done. So what else is left to be done? Since surveillance experience now amounts to long periods, 15 years in our institutions, a case-control study with carefully selected control subjects from an epidemiologically defined but unscreened patient population might answer the important question: Is there a difference in deaths in colorectal cancer between 'screened' and 'unscreened' patients? Such a study is now in progress. Meanwhile, the clinicians have to deal with the potentially worrisome problem of what to do with the patients. This is probably the main reason for the widespread use of 'cancer surveillance,' although a lack of conformity in surveillance procedures may account for some of the different results. The leading statement, however, concludes: 'We should not go on as we are, but it really offers no options.

Routine clinical care' in patients with long-standing colitis seems a vague term with ill defined aims, where patient compliance might be quite low. It also runs the risk of falsely assuring doctor and patient alike that the patient's cancer risk is being controlled when it is not.

Prophylactic colectomy in patients selected on statistical grounds (extensive disease, long duration, young age at onset), which has been advocated since the 1960's, still awaits a study proving its benefits. Even a small postoperative mortality would affect the results in a negative direction.

Although 'cancer surveillance' as reported from our group1 shows good compliance, that DNA anomaly testing-is a promising marker, and that a yield of detectable lesions in an individual patient seems a long way to go before a consensus can be reached in the medical community on the approach to the cancer risk in ulcerative colitis.

OLLE BROSTRÖM
PER KARLEN
Medical Department 2,
South Hospital,
S-10664 Stockholm, Sweden
ROBERT LÖFBERG
Medical Department,
Huddinge Hospital,
Stockholm, Sweden

Correspondence to: Dr Olle Broström.


Reply

SIR,—Dr Broström and colleagues are quite rightly asking "where do we go from here" concerning the care of patients that are at high risk of developing cancer at a young age. I was not suggesting that we should follow the present screening procedure using 'dysplasia' as a marker. I was, however, suggesting that clinicians still have an obligation to their patients to test the effectiveness of this screening procedure in reducing mortality, since proper randomised trials were not established before the introduction of the procedure on a wide scale.

Case-control studies can give valuable information, as Dr Broström suggests, but such studies, being non-experimental in design—that is, no randomisation with prospective follow-up—are difficult to evaluate in terms of the effect of screening on mortality. They are subject to inherent biases in the groups under review which are difficult to estimate.

Case-control studies were used in some of the trials to study the effect of screening on mortality. The results of the case-control studies contradicted the findings of the randomised trials, which shows doubt on the findings in that particular case-control study.

One option worthy of serious consideration is to pursue the idea of a randomised trial, screening both groups but using different markers for cancer in each group; for example, after randomisation, one group could be screened using 'dysplasia' as a marker and the other group screened using 'aneuploidy' as a marker. In this way no patient would go unscreened; compliance would not then be a problem and survival from cancer in the two groups could be compared.

I, however, think that a pilot study should be attempted to assess the uptake for a randomised trial into 'screened by dysplasia' and an 'unscreened' group, the unscreened group continuing to undergo routine surveillance for their disease which would include regular sigmoidoscopy, rectal biopsies, and barium enemas. ('Routine clinical care' can be carefully defined and need not, as Dr Broström suggests, a 'vague term with ill defined aims.') The 'screened' group would have in addition to this well defined 'routine clinical care,' regular colonoscopy, and multiple biopsies to detect 'dysplasia' in the colon.

The problem with a trial 'screening' both groups using, for example, 'dysplasia' and 'aneuploidy' as two markers tested against each other, is that unless there is an 'unscreened' control group one would not know if either marker was making a significant difference to survival compared to an unscreened control group, whatever they showed as markers in comparison with one another.

S N GYDE
Highcroft Hospital,
Highcroft Road,
Erdington, Birmingham
B23 6AX


SIR,—In her leading article Dr Gyde applies the logic of a public health physician. Such an approach is welcome and she is right to say that it is the success of a surveillance programme can be judged only by its effect on cancer mortality. In some respects, however, her logic is neither as critical nor as rigorous as it appears.

In the opening paragraph there is reference to cancer 'screening' among 'apparently healthy members of the population' and a quotation then draws an ethical distinction between investigation of patients who seek medical advice and of symptomless subjects on the initiative of doctors. The context suggests that patients with colitis fall into the second group of symptomless subjects. This is not so. Patients with colitis attending a clinic seek medical care for all aspects of their illness including advice about the cancer risk. It seems 8% during the period 'surveillance' for clinical supervision of patients known to be at high risk of carcinoma and 'screening' for investigation of the asymptomatic general population.

Dr Gyde then draws a distinction between a group of patients receiving 'ordinary clinical care' (which would of course include standard investigations such as sigmoidoscopy and barium enema, when deemed necessary), and a 'screened group.' The only difference between the groups is that colonoscopy with multiple biopsies is performed in the latter. Dr Gyde advocates randomisation of patients into one of these two groups to measure the effect, if any, of colonoscopy.

If such a trial were undertaken it would be necessary to obtain informed consent from each patient before randomisation. A survey among our patients has shown that few would opt for a random allocation. If this were the case the surveillance might be restricted to sigmoidoscopy. The mortality from colorectal cancer among patients with extensive colitis who are not treated by colectomy is likely to be about 8% per annum; detection of early cancer might contribute to a reduction in mortality. This figure is lower than the incidence of carcinoma because at least one third of patients who present clinically with a tumour are cured by surgery. No cancer can be detected in the one third of patients who are cured by surgery. The rate of acquisition of patients would be slow, many would drop out when they are treated surgically for chronic colitis or coincidental illness occurs, and follow up would have to be continued for at least 3 years after the last diagnosis of carcinoma to avoid lead-time bias. The prospect is daunting.

A more realistic and important comparison of mortality would be between patients who regularly attend a gastroenterological clinic for supervision of their colitis and unsupervised patients who attend only when symptoms cause concern. The ethical problem would be resolved because one group wishes to attend and the other does not. There are, for example, those suggesting that patients who attend for supervision have a reduced mortality from acute colitis, the potential mortality of which must never be forgotten and is probably greater than from carcinoma. Such an analysis would test the cost effectiveness of regular supervision and would contribute knowledge about the economics of health care in this chronic disease. The relative contributions of sigmoidoscopy and colonoscopy to the detection of precancer and cancer could be analysed in the group under supervision.

In her analysis of difficulties in the definition and detection of dysplasia Dr Gyde fails to mention the fact that dysplastic lesions (and carcinomas) are often elevated from the mucosal surface. For example, among 28 areas of carcinoma, 20 had elevated lesions. Since such elevated areas may be apparent on endoscopy,