

### Key messages

- Many doctors still do not tell patients when they have cancer in the belief that they do not want to know and that telling them would cause only alarm and depression
- We interviewed 250 patients with cancer to find out what information they wanted
- Almost all the patients wanted to know their diagnosis, and most also wanted to know the chance of cure and the side effects of their treatment
- Younger patients, women, and those receiving radical treatment in particular wanted to know more about treatment options
- The overwhelming preference was for the diagnosis of cancer to be given by a hospital doctor

addition, many doctors feel ill at ease discussing serious illness and dying and resort to euphemisms such as "tumour," "growth," "cyst," or "lesion."<sup>10</sup>

However, most of the patients in this study not only wanted to know their diagnosis but also wanted to be told plainly if they had a cancer. Protecting patients from the truth may be counterproductive: lack of information can increase uncertainty, anxiety, distress, and dissatisfaction,<sup>11</sup> and there is evidence that the level of psychological distress in patients with serious illness is less when they think that they have received adequate information.<sup>12 13</sup>

In this study 60% of the patients wanted to be told about their cancer by a hospital specialist. Despite the

increasing use of specialist nurses and counsellors, patients want their doctors to support and inform them about their cancer and its treatment. In order to achieve optimal benefit for patients, doctors need sufficient time and appropriate surroundings as well as knowledge, understanding, and good clinical skills.

We thank the Cancer Relief Macmillan Fund for the help of their Macmillan radiographer. We also acknowledge the support of Professor Cooke of Glasgow Royal Infirmary and Professor George of Glasgow's Western Infirmary.

Funding: This study was funded by a grant from the Cancer Research Campaign.

Conflict of interest: None.

- 1 Fletcher C. Listening and talking to patients. *BMJ* 1980;281:994-6.
- 2 Thomsen OO, Wulff HR, Martin A, Singer PA. What do gastroenterologists in Europe tell cancer patients? *Lancet* 1993;341:473-6.
- 3 Wilkes E. The quality of life. In: Doyle D, ed. *Palliative care: the management of far advanced illness*. Philadelphia: Charles Press, 1984: 9-19.
- 4 Fallowfield L, Ford S, Lewis S. Information preferences of patients with cancer. *Lancet* 1994;344:1576.
- 5 Carstairs V, Morris R. *Deprivation and health in Scotland*. Aberdeen: Aberdeen University Press, 1991.
- 6 Cassileth BR, Zupkis RV, Sutton Smith K, March V. Information and participation preferences among cancer patients. *Ann Intern Med* 1980;92:832-6.
- 7 Mantel N. Chi-square tests with one degree of freedom; extensions of the Mantel-Haenszel procedure. *J Am Stat Assoc* 1963;58:690-700.
- 8 Jones SJ. Telling the right patient. *BMJ* 1981;iii:291-3.
- 9 Slevin ML. Talking about cancer: How much is too much? *Br J Hosp Med* 1987;38:56-9.
- 10 Holland JC, Gearie N, Marchini A, Tross S. An international survey of physician attitudes and practice in regard to revealing the diagnosis of cancer. *Cancer Invest* 1987;5(2):151-4.
- 11 Audit Commission. *What seems to be the matter? Communication between hospitals and patients*. London: HMSO, 1993. (NHS report No 12.)
- 12 Fallowfield LJ, Hall A, Maguire GP, Baum M. Psychological outcomes of different treatment policies in women with early cancer outside a clinical trial. *BMJ* 1990;301:575-8.
- 13 Fallowfield LJ, Baum M, Maguire GP. Effects of breast conservation on psychological morbidity associated with diagnosis and treatment of early breast cancer. *BMJ* 1986;293:1331-4.

(Accepted 18 July 1996)

## When is referral of Heaf test positive schoolchildren worth while? Prospective study

Helen Booth, Christine Pollitt, E Christina Jessen, David J Hendrick, Andrew J Cant

Recent guidelines for controlling and preventing tuberculosis recommend that no further action is required for children with a grade 2 reaction to Heaf testing in the school pre-BCG screening programme.<sup>1</sup> Fifty seven per cent of district health authorities, however, still recommend referral for such children.<sup>2</sup> Furthermore, no guidance is given regarding contact tracing of children who are confirmed to be tuberculin positive but who have no signs or symptoms of clinical disease. We prospectively studied the results of screening children referred to our childhood tuberculosis clinic after a positive school Heaf test from January 1991 to August 1994 and tracing the contacts of these children.

### Methods and results

Newcastle Health Authority currently recommends referral of children with a positive Heaf test result of grade 2 or above to our childhood tuberculosis clinic. Tuberculin sensitivity is confirmed with a Mantoux test: 0.1 ml of 1:1000 purified protein derivative, read after 72 hours. Palpable induration of greater than 5 × 5 mm in children without a history of BCG vaccination and 10 × 10 mm in those with such a history is considered

positive. Children with active tuberculosis based on clinical and radiological examinations are notified and started on a regimen of antituberculous drugs. Children with tuberculin sensitivity but no evidence of clinical disease are recorded as "Mantoux positive only" and offered prophylaxis with isoniazid.

Contact tracing follows locally established guidelines. All close family contacts have a chest x ray picture taken. All adults from the Indian subcontinent under 40 years old and children have a tuberculin sensitivity test in addition.

Details of all cases of tuberculosis and children who were Mantoux positive only are entered on to a database. Data on children referred from the school BCG programme and the results of contact tracing during the study period were extracted from this source.

Seventy eight schoolchildren (median age 12, range 5-14 years; 41 boys) were referred with positive Heaf test results and confirmed to be tuberculin positive (table 1). Six (four girls, two of whom were from the Indian subcontinent) had abnormal results in chest radiographs and were notified as having sputum smear negative pulmonary tuberculosis. Five of them (one from the Indian subcontinent) had been initially referred with Heaf test grade 2 positivity.

Two hundred and sixty nine out of 479 (56%) named contacts were screened. Two contacts of children with active tuberculosis had pulmonary tuberculosis: one was a younger white sibling, the other was an Indian mother with a cavitating apical lung lesion. Three contacts of children who were Mantoux positive only, all from the Indian subcontinent, were notified as having active tuberculosis: two were siblings of one index case, the other was a father

Department of  
Respiratory Medicine,  
Newcastle General  
Hospital, Newcastle upon  
Tyne NE4 6BE  
Helen Booth, senior registrar  
David J Hendrick, consultant  
respiratory physician

Department of Paediatric  
Infectious Diseases  
Christine Pollitt, paediatric  
registrar  
Christina Jessen, senior  
registrar in community  
paediatrics  
Andrew Cant, consultant in  
paediatric infectious diseases

Correspondence to:  
Dr Cant.

*BMJ* 1996;313:726-7

**Table 1—Results (No (%)) of screening and contact tracing schoolchildren with positive responses to Heaf and Mantoux tests**

Heaf grade	No confirmed on Mantoux testing	Previous BCG	No from Indian subcontinent	No with active tuberculosis	Contacts of children with active tuberculosis			Contacts of Mantoux positive children		
					No	Active tuberculosis	Mantoux positive	No	Active tuberculosis	Mantoux positive
2	45	5	5	5 (11)	23	1 (4)	6 (26)	138	0 (0)	6 (4)
3	26	11	9	0 (0)				94	3 (3)	12 (13)
4	7	1	3	1 (14)	5	1 (20)	1 (20)	9	0 (0)	0 (0)
Total	78	17(22)	17(22)	6 (8)	28	2 (7)	7 (25)	241	3 (1)	18 (7)

with nodal tuberculosis. In addition, 18 further contacts of children who were Mantoux positive only were themselves found to be Mantoux positive. Thirteen of them were from the Indian subcontinent.

**Comment**

Our results suggest that all children with positive Heaf test results, including those with grade 2 results, should be referred for further assessment. In our clinic 62% of children with a grade 2 response on the school Heaf test and 26% of those with a grade 3 response were Mantoux negative and considered to have given false positive Heaf test results. Tuberculin status should therefore be confirmed before further investigations are undertaken. This may partly explain why our rate (11%) of tuberculosis in those with grade 2 Heaf test results is higher than that reported in other series.<sup>3 4</sup>

A small percentage (2.9%) of contacts of children with grade 3 and 4 Heaf test responses but who were Mantoux positive only had active tuberculosis. This is a higher yield than that reported after contact tracing adult cases of pulmonary smear negative tuberculosis.<sup>5</sup> Contact tracing a tuberculin positive child might be expected to be more likely to identify a source case, as being young they will have had fewer contacts and

infection will have occurred more recently. Our results emphasise the need for thorough household investigation of children with Heaf test responses of grade  $\geq 3$ . Contact tracing children referred with grade 2 Heaf test results, however, does not seem to be as worth while, though it identifies siblings who can then be offered chemoprophylaxis. Restricting contact tracing of Mantoux positive only children to those from the Indian subcontinent would have identified all cases of tuberculosis and 72% of tuberculin positive only contacts.

Funding: None.  
Conflict of interest: None.

- 1 Joint Tuberculosis Committee of the British Thoracic Society. Control and prevention of tuberculosis in the United Kingdom: Code of Practice 1994. *Thorax* 1994;49:1193-200.
- 2 Joseph CA, Watson JM, Fern KJ. BCG immunisation in England and Wales: a survey of policy and practice in schoolchildren and neonates. *BMJ* 1992;305:495-8.
- 3 Capewell S, France A, Uzel N, Leitch AG. The current value of tuberculin testing and BCG vaccination in schoolchildren. *Br J Dis Chest* 1986;80:254-64.
- 4 Hollyoak V. High prevalence of tuberculin sensitivity. *Commun Dis Rep* 1992;2:R67.
- 5 British Thoracic and Tuberculosis Association. A study of a standardized contact procedure in tuberculosis. *Tubercle* 1978;59:245-59.

(Accepted 17 June 1996)

**Bowel preparation at home: prospective study of adverse effects in elderly people**

T D Heymann, K Chopra, E Nunn, L Coulter, D Westaby, I M Murray-Lyon

Bowel preparation for colonoscopy may be an unpleasant experience. Increasing pressure on hospital beds effectively precludes inpatient preparation except for the most immobile or infirm patients. Added costs and knowledge that preparation supervised in hospital may be less satisfactory than that done at home<sup>1 2</sup> also counsel against inpatient preparation. However, the adverse effects of preparation at home may have hidden costs, and the likelihood of adverse effects may be particularly high in elderly people.

We assessed the adverse effects of bowel preparation at home, and in particular whether elderly people suffer more than younger people.

**Patients, methods, and results**

In a prospective study consecutive patients undergoing elective colonoscopy in these two hospitals were asked to complete a simple questionnaire designed to elicit adverse affects and overall tolerability of bowel preparation. Allocation of preparation (polyethylene glycol (Klean-Prep, Norgine) or sodium picosulphate (Picolax, Nordic)) was according to hospital and followed local practice. Nine identified side effects were

scored 0 to 2 depending on severity; the range of scores was therefore 0 to 18. As appropriate, statistical analysis was performed with the  $\chi^2$  test, unpaired *t* test, and Pearson correlation coefficient.

The colonoscopist's satisfaction with the preparation was established by retrospective audit of colonoscopy reports. All patients booked for elective colonoscopy were followed up for three months for serious adverse events from the preparation.

In all, 165 patients were studied, 83 having bowel preparation with sodium picosulphate and the remaining 82 with polyethylene glycol. The response rate was 100%. The mean age of both groups was 60 years (range 25-85 in those given sodium picosulphate and 22-86 in those given polyethylene glycol). The ratio of men to women was similar at both hospitals (0.95 and 0.93). Ten patients (two receiving sodium picosulphate, eight polyethylene glycol;  $P < 0.01$ ) failed to take the full course of preparation. The colonoscopist considered the preparation inadequate in five patients (three receiving sodium picosulphate, two polyethylene glycol;  $P > 0.05$ ), but none of the five had failed to complete bowel preparation. The mean side effect score was 2.9 out of a possible 18 (interquartile range 1-4) in those receiving sodium picosulphate and 3.8 (2-5) in those receiving polyethylene glycol ( $P < 0.001$ ). Sodium picosulphate was rated significantly more favourably than polyethylene glycol (linear analogue score 7.8 (6-10) v 6.3 (4-9);  $P < 0.001$ ).

Faecal incontinence was reported by 22 patients (13%)—10 had received sodium picosulphate, 12 polyethylene glycol ( $P > 0.05$ ). Forty two patients reported sleep disturbance, 21 in each group. No patient

Department of Gastroenterology, Chelsea and Westminster Hospitals, London SW10 9NH

T D Heymann, research registrar  
K Chopra, research fellow  
E Nunn, endoscopy sister  
D Westaby, consultant physician  
I M Murray-Lyon, consultant physician

Charing Cross Hospital, London W6 8RF  
L Coulter, endoscopy sister

Correspondence to: Dr Westaby.

BMJ 1996;313:727-8