

Some important medical resources available on the Internet

The Internet has become the single largest source of mass medium which provides sharing of all kinds of resources across the globe, both instantly and inexpensively online. Created in 1969, the Internet with its vast network of computers spanning the entire globe has resulted in an explosion of information in virtually all fields of human interest including medical sciences. To put it simply, the Internet provides access to data, text, sound, graphics, software and communication. There are several different methods for moving information across the Internet. These include hypertext (www), remote login (telnet), file transfer (ftp) and electronic mail (e-mail). All

of these technologies are simply ways to get information from one computer to another via the Internet.

Not surprising, even journals devoted to Internet have started appearing. Specifically, the *Journal of Medical Internet Research* (JMIR; Medline abbreviation: *J. Med. Internet Res.*; <http://www.jmir.org/instruction.htm>) founded in 1999, is an international scientific peer-reviewed journal on all aspects of research, information and communication in the healthcare field using Internet and Intranet-related technologies. With the present pace, it is becoming impossible to browse and evaluate completely all the web sites in one single area,

leave alone the quality of information retrieved in terms of accuracy, relevance and its being up-to-date. With this backdrop, attempts have been made to focus on the resources, especially in the field of medical sciences available on the Internet¹⁻⁶ as also the Internet publishing⁷. These efforts, essentially aimed at raising awareness of the types of resources available, also give an idea of how Internet resources can be used to support teaching, studying or research. However, the greatest threats to the use of the Internet will be expensive telecommunications, intellectual property rights and data protection regulation⁸.

Table 1. Searching the Internet

Google (<http://www.google.com/>): One of the widely used search engines
 Yahoo: Diseases and conditions (http://dir.yahoo.com/health/diseases_and_conditions/index.html)
 Internet Medic (<http://www.vts.rdn.ac.uk/tutorial/medic>): A 'teach yourself' tutorial
 Internet Information Centre (<http://nlnm.gov/netinfo/>)
 Patient's guide to healthcare information on the Internet (<http://www3.bc.sympatico.ca/me/patientsguide/>)
 Physician's guide to the Internet (<http://www.webcom.com/pgi/>)
 MedBioWorld: Search engine and medical link directories (<http://www.sciencekomm.at/links/medicine.html>)
 Medical search engines and meta-sites (<http://library.uchc.edu/eduoff/medsites.html>)

Journals/databases/professional associations

PubMed (<http://www.ncbi.nlm.nih.gov/entrez/>): The US National Library of Medicine's search service that provides a free searchable access to over 11 million citations and abstracts in MEDLINE and other related databases, with links to participating online journals
 PubMed Central (<http://pubmedcentral.nih.gov/>): The US NLM's digital archive of life sciences journal literature. Access to PMC is free and unrestricted
 BioMed Central (<http://biomedcentral.com/>): A commercial publisher which provides immediate free access to peer-reviewed biomedical research. BMC publishes more than 50 online journals in the fields of biology and medicine
 IndMED (<http://indmed.nic.in>): ICMR-NIC Centre for Biomedical Information, New Delhi provides, among others, a bibliographic database of 75 peer-reviewed Indian biomedical journals
 Free Medical Journals (<http://www.freemedicaljournal.com/>)
 Amedeo: The medical literature guide (<http://www.amedeo.com>)
 International Committee of Medical Journal Editors (ICMJE) (<http://www.icmje.org/>): A group of medical journal editors met informally in Vancouver, British Columbia, in 1978 to establish guidelines for the format of manuscripts submitted to their journals. The group became known as the 'Vancouver Group'. The Vancouver Group expanded and evolved into the ICMJE
 World Association of Medical Editors (<http://www.wame.org/>)
 Council of Science Editors (CSE) (<http://www.councilscienceeditors.org/>): Formerly known as the Council of Biology Editors (CBE), the CSE is a leader in promoting ethical practices in science publishing.
 European Association of Science Editors (EASE) (<http://www.ease.org.uk/>)
 Instructions to Authors in the Health Sciences (<http://www.mco.edu/lib/instr/libinsta.html>): Contains links to web sites which provide instructions to Authors for over 3500 journals in health and life sciences. All links are to 'primary sources', i.e. to publishers or organizations with editorial responsibilities for the titles.
 Bioline International (<http://bioline.bdt.org.br/>): A non-profit electronic publishing service committed to providing access to quality research journals published in developing countries

Textbooks/Dictionaries

FreeBooks4Doctors (<http://www.FreeBooks4Doctors.com/fb/special.htm>)
 MedicalStudent.com (including textbooks) (<http://medicalstudent.com/>)
 Virtual hospital (including multimedia textbooks) <http://www.vh.org/Providers/Textbooks/MultimediaTextbooks.html>
 Healthfinder: Medical dictionaries (<http://www.healthfinder.gov/>)

(Table 1. Contd.)

Online medical dictionary (<http://cancerweb.ncl.ac.uk/omd/>)

Online medicine and science dictionaries (<http://www.sciencekomm.at/advice/dict.html>)

Research resources

Current Controlled Trials (<http://www.controlled-trials.com/>): Provides access to a searchable database of ongoing UK-funded trials, reports of controlled trials and trial protocols and links to other online registers of controlled trials

Medical images and illustrations (<http://www.mic.ki.se/Medimages.html>)

Statistical Resources on the Web (<http://www.lib.umich.edu/govdocs/stats.html>)

Global Forum for Health Research (<http://www.globalforumhealth.org/pages/index.asp>): The Global Forum's central objective is to help correct the 10/90 gap by focusing research efforts on diseases representing the heaviest burden on the world's health and facilitating collaboration between partners in both the public and private sectors

Organizing Medical Networked Information (<http://omni.ac.uk>): Offers free access to a searchable catalogue of Internet sites covering health and medicine

Indian Medical Sites (<http://www.qmedin.com/medsites/>)

The present compilation is one more addition to these efforts, which is essentially based, among others, on the International Network for the Availability of Scientific Publications (INASP) link and resources⁹ (<http://www.inasp.org.uk/links/health/ejrldir.html>, as accessed on 25 October and 31 December 2002). Hopefully, this write-up may help one select a list of some important sites (accessibility verified during 31 December 2002–14 January 2003) (Table 1). It is important to clarify that the selection of these sites has *not* been based on any guidelines or criteria but purely on the basis of my

experience in the field of biomedical communication for over two decades.

1. Indrajit, I. K., Nagpal, S. and Roy, N., *Natl. Med. J. India*, 2000, **13**, 193–201.
2. Anil Kumar, C. and Vishnu, V., *Curr. Sci.*, 2001, **81**, 13–14.
3. Jain, N. C., *Curr. Sci.*, 2001, **81**, 331.
4. Anonymous, *Curr. Sci.*, 2001, **81**, 635–636.
5. McKenzie, B., *Medicine and the Internet*, Oxford University Press, Oxford, 2002, 3rd edn.
6. *Lancet*, 1998, **351** (Suppl. 1), 1–17.
7. Joshi, N. V., *Curr. Sci.*, 2000, **78**, 117–118.
8. Lindberg, D. A. and Humphreys, B. L., *J. Am. Med. Assoc.*, 1998, **280**, 1303–1304.

9. INASP link and resource (<http://www.inasp.org.uk/links/health/ejrldir.html>, as accessed on 25 October and 31 December 2002).

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