Empirical treatment of uncomplicated acute cystitis in adult women should stay simple. The disease can still be managed using short courses of traditional antimicrobials such as nitrofurantoin, mecillinam, or trimethoprim, according to levels of resistance in the local area. Microbiological laboratories overestimate this bacterial resistance.

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Fortification of flour with folic acid

A controlled field trial is needed

Thirty three years ago Hibbard and Smithells linked folate deficiency in pregnancy with neural tube defects.[1] Smithells then led a series of observational and intervention studies which showed that improving folic acid status early in the pregnancy of mothers who had previously had a child with neural tube defects reduced the recurrence in that pregnancy.[2] A randomised trial by Britain's Medical Research Council confirmed that finding[3] and a Hungarian trial showed a reduction in the first occurrence too.[4] To reach almost all women in the very early stages of pregnancy, when few would be sure they were pregnant, folic acid fortification of a staple food has been advocated, and a Department of Health committee has now recommended universal fortification of flour in the United Kingdom. Though the benefits are clear, the possible harms of such a policy are not. We need to be cautious in implementing a universal policy.

After the initial British and Hungarian studies several others gave mostly similar results.[5 6] As a result a campaign led by the Health Education Authority in the UK aimed to improve folate status from before conception to 12 weeks of pregnancy by increasing folic acid intake from foods and supplements. A third of women took supplements, most of whom had planned their pregnancy.[6] Thus the majority relied on diet alone to achieve a satisfactory intake. The Department of Health set up a committee to examine the possibility of fortifying a staple food with folic acid. In a well reasoned and persuasive document it concluded that "universal folic acid fortification of flour at 240 μg/100 g in food products as consumed would have a significant effect in preventing [neural tube defect]-affected conceptions and births without resulting in unacceptably high intakes in any group of the population."[6]

The benefits of supplementation are clear. Moreover, an improvement in folic acid status may help prevent other conditions such as vascular disease and some cancers.[5 6] Extrapolating from supplementation, and since some foods are already fortified with folic acid, many argue that the case for universal and mandatory fortification of a staple is equally clear. This already occurs in the United States at 140 μg of folic acid per 100 g grain products.[7]

We need to be cautious before introducing such a policy. For example, in people with vitamin B12 deficiency consumption of folate may mask megaloblastic anaemia, an important manifestation of vitamin B12 deficiency—which then may progress undetected to subacute combined degeneration of the spinal cord. Folate also interferes with some antiepileptic or antifolate drugs. These points were carefully considered by the expert committee, who did modelling studies to assess the effect. Nevertheless, it may be unwise to accept their views if there is no trial evidence of the efficacy and safety of the intervention. We should learn the lesson of fortifying infant foods with vitamin D to prevent rickets: it did so but only at the expense of hypercalcaemia in a significant minority.[8]

The steps for introducing a fortification programme have been well described for iron[9] and apply to all fortificants. These are shown in the box, with our comments concerning folic acid in parentheses.

Concerning folic acid we have completed step 4. It would be unwise to jump to step 6 without the intervening step 5. A 19% reduction in the prevalence of neural tube defects has been reported following folic acid fortification of the food supply in the United States[11] and has been claimed as validating "the US government's decision to intervene on a massive scale."[12] Although this provides some evidence, we are less convinced by this "before and after" data. After all, the reduction is less than half that seen in England and Wales in the 1980s without a fortification programme.[15] These data are hardly a substitute for a controlled field trial. Anyone who has cared for children with neural tube defects shrinks from questioning any manoeuvre which could reduce its incidence. But we are not alone in our reservations about such an

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Steps in a fortification programme

(1) Determine the nutrient status of the population (many studies available)

(2) Choose an appropriate nutrient and food vehicle (folic acid and flour seem reasonable choices)

(3) Establish the acceptability and stability of the fortified vehicle (flour is accepted; people with coeliac disease on a wheat free diet would not be reached, but this could be part of their individual management)

(4) Assess the bioavailability of the nutrient from the vehicle (steps 3 and 4 are fulfilled since plasma folate concentrations have risen in US adults by 50-100%[10])

(5) Carry out a controlled field trial (the North American experiences are not controlled trials)

(6) Implement a regional or national fortification programme

intervention,[13] and an important step in implementing a fortification programme has not been performed: there are no safety data or even evidence of efficacy. A Cochrane review commented, "Periconceptional folate supplementation has a strong protective effect … The benefits and risks of fortifying basic food stuffs, such as flour, with added folate remain unresolved."[14] Mandatory and universal fortification does not, at present, need the same trial evidence as for a drug. Yet a drug is not given in imprecise doses to all members of the population without choice or indication.

We realise a field trial would not be easy. It would have to involve at least two locations (one fortified, one not) that have similar reproductive patterns, age distribution, and ethnic groups. Outcome measures would include easily defined conditions as neural tube defects but also less clear ones such as spinal cord and vascular disease. A tall order, but is it possible? If not, that decision should be clearly stated in the policy.The notification rate for central nervous system malformation in England and Wales fell by 52% between 1981 and 1990.[15] In 1998 there were 399 affected pregnancies (live births, still births, and therapeutic abortions).[6] Is it acceptable to increase the folic acid intake of 50 million people to prevent a third to two thirds of these affected pregnancies before there is firm evidence of efficacy and safety in people who are not pregnant?

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BAW occasionally gives opinions to companies, including some who manufacture vitamin supplements or fortified foods

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Passing the contractual buck

Alan Milburn's move may help improve relations with the profession

Negotiations for a new contract for British general practitioners have begun. Following an announcement in July by Alan Milburn, the secretary of state for health, ministers and civil servants of the department of health no longer negotiate the terms of the national contract directly with general practitioners.[1] NHS managers, represented by the NHS Confederation, now have this role.

This change took everyone in the general practice community by surprise, but it might just break the longstanding stalemate between the government and the medical profession. Currently, general practitioners are plumbing new depths of despair with their workload, with New Labour's consumerist vision for the NHS, and with the constant references to medical failures from Shipman to Bristol. While politicians assert sympathy with the position of health professionals, they have set up a host of new mechanisms to increase their control over doctors in the NHS. The lay press alternately paints a picture of special pleading by greedy doctors and exhausted caring professionals struggling to keep afloat in a system stretched to breaking point. In a pre-election ballot, over 80% of general practitioners who voted said they would be prepared to consider resigning from the NHS should the government fail to agree contractual changes with their leaders.[2]

Reform of primary care is linked intimately to general practitioners' terms and conditions of service. The debate between general practitioners and the govern-

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