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Absence of dyspeptic symptoms as a test for *Helicobacter pylori* eradication

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Eradication of *Helicobacter pylori* changes the course of duodenal ulcer disease and effectively cures it.[1] One issue that limits the more widespread use of eradication treatment, however, is whether patients should undergo a test to confirm successful eradication. Many of the tests necessitate endoscopy and are therefore invasive, time consuming, and expensive. The carbon-13 or carbon-14 labelled urea breath test has been suggested as probably the best method of follow up after eradication treatment.[2] This test is non-invasive, well tolerated, and easy to perform, but widespread use is limited by availability, expense (in the case of ^{13}C) or problems with radioisotope handling (^{14}C). We have previously shown that eradication of *H pylori* results in a highly significant reduction of dyspeptic symptoms in patients with duodenal ulcer disease.[3] In this study we assessed the absence of dyspeptic symptoms as a measure of *H pylori* eradication, using the ^{13}C-urea breath test as the gold standard for measuring the presence of *H pylori*.

Methods and results

Data were collected prospectively on all patients positive for *H pylori* with endoscopically proved duodenal ulcer disease who were given eradication treatment at this hospital in 1991-4. Patients with a history of ulcer haemorrhage or perforation and those taking non-steroidal anti-inflammatory drugs were excluded. Whether *H pylori* was present was determined by histology or the ^{13}C-urea breath test[4] before treatment. Treatment was with: colloidal bismuth subcitrate, tetracycline, and metronidazole for seven days; omeprazole, colloidal bismuth subcitrate, tetracycline, and metronidazole for seven days; omeprazole and amoxycillin for 14 days; or lansoprazole and clarithromycin for 14 days. Patients were advised not to take any acid suppressing medication after treatment.

All patients were reviewed one and six months after completion of treatment, when the urea breath test was performed and data collected on dyspeptic symptoms using the gastrointestinal symptom rating scale.[5] Patients were asked to grade epigastric discomfort, heartburn, nausea, vomiting, and wind on a severity scale of 0-3 (nil, mild, moderate, severe). Patients were unaware whether *H pylori* was still present or not until after their six month review.

One hundred and twelve patients (mean age 48 years, range 23-75; 71.4% men; 33% smokers) had undergone eradication treatment, and in 80 (71·4%) *H pylori* had been eradicated, as defined by a negative urea breath test. Table 1 shows the correlation of dyspeptic symptoms with the breath test result. With absence of all symptoms as a measure of successful eradication, the sensitivity was 87·5% at one month and 97·5% at six months, with specificity being 56·3% and 90·6% respectively. The figures for sensitivity were improved when only absence of epigastric discomfort was used for assessment (88·8% and 100%), with little change in specificity (50% and 90·6%).

Table 1—*Correlation of dyspeptic symptoms with results of ^{13}C-urea breath test after H pylori eradication treatment. Results are numbers (and percentages) of patients*

	Breath test negative (n=80)		Breath test positive (n=32)	
Dyspeptic symptoms	**1 month**	**6 months**	**1 month**	**6 months**
Epigastric discomfort	9 (11·2)	0 (0)	16 (50)	29 (90·6)
Heartburn	3 (3·8)	2 (2·5)	5 (15·6)	6 (18·8)
Nausea	1 (1·3)	0 (0)	8 (25)	10 (31·3)
Vomiting	0 (0)	0 (0)	5 (15·6)	6 (18·8)
Wind	1 (1·3)	0 (0)	7 (21·9)	10 (31·3)
All symptoms	10 (12·5)	2 (2·5)	18 (56·3)	29 (90·6)

Comment

Our results suggest that in patients with duodenal ulcer a conventional test to assess whether *H pylori* has been eradicated after treatment may not be necessary. At six months the symptom based method for confirming eradication had a high sensitivity and specificity. At one month the specificity was lower, as about half the patients who remain positive for *H pylori* experience a temporary improvement in their symptoms after treatment. Although bias cannot be entirely excluded, the patients were unaware of their status until the six month review, so the one month results were in effect double blind as neither the patient nor the interviewing doctor were aware of the patient's *H pylori* status.

This study excluded patients with a history of haemorrhage or perforation, and we do not recommend using only symptoms to assess treatment in these high risk patients. Similarly, we advise further studies to evaluate symptom based assessment in patients with gastric ulcers. Our results do, however, suggest that patients with uncomplicated duodenal ulceration who are asymptomatic after eradication treatment do not need further investigation or treatment. Patients can simply be advised to return to their doctor if they experience further symptoms.

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Experience of medical senior house officers in preparing discharge summaries

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The discharge summary communicates information about a patient's stay in hospital and follows the hand written summary that accompanies the patient on discharge. Previous studies have indicated dissatisfaction among general practitioners with the quality of discharge summaries.[1,2] Most are done by senior house officers, and this survey assesses their experience in preparing them.

Subjects, methods, and results

A medical senior house officer from each of 100 acute hospitals in England replied to a telephoned questionnaire about teaching they had received on preparing discharge summaries and arrangements for doing summaries in their hospital.

Ninety two of the doctors prepared summaries in their present post. On six firms the house physician was responsible, while a consultant and registrar were responsible in the other two. Six senior house officers, all from overseas medical schools, had received teaching as undergraduates. Nineteen had received teaching in their present post, usually from their consultant; but most learnt by osmosis. Twenty eight doctors had been given written guidelines, but only 14 thought they were helpful.

Fifty seven of the doctors had to produce the summaries within a set period after discharge, the deadline ranging from the same day to two months, with a mode of two weeks. Thirty one doctors were able to complete all their summaries within the working day; 45 had to do their summaries completely outside the hours of 9 to 5, either when on call or in their own time. Twenty doctors were doing all their summaries outside their contracted hours and a further 38 at least some of their summaries outside contracted hours.

Once completed the summaries were vetted by the consultant in 13 cases regularly and in five occasionally. Eighty six doctors had never received formal feedback on the quality of their summaries. Table 1 shows who was responsible for the summaries when the senior house officer was on leave.

Table 1—*Person responsible for preparation of discharge summaries during absence of the usual doctor responsible*

	Total
No cover	59
Another senior house officer	12
House officer	11
Registrar	7
Consultant	5
Locum	6

Comment

The subject of discharge summaries aroused strong feelings among the doctors questioned. The most notable finding of our survey was the lack of guidance given to doctors in preparing summaries. There seems to be an assumption that without training every doctor can write a good discharge letter. This lack of guidance together with other more immediately important commitments may lead to discharge summaries being given a low priority so that quality is suboptimal and there is little opportunity for formal feedback.

Few doctors were always able to meet their deadlines, and only 6% met them even "usually." Many suggested that time should be specifically set aside and included in senior house officers' contracts since an average of 20 discharge summaries a week may take four hours to write. This has further significance if the summaries are done by a consultant in the senior house officer's absence.

Medical students spend much time learning to take a good history and perform a physical examination. This should be developed to include training in keeping case notes, presentation skills, and writing clinic letters and discharge summaries. At postgraduate level the preparation of a discharge summary could form part of an audit of a firm's admissions over the previous two weeks. This would ensure both the quality of the summary before it was posted and that all "loose ends" had been dealt with before the next outpatient appointment.

The challenge is to design a summary simple to produce, tailored to the individual patient, informative for the general practitioner and future doctors in contact with the patient, and educationally beneficial to the senior house officer. Solutions are best developed locally with junior doctors, consultants, and local general practitioners all being involved.[3]

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