suppositories.

Mr Smith, his wife and I had several discussions and the following actions were agreed. First, Mr Smith was to be referred to the dietitian who would assess him further and plan a special diet if required. We would monitor his body weight weekly to check progress. Next, he agreed to drink as much fluid as he could tolerate. This was to prevent any urinary tract infection and dehydration. Lastly, Mrs Smith was to bring in his favourite high fibre cereal for breakfast. She was also responsible for bringing in fresh fruit every day and assisting her husband in eating it. She was enlisted to encourage him to drink as much fluid as possible by bringing in various cordials.

The dietitian recommended a low fat reducing diet for Mr Smith and he was able to maintain a constant body-weight. We were pleased that he did not gain weight since this is a common occurrence when mobility is reduced. Gradually, Mr Smith was able to regain a normal bowel pattern. His balance and mobility improved. The biggest challenge was to persuade him to dispense with his catheter. It took careful planning and timing, but, despite some set backs, he regained bladder control.

Mr Smith was discharged home with follow-up attendance at the Day Hospital. It was very rewarding to see him walking about independently and appearing to be full of self confidence.

References

1. Exton-Smith A N and Stanton B R. Report of an investigation into the dietary of elderly women living alone. London: King Edward's Hospital Fund for London, 1965.

2. Exton-Smith A N, Stanton B R and Windsor A C M. Nutrition of housebound old people. London: King Edward's Hospital Fund for London, 1972.

3. Exton-Smith A N. Nutritional deficiencies in the elderly. In: Howard, A N ed. Nutritional problems in modern society. London : John Libbey, 1981: 114.

4. Evans J G. Aging and nutrition: questions needing answers. Age and Aging 1989; 18(3): 145-7.

5. Bastow M D, Rawlings J and Allinson S P. Benefits of supplementary tube feeding after fractured neck of femur: a randomised controlled trial. British Medical Journal 1983; 287(6405): 1589-92.

Some useful reading

Nutrition Advisory Group for the Elderly. Nutrition Assessment Checklist. Birmingham: NAGE, 1990.
A comprehensive guide on how to use the checklist. Useful information on specific nutrients such as iron, vitamin C, calcium and fibre.

Nutrition Advisory Group for the Elderly. Eating a way into the '90's: a handbook for those concerned with providing meals for the elderly. Birmingham: NAGE, 1989.
Full of useful ideas for nourishing meals suitable for the different requirements of older people.

Nutrition Advisory Group for the Elderly. Food and health policies for elderly people. Birmingham: NAGE, 1991.
A compact booklet showing how healthy eating guidelines can be adapted to the needs of elderly people.

Beghin, I, Cap, M. and Dujardin, B. A guide to nutritional assessment. Geneva: World Health Organisation, 1988.
A guide to health professionals who are interested in nutrition. It provides broad coverage on different levels of assessment. Some very useful information on steps of assessments.

Appendix: Nutrition assessment checklist

NUTRITION ASSESSMENT CHECKLIST
Southport General Infirmary, Paton Ward

Name:
Address: (place sticker)
D.O.B.
Case Note No:

Diagnosis _____

_____

Special notes _____

_____

Body weight _____ Height _____
Body mass index _____
Date of assessment _____
Completed by _____

General Questions

1. Do you usually eat
   - Breakfast yes/no
   - Mid-day lunch/dinner yes/no
   - Tea/evening meal yes/no

2. Have you lost or gained more that 1 stone in weight in the last year, without trying to?
   - Gained weight yes/no
   - Lost weight yes/no

3. Are you on a special diet? yes/no
   (eg. diabetic, high fibre, reducing) specify _____

4. Are you taking any food/ drink supplements? yes/no
   (eg. Complan, Bengers. Build Up)
   specify _____

5. Are you taking any laxatives, vitamin supplements, cod liver oil, iron tablets etc.? yes/no
   specify _____

Please consider the answers to questions 1 to 5 when using the checklist as they will influence your advice and action. (See over . . .)

Appendix continued: Nutrition assessment checklist

NUTRITION ASSESSMENT CHECKLIST (continued)

NAME: _____

Note. As you ask questions, circle the score for each answer. If twice as much is eaten double the score. Any food eaten less frequently than once a week or never has a zero score. By adding up the scores in each section you can identify where deficiencies occur. An individual achieving a score of under 10 in any section is at risk of developing or may have already developed a deficiency of that nutrient.

Section 1 IRON Total_____

How often do you eat:	weekly	alt. days	daily
Black pudding	4	10	20
Liver, kidney, heart	3	6	12
Liver pate/sausage/faggots	2	4	8
Red meat, corned beef	2	4	8
Eggs	1	2	4
Breakfast cereal	1	2	4
Wholemeal bread (3 slices)	0	1	3
Dark green vegetables	0	1	3
Pulse vegetables eg. lentils	0	1	3

Section 2 VITAMIN C Total _____

How often do you eat:	weekly	alt. days	daily
citrus fruits eg. orange	2	5	10
Soft fruit eg. strawberries, blackcurrant (not tinned)	2	5	10
Grapefruit/orange/tomato juice (not tinned)	1	3	6
Vitamin C enriched cordial eg. blackurrant	1	3	6
Potatoes including instant	1	3	6
Green veg/tomato/salad	1	2	3
Banana/tinned mandarin	1	2	3

(See over . . .)

Appendix continued: Nutrition assessment checklist

NUTRITION ASSESSMENT CHECKLIST (continued)

Section 3 CALCIUM AND VITAMIN D Total _____

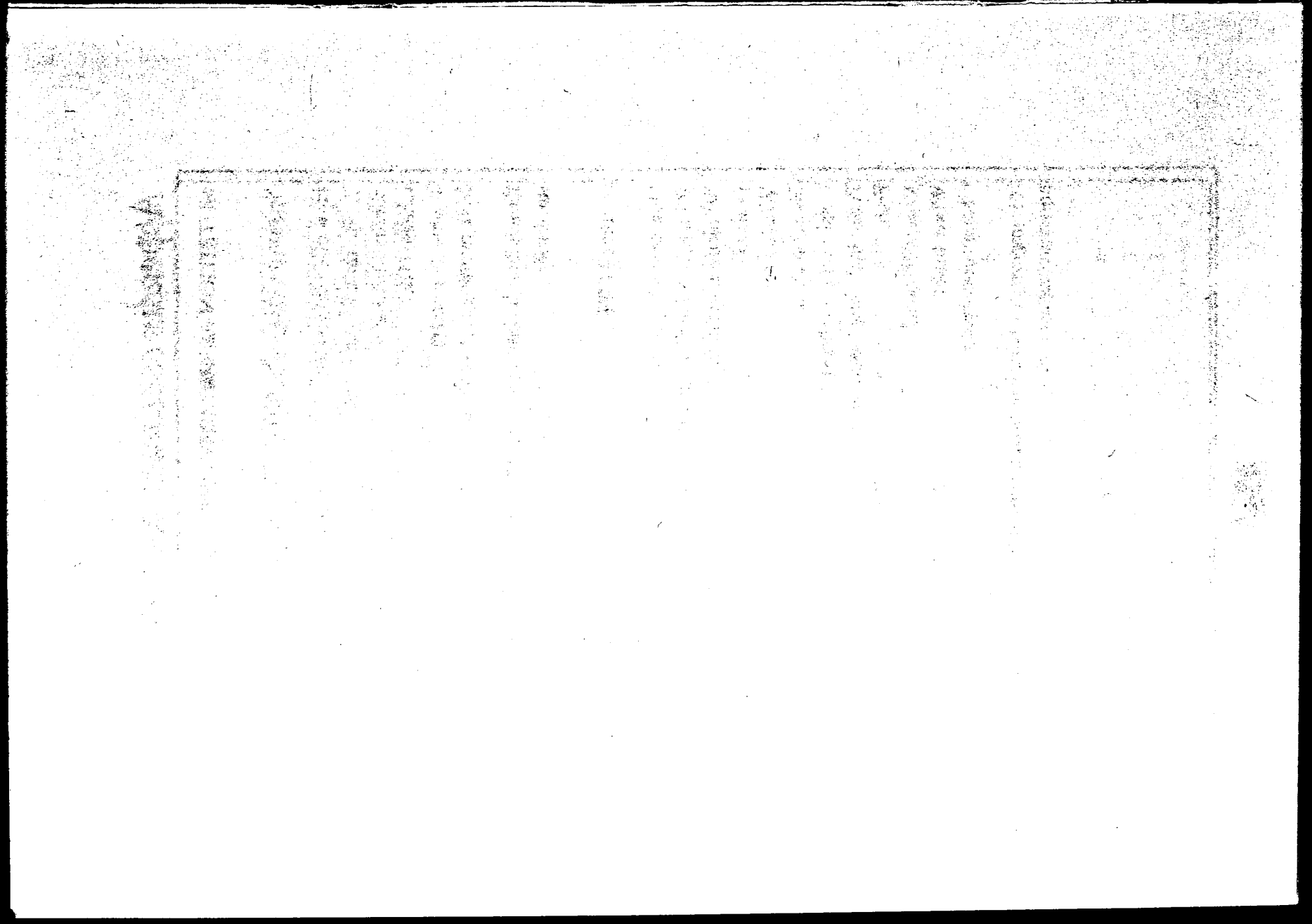
How often do you eat:	weekly	alt. days	daily
1/2 pint milk (drinks/cereal)	1	3	6
Sardines/pilchards	2	4	8
Cheese (1oz)	1	2	4
Yoghurt/ice cream	1	2	3
Milk pudding/custard/evap.	1	2	3

Remember the best way to get Vitamin D is by going out into the sunshine

Section 4 FIBRE Total _____

How often do you eat:	weekly	alt. days	daily
Wholegrain breakfast cereals	3	4	5
Wholemeal bread /roll (3 slices)	2	3	4
Wholegrain biscuits/crackers crispbread (3-6 slices)	1	2	3
Pulses including baked beans	1	2	3
Fruit	0	1	2
Vegetables/salad	0	1	2
White bread	0	0	1
Chapatti/rice/pasta	0	0	1

It is important to drink at least 8 cups of fluid a day. This will help prevent constipation.



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This series looks at some of the ways nurses in Nursing Development Units (NDUs) have tried to make their nursing more beneficial for patients. The nurses assess to what extent their initiatives really do contribute to patient well-being and what has helped them bring about the changes. Each book will help nurses to introduce new ideas to their work and will suggest ways to evaluate changing practices.

The four NDUs which have contributed to this series have been supported by the King's Fund Centre and the Sainsbury Family Charitable Trusts since 1989 as part of a three-year project. A further 30 new projects have just received funding from the Department of Health and join the growing network of Nursing Development Units.

In this booklet, Jenny McGuire, a staff nurse, describes how the team introduced nutritional assessment and considers the implications of the health education role for hospital nurses.

KING's FUND CENTRE