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## Medical Malpractice: A How To Guide

### Use of Medical Literature in Medical Negligence Actions

**Peter W. Kryworuk**  
*and*  
**Tyler A. Kaczmarczyk**  
Lerners LLP – London

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Ontario Bar Association  
Continuing Legal Education

# **Use of Medical Literature in Medical Negligence Actions**

Peter W. Kryworuk  
Tyler A. Kaczmarczyk  
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### **Introduction**

It is hard to imagine a medical negligence trial without there being reference made to medical literature including textbooks, studies, journal papers, professional guidelines and consensus statements.

As lawyers, we need to know how to use these resources to our advantage. Similarly, we need to know how to defend against the use of medical literature by opposing counsel that may otherwise be very damaging to our case.

The purpose of this paper is to provide a concise review of the general legal principles associated with use of medical literature at trial including the proper use of this literature in both examination in chief and during the cross examination of an opposing party's expert.

### **Using Medical Literature at Trial: General Principles**

#### ***R. v. Valley*, [1986] O.J. No. 77 (C.A.)**

An expert forming an opinion may draw on works of a general nature which form part of the corpus of knowledge with which an expert in a given field would be expected to be acquainted.

#### ***R. v. S.A.B.*, [2003] 2 S.C.R. 678 (S.C.C.)**

An expert is entitled to refer to the sources within his/her field of expertise to explain and support her conclusions.

***R. v. Paul*, [2002] O.J. No. 4733 (C.A.)**

It is well settled that expert witnesses are entitled to rely on hearsay evidence in the formulation of their opinions and it then becomes a question of what weight is attached to such evidence by the trier of fact.

***R. v. D.D.*, [2000] 2 S.C.R. 275 (S.C.C.)**

One of the dangers of expert opinions is that they are derived from academic literature which is unsworn and not available for cross-examination. Though not properly admissible as evidence for the truth of its contents, this material finds its way into the proceedings – if an expert is permitted to give his/her opinion, he/she ought to be permitted to give the circumstances upon which that opinion is based.

***R. v. Lavallee*, [1990] 1 S.C.R. 852 (S.C.C.)**

An expert opinion is admissible if relevant, even if it is based on hearsay evidence. This second hand evidence (hearsay) is admissible to show the information on which the expert's opinion is based, not for the truth of that information. Any deficiencies with the evidence will go to weight rather than admissibility of the opinion.

## **The Use of Medical Literature in Direct Examination**

*a) Generally*

***R. v. Anderson* (1914), 22 C.C.C. 455 (Alta. C.A.)**

An expert medical witness may state in direct examination that he/she bases his/her opinion partly on the opinions of text-writers who are recognized by the medical profession at large as of authority.

The expert who adopts the text-writer's opinion as his/her own, may read the text as expressing his/her own opinion.

The expert may refer to such text-books if to do so will aid in enabling him/her to express an opinion.

*b) Obligation to Disclose Medical Literature Evidence*

**Rule 53.03 of the Rules of Civil Procedure, R.R.O. 1990, REG. 194**

Rule 53.03 (2.1): A report provided for the purposes of subrule (1) or (2) shall contain the following information:

6. The expert's reasons for his or her opinion, including,
  - (iii) a list of every document, if any, relied on by the expert in forming the opinion.

***Philion v. Smith*, [2008] O.J. No. 3412 (S.C.J.)**

Failure to disclose the basis of an opinion creates unnecessary mischief. Judicial resources are wasted and the parties incur unnecessary costs to argue the scope of cross-examination and the proper use of documents that form the basis of an expert's opinion.

Failure to disclose the literature relied on for an expert's opinion results in prejudice to the opposing party, as his/her expert is unable to research/respond to it.

**The Use of Medical Literature in Cross-examination**

***R. v. Marquard*, [1993] 4 S.C.R. 223 (S.C.C.)**

If the expert witness acknowledges a work's authority, parts of it may be read to the witness, and to the extent they are confirmed by the witness, they become evidence.

If the expert witness is unaware of the publication or does not recognize its authority, counsel cannot cross-examine the witness on the work.

***Philion v. Smith*, [2008] O.J. No. 3412 (S.C.J.)**

The proper procedure to cross-examine an expert on texts, case studies, or reports is:

- i. to ask the witness whether he/she knows the relevant work and accepts it as authoritative; and
- ii. to put the relevant passage of the work to the witness and seek the witness' confirmation of it.

## **Practical Tips for Use of Literature in Cross Examinations of Experts**

- Prepare thoroughly; ensure sufficient copies are provided and references properly marked
- Know the medicine/science being referred to in the literature
- Know all of the literature you intend to rely upon including the source, date, the authors and the details of study
- Ensure the literature is authoritative and comes from recognized, peer-reviewed publications
- Ask your own expert to confirm the authoritativeness of the literature you propose to use during cross-examination of the opposing party's expert
- Identify passages that could be harmful to your case and identify a strategy to deal with them
- Consider whether the literature should be marked as an exhibit at trial and, if so, for what purpose
- Use precise language in cross-examination to ensure that it reflects the language used in the relevant literature
- If the expert witness does not accept the literature as authoritative, try the following:
  - If you are able, prove that it is authoritative through other experts (your own and opposing experts). Use the failure of the expert to accept a work as authoritative to discredit the expert where you can demonstrate that the work is authoritative and well recognized by the profession
  - Put the propositions to the witness without reference to the actual paper. Both the witness and the trier of fact will know you are referring to the literature and often the expert will agree with the proposition in whole as in part.

## **Sample of Authoritative Medical Texts and Journals by Subject Area**

\*\* While this list does not purport to be exhaustive, it offers a list of some of the authoritative text and journal sources in some of the primary medical disciplines

### **General / multi-disciplinary journals**

- The Lancet
- The New England Journal of Medicine
- Science
- Journal of Clinical Investigation
- Canadian Medical Association Journal
- Nature
- American Journal of Medicine
- British Medical Journal (BMJ)
- Medicine

<b>RESOURCE BY MEDICAL DISCIPLINE</b>		
<b>Medical Discipline</b>	<b>Texts</b>	<b>Journals</b>
Cardiology	<ul style="list-style-type: none"> <li>- Valentin et al., Hurst's The Heart, 13<sup>th</sup> ed.</li> <li>- Bonow: Braunwald's Heart Disease - A Textbook of Cardiovascular Medicine, 9<sup>th</sup> ed.</li> <li>- Crawford et al, Cardiology, 3<sup>rd</sup> ed.</li> <li>- Bender et al., Oxford American Handbook of Cardiology</li> <li>- Topol, Textbook of Cardiovascular Medicine, 3<sup>rd</sup> ed.</li> <li>- Topol et al., Textbook of Interventional Cardiology, 6<sup>th</sup> ed.</li> </ul>	<ul style="list-style-type: none"> <li>- The American Journal of Cardiology</li> <li>- Canadian Journal of Cardiology</li> <li>- American Heart Journal</li> <li>- Journal of the American College of Cardiology</li> <li>- Paediatric cardiology</li> <li>- Circulation</li> </ul>
Emergency Medicine	<ul style="list-style-type: none"> <li>- Tintinalli's Emergency Medicine, 7<sup>th</sup> ed.</li> <li>- Marx, Rosen's Emergency Medicine, 7<sup>th</sup> ed.</li> <li>- Adams, Emergency Medicine, 1<sup>st</sup> ed.</li> <li>- Parrillo &amp; Dellinger, Critical Care Medicine, 3<sup>rd</sup> ed.</li> </ul>	<ul style="list-style-type: none"> <li>- Emergency Medicine Journal</li> <li>- Academic Emergency Medicine</li> <li>- The Journal of Emergency Medicine</li> </ul>

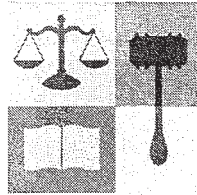
Family Medicine	<ul style="list-style-type: none"> <li>- Rakel, Textbook of Family Medicine, 8<sup>th</sup> ed,</li> <li>- Mosby's Guide to Physical Examination, 11<sup>th</sup> ed.</li> <li>- Oxford Textbook of Primary Medical Care</li> </ul>	<ul style="list-style-type: none"> <li>- The Annals of Family Medicine</li> <li>- Family Practice</li> <li>- The Journal of Family Practice</li> <li>- Canadian Family Physician</li> </ul>
Hematology	<ul style="list-style-type: none"> <li>- Hoffman, Hematology: Basic Principles and Practice, 4<sup>th</sup> ed.</li> <li>- Wintrobe's Clinical Hematology,</li> <li>- Rodak, Hematology: Clinical Principles and Applications, 3<sup>rd</sup> ed.</li> <li>- Carr, Clinical Hematology Atlas, 4<sup>th</sup> ed.</li> <li>- Williams Hematology, 8<sup>th</sup> ed.</li> </ul>	<ul style="list-style-type: none"> <li>- Blood</li> <li>- American Journal of Hematology</li> <li>- British Journal of Hematology</li> <li>- Journal of Hematology and Oncology</li> </ul>
Infectious Disease	<ul style="list-style-type: none"> <li>- Cook, Manson's Tropical Diseases, 22<sup>nd</sup> ed.</li> <li>- Plotkin, Vaccines, 5<sup>th</sup> ed.</li> <li>- Mandell, Douglas and Bennett's Principles and Practice of Infectious Diseases, 7<sup>th</sup> ed.</li> </ul>	<ul style="list-style-type: none"> <li>- International Journal of Infectious Disease</li> <li>- Canadian Journal of Infectious Diseases &amp; Medical Microbiology</li> <li>- The Lancet Infectious Diseases</li> <li>- Journal of Infectious Diseases</li> <li>- Clinical Infectious Diseases (CID)</li> </ul>
Internal Medicine	<ul style="list-style-type: none"> <li>- Longo et al., Harrison's Principles of Internal Medicine, 18<sup>th</sup> ed.</li> <li>- Porter et al., The Merck Manual of Diagnosis and Therapy, 19<sup>th</sup> ed.</li> <li>- Ferri, Practical Guide to the Care of the Medical Patient, 8<sup>th</sup> ed.</li> </ul>	<ul style="list-style-type: none"> <li>- Journal of General Internal Medicine</li> <li>- Journal of Internal Medicine (JIM)</li> <li>- Annals of Internal Medicine</li> <li>- The Canadian Journal of General Internal Medicine</li> <li>- Archives of Internal Medicine</li> </ul>

Neurology	<ul style="list-style-type: none"> <li>- Ropper et al., Adams and Victor's Principles of Neurology, 9<sup>th</sup> ed.</li> <li>- DeJong's the Neurological Examination, 6<sup>th</sup> ed.</li> <li>- Current Therapy in Neurologic Disease, 7<sup>th</sup> ed.</li> </ul>	<ul style="list-style-type: none"> <li>- Canadian Journal of Neurological Sciences</li> <li>- Journal of Neurology</li> <li>- Neurology Journal</li> <li>- Stroke</li> <li>- The Lancet Neurology</li> <li>- Brain: A Journal of Neurology</li> </ul>
Obstetrics/ Gynaecology	<ul style="list-style-type: none"> <li>- Williams Obstetrics, 20<sup>th</sup> ed.</li> <li>- Scott et al., Danforth's Obstetrics and Gynaecology, 9<sup>th</sup> ed.</li> <li>- Rock et al., Te Linde's Operative Gynaecology, 9<sup>th</sup> ed.</li> <li>- Berek &amp; Novak's Gynaecology, 15<sup>th</sup> ed.</li> <li>- DeCherney et al., Current Diagnosis and Treatment: Obstetrics and Gynaecology, 10<sup>th</sup> ed.</li> </ul>	<ul style="list-style-type: none"> <li>- Journal of Obstetrics and Gynaecology Canada</li> <li>- International Journal of Obstetrics and Gynaecology</li> <li>- American Journal of Obstetrics and Gynaecology</li> </ul>
Oncology	<ul style="list-style-type: none"> <li>- Greene, Infections in Cancer Patients (Basic and Clinical Oncology)</li> <li>- Abeloff, Clinical Oncology, 3<sup>rd</sup> ed.</li> <li>- DeVita, Hellman, and Rosenberg's Cancer: Principles and Practice of Oncology (Cancer: Principles &amp; Practice, 9<sup>th</sup> ed.</li> <li>- Gunderson, Clinical Radiation Oncology, 3<sup>rd</sup> ed.</li> </ul>	<ul style="list-style-type: none"> <li>- Journal of Clinical Oncology</li> <li>- Hot Topics in Oncology</li> <li>- Journal of Oncology Practice</li> <li>- British Journal of Cancer</li> <li>- Annals of Oncology</li> </ul>
Ophthalmology	<ul style="list-style-type: none"> <li>- Vaughan &amp; Asbury's General Ophthalmology, 18<sup>th</sup> ed.</li> <li>- The Wills Eye Manual: Office and Emergency Room Diagnosis and Treatment of Eye Disease, 5<sup>th</sup> ed.</li> <li>- Kertes et al, Evidence-based Eye Care: Clinical Trials and Beyond, 4<sup>th</sup> ed.</li> </ul>	<ul style="list-style-type: none"> <li>- Canadian Journal of Ophthalmology</li> <li>- Ophthalmology</li> <li>- Clinical &amp; Experimental Ophthalmology</li> <li>- American Journal of Ophthalmology</li> </ul>



Orthopaedics	<ul style="list-style-type: none"> <li>- Canale et al., Campbell's Operative Orthopaedics, 11<sup>th</sup> ed.</li> <li>- Miller et al., Essential Orthopaedics</li> <li>- Bulstrode et al, Oxford Textbook of Trauma and Orthopaedics, 2<sup>nd</sup> ed.</li> </ul>	<ul style="list-style-type: none"> <li>- Journal of Orthopaedics</li> <li>- Journal of Orthopaedic Surgery</li> <li>- Journal of the American Academy of Orthopaedic Surgeons</li> <li>- The Journal of Orthopaedic &amp; Sports Physical Therapy</li> </ul>
Pediatrics	<ul style="list-style-type: none"> <li>- Kliegman et al., Nelson Textbook of Pediatrics, 19<sup>th</sup> ed.</li> <li>- Zitelli &amp; Davis, Atlas of Pediatric Physical Diagnosis, 5<sup>th</sup> ed.</li> <li>- Burns et al., Pediatric Primary Care, 4<sup>th</sup> ed.</li> <li>- Coran et al., Pediatric Surgery, 7<sup>th</sup> ed.</li> </ul>	<ul style="list-style-type: none"> <li>- Pediatrics</li> <li>- Archives of Pediatrics &amp; Adolescent Medicine</li> <li>- Journal of Adolescent Health</li> <li>- Pediatrics &amp; Child Health</li> </ul>
Psychiatry	<ul style="list-style-type: none"> <li>- Kaufman, Clinical Neurology for Psychiatrists, 6<sup>th</sup> ed.</li> <li>- Kaplan and Sadock's Comprehensive Textbook of Psychiatry, 7<sup>th</sup> ed.</li> </ul>	<ul style="list-style-type: none"> <li>- Canadian Journal of Psychiatry</li> <li>- American Journal of Psychiatry</li> <li>- Archives of General Psychiatry</li> <li>- Biological Psychiatry</li> </ul>
Surgery	<ul style="list-style-type: none"> <li>- Gray's Anatomy, 40<sup>th</sup> ed.</li> <li>- Sellke et al., Sabiston and Spencer's Surgery of the Chest, 8<sup>th</sup> ed.</li> <li>- Cameron, Current Surgical Therapy, 10<sup>th</sup> ed.</li> </ul>	<ul style="list-style-type: none"> <li>- American Journal of Surgery</li> <li>- Annals of Surgery</li> <li>- Canadian Journal of Surgery</li> <li>- Journal of the American College of Surgeons</li> </ul>
Urology / Nephrology	<ul style="list-style-type: none"> <li>- Taneja, Complications of Urologic Surgery, 4<sup>th</sup> ed.</li> <li>- Wein, Campbell-Walsh Urology, 10<sup>th</sup> ed.</li> <li>- Graham &amp; Keane, Glenn's Urologic Surgery, 7<sup>th</sup> ed.</li> </ul>	<ul style="list-style-type: none"> <li>- The Journal of Urology</li> <li>- Urology</li> <li>- Journal of the American Society of Nephrology</li> <li>- Nephrology</li> <li>- Pediatric Nephrology</li> </ul>

# Medical Research: Tips and Techniques



Presented by Peter W. Kryworuk

March 29, 2012

OBA Conference-Medical Malpractice: A  
How-to Guide

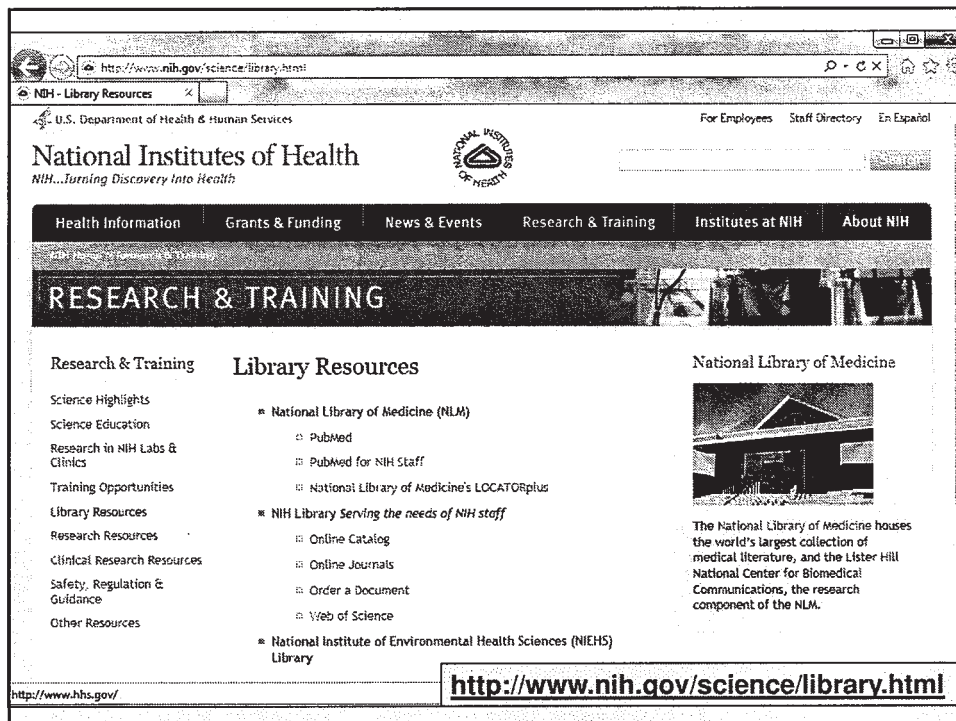
## Resources Available to Research a Medical Condition/Disease

In order to get some general background information about a particular condition or disease consider:

### **National Institute of Health**

<http://www.nih.gov/>

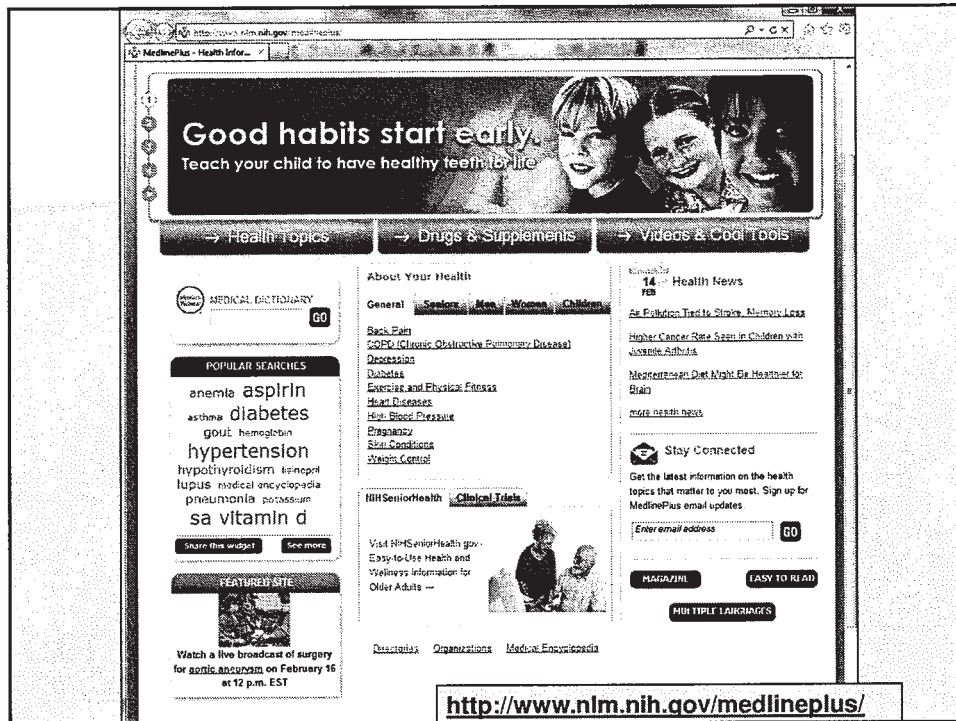
- part of the U.S. Department of Health and Human Services, it is a leading US-based medical research agency
- made up of 27 Institutes and Centers, each with a specific research agenda
- i.e. National Cancer Institute, National Institute of the General Medical Sciences
- extensive catalogue of on-line Books and Journals – MANY AVAILABLE FREE OF CHARGE
- Some books and Journals are available only with a subscription to the source journal
- Listing of on-line databases to conduct further searching
- Subject guide to narrow search parameters i.e. Drug Information Resource Guide



## Medline Plus

[www.medlineplus.gov](http://www.medlineplus.gov) or  
[www.nlm.nih.gov/medlineplus/medlineplus.html](http://www.nlm.nih.gov/medlineplus/medlineplus.html)

- Medline Plus has good health information from the National Library of Medicine
- Generally up-to-date authoritative information
- Extensive information from NIH on over 800 diseases and conditions
- Free of Charge



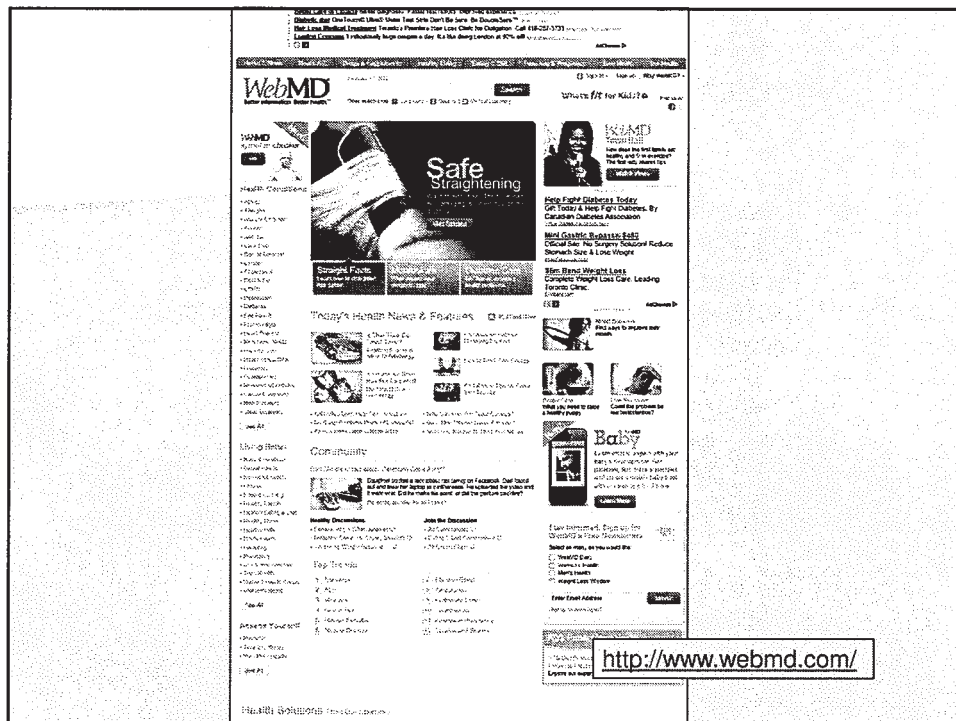
## Medscape

<http://emedicine.medscape.com/>

- Online clinical knowledge database affiliated with WebMD
- One-time free registration
- Database of various diseases, drugs, procedures
- Searchable database of 6,800 articles, commentaries, professional medical content
- Listing of current medical news/media coverage







## Medicine Net

<http://www.medicinenet.com/script/main/hp.asp>

- Online health information providing easy to read, in depth, authoritative medical information for consumers
- Free of charge
- Medical dictionary, slideshows, database of medical conditions

# Medical Research Council of Canada

[www.hc-sc.gc.ca](http://www.hc-sc.gc.ca)

- Science and Research page and research Diseases and Health Conditions
- Provides information on research and science being conducted by Health Canada including research in the following areas:
  - food inspection
  - pharmaceuticals regulation
  - disease tracking
  - compliance testing of consumer products
- Free access to general public

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Science and Research at Work for You

Scientific expertise contributes to decisions about health standards, health policy, regulations and health programs. It also allows Health Canada to:

- Anticipate and respond to health risks posed by diseases, environmental hazards, food and other threats;
- Verify that the drugs, food, medical devices and other therapeutic products available to Canadians are safe and effective; and
- Provide information to Canadians to help them make informed decisions about their health.

What Information is Available?

In this section you can read examples of Health Canada's science and research activities, explore opportunities for funding and professional development and find out about our partnerships and how we invest in research. You can also access reports on publications related to the department's scientific activities and discover the faces and places that make science happen at Health Canada.

Did you know?

Health Canada's history is filled with stories of scientific accomplishments. Did you know we played a role in developing a polio vaccine, as well as advancing the understanding of juvenile diabetes?

For more information  
Contact Science and Research Resources

<http://www.hc-sc.gc.ca/sr-sr/index-eng.php>

Date Modified: 2011-01-10  
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## UptoDate

[www.uptodate.com](http://www.uptodate.com)

- Evidence-based knowledge system authored by physicians
- Editorial board reviews content
- Some free access for the general public
- Subscription access for hospitals and physicians – approx. \$500 annual subscription
- May obtain information through an expert if they have access

The screenshot displays the UptoDate website. At the top, there's a navigation bar with links like 'About UptoDate', 'For Clinicians', 'For Patients', 'For Institutions', 'For Educators', and 'Subscriptions/News'. Below this, a banner features a quote from a Harvard researcher: "The data suggests the use of computerized tools such as UpToDate enable better decisions, better outcomes and better care." followed by a quote from Ashish Jha, M.D., M.P.H. at Harvard.

The main heading is "Helping Clinicians Provide the Best Patient Care". Below it, a text block states: "UpToDate® is a clinical decision support system that helps clinicians throughout the world provide the best patient care. We use current evidence to answer clinical questions quickly and easily at the point of care. This saves clinicians time, improves outcomes and lowers health care costs."

A search bar is prominently displayed with the text "Search over 9,000 topics now" and a dropdown menu showing "All Topics". Below the search bar are buttons for "Learn More", "View Demo", "Read a Topic", and "See All Topics".

On the right side, there's a list of "Specialties Included with your subscription": Adult and Pediatric Emergency Medicine, Adult Primary Care and Internal Medicine, Allergy and Immunology, Card-Thoracic Medicine, Dermatology, Endocrinology and Diabetes, Family Medicine, Gastroenterology and Hepatology, General Surgery, Geriatrics, Hematology, Hospital Medicine, Infectious Diseases, Nephrology and Hypertension, Neurology, Obstetrics, Gynecology and Women's Health, Oncology, Pediatrics, Psychiatry, Pulmonary, Critical Care and Sleep Medicine, and Rheumatology. A note at the bottom of this list says "These specialties are in development".

Below the search bar, there's a section titled "What subscribers have to say about UpToDate" featuring a quote from John Agar, MD: "The single best, most user-friendly no-nonsense, readable and short, to-the-point text available." and a logo for "HONOLULU HONOLULU HONOLULU".

At the bottom, there's a footer with copyright information: "© 2012 Lippincott Williams & Wilkins. All rights reserved." and a URL: "http://www.uptodate.com".



# Searching for Authoritative Literature

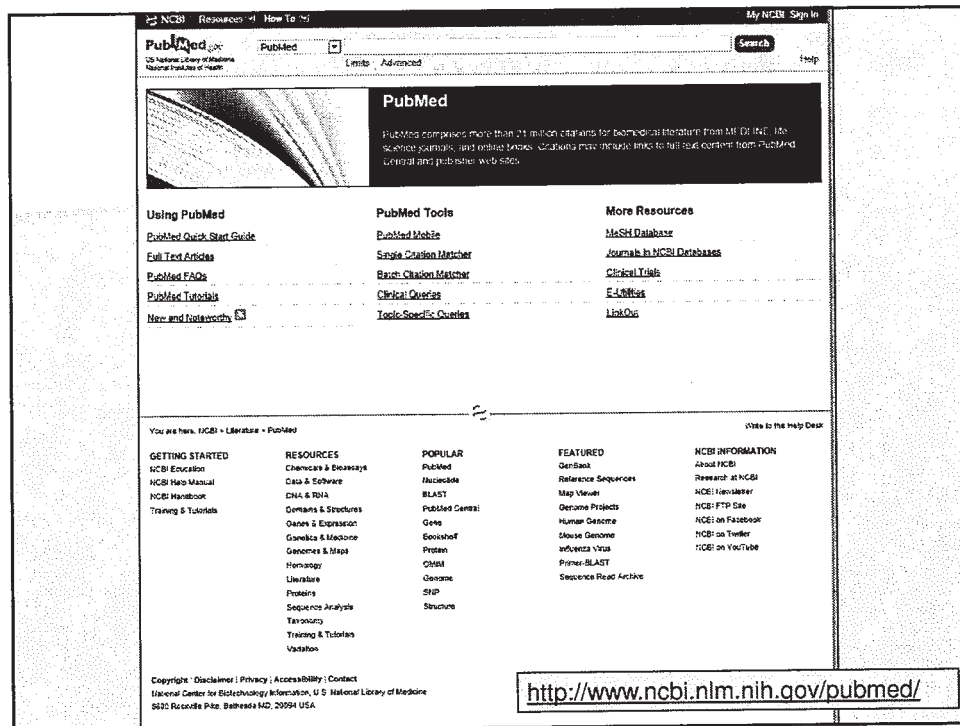
## University Medical School Library Catalogues

- Library catalogues UWO, U of T, McMaster, Ottawa, Queen's
  - <http://www.lib.uwo.ca/>
  - <http://onesearch.library.utoronto.ca/>
  - <http://library.mcmaster.ca/>
  - <http://www.biblio.uottawa.ca/html/index.jsp?lang=en>
  - <http://library.queensu.ca/>
- Free online access to databases and journals to alumni with privileges
- Remote online access available

## PubMed

[www.ncbi.nlm.nih.gov/pubmed/](http://www.ncbi.nlm.nih.gov/pubmed/)

- Premier database in Health and Life Sciences
- US National Library of Medicine - over 18 million references from 5,500 worldwide journals
- Updated daily
- Medline is a primary component of PubMed
- Searching is free, but there is a charge for some full text copies
- Search by author, journal, subject
- Single Citation Finder is a unique tool to narrow search parameters when you have incomplete search information



## Cochrane Database of Systemic Reviews

<http://www.cochrane.org/cochrane-reviews>

- Database offers free access to abstracts and where available, plain language summaries of all Cochrane systematic reviews
- Over 20 years ago Cochrane started identifying every clinical trial and undertook a systemic review of each trial
- Follow a rigorous protocol to evaluate trials
- There is a cost for this service

## **Cinahl**

<http://www.ebscohost.com/academic/cinahl-plus-with-full-text/>

- Nursing generated database
- Covers over 6,500 journals including Cochrane systemic reviews
- Fee for subscription

## **NHS Athens**

[www.evidence.nhs.uk](http://www.evidence.nhs.uk)

- UK database, National Institute for Health and Clinical Excellence
- Access to many online journals
- Advanced searches of many healthcare databases including: CINAHL, MEDLINE, COCHRANE and other leading medical databases
- Restricted access and paid subscription required

## **Further Sources of Medical Information**

### **Other Databases**

- NHS Centre for Reviews and Dissemination (CRD) Databases
  - <http://isiknowledge.com/WOSEvidenceUpdates>
- health-evidence.ca (Public Health)
- TRIP Database (Turning Research Into Practice)

### **Evidence-Based Clinical Practice Guidelines**

- Best Practice Guidelines (Registered Nurses Association of Ontario)
- CMA Infobase: clinical practice guidelines -- Canadian Medical Association
- National Guideline Clearinghouse (United States)
- National Institute for Health and Clinical Evidence (NICE - UK)
- Practice Guidelines (Program in Evidence-Based Care) (Cancer Care Ontario)