





The Value of e-Books: The Clinical Example

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E-Book Sales Projections and Reality

Projection:

Ebooks sales to hit \$2.3 billion U.S. in 2005*

Reality:

Ebooks sales in US in Q1 2004: \$3.2 million**

Continued Growth in Book Revenues

- US sales of scholarly and professional books were up 3.6% in 2003, to \$3.98 Billion*
- Proportion of revenues derived from books in the medical sector (40%) is much higher than in science and technology (14%)*
- Medical book distribution remains principally in printed format

American Association of Publishers, 2003

Role of Books in Science and Technology

- Usage of books in STM varies by discipline
- Some of the most frequent uses:
 - Education
 - Overview for multi-disciplinary study
 - Retrieval of hard data from handbooks
 - Refresh the fundamentals
 - Support research activities

Synoptic Content & Clinicians

- Rapid access format
- Importance varies by position within the professional continuum and current activity
- Quality indicators
 - Authoritative
 - Evidence-based
 - Integrated with clinical experience
 - Patient specific
 - Frequently updated
 - Coincides with local standards of care

Answers to Clinical Questions

- Drug therapy
- Diagnosis
- Treatment
- Patient information (interest to physicians and nurses)

Use of Print Books Continues

- Numerous studies have found that practicing physicians as well as medical students use books as an important resource for answering questions
 - 1997 meta-analysis of information seeking behavior of physicians
 - Same results seen in other 1990 studies
- Use of print documented among nurse practitioners in 2003

Clinicians' behaviours

2003 meta-analysis of 19 studies:

- Most important sources of information for clinicians in order of importance*:
 - Texts
 - Consulting colleagues

^{*}International Journal of Medical Informatics. 71(1):9-15, 2003 Aug

Evolution of Book Technologies

- Hippocratic corpus begun in 5th Century B.C.E
- De Viribus Herbarum, 12th century A.D. published in print 1495
- The AIDS knowledge base released in print and on CD-ROM in 1990
- OMIM (OMIM-Online-Mendelian-Inheritance-in-Man) on the Internet as of 1995
- 2001 to 2002 Bulletin of the Medical Library
 Association reviews of online and handheld far
 exceed numbers of CD-ROM products

Innovations to Extend the Value of Books

...beyond accessibility and portability:

- Single repository for multiple content types
- Faster / more accurate retrieval of information with new and enhanced tools (natural language searching)
- Improved currency with more frequent updates
- Broadening the communication potential with 'novel' content types
- Extending research with linking
- Customization tools

API for Workflow Integration

- Single directory to multiple resources (or 'virtual books')
- Local portals
- Exposing content via the Electronic Medical Record (EMR) and the Computerized Physician Order Entry (CPOE)
- Deep linking to
 - Clinical guidelines
 - Infection control standards
 - Topical searches
 - Continuing professional education



UASOM Digital Library Part of the UAB Lister Hill Library Digital Libraries Program



Quick Search

GO | Advanced Search | MEDLINE

Suggestion Box | Contact Information

A B C D E F G H I J K L M N O P Q R S T U V W XYZ ALL DIGITAL LIBRARY RESOURCE TOPICS A-Z >>

Clinical Drug Reference Patient / Pamily Preventive Medicine Public Health **E-Journals** Search Services Medical News Continuing Education

Professional

Home

Digital Library Resource Topics by Category

Clinical Resources

- General Clinical Resources
- Clinical Guideline Resources
- Clinical Procedure Resources
- Clinical Resource Topics by Symptom
- All Clinical Resource Topics A-Z
- Clinical Resource Topics by Sub-Category:
 - AIDS/HIV
 - Alcohol and Substance Abuse
 - Allergy
 - Anesthesiology
 - Cardiovascular Disorders
 - Connective Tissue Diseases
 - Dermatology
 - **Diabetes Mellitus**
 - Ear, Nose and Throat Disorders
 - **Emergency Medicine**

 - Endocrinology Gastroenterology
 - Genetic Disorders
 - Geriatrics
 - Gynecology

- Musculoskeletal Disorders
- o Nephrology
- Neurology
- o Nutrition
- Obstetrics
- Occupational Medicine
- o Oncology
- Ophthalmology
- Oral Disorders
- Orthopedics
- o Pain Management
- o Pediatrics
- o Psychiatric Disorders
- Respiratory Disorders
- Rheumatology

Learning Library

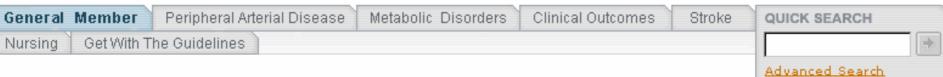
Developed by Communities@Ovid

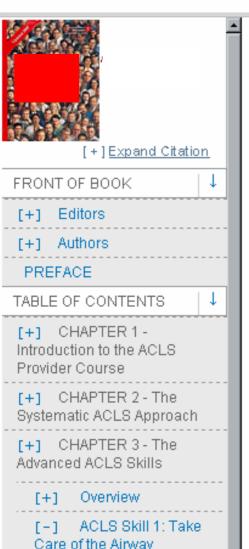




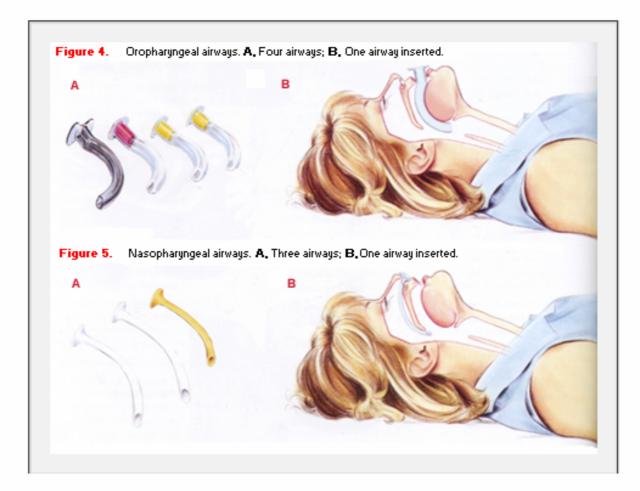








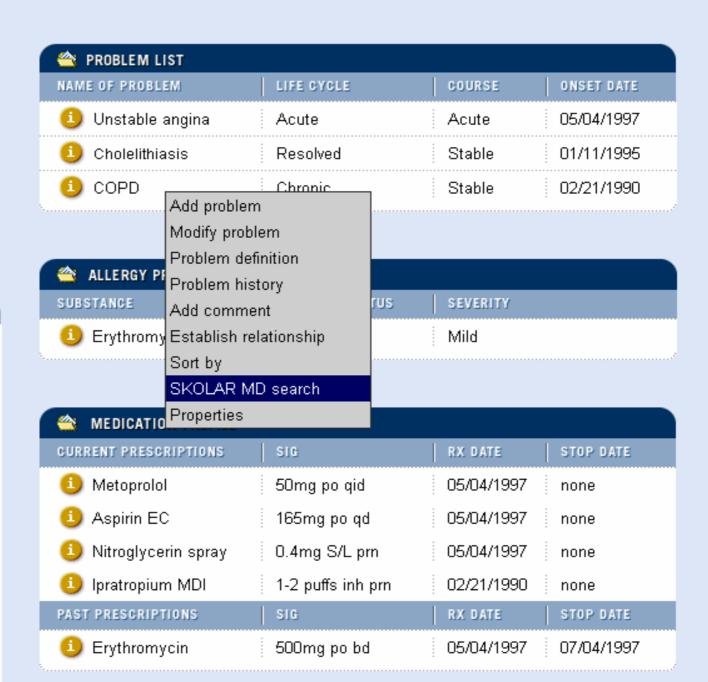
<u>Back</u>



NAME: PATIENT, FRANCIS DOB: 17 October 1926 GENDER: Male

Summary Sheet
Problem List
Allergy Profile
Medication Profile
Laboratory Results
Health Plan

- Immunization
- Patient History
- Demographics
- 🗀 Health Maintenance
 - CLICK FOR DECISION
 SUPPORT



Cross Integration

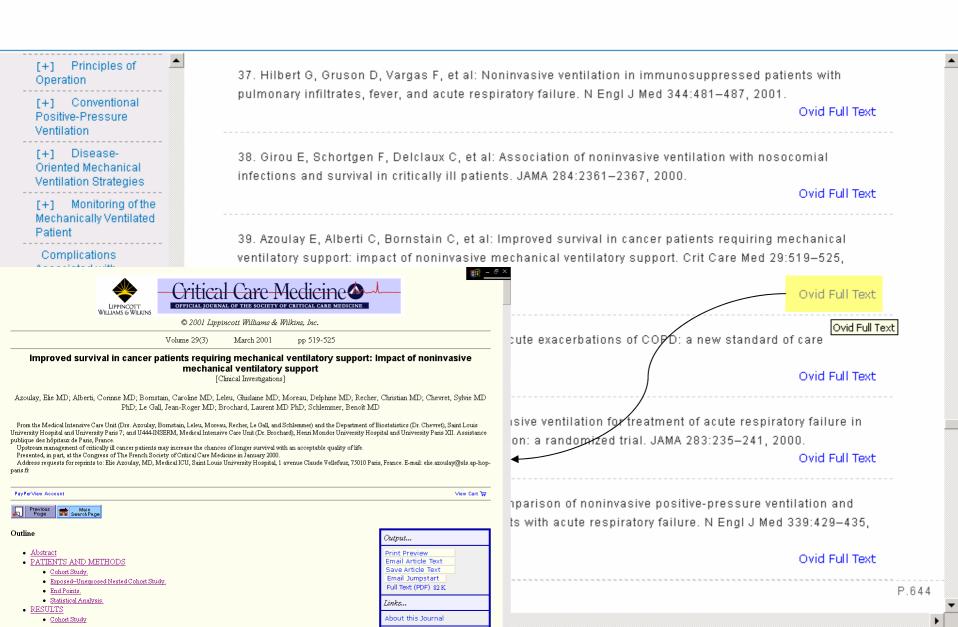
- Unified repository for multiple content types including books, journals, and databases
- Linking between books and other relevant resource using DOIs and other technologies
- Federated searching of books with other content
- Addition of book content to customized portals

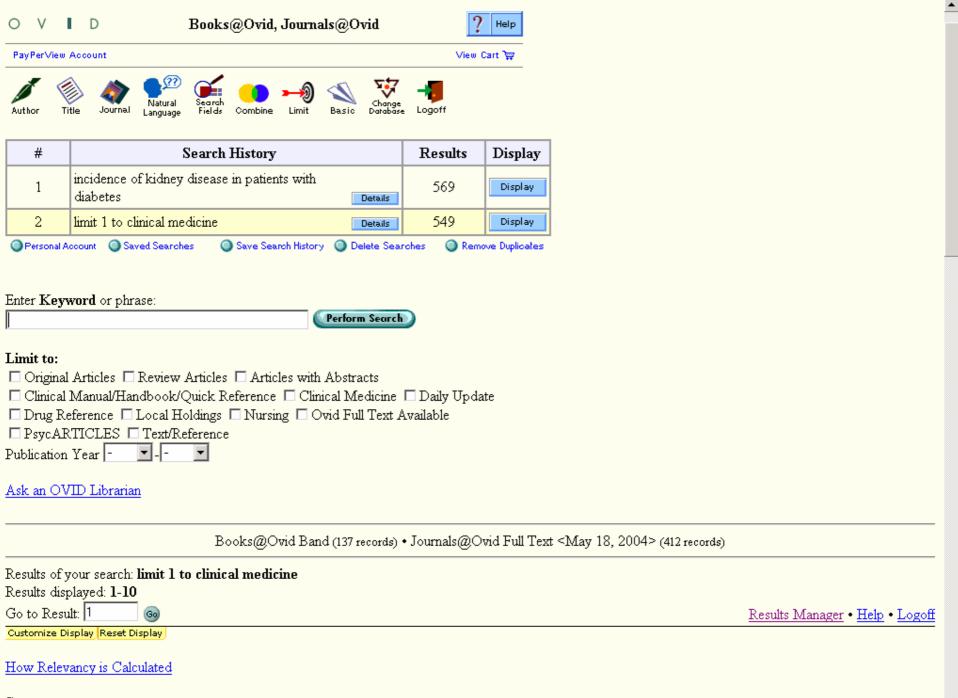
(|| Help?

Irwin & Rippe's Intensive Care Medicine

Editor(s): Irwin, Richard S., Rippe, James M.

5th Edition © 2003 Richard S. Irwin and James M. Rippe. Published by Lippincott Williams & Wilkins View Copyright Statement





Score: ****

Natural Language Searching

- Ask a question or describe a topic in ordinary English.
- Synonym expansion search includes variants and synonyms of terms
 - British spellings, drug names, acronyms and others
- Passage vs. word retrieval
- Relevance ranking



Books@Ovid



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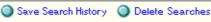




#	Search History	Results	Display
1	Prevention of MI in patients with hypertension	502	Display
2	limit 1 to clinical medicine	468	Display

Personal Account







□ 1. Source: Hurst's The Heart

Editors: Valentin Fuster, R. Wayne Alexander, Robert A. O'Rourke

Publisher: McGraw-Hill, 2001

Chapter: WOMEN AND CORONARY ARTERY DISEASE

Passage: ... on diagnosis begins with discussion of the ways that CAD presents in asymptomatic women and then reviews models to assess CAD risk with attention to gender. Finally, symptomatic CAD in women is discussed, including the management of the women with angina and myocardial infarction. The chapter closes with an update on gender differences in sudden death. PREVENTION: GENDER-SPECIFIC ISSUES It is especially important to identify women at high risk for CAD for possible primary prevention. Young women with coronary artery mortality are more likely to have a history of tobacco exposure, obesity, hypertension, diabetes, early menopause, or, less often, cocaine abuse. 5 These risk factors are also important in predicting nonfatal myocardial infarction. 1 Gender differences are reviewed in ...

Complete Reference . Ovid Full Text Score: ****

□ 2. Source: Oxford Textbook of Clinical Nephrology

Editors: Alex M. Davison, J. Stewart Cameron, Jean-Pierre Gruunfeld, David N.S. Kerr, Eberhard Ritz, Christopher G. Winearls

Publisher: Oxford University Press, 1998 Chapter: Clinical approach to hypertension

Passage: ... over what the target blood pressure should be in treating essential hypertension since it has been suggested that there is a J-shaped curve relating mortality to treated blood pressure. In patients with known ischaemic heart disease the least mortality was seen when the diastolic blood pressure was 85 to 90 mmHg and was signficantly greater when the diastolic blood pressure was less than 85 mmHg (Cruickshank et al. 1987). However, a similar pattern was seen in the 'Heart attack primary prevention in hypertension' study, from which patients with ischaemic heart disease were excluded (Wilhelmsen et al. 1987), and others have also been unable to relate increased mortality at lower diastolic pressures to cardiovascular complications at entry (Staessen et al. 1989). It has

Score: ****

□ 3. Source: Drugs in Pregnancy and Lactation

Editors: Gerald G. Briggs, Roger K. Freeman, Sumner J. Yaffe

Publisher: Lippincott Williams & Wilkins, 2002

Chapter: TIMOLOL

Passage: ... after myocardial infarction, for the prophylaxis of migraine headache, and topically for the treatment of glaucoma

Complete Reference . Ovid Full Text

Complete Reference . Ovid Full Text

Score: ****

□ 4. Source: Novak's Gynecology

Editors: Jonathan S. Berek

Publisher: Lippincott Williams & Wilkins, 2002

Chapter: Primary Care in Gynecology

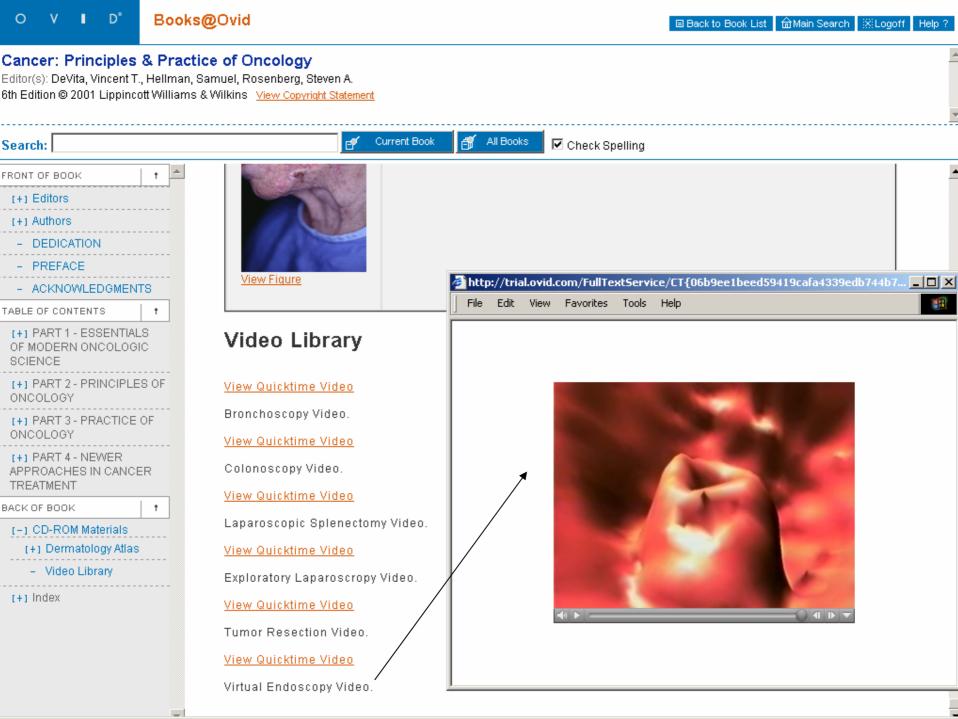
Passage: ... small molecule in biology (33). The dietary influence of cholesterol on atherosclerosis and its relationship to hypertension and cardiovascular events (myocardial infarction and stroke) has been widely debated in both the scientific and lay communities (34). The controversy centers on the influence of dietary cholesterol in risk assessment and prevention of cardiovascular disease (35). Many assume that all cholesterol and fat in the diet have negative health consequences Furthermore, cholesterol metabolism is complex and our understanding in some cases is extrapolated from animal models. The role of cholesterol testing (who,

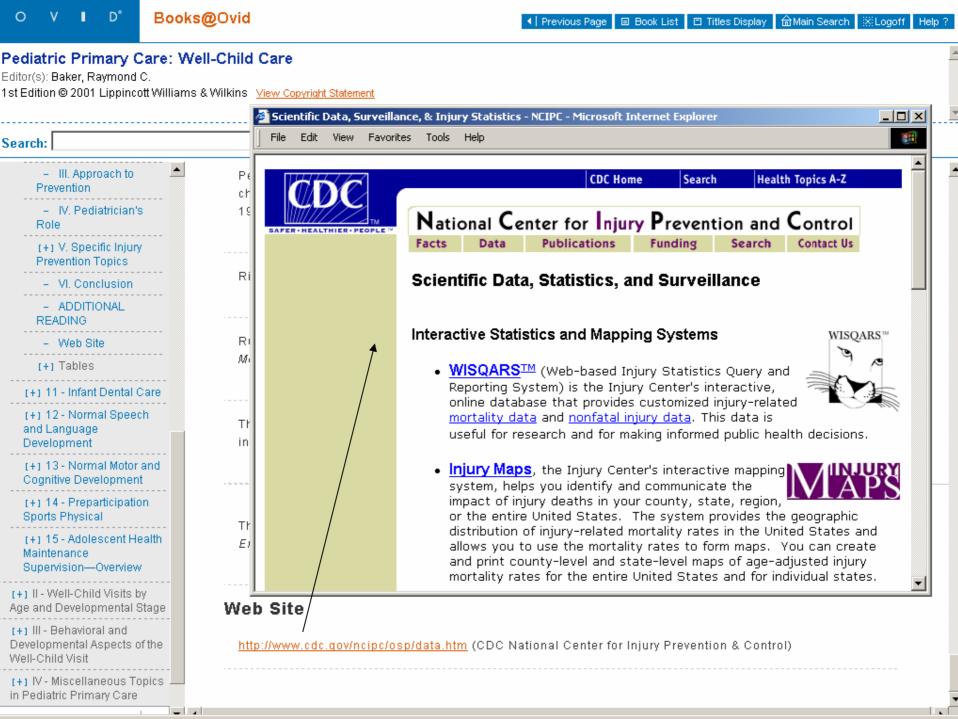
Results Manager • Help • Logoff

and then reviews models to assess CAD risk with attention

Multimedia and Other Novel Content

- Video and sound files
- Linking to cited URLs
- Calculators and drug interaction checkers
- Patient and physician advisories
- Integrated updates





The Future of the E-Book

- Unified repository for content books, journals and beyond
- Personalization of the user experience to support variations in experience, roles, and standards of care
- Dynamic tools for selection, extraction and dissemination
- Beyond portability to expose answers, relationships, and extend research for true work flow integration







Questions?

Thank You!