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PRACTICE OBSERVED

Practice Research

Randomised trial of compliance with screening for colorectal cancer

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Abstract
A randomised trial of compliance with screening for colorectal
cancer by means of the haemoccult test was conducted in
Faraborough and Basingstode districts. In each of the 14
participating practices (41 general practitioners) 25 852 men and
women aged between 40 and 70 years were randomly allocated by
household to one of six groups. The group determined the
method of invitation to screening: a letter and the test were sent
to the patient, or a letter with an appointment to attend the
surgery was sent, or during a routine consultation the general
practitioner invited patients to participate, and some patients
received an educational booklet about bowel disorders and

received an eugenization of the complete of the complete. Compliance was significantly affected by the method of invitation, but not by whether an educational booklet was received, and was highest (57%) in the group that was offered

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the haemoccult test during a routine consultation (the "opportunistic" approach). In this group the compliance rate achieved by individual general practitioners ranged from 26% to 82%.

Compliance was significantly higher in Farnborough, in the dident (55-70) age group, in women, and in bouscholds in which in the control of the properties of the control of older people and by the higher proportion of older people and by the higher proportion of people living in bouscholds of two or more in the population that was offered screening. The fact that the screening programme in Farnborough was offered to the whole community and that the researcher may have acted as a facilitation were probably also important.

One per cent of the patients screened had a positive test, and 24 (38%) of the 63 patients who were positive and were investigated in hospital had neplastic disease. The yield was 12 cancers and 12 benign adenomas (1 cm or larger in size) per 1000 people screened. This low yield is likely to be a consequence of the relatively young age group screened.

Colorectal cancer is the second most common cause of death from cancer, nearly 19 000 deaths in 1983. Survival after treatment is directly related to the stage of the disease. Over 90% of patients with Duke's type A disease, timited to the mucoas) survived after five years compared with 27% of patients with davanced timitous." Less than 10% of patients present with symptomatic type A disease. "Those who are at high risk of developing colorectal cancer are over 40 or have a history of benign adenomatous polyps." It is estimated that nearly half of adenomas over 2 cm in size become malignant. "Thus screening for colorectal cancer aims at detecting

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was the general practitioner's responsibility, but referral to hospital for further investigation was strongly recommended. Most of the patients with positive results were seen by RCL: and RJH. The consultant suggeon arranged the investigation colonoscopy or double contrast barium enema-or both after an outpartent appointment

Results
A total of 2507 people were excluded from the trial for various resons, including 1258. 50% who had left the practice, 251–10% who were considered uncomable for screening by the general practimeer because of mental or emotional problems, too mans other medical problems, known rectal bleeding to created disease directly under investigation or treatment. 170–75, who had died, and 570–275 who were not contacted owing to the interest of the contact of the contact

Effect of method of institution to veroning and educational booklet—Overall. 7555-28% use of 17-824 people completed the heimicoult test. Complaines we highest 58% in the group that was offered the haemonic the soft and educational booklet during a consultation. The method of institution had a significant effect on complainer good, interface 100 ft.; which was highest 55% in the consultational group, interfaced at 69% in the group that was offered a people of the significant effect on the significant effect on the significant effect on the open distribution of the significant effect on complainer 200 ft. In the observation blooklet had no graphs are effect on complainer 200 ft...

asymptomatic type. A turnours and benign adenomatous polyps to recluice premature mortality from the disease.

The results of studies of screening for colorectal cancer that have been carried out in the United Kingdom have been cummarous. The screening test (usually haemoccult) detects occult blood in the facese. It requires smearing a small sample from two parts of the stood into three slides of guasac impregnated filter paper over three consecutive days, providing six stood specimens for analysis. When the slides are developed with hydrogen peroude the haemoglobin that is present in the facese-spits off the copyen, which is shown as a blood in the facese, and curried the support of the part of the faces of the copyen short is stored and a positive result. Half of these had neoplastic disease, and three quarters of the invasse carcinomas were Duck's type A.

A major problem in these studies has been the low uptake of screening by the public. In most studies a haemoccut "patient pack" was sent to people aged over 40 or 45, accompanied by a letter from their general practitioner. The compliance rate has ranged migrous compliance. For example, compliance increased from 37% to 47% and 32%, respectively, when subjects were sent an educational letter or were interviewed at home before being sent the test. Compliance might also improve if general practitioner, a general practition or a for a far and an admitted to evaluate whether compliance with screening for colorectal cancer using the haemoccul test could be improved and several methods of invitations were effected were provided with information about bowel diseases and screening.

Textus general pressurances from the event practices in Faraboroush and 21 general pressurances and who health enteries on the Banapouloe and North Hamphur Health Dorriot participated in the trial Alloguether 28 by popula aged between 80 and 70 vers, who were repostered with these 41 doctors in Juniury 1982, were randomly allocated by backedul to use of the ground practice. The ground produce of the state of the production of the production

		Load groups		
	Method of invitation to screening		Banklet No banklet	
Letter + test	By letter from the general practitioner with a			
4 (0)	haemoccult test enclosed	1	2	
Letter -	By letter from the general practitioner with			
appointment	a aspectic appointment for the screening test			
	h, a request to make an appointment of a a			
	request to collect the bacmocculi test from reception			
	one health centre only	ł.	4	
Resitted	By the general practitioner during a routine			
consultation	considiation		ě.	

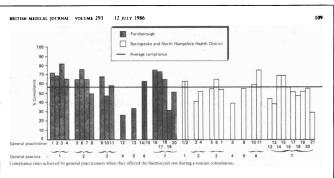
The letters from general practitioners ignoups 1-4:, which explained the text and emphasised prevention and early detection, were sent out over an 18 month period. The medical notes of people who were to be differed the rest during a rootine consultation groups 3 and 6 were flagged for one very. The tox collect stool amples and a prepaid envelope in which to return the text. The general practitioners kept a record of appointments and consultations that related to the wereing programmen. Completed hearns, cult tests were developed by EK (Farnborough or SN Baungitoles, whose trebydration by a skiding two drops of hydrogen periodic solution and reading after 50 econds. The general practice of the confidence of the collection of the confidence of the collection of the collection

1ABLE II — Nummary of compliance with seconing by method of invitation and to copi-of educational booklet. Figures are number to be completed test number offered seconing becoming on parentheses.

) Ju			
Method of invitation	Rockin	No booklet	Both groups	
1 Letter + test	1572 4114 - 6x	15 to 4002 - 6x	HUNNIS O	
2 -a Letter + appointment	833 1740 - 4x	976 1978 - 50		
b Letter - make appointment	276 1076 26	411 1066 29	587 2142 - 21	
	41 220 19	41 201 - 15	72 421 - 17	

Oscially 172 4 di N.p. (1901)
Effect of method of instation y 156 7, di N.p. (1900)
Effect of relacation allowing for method of instation y 159, di 1, p. (197)

compliance were found in the Farnberrough and Basimetoke during teaches the method of invitation, but not the colorational booklet. Dad a significant effect on compliance rates Allowing for the method of mutation, however, there was a significant effect on compliance higher in Farnberrough or the method of mutation, of the method of the method of the method of the significant such compliance higher in Farnberrough in the appointment and consultation groups, but summar in the groups entitle test. Feet hundred and minery 3% of the patients who completed the test enclosed a stamped addressed encoding for the patients who completed the test enclosed a stamped addressed encoding for the exist. JEE 1872 of the non-complete returned the test Effect of "instruction" and appointment in Farnberough.—Appointments at wor of the seven Farnberough practices were with a behild visited or surgery uniter rather than with the general practitioner. The state of the instruction of the application of the significant of the si



effect of the dutter, complaine, was significantly higher in the date gare period (0) in a month period (0), and in households where two ere more people were offered verening jie-0 001. Thus, complaine was highest (48%) in older women in households in which two or more people were offered screening and lowest (33% in rounger men in households where the were then by period infect screening.

Of the 7545 haemocult tests enturing, 31, 0 Pes, were interrestive completed Section for the 1554 corrective completed Section for the 1555 correction for the 1555 correction of the 1555 correction for the 1555 correction

In previous studies of screening for colorectal cancer low compliance rates have been reported, although higher rates have been shown when methods other than posting an invitation have been invited in the studies, however, was a randomised teach general practice was randomly allocated to different methods of invitation to screening.

The results of our randomised trial of compliance show that the uptake of screening for colorectal cancer by the public can be appreciably increased in invitations are issued personally. The most offered the harmonical frest distances of screening for colorectal cancer by the public can be appreciably increased in invitations are issued personally. The most effective method was clearly the one in which general practitioners offered the harmonical frest distances. The proposal but should offered the harmonical frest distances of the source of the screening the present process of the opportunistic approach but should only a supportunistic approach but should only a supportunistic approach but should not expect that the surgery. In this trial, 67% of the selected "routine consultations and offers screening the next time each person presents at the surgery. In this trial, 67% of the selected "routine consultations and offers screening the next time each person presents at the surgery. In this trial, 67% of the selected "routine consultations are analysis of the selected "routine consultations" from the surgery. In this trial, 67% of the selected "routine consultations" and offers screening the selection with the surgery. In this trial, 67% of the selected "routine consultations" and offers screening the selection with the surgery. In this trial, 67% of the selected "routine consultations" and offers screening the selection with the surgery. In this trial, 67% of the selected "routine consultation of the selected "routine consultations" and offers are severed process of the selected "routine consultations" and the work of the selected "routine consultations" and the work of the selected

another member of the primary care team. Our results, however, suggested that compliance will be lower of the "intrustors" is a suggested that compliance will be lower of the "intrustors" is a suggested that compliance will be lower of the "intrustors" is a suggested that compliance was a lower than when the test was sent by post. The results don't suggest that from reception compliance was lower than when the test was sent by post. The results don't suggest that effect about bowed disorders and screening—is theely to increase the uppact of screening. The resource is the post of the post

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BRITISH MEDICAL JOURNAL VOLUME 293—12 JULY 1986 related to the low posture rate I is now known whether this low labe positive rate is now known whether this low labe positive rate will be matched by a high false negative rate, but is seems likely. Undoubtedly, the uptake of scenenia for color-rest alencer would be present the property of the present processing for color-rest alencer would be greatly incompliance. The motivation and enhusissism of individual doctors might also affect the compliance rate. The results of a recent survey indicates that most general practitioners are not in favour of screening for color-rest cancer. We suggest that the success of screening for asymptomatic color-rest ale cancer lies with general practitioners in the role of health promoter. There is no firm evidence that premature mortality from color-restal cancer can be reduced by screening for the disease. More general practitioners are likely but savour screening when evidence is available from the follow up of the Nottingham controlled trial.

We thank all the general practitioners who participated in the screening trial, the other members of the colorectal screening advisory group. McV. Wox. Dr J. Chamberlain, Mr. A. J. Haves, Dr J. C. Galdrod, and Professor W. E. Waters, the medical screenings, Miss. C. Rumble, Mrs. R. Sexton, and Mrs. S. Hewitt, and Mrs. Do treen Nash for their invalidable, help throughout the project.
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- References

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