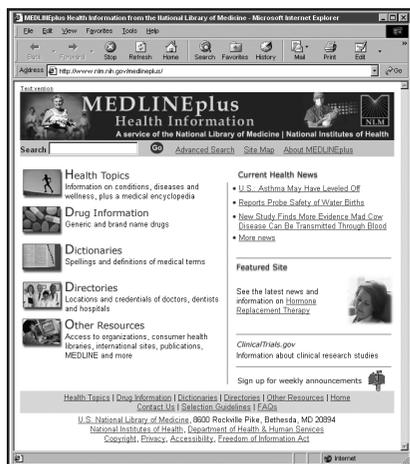


MEDLINEplus: A golden gateway to health information resources



Picture a Web-based resource that collates information from the U.S. National Institutes of Health "and other trusted sources" on over 500 diseases and conditions. Add a medical encyclopedia and general and specialist medical dictionaries, and supplement this resource with extensive information on pharmaceuticals and current news stories. Collect miscellaneous resources on current clinical trials, disease-related organizations, and directories of hospitals and physicians. Provide complementary coverage of information in Spanish. Finally, add the powerful retrieval capabilities of MEDLINE, and you have an overview of MEDLINEplus.

Consider the following scenario: A middle-aged man from Cleveland, Ohio, with diabetes mellitus searches MEDLINEplus for information on his condition. In particular, he wants to know what his physician means by "tight glucose control," to find out about a drug called "rosiglitazone," and to identify clinical trials and diabetes specialists within the state. From the alphabetic list provided on the site, locating an entry for "diabetes" is easy. Entries that are closely related to this term but more specific are included for such conditions as diabetes in pregnancy and diabetic foot. In selecting the diabetes page, he finds extensive, perhaps even overwhelming, links under such categories as disease management, nutrition, and prevention and screening. Some categories include such publication types as dictionaries and directories. Under dictionaries, he finds a definition for blood glucose control but nothing specifically on "tight glucose control." He was also unable to find a definition for this term in the formidable range of information pages. Although a number of useful resources describe how to control blood glucose, these are identifiable by title only; so there is no easy way of establishing whether any of these resources explain the concept of "tight glucose control." The findings of the Diabetes Control and Complications Trial (DCCT) are available from the National Diabetes Information Clearinghouse, but this is a classic case of "needing to know what you need to know." Thus, we find that MEDLINEplus is resource focused rather than based on practical clinical questions that patients might ask. Nevertheless, certain resources are highlighted with such useful flags as "easy to read." Given time to explore this cornucopia of information pages, eventually our patient would no doubt find an answer to his question on "tight glucose control."

The patient's drug query presents fewer problems. From the home page, he accesses an alternative alphabetic sequence, this time for drug information. The source material is the U.S. Pharmacopoeia's Drug Information, Volume II, *Advice for the Patient*. Among the > 9000 prescription and over-the-counter drugs listed, he finds information on the common and important adverse effects, dosing, drug interactions, precautions, and storage requirements for the generic drug rosiglitazone and its North American brand name, Avandia.

When trying to identify clinical trials or health care staff within a specific geographic locale, success depends on the specificity and comprehensiveness of each directory being accessed. Hence, our patient found details of an Islet trial center in Ohio but surprisingly had little reward when trying to locate an endocrinologist specializing in diabetes in the same area.

Why would a health consumer, or indeed a health professional, use this health gateway rather than one of the many others available on the World Wide Web? There are at least 2 good reasons. First, all links bear the imprimatur of the National Library of Medicine, an independent source, and are free of advertising (although it is not clear how "trusted sources" are defined or how the content is evaluated, reviewed, or filtered for quality). Second, MEDLINEplus is also "well connected" to the other National Library of Medicine resources. For example, in the left-hand column of each disease or condition page the user can activate prestored search strategies to search MEDLINE (e.g., for recent research articles on diabetes mellitus, diabetes insipidus, diagnosis, nutrition and diet or therapy).

MEDLINEplus is a useful source for identifying authoritative health information. However, its contents are organized at a resource level rather than at an individual item of evidence. Therefore, no substitute exists for the application of systematic principles of critical appraisal to its otherwise useful contents.

*Andrew Booth, MSc, Dip Lib
University of Sheffield
Sheffield, England, UK*

Ratings:
Methods/Quality of information: ★★★★★☆
Clinical usefulness: ★★☆☆☆

MEDLINEplus can be found at www.nlm.nih.gov/medlineplus/.