Short report

How much interest is the internet to patients?

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Objectives: To assess the accessibility of the internet, the level of interest from patients attending genitourinary (GU) medicine clinics, and explore potential concerns about confidentiality.

Methods: Questionnaire based survey of patients attending five GU medicine clinics in England.

Results: 41% of GU medicine clinic patients in 1999 had access to the internet (range 31%–52%) with access more common in younger age groups, and less common in women and black Caribbean patients. One in 10 patients (with internet access) had used the internet to find out more about the problem with which they had come to the clinic. 60% of patients replied that information on sexual health on the internet was of interest to them and a high proportion of patients said they would use the internet to access information about GU clinics (64%), book an appointment (64%) or get test results (63%). Almost a quarter of patients who made additional suggestions wanted an interactive website.

Conclusions: A high proportion of patients attending GU clinics have access to the internet with potential uses for health education and service delivery.

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Introduction

As access to the internet continues to grow it is likely that individuals will increasingly use it as a source of healthcare information.¹ Over a third of Medline online search requests from the US National Library already come from the lay public.² It remains unclear, however, what services patients want from the internet, how best to deliver these services, and whether this new technology can be used to access previously “hard to reach” groups.

Patients attending sexually transmitted disease clinics represent a young patient group who might be expected to have a high awareness of the internet and act as a sentinel cohort to predict future general attitudes and knowledge. The sensitive nature of sexually transmitted infections may also highlight concerns over the confidentiality of medical information made available via email or downloaded from the internet.

The study described was designed to assess the accessibility of the internet, the level of interest from patients, and to explore potential concerns about confidentiality. Respondents were also given the opportunity to suggest ways in which they felt the internet could best be utilised in improving health care in the future.

Subjects, methods, and results

Consecutive patients attending five sexual health clinics in central England were invited to complete a short questionnaire to assess their use of the internet and attitude towards potential health service applications. The clinics were sampled between October and December 1999 and included two large inner city populations (Birmingham and Sheffield, designated cities A and B) and three from smaller population centres (Burton, Dudley, and Warwick, designated towns A, B, and C).

Data were entered into an ACCESS database before analysis using the SPSS statistical package. Comparisons of proportions was made using χ^2 and a multivariate analysis using a logistic regression model was undertaken to assess factors associated with the use of the internet, controlling for various demographic factors.

A total of 1204 patients completed the questionnaire. Overall, 499 (41%) had access to the internet with around half of these using it more than once a week (238 (48%)). A multivariate analysis revealed younger age to be associated with increased access, and black Caribbean ethnicity (as defined by self identification) and female sex to be associated with less internet use (table 1). The use of the internet also varied between different clinic populations. Subsequent analyses are based on those with access to the internet (n=499).

Approximately a third of patients who had access to the internet had used it to look for information about health in the past (155/499 (31%)) although only 11% (54) had used it to find out more about the problem which they had presented with—men were slightly more likely to have done this than women (36/251 compared with 18/248, $p=0.02$). Potential problems in using the internet to access personal or embarrassing information were identified by 54% (271) of patients who were unable to look up information in privacy, although employment was not found to be associated with internet use (table 1).

Patients were asked if information on sexual health on the internet was of interest to them, to which 60% (297) replied that it was. When asked to indicate whether they would use the internet to access a variety of possible services, the following positive replies were given:

- opening times for the clinic—60% (297/499)

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Table 1 Multivariate analysis of factors associated with internet access

Variable	No of patient using internet	No of patients not using internet	Unadjusted χ^2 p value	Adjusted odds ratio (95% CI)
Age				
under 16	4 (50%)	4 (50%)	<0.001	2.4 (0.6–10)
16–20	125 (49%)	129 (51%)		2.4 (1.5–3.7)
21–25	135 (49%)	143 (51%)		2 (1.3–3.1)
26–30	113 (44%)	145 (56%)		1.7 (1.1–2.6)
31–35	46 (32%)	100 (68%)		1
over 35	75 (29%)	183 (71%)		0.86 (0.5–1.4)
unknown	1 (50%)	1 (50%)		3.2 (0.2–61)
Clinic site				
City A	253 (39%)	390 (61%)	<0.001	1
City B	106 (52%)	95 (47%)		1.6 (1.1–2.2)
Town A	31 (31%)	69 (69%)		0.6 (0.4–1.02)
Town B	36 (32%)	75 (68%)		0.6 (0.4–0.98)
Town C	73 (49%)	76 (51%)		1.3 (0.9–2)
Ethnic group				
White	417 (44%)	533 (56%)	<0.001	1
Black Caribbean	42 (26%)	118 (74%)		0.5 (0.3–0.7)
Other	40 (42%)	54 (57%)		0.9 (0.6–1.4)
Employed				
Yes	289 (41%)	420 (59%)	0.85	1
No	207 (42%)	281 (58%)		1 (0.8–1.3)
Unknown	3 (43%)	4 (57%)		1 (0.2–5)
Sex				
Male	251 (44%)	320 (56%)	0.09	1
Female	248 (39%)	385 (61%)		0.7 (0.6–0.9)

- general information about sexually transmitted diseases—76% (381/499)
- list of services available at the clinic—64% (322/499)
- to book an appointment—64% (317/499)
- receive the results of tests via email—52% (260/499)
- receive results via a clinic website using a personal login number—63% (315/499).

When invited to give other ways in which the internet could be used 47 patients gave additional suggestions. Eleven (23%) of these were requests for an interactive website.

Comment

Internet use is high (41%) in young people accessing medical services but there are variations according to region, sex, and age.

Summary points

- 41% of GU medicine clinic patients in 1999 had access to the internet (range 31%–52%)
- internet access was more common in younger age groups
- reduced internet access was evident in women and black Caribbean patients
- around one in 10 patients (with internet access) had used the internet to find out more about the problem with which they had come to the clinic
- half of those with internet access had difficulty accessing sites in privacy
- 60% of patients replied that information on sexual health on the internet was of interest to them
- a high proportion of patients would use the internet to:
 - access information about GU clinics (64%)
 - book an appointment (64%)
 - get test results (63%)
 - almost a quarter of patients who made additional suggestions wanted an interactive website

Disturbingly, some ethnic groups who are at higher risk of disease³ are additionally disadvantaged by lack of internet access, which may partially reflect socioeconomic differences. The majority of patients expressed an interest in having access to health information although less than a third have used the internet for this purpose in the past and 10% looked up information about their presenting problem before attending the clinic. Since many people will have internet access at work, issues around privacy and looking at websites containing sexual health information may be limiting factors. By comparison, a recent survey of radiology outpatients in the United States found 62% of their patients had access to the internet and 83% of these said they would use it to find information about radiological procedures.⁴

Systems utilising internet technology also have the potential to reduce administration costs and improve patient access to services. Two thirds of patients indicated that they would use an internet based system to make an appointment or get clinic results, with a slightly lower proportion finding the emailing of results to be acceptable, presumably reflecting concerns about security. A desire for access to medical input via an interactive website, possibly obviating the need to attend a clinic, was also made by a significant number of patients. Some GU medicine clinics have already started to use the internet to advertise their services and permit patients to request appointments.⁵

There is great potential for the internet to improve the delivery of health education and the provision of healthcare services, but accessibility, concerns about confidentiality, quality of available information, and level of patient interest may limit its application. This study quantifies some of these factors and provides a baseline for future assessments.

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Contributors: JR, study design, questionnaire design, supervision of data collection, data analysis, writing of report; CC, questionnaire design, data collection, data analysis, writing of report; CM, supervision of data collection, data analysis, writing of report; MS, supervision of data collection, data analysis, writing of report; DN, supervision of data collection, data analysis, writing of report; KR, supervision of data collection, data analysis, writing of report.

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