

Medicines Information Resources

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❖ The efficient use of drug information (DI) is an important skill for all pharmacists to have regardless of their practice site. In all pharmacy settings, pharmacists are recognized as drug experts and as providers of DI. It is imperative, therefore, that pharmacists know how to provide accurate and complete responses to DI requests.

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- ❖ Drug information may be patient-specific, or developed for a given patient population, such as development of therapeutic guidelines, communication of a national quality initiative, coordination of an adverse drug event reporting and monitoring program, publication of newsletters, or updating websites.
 - ❖ Keeping current with DI resources is challenging for the clinician because of the vast amount and the variable quality of available resources.

Medicines information

- ❖ Is current, critically examined, relevant data about medicines and medicine use in a given patient or situation.

Primary literature

❖ Is the most up-to-date resource available to the clinician and consists of journal articles reporting original research, new ideas, or opinions. These resources are useful for research, education, and current awareness. Not all articles found in journals are considered primary literature; for example, review articles that summarize the literature are classified as tertiary resources.

Advantages: Primary sources directly address your topic and often provide information that is unavailable elsewhere.

Disadvantages: Although publication of an article in a well-known, respected journal enhances the credibility of information contained in an article, this does not guarantee that the article is accurate.

Article types

- Clinical Trial
- Review
- Customize ...

Format: Summary



Article types

- Randomized Controlled Trial
- Research Support, American Rec
Reinvestment Act
- Research Support, N.I.H., Extram
- Research Support, N.I.H., Intrame
- Research Support, Non-U.S. Gov
- Research Support, U.S. Gov't, No
- Research Support, U.S. Gov't, P.H
- Research Support, U.S. Governm
- Retracted Publication
- Retraction of Publication
- Review
- Scientific Integrity Review
- Systematic Reviews
- Technical Report
- Twin Study

Text availabili

- Abstract
- Free full text
- Full text

Publication dates

- 5 years
- 10 years
- Custom range

Species

- Humans
- Other Animals

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[E-Utilities \(API\)](#)

[LinkOut](#)

Secondary resources

❖ Include indexing and abstracting systems that organize and provide easy retrieval of primary resources. Indexing systems include the article citation, with or without access to the abstract; some include a link to the full-text article. Abstracting systems provide not only the citation but also the abstract and often a link to the full-text article. Examples of secondary resources include MEDLINE (though PubMed). Proper training is required for efficient use of these resources.a

Advantages: Secondary sources provide a variety of expert perspectives and insights. Also, peer review usually ensures the quality of sources such as scholarly articles. Finally, researching secondary sources is more efficient than planning, conducting, and analyzing certain primary forms of research.

Disadvantages: Because secondary sources are not necessarily focused on your specific topic, you may have to dig to find applicable information. Information may be colored by the researcher's own bias or faulty approach. Also, secondary sources can become outdated (in some fields more quickly than in others).

Article types

Clinical Trial

Review

Customize ...

Text availability

Abstract

Free full text

Full text

Publication dates

5 years

10 years

Custom range...

Summary 20 per page Sort by Most Recent

Send to

Results: 1 to 20 of 381

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[Telomerase activity and telomere length in Daphnia](#)

1. Schumpert C, Nelson J, Kim E, Dudycha JL, Patel RC.

PLoS One. 2015 May 11;10(5):e0127196. doi: 10.1371/journal.pone.0127196. eCollection 2015.

PMID: 25962144 Free Article

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[Functional Effect of Pim1 Depends Upon Intracellular Localization in Human Cardiac Progenitor Cells](#)

2. Samse K, Emathingier J, Hariharan N, Quijada P, Ilves K, Völkens M, Ormachea L, De La Torre A, Orogo AM, Alvarez R, Din S, Mohsin S, Monsanto M, Fischer KM, Dembitsky WP, Gustafsson AB,

Tertiary resources

- ❖ Are sources that condense and summarize data from the primary literature. These include not only textbooks and compendia but also electronic databases (e.g., Micromedex, Lexicomp) and review articles. The best tertiary resources are written by experts in the field and are peer reviewed. If the tertiary resource is not current or comprehensive, a secondary resource should be consulted to locate primary literature on the topic. However, some questions can only be answered by using tertiary sources.

❖ The important questions to ask include:

“What are the qualifications of the evaluating author(s) and/or editor(s)?”,

“What is the timeliness of the information?”,

“Are the citations appropriate?”, and

“Is the publication free from potential bias?” Content should be considered as well.

Advantages: They offer a quick, easy introduction to your topic. They may point to high-quality primary and secondary sources.

Disadvantages: Because of their distance, they may oversimplify or otherwise mislead a topic. By rehashing secondary sources, they may miss new insights into a topic.

Literature Types

Primary Sources

Publications that present original research in its original form (has not been interpreted or condensed or otherwise “repackaged” by other writers), are considered **primary sources**.

They present new thinking/discoveries/results and unite them with the existing knowledge base.

Are often peer-reviewed.

- Conference Papers
- Monographic Series
- Technical reports
- Thesis
- Dissertations
- Journal Articles
- Patents

Secondary Sources

Publications ABOUT primary literature are considered secondary sources. They generalize, analyze, interpret, evaluate, or otherwise “add value” to the original information, or which simplify the process of finding and evaluating the primary literature.

Can be printed in peer-reviewed publications.

- Review articles
- Indexes
- Bibliographies

Tertiary Sources

Tertiary sources compile or digest information from primary or secondary sources that become widely accepted.

They provide a broad overview of a topic, or data, already proven facts, and definitions, often presented in a convenient form.

They provide no new information

- Textbooks
- Encyclopedias
- Fact books
- Guides
- Handbooks

EVALUATING DI RESOURCES

Secondary DI Resources

- ❖ provide a rapid method by which to search the primary literature.
- ❖ lag time between the time from article publication and the time to indexing into a secondary resource. the user must keep in mind that a search may not produce the latest information on the search subject. The user must become familiar with the structure and terminology of these databases to search effectively.

Tertiary DI Resources

- ❖ Tertiary references often are the starting point to identify information because they typically provide a fairly complete overview of information on a specific topic. These references are convenient, easy-to-use, and familiar to most pharmacists.

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- ❖ Their most significant limitation is the lag time for publication. Other limitations may include author bias, inaccurate information, or lack of author expertise. Therefore, it is important for readers to critically evaluate tertiary references.
 - ❖ The important questions to ask include, “What are the qualifications of the evaluating author(s) and/or editor(s)?”, “What is the timeliness of the information?”, “Are the citations appropriate?”, and “Is the publication free from potential bias?” Content should be considered as well.

Tertiary Sources

ADVANTAGES	DISADVANTAGES
Easy access	Lag Time
Ease of use	Outdated
Concise	Incomplete information
Relatively inexpensive	Incorrect interpretation

Secondary Sources

ADVANTAGES	DISADVANTAGES
Rapid access to the primary literature	Lag time
Generally high standard journals	Command language varies
Ability to perform complex searches	Proficient search skills are needed
Routine updates on selected topics (alerts)	Can be expensive

Primary Sources

ADVANTAGES	DISADVANTAGES
Original data	Large volume data
Unbiased information	Time consuming

Summary...

- ❖ There are three types of information resources in biomedical literature: primary, secondary, and tertiary resources.
- ❖ Tertiary resources provide information that has been filtered and summarized by an author or editor to provide a quick and easy summary of a topic.
- ❖ Secondary resources are mainly in the form of searchable database that enables location and retrieval of primary or tertiary resources.
- ❖ There are several types of publications considered primary, including controlled trials, cohort studies, case series, and case reports.

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- ❖ Knowing the most appropriate resource for information retrieval is the first step in the provision of quality drug information.
 - ❖ Secondary electronic resources will index and possibly abstract information from different types and numbers of journals, meetings, publications, or sources; therefore in order to perform a comprehensive search for an article, multiple resources must be used.
 - ❖ Drug or health information retrieved from Internet-based or online media needs to be evaluated for its accuracy, comprehensiveness, and recent update.

To be Continued,,,

Thank you,,,