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Something for nothing? Quality medical information on the internet

This article will outline some of the resources that are available to you on the internet that are free, or that have some free content, and are reliable

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On leaving university many things will change in the lives of pharmacy students. One change, although it will almost certainly not be the first you notice, is access to information. As a university student you will have access to a range of resources through your library. This access will appear to you, the user, as seamless and free, even though the university will be paying handsomely for it. After university, both during the preregistration year and when you become a qualified pharmacist, these information sources will no longer be seamless and no longer, in the main, free.

Although you will have left university your requirement for information will not disappear; the preregistration year and subsequent exam will still require it; once qualified life-long learning, including the Society's requirement for continuing professional development, means access to information and scientific literature will remain important. How, without the support provided by the university

structure, do you keep informed and up to date with medical and health knowledge?

Medline

For serious research on a medical subject the first port of call should be Medline. Medline is a bibliographic database produced by the National Library of Medicine in the US. Covering the fields of medicine, nursing, dentistry, veterinary medicine, the health care system and the preclinical sciences, it contains bibliographic citations and author abstracts from more than 4,600 biomedical journals published in over 70 countries. The database contains over 12 million citations dating back to the mid-1960s. Coverage is worldwide, but most records are from English-language sources or have English abstracts. Thanks to funding from the US government the database is free on the internet and a number of different search interfaces are available. A good place to start is the OMNI site (<http://omni.ac.uk/medline/>) where a number of Medline

Electronic Library for Health. Providing NHS staff with a wide range of information sources, the NELH cuts through many of the access problems. Although much of the content is only available to those working directly within the NHS, funding has been made available for wider access to some important resources. The Cochrane Library is one of these although it is not, at the time of writing, available free in Scotland. It contains evidence-based evaluation of treatments and procedures covering all branches and aspects of medical care. Clinical Evidence complements the Cochrane Library by providing a regularly updated collection of concise summaries of the best evidence on clinical interventions. Both the Cochrane Library and Clinical Evidence are available via the NELH (<http://www.nelh.nhs.uk/>) where there are links to many other NEHL resources. Many of these resources are available to the "wider NHS family" on application and although you may not work directly for an NHS organisation you may feel part of this wider family. I certainly believe that pharmacists should be able to make a good case, under this "wider family" clause, to get access to these extra resources.

British National Formulary

For drug information, and needing no introduction to pharmacists, the British National Formulary is also available free on the internet (<http://bnf.org>). For data sheets, SPCs and patient information leaflets the ABPI Medicines Compendium is the first stop. Like the BNF the print version is published by the Society's publisher, the Pharmaceutical Press, but a website gives you access electronically to the full contents (<http://emc.medicines.org.uk/>).

A large number of other countries also produce compendia that list medicines available in their respective countries. These are invaluable in helping identify foreign medicines; a task with which we are regularly asked to help. The staff of the Society's information centre maintain a list of internet versions of these compendia and this list is available on *The Pharmaceutical Journal* website (<http://www.pharmj.com/noticeboard/info/pip/foreignmedicines.html>).

The downside

The above are just a few of the many quality resources on the internet and it is not the intention that this short article be comprehensive. Indeed it would take a book to do justice to all the health information that can be found on the web. But as with all upsides there is, of course, a downside. The internet is an anarchic place where rules and processes that are common place elsewhere do not exist. Although this is not always a bad thing it does mean that information culled from the internet should be treated with care.

The usual editorial processes do not always apply on the internet and anyone with even a small amount of web space can publish. Health and medicine has frequently been associated with quackery and charlatans but, although health professionals may be able to cast a critical eye over such claims, the same cannot always be said of patients. Coleman¹ provided a look at how patients search for and obtain health information on the internet, and at what pharmacists could do to help. The comments and conclusions on quality in health information contained there are well made. There are many ways to evaluate information contained on a website but using the "five tests" (accuracy, authority, objectivity, currency and coverage) is a common approach.

And although there is a good deal of quality health information on the internet it pays to remember that just because it appears on the internet does not make it so; if in doubt, doubt. It also pays to remember that just because it does not appear on the internet, or you cannot find it there, does not make it not so. Good, old-fashioned, printed words on paper have not yet had their day and there are times when you may have to visit a library; perhaps even the Society's library.

Reference

1. Coleman, B. *How to guide patients through the information maze on the internet. PharmJ* 2003;271:720-2.

sites are listed. The OMNI site in itself is a good starting point for finding evaluated, quality health information on the internet.

Searching for articles

Once you have identified the original resources and read the abstracts the next step is to find the original article. Although most journals do not offer their full text free there are a number who do and free medical journals (www.freemedicaljournals.com) is a site that attempts to list as many possible. The site lists journals that are free on the internet, like *The Pharmaceutical Journal*, as well as those that offer free content after some time has elapsed since paid-for publication.

National Electronic Library for Health

The NHS has attempted to address the issue of access to medical information by setting up the National