

ELECTRONIC RESOURCES REVIEW

UpToDate. UpToDate, 34 Washington Street, Wellesley, Massachusetts 02481; 800.998.6374; info@uptodate.com; www.uptodate.com. Price: individual: \$495/year, stand-alone workstation: \$1,495/year; call UpToDate for group and institutional pricing. Requirements: Windows: 486/66 or Pentium processors, Win 95 or later, 16 MB RAM, 15 MB hard disk space; Macintosh: Power PC or G3/G4 processor running OS 8.1 or later, 16 MB RAM, 15 MB hard disk space.

UpToDate is a subscription-based resource designed to provide physicians access to current clinical information. It addresses specific clinical issues in the form of topic reviews. According to UpToDate, it "is designed to get physicians the concise, practical answers they need when they need them most—at the point of care." Topic reviews are written by physician experts who review the literature then synthesize the information into specific recommendations for diagnosis, management, and therapy.

Topic reviews include very specific clinical titles such as "treatment of dementia," "clinical use of Warfarin," and "diagnosis and management of solitary plasmacytoma." Each includes navigational links to the left of the text, so users can proceed to the specific section of the document that answers their questions. Text includes embedded links to MEDLINE abstracts of referenced studies and other related topic reviews. Reviews may also include links to charts, X rays, photographs, movies, and drug information.

UpToDate covers primarily internal medicine and its subspecialties. Currently, UpToDate includes information for the following: adult

primary care and internal medicine, cardiovascular medicine, endocrinology and diabetes, family practice, gastroenterology and hepatology, hematology, infectious diseases, nephrology and hypertension, obstetrics, gynecology and women's health, oncology, pulmonary and critical care, and rheumatology. UpToDate is in the process of developing topic reviews for allergy and immunology, neurology, and pediatrics to be added in future releases.

The UpToDate interface is fairly easy to navigate. Users have the option of browsing topic reviews for a specialty by selecting it from the table of contents or performing a search by clicking on "new search" and entering a term in the box provided. Search terms are mapped to keywords. Users can then select the appropriate keyword to view a list of topic reviews that match. Searches can be narrowed by using modifiers such as diagnosis, monitoring, treatment, and so on or by entering secondary search terms. Because the database only contains a little more than 4,500 topic reviews, these simple search options are enough to provide users with relevant search results.

For instance, typing "a fib" into the search box maps users to the keyword "A fib (atrial fibrillation)." Selecting this term retrieves 136 matches, separated into two categories: thirty most-relevant topics and 106 related topics. Further modifying the search with the secondary term "arrhythmias" narrows the results to sixty-nine topics. Of the twenty-seven most relevant, the first topic listed is "Arrhythmias after cardiac surgery. Atrial fibrillation and atrial flutter."

More than 3,000 physician authors participate in creating this re-

source that claims to contain the equivalent of "40,000 pages of original, peer-reviewed text." Physician editors monitor journals for new findings that are then added to relevant topic reviews after going through a peer-review process. A new updated release is issued every four months. The top of each review contains author information and the date the review was last changed, as well as when the last literature review was completed.

UpToDate is often referred to as an evidence-based resource, however the resource is not strictly evidence based. While UpToDate topic reviews are based on the literature and incorporate findings into the information provided, the authors do not perform systematic reviews of the literature on a topic. Rather, they combine a synthesis of selected literature and their own expert knowledge to form patient care recommendations. UpToDate does not share how it monitors journals or how it performs its literature searches, so there is no way of knowing whether important studies have been missed or overlooked. That being said, medical students and residents tend to appreciate this resource for its reliable information, ease of use, readable format, and access to quick answers to clinical questions.

UpToDate is available on both CD-ROM and online via the Internet. For groups and institutions, site subscriptions are available to the online addition, however the fee is significantly higher if remote access is provided.

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