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Clinical Paper

Evaluation of internet derived patient information for Acute Pancreatitis

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Abstract

INTRODUCTION: Possibly In the UK there are currently over 26,000 patients admitted to hospital for acute pancreatitis per annum and the incidence is rising. 55% of patients consult the internet for information regarding their medical condition. As the number of people using the internet has increased 57% since 2006, it is increasingly important for medical professionals to direct patients to accurate online sources of information. This paper aims to evaluate the quality of information available online for acute pancreatitis.

METHODS: The term 'acute pancreatitis' was searched using http://www.google.com, http://www.bing.com, and http://www.yahoo.com. The top 10 results of each of these websites were assessed using the University of Michigan consumer health website evaluation checklist.

RESULTS: Of the 30 websites found, 4 were excluded from the evaluation. Within the 26 evaluated websites there was high variability in website quality. However, the authors would have used 18 of the websites again for the purpose of finding out information on acute pancreatitis. 15 websites had a named author of which 11 displayed their credentials. 8 of the websites had been updated within the last year. 10 websites displayed a bias or conflict of interest. Generally, the layout and design of websites was good, however 7 of the websites contained distracting graphics and 9 of the websites had no search facility.

DISCUSSION: Doctors should give patients the information they want and need. With a high percentage of patients using the internet, medical professionals should recommend good quality websites to their patients. Engaging in this process could improve the consenting process as patients would be better informed. Good quality websites allows patients to explore conditions by themselves, with a re-consultation facilitating further discussion. Failure to engage in internet-based information risks patients making misinformed decisions due to bias and conflict of interest.

There are currently over 26,000 admissions to hospital for acute pancreatitis in the UK and the incidence is rising. Pancreatitis is, most caused by either gallstones or alcohol, one in five patients will develop severe and associated sequelae such as necrosis of the pancreas (1,2). It is estimated that around 55% of patients will consult the internet for medical information (3,4) with 60% of patients reporting that they felt that the information was the 'same as' or 'better than' information from their doctors. The number of patients researching their condition on the internet is likely to increase due to access to the internet increasing by 57% since 2006, 96% of the UK now have access (5).

The internet can report on the latest updates in medicine before they are incorporated into a textbook or have been peer-reviewed. The wealth of information available online to patients may be more current than a doctor's knowledge. However, it is provided by a variety of sources such as the National Health Service (NHS), charities, drug companies and private businesses. This has the potential to provide patients with information that may not be accurate or digestible, with *Gupte et al* demonstrating that 20% of patients found conflicting information on the internet to that given to them by their consultant (4).

The internet has the potential to be an invaluable resource for medical professionals by providing good quality patient education. Patients may use the internet before a consultation to try to form a diagnosis by themselves, following the consultation for reassurance and afterwards to share their patient experience. It is therefore important that medical professionals can direct patients to accurate online sources of information. This paper aims to evaluate the quality of information available online for acute pancreatitis.

METHODS: This paper looks at the top 10 websites as found by three search engines: www.google.com, www.bing.com and www.yahoo.com at 20:00 on the 15th December 2019. These websites were then evaluated using the University of Michigan Consumer Health Website Evaluation Checklist (UMCHW). The purpose of this tool is to assess the quality of health information by quantifying the following features: authorship, how up to date the information the information

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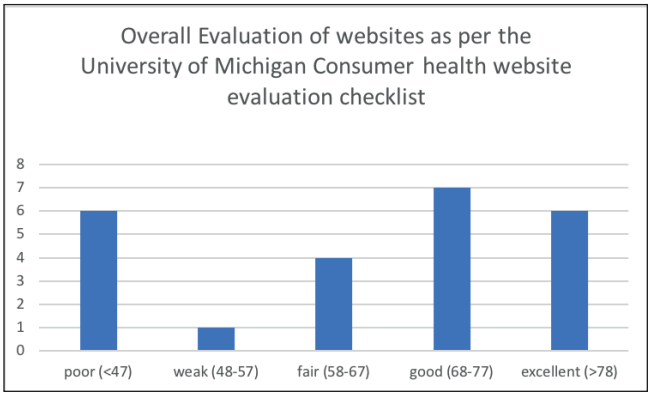
is, information quality and accuracy and the ease of use of the website. This allows for the calculation of a single score out of 100 in order to categorise if a website is poor (< 47) , weak (48-57), fair (58-67), good (68-77) or excellent (>78) in quality.

RESULTS: Of the 30 websites 4 were excluded from the evaluation, due to the need for subscriptions or relevance e.g. an alcohol awareness site which mentioned that acute pancreatitis was a complication. Therefore 26 websites evaluated using the UMCHW tool. Overall there were 6 excellent and 7 good websites. The authors would have used 18 of the websites again for the purpose of finding out information on acute pancreatitis (see table 1).

Table1: Overall evaluation of websites as per the UMCHW tool.

15/26 websites had a named author of which 11 had their credentials displayed and were experts in the field of



pancreatitis. 8 of the websites had information that had been updated within the last year, of which 2 of these had been updated within the last month. All websites appeared to be displaying factually correct information. However, 10 websites displayed a bias or conflict of internet e.g. provided by private healthcare providers. 11 of the websites contained a bibliography of the information that had been published. Regarding the value of the information; out the available 24 points the mean score was 16.5 with a standard deviation of 5.8.

7 of the websites contained distracting or flashing images or graphics. 20 of the websites had the most relevant information at the top of the page and 10 of the websites used colour to enhance the user's ability to get the most relevant information. Generally, the websites were well labelled with accurate headings for the content, with all bar 1 having a return home page or accurate titling, with easy to navigate scroll and back buttons. 9 of the websites had no help facility for searching.

DISCUSSION

One of the duties of a doctor is to give patients the information they want or need in a way they can understand (6). As such a high percentage of patients are now using the internet in their search for more information, healthcare professionals should include the use of websites in this process. Regarding pancreatitis, the authors would have used 18 of the 26 websites again and generally they felt the information available was useful and informative. However, the calibre of the information on the websites as scored by the UMCHW showed a large variance in the quality of information available (mean: 15.8, sd 5.8). This high variance may hinder a patient's search for independent information.

The use of websites can hinder a patient search for accurate information this may be due to bias or conflict of interest e.g. being provided by a private health provider, this occurred in 8 of the websites. Furthermore, several of the websites were difficult to navigate through and 7 had flashing graphics which would make the process of information gathering more difficult. Not enough websites commented on authorship and less than half displayed the authors credentials.

However, after the case of Montgomery v Lanarkshire Health board 2015 (7) it is now statute that doctors must give patients the information that they want, the difficulty of this, is that each patient will want different information. That is why the authors recommend the use of good and excellent websites. Patients will be able to read these websites and any areas which are of concern to themselves can be discussed at further consultations. If a patient finds a topic which is of concern on a website e.g. what symptoms to look for regarding a developing pseudocyst or the possible ways of preventing further acute attacks on a good website, they can then discuss this at a further appointment. Thus, by advising patients to use recommended online resources medical professionals have followed the guidance of this case.

As previously mentioned, 20% of patients have conflicting information between what is available online and what the healthcare professional has said to them. With the use of internet increasing and the search for independent medical information growing, medical professional must include the internet resources in their approach for informing patients. The UMCHW checklist is easy to access and use. We recommend that healthcare professionals use it to evaluate any site that they recommend to patients.

General recommendations in creating and assessing websites are that

- Authors details with credentials and contact information should be clearly displayed
- The dates of the last review of the information displayed on the website
- Conflicts of interest should be clearly stated
- Adverts should not interfere with the user therefore no flashing
- Limited use of medical jargon and easily understood language should be used

By recommending websites that score well on the UMCHW

and adhere to the above principles departments can formulate approved website lists which patients may then use. Without this approach we risk patients making uninformed inaccurate decisions about their healthcare.

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