

cies. Such inter-agency arrangements would create administrative problems and financial anomalies. Yet, comprehensive schemes must be the aim, with provision for elderly people ranging from minimal care and supervision in sheltered accommodation to constant nursing attention.

Part of the long-term solution is to introduce more teaching about the care of the elderly into medical nursing and remedial training, with opportunities for joint education (Shegog, 1981). This educational role would not be a function for the so-called teaching hospitals but would be developed at local level from among the associated disciplines with a view to breaking down organizational separation. Many in the caring professions believe they have no interest in the elderly, only to discover when they start work in the field that the work is challenging and rewarding. In the end, however, should not appointments be made to residential homes on the basis of qualification as well as motivation? If competence and prestige in paediatrics and obstetrics derives from the award of diplomas, should not this assessment be extended to the new and dominant specialty of geriatric medicine? (Thompson, 1982.)

Doctors so qualified should be the first to be selected for medical care in homes, and the injection of specially trained doctors into this somewhat amorphous and disparate segment of provision could be expected to go a long way to setting higher professional standards. There is a good case for ensuring that all staff—nursing, administrative and domestic—should be trained for dealing with crisis intervention, and encouraged to develop insight into the triggers of behaviour of older people. The teaching by general practitioners of these fundamentals is a rewarding skill, and one which improves the morale of staff in homes for the aged.

No government can be expected to go too far ahead in this field for fear of arousing professional and political suspicions, but if the voluntary and private sector provides a comprehensive service to the old, should not it be unashamedly recognized as doing so? These private resources have not yet been fully exploited, nor have the links with the public residential sector been adequately forged. There could also be greater co-operation within government, so that housing and health are no longer dealt with as disconnected topics, and partnership between health and social services could also exist at district level (Kinnaird *et al.*, 1981) where the first steps towards an integrated service might be taken. Demarcation lines can be broken down, new partnerships entered into and feasibility studies carried out. Now is the time for new ideas, for the DHSS appears to be at its most responsive to local circumstances.

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Bread for health and bread for slimming

BREAD, the staff of life, has been a steadily decreasing part of the national diet for the past 30 years. During this time the average daily intake in the UK has fallen from 230 to 130 g per day, and we are now eating less bread than most other European countries. Part of this decrease is due to greater affluence—the fall in consumption has been greater in the higher income groups. The passing of the breakfast habit, the virtual elimination of afternoon tea, with its bread and butter, and the advice in most slimming diets to cut down on bread are all important factors. The baking and milling industries are naturally keen to reverse this trend. How justified are they, and what role will bread have in the major changes in the nation's nutrition which are now taking place? These changes centre mainly around eating more natural and fewer refined products. It is

becoming accepted that more fibre in the diet makes a valuable contribution to the relief of constipation and may be helpful in preventing peptic ulcer, diverticulitis, haemorrhoids, varicose veins and many other conditions. There also seems to be general acceptance for the reverse side of the fibre coin—reducing the intake of sugar—and it is now also generally accepted that the intake of fats of whatever sort should be reduced.

The DHSS commissioned a report on the nutritional aspects of bread and flour in 1978. As a result, the Committee on Medical Aspects of Food Policy (COMA) set up a panel of experts which produced the report in 1981. A recent Forum organized by the baking and milling industry discussed the report and produced many interesting facts.

But first, a little historical background. Any major

Prescribing Information

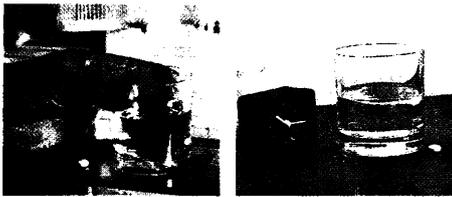
NEW Zantac

RANITIDINE

Uses
Indications: Zantac Tablets are indicated for the treatment of duodenal ulcer, benign gastric ulcer, post-operative ulcer, reflux oesophagitis and the Zollinger-Ellison syndrome.

Fast

Mode of action: Zantac is a highly effective, rapidly acting histamine H₂-antagonist. It inhibits basal and stimulated secretion of gastric acid, reducing both the volume and the acid and pepsin content of the secretion. Zantac has a relatively long duration of action and so a single dose effectively suppresses gastric acid secretion for twelve hours.



Simple

Dosage and administration
Adults: The usual dosage is one 150 mg tablet twice daily, taken in the morning and before retiring. It is not necessary to time the dose in relation to meals. In most cases of duodenal ulcer, benign gastric ulcer and post-operative ulcer, healing occurs in four weeks. In the small number of patients whose ulcers have not fully healed, healing usually occurs after a further course of treatment. Maintenance treatment at a reduced dosage of one 150 mg tablet at bedtime is recommended for patients who have responded to short-term therapy, particularly those with a history of recurrent ulcer.

In the management of reflux oesophagitis, the recommended course of treatment is one 150 mg tablet twice daily for up to 8 weeks.

In patients with Zollinger-Ellison syndrome, the starting dose is 150 mg three times daily and this may be increased, as necessary, to 900 mg per day.

Children: Experience with Zantac Tablets in children is limited and such use has not been fully evaluated in clinical studies. It has, however, been used successfully in children aged 8-18 years in doses up to 150 mg twice daily without adverse effect.

Contra-indications
 There are no known contra-indications to the use of Zantac Tablets.

Precautions
 Treatment with a histamine H₂-antagonist may mask symptoms associated with carcinoma of the stomach and may therefore delay diagnosis of the condition.

Accordingly, where gastric ulcer is suspected the possibility of malignancy should be excluded before therapy with Zantac Tablets is instituted.

Ranitidine is excreted via the kidney and so plasma levels of the drug are increased and prolonged in patients with severe renal failure. Accordingly, it is recommended that the therapeutic regimen for Zantac in such patients be 150 mg at night for 4 to 8 weeks. The same dose should be used for maintenance treatment should this be deemed necessary. If an ulcer has not healed after treatment for 4 to 8 weeks and the condition of the patient requires it, the standard dosage regimen of 150 mg twice daily should be instituted, followed, if need be, by maintenance treatment at 150 mg, at night.

Although the incidence of adverse reactions in clinical trials of one year's duration and longer has been very low and no serious side effects have been reported with Zantac treatment, care should be taken to carry out periodic examinations of patients on prolonged maintenance treatment with the drug as a safeguard against the occurrence of unforeseeable consequences of drug treatment.

Like other drugs, Zantac should be used during pregnancy and nursing only if strictly necessary. Zantac is secreted in breast milk in lactating mothers but the clinical significance of this has not been fully evaluated.

Specific

Side effects
 No serious adverse effects have been reported to date in patients treated with Zantac Tablets. There has been no clinically significant interference with endocrine, gonadal or liver function, nor has the drug adversely affected the central nervous system even in elderly patients.

Further information
Drug interactions: Ranitidine does not inhibit the cytochrome P450-linked mixed function oxygenase enzyme system in the liver and therefore does not interfere with the effects of the many drugs which are metabolised by this enzyme system. For example, there is no interaction with warfarin or diazepam.

Pharmacokinetics: Absorption of ranitidine after oral administration is rapid and peak plasma concentrations are usually achieved within two hours of administration. Absorption is not impaired by food or antacids. The elimination half-life of ranitidine is approximately two hours. Ranitidine is excreted via the kidneys mainly as the free drug and in minor amounts as metabolites. Its major metabolite is an N-oxide and there are smaller quantities of S-oxide and desmethyl ranitidine. The 24-hour urinary recovery of free ranitidine and its metabolites is about 40% with orally administered drug.

Use in renal transplants: Zantac has been used without adverse effect in patients with renal transplants.

Product licence number 0004/0279
 Basic NHS cost (exclusive of VAT) 60 tablets £27.43.

References: 1. Data on file, Glaxo Group Research. 2. Bories, P *et al.*, *Lancet* 1980; 2 (8197):755. 3. Peden, N.R. *et al.*, *Acta Endocrinologica* 1981; 96:564-568. 4. Nelis, G.F. and Van de Meene, J.C.C., *Postgrad. Med.J.* 1980; 56:478-480. 5. Henry, D.A. *et al.*, *Br.Med.J.* 1980; 2:775-777.
 Zantac is a Glaxo trademark.

Glaxo Glaxo Laboratories Ltd., Greenford, Middlesex UB6 0HE.

advance in medical thinking takes a generation or more before its new ideas become accepted by the general body of doctors. Dr T. R. Allinson (1885) and Sir Arthur Hurst (1909) were both writing about the advantages of wholemeal bread at the turn of the century. McCarrison (1926), Cleave (1941, 1974), Burkitt and Trowell (1975), Stanway (1976) and many others have all written extensively about the advantages of whole-grain cereals in nutrition.

How does all this apply to bread? At the Forum several speakers commented on and endorsed the four main recommendations of the DHSS report:

1. That the consumption of bread, whether it be white, brown or wholemeal, should be promoted and bread should replace some of the fat and sugar in the diet.
2. That nutrition education should stress the value of bread as a source of cereal fibre.
3. That an increase in the cereal fibre content in the diet would be beneficial and that this increase could best be achieved by eating some bread baked from high extraction flours (that is, wholemeal bread and brown breads such as granary and wheatgerm).
4. That in places where bread is sold or eaten, those responsible should make wholemeal and brown bread available in addition to white bread.

Dr John Cummings emphasized that bread is a good food which has been an important part of our diet since the Roman occupation and probably earlier. As well as providing substantial amounts of energy and protein, it also provides significant amounts of vitamins and minerals. Dr Elsie Widdowson, who was jointly responsible for the MRC publication *Composition of Foods* (McCance and Widdowson, 1940, 1978), felt that we could live cheaply and healthily on a diet composed mainly of bread made from wheat. She stated that the importance of milk as a food has been overrated, and quoted studies she had carried out in Germany after the last war with undernourished children. They were all given unlimited quantities of bread, and the addition of milk as compared with an equicaloric amount of biscuits and orange juice did not cause any increase in the growth over six months. It certainly seems rational that it is more healthy and natural for adults to chew solid food than to drink milk as a food, with its high fat content and no fibre. Milk can be deceptive because of its hidden calories. Those who drink a pint of milk daily, mainly as a thirst quencher, alone or in tea or coffee, fail to realize that the 400 calories of energy it contains are equivalent to 1.6 oz of fat, adding up in a month to 2½ lb. If this intake is additional to energy needs, the whole of it may be laid down as body fat.

Dr David Southgate mentioned that wholemeal bread contains about three times as much fibre as white bread, and brown bread twice the amount. Cereal dietary fibre has physiological properties that are different from the dietary fibre of vegetables and fruits. As far as bran is

concerned these are probably due to a combination of its chemical constitution and physical state. Fibre from cereal foods constitutes about one third of total fibre intake in the UK, and any desirable increase can most conveniently be provided by increasing the intake of bread. Bread contains an average of about 9 per cent of protein and, being rich in fibre, requires more chewing, is eaten more slowly and is probably more satisfying. Of greater significance, perhaps, is the fact that, as the protein content of bread is one third to one half that of most meats, protein in bread is cheaper than protein in meat.

Professor Jerry Morris, who emphasized that bread is remarkably inexpensive, felt that it should be one of the main sources of replacement calories for saturated fat and sugar, both of which need to be reduced to improve the national diet. Doubling bread consumption would mean that fat and sugar would be cut by a half. The additional bread, of course, would have to be taken and enjoyed by itself, as it is in France for example, as a food on its own and not as a vehicle for butter, margarine and/or jam. In fact, the public already tends to see brown and wholemeal breads more as food in themselves. This speaker felt that these better breads could be the trendsetters in the general rehabilitation of bread.

Sir Henry Yellowlees summarized the DHSS nutrition policy as a consistent message telling us that most people should cut down their intake of both visible and invisible fats and sugar and should make up for the reduction in energy intake by eating more bread, potatoes, fresh fruit and vegetables.

Sir Francis Avery Jones felt that there was mounting evidence that more unrefined foods may offer significant advantages to the entire population. He mentioned the benefits obtained, not only in the relief of constipation, but also in such diverse conditions as the irritable bowel syndrome, diverticulitis, appendicitis and peptic ulcers. In the mind of the public, extra dietary fibre means more bran. But instead of having bran as a breakfast cereal, one can equally increase the fibre intake by having more brown, and particularly more wholemeal bread, which also provides the nutritious wheat germ which is removed during the making of white flour.

What about an increased intake of bread as far as weight problems are concerned? Attitudes among the general public and some doctors tend to be based on false premises. Because bread and butter are fattening, it is thought that bread must be bad, and because chips, crisps and roast potatoes are fattening, this must also apply to potatoes eaten in any other way. But plain boiled potatoes and jacket potatoes are only about one third the calorie value of the same weight of chips and about one half that of the average roast potato. So cutting out bread and potatoes is not the best way of creating a more healthy diet.

In addition to the higher satiety value of wholemeal

bread, probably due to the need for extra chewing, there is a loss of energy in the faeces of at least 1 or 2 per cent, which is of importance in the long term. The high extraction breads in particular satisfy the need for bulk in the diet and bread is better than breakfast cereals for this purpose, particularly as an increase in these cereals is often accompanied by an increase in sugar. Sugar is nutritionally negative; containing nothing but calories, it is useful purely as a sweetening agent.

A moderate increase in bread intake for those wishing to lose weight, providing butter or other fats are rationed to a total of 30 g a day, is likely to lessen the hunger usually associated with dieting, which will in turn help individuals to adhere to their altered eating habits over a long period.

In summary, the case for an increased consumption of bread, particularly the wholemeal and brown varieties, appears unassailable as part of a general nutritional policy aimed at reducing the intake of sugar and fats. Bread is a good and cheap food. A moderate increase in the proportion of bread included in reducing diets also seems rational. If the recommendations of the DHSS report are implemented, and there is evidence that the changes advised are already taking place, then the health of the nation is likely to improve, particularly if nutritionists and doctors take more responsibility for forming and correcting public attitudes to food.

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Long live the mmHg

The Thirty-fourth World Health Assembly, held at Geneva in 1981, passed a resolution saying that it considered that there is no compelling need to replace the mm of mercury by the kilopascal in medical practice at the present time.

Source: *WHO Chronicle* (1981). 35, 185.