



Audit

Patient attitudes to the Internet and analysis of the potential role of a dedicated colorectal website – a prospective study

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Background: The Internet has become an easily accessible source of information for patients and professionals alike. The purposes of this study were to: (i) analyse the attitudes of colorectal out-patients with regards the establishment of a dedicated, local colorectal website; and (ii) 'market research' the desired contents of such a site.

Methods: During a 4-week period, questionnaires were circulated among patients attending colorectal out-patient clinics in order to establish basic demographic data, Internet usage and investigate those areas of information that would be of interest.

Results: Over the study period, 118 replies were received from 538 patients; 49 males (40.6%), 58 females (50.8%) and 11 of unspecified gender (8.4%). The age of respondents conformed to a normal distribution, centred on the 61–70-year-old age group. Of all respondents, 38 patients (32%) used the Internet for general purposes. Nine (8% of all respondents, 23% of those with Internet access) had searched for information regarding their clinical problem. Forty-one patients (35% of those with access) indicated that they would use such a website, should one become available.

Conclusions: Although Internet usage was relatively low amongst our patients and there was less interest in a potential website than has been noted in previous studies, we were able to identify a group of patients for whom the provision of a dedicated colorectal website would be of benefit and whose information requirements could easily be met within a website format.

Key words: Internet – Colorectal website – Patient survey

Traditional methods of imparting information to patients include direct consultation, specialist leaflets,¹ videos,² audio cassettes,^{3,4} telephone support lines⁵ and more recently the Internet. Such has been the perceived impact of the Internet upon healthcare provision that many medical and surgical journals, as well as popular press publications, have instituted regular 'web-watch' features. Certainly, the Internet would appear to offer the ideal means of

communicating with those patients having access, allowing for maximum impact with minimal input once a site has been established. Idle browsing will convey a myriad of medical and pseudo-medical sites to the interested viewer.

There remain, however, issues regarding the actual value of established 'medical' Internet sites, including quality and accuracy of information, and responsibility for content.^{6,7} A further aspect is site uptake: how many patients

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Table 1 Summary of results of previous studies

Study	Country access	% with research problem	Used to	Would use in future
Vordermark <i>et al.</i> ⁸	Germany		11.5%	
Ross <i>et al.</i> ⁹	UK	41%	10%	64%
Horton <i>et al.</i> ¹²	USA	61.5%		83%
O'Connor & Johansen ¹¹	USA	50%	25.5%	60%
Gupte <i>et al.</i> ¹⁰	UK	55%	12%	61%
Present study	32%	7.6%	35%	

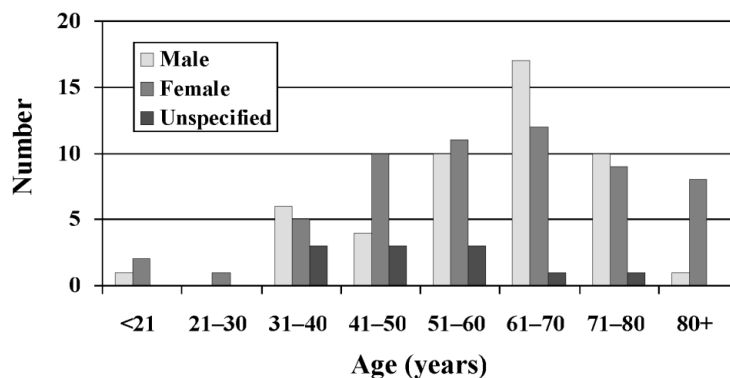
actually use the Internet to investigate areas of concern? Previous studies assessing Internet usage amongst patient groups are summarised in Table 1. Vordermark *et al.*⁸ surveyed 139 patients attending a radiotherapy clinic in Germany, finding that of all attendants only 11.5% had used the Internet to research their problem. Furthermore, they asked patients to rank various media in terms of importance for delivery of medical information. The Internet was ranked lowest. Ross *et al.*⁹ questioned patients attending a genito-urinary clinic in the UK,

finding an Internet access rate of 41% with only 4.1% of patients having actually researched their own problem. A recent study by Gupte *et al.*¹⁰ is more optimistic regarding Internet usage among a selected orthopaedic out-patient population, achieving levels of use close to those seen in studies from the US.¹¹⁻¹³ The aims of the present study were first to quantify use of the Internet amongst patients attending a typical UK district general hospital out-patient clinic and second to 'market research' those areas of most interest to patients in order to allow for the development of a patient-focused website using local information.

Patients and Methods

During a 4-week period, all patients attending clinics of the colorectal surgical department of Torbay Hospital were provided at initial weigh-in with a questionnaire to be completed in the waiting room. The papers were collected by a clinic nurse as the patient was taken into a consultation room and conveyed with the notes to the authors. It was emphasised that completed questionnaires would remain anonymous and that access or otherwise to the Internet would have no bearing upon care received.

Age profile



Internet users

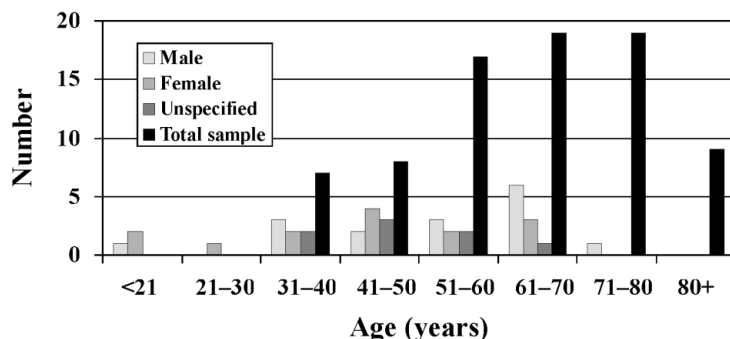


Figure 1 Age and Internet use.

Table 2 Information considered of interest by respondents

	Male	Female
Staff resumés	1	2
Support services	0	1
OPD information	5	5
Ward information	3	10
Investigations	10	10
Diagnoses and their management	17	12
National rates	10	8
Local rates	1	8

Results

During the study period, 538 patients attended colorectal clinics in the Torbay area and 118 (22%) patients returned completed questionnaires. Patient ages were normally distributed centred on the 61–70 years age group (Fig. 1). Sex distributions were broadly similar throughout the sample. Internet usage overall was relatively low (Fig. 1) with 38 patients (32% of respondents) having access to the Internet, and only 9 patients having used the Internet to access medical information pertaining to their problem (about 8% of all respondents and 23% of those with Internet access). Of these 9 patients, four had researched their symptoms, three their diagnosis and six their treatment. One patient did not state the area researched.

Forty-one patients (35%) indicated they would use a dedicated colorectal website, although three had previously recorded no Internet access. Table 2 illustrates the information sought by those patients who indicated interest in a website. The information required spanned all eight suggested categories. Staff resumés and support services were of little interest, though information regarding the environment in which care would be delivered (out-patients and the ward) was of more concern. Similarly, patients were interested in the investigations likely to be required into their condition. The predominant interest, however, lay in the areas of diagnosis and management, with 17 males and 12 females expressing an interest. There were high levels of interest in national outcome rates, although surprisingly less interest among men in local outcome rates.

Discussion

The Internet offers the potential for reaching a large population at the convenience of the user. Information can be accessed in privacy and at the user's own pace. Information may be assimilated without the requirement for a consultation, and indeed the time spent face-to-face may be directed more towards specific areas of concern, thus improving efficiency without compromising on

information provision.^{14,15} However, a pivotal requirement for any information technology to succeed is clearly patient access and utilisation.

Internet access amongst our own group of patients was lower than that reported in previous studies, although the populations sampled would appear to be comparable. Rates of actual Internet utilisation to research clinical problems reported in previous studies are generally low (8–12%), the only exception being the figure of 25% reported by Ross *et al.*⁹ However, the rates of potential use previously reported are generally much higher (60–83%), yet our own data suggest that only 35% of our local patients would use a dedicated colorectal website. The reason for this shortfall is not immediately clear but may reflect specific local factors, including age range, availability of Internet facilities and up-to-date technology such as 'broadband' (which is known to lag behind in the UK compared with the US and other areas of western Europe), together with relative levels of satisfaction with existing information provision. It would appear, however, that our patients were genuinely less interested in the potential of the Internet than those of other studies. Despite this, there were still at least a third of patients who would potentially utilise and benefit from a colorectal website.

The findings from the present study suggest that patients are not so concerned with the details of who treats them as where they will be treated, what they will have to go through in the process and, most of all, what their diagnosis means to them. Surprisingly few patients expressed interest in support services, though for many patients this aspect of care may already be adequately catered for. Men appeared to be less concerned than women regarding the details of their potential ward care and outcome rates and none of the respondents indicated a greater interest in local rather than national outcome data. This latter point from an admittedly small sample of patients would appear paradoxical at a time when surgeons are encouraged to make available their departmental and personal outcome results.

Shortcomings of the present study include the relatively small number of respondents (despite all patients having the time and means to complete a questionnaire), allowing the criticism that the number of patients using the Internet may have been underestimated (though not necessarily the proportion using the net for medical research). Furthermore, no distinction was made between those attending with acute problems (*e.g.* PR bleeding) and those suffering chronic disorders (*e.g.* carcinoma, inflammatory bowel disease). It is conceivable that significant differences would exist between these groups. Finally, no attempt was made to assess satisfaction with information already available from other sources such as the consultation, patient leaflets, 'Home doctor' packages and support groups.

Conclusions

Actual rates of Internet use by patients to research clinical problems are currently low in our local population, in keeping with the findings of previous studies. However, this study demonstrates that levels of potential interest, whilst lower than in some previous reports, are sufficient to justify the development of a departmental website and indicates the areas of most interest to patients to be included within the website.

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