

HOW TO EVALUATE A JOURNAL (BASIC TERMS)?

1. Impact factor
2. Aggregate Impact Factor
3. Eigen factor Score
4. Article Influence Score
5. Immediacy Index
6. Journal Cited Half-Life

JOURNAL IMPACT FACTOR

- The **journal Impact Factor** is the average number of times articles from the journal published in the past two years have been cited in the JCR year (Journal Citation Report).
- The **Impact Factor** is calculated by dividing the number of citations in the JCR year by the total number of articles published in the two previous years.
- An Impact Factor of 1.0 means that, on average, the articles published one or two year ago have been cited one time. An Impact Factor of 2.5 means that, on average, the articles published one or two year ago have been cited two and a half times.
- The citing works may be articles published in the same journal. However, most citing works are from different journals, proceedings, or books indexed by Web of Science

← اي شخص يده يعمل (publication) لازم يعتمد على الـ
(journal impact factor)

هية كم عدد المرات لـ (articles) → (journal impact factor) →
مبين ، ان عمل الها (citation)
(in the past two years)

← الـ (journal impact factor) كيف ~~بنعملها~~ بنعملها (calculation)

$$\text{Journal Impact factor} = \frac{(\text{number of citations in JCR year})}{(\text{total number of articles published in two previous years})}$$

EXAMPLE

Cites in 2013 to items published in:	2012 =	754		Number of items published in:	2012 =	108
	2011 =	857			2011 =	100
	Sum:	1611			Sum:	208

Calculation:	<u>Cites to recent items</u>	<u>1611</u>	=	7.745
	Number of recent items	208		

↔
← الـ (articles) الي صار لها (citation) في (journal)
معيّنة في عام (2012) = (754)

← في (2011) = (857)

← المجموع = (1611)

← عدد الـ (items) الي صار لها (published)

في (2012) = (108)

(2011) = (100)

← المجموع = (208)

$$\text{journal impact factor} = \frac{1611}{208} = \frac{(\text{cites to recent items})}{(\text{Number of recent items})} = \text{بنقاسم} *$$

TOP GENERAL JOURNALS IMPACT FACTOR

- ❖ Publications in high impact journals (journals impact) ← كل ما كانت الـ
 اعلى كل ما كان افضل
 انه تنشر به هذا
 الـ (journals)
 لانه يكون اعداد الـ (Citation)
 فيها عالية .
- The New England Journal of Medicine (impact factor: 79.258)
 - Lancet (London, England) (impact factor: 53.254)
 - Chemical Reviews (impact factor: 52.613)
 - JAMA - Journal of the American Medical Association (impact factor: 47.661)
 - Nature Reviews Cancer (impact factor: 42.784)
 - Nature Reviews Immunology (impact factor: 41.982)
 - Nature (impact factor: 41.577)
 - Science (New York, N.Y.) (impact factor: 41.058)
 - Chemical Society Reviews (impact factor: 40.182)
 - Nature Materials (impact factor: 39.235)

TOP JOURNALS BY CATEGORY – MEDIAN IMPACT FACTOR

Rank	Journal category	Number of journals	Median impact factors
1	Cell & Tissue Engineering	24	3.56
2	Allergy	27	3.45
3	Cell biology	190	3.3
4	Oncology	222	3.186
5	Immunology	155	3.185
6	Rheumatology	31	3.08

JOURNALS BY NUMBER

	Category	Journals	Median impact factor
1	Economics	353	1.11
2	Mathematics	309	0.7
3	Biochemistry and Molecular biology	292	2.9
4	Material science , multidisciplinary	285	1.95
5	Neuroscience	261	3.04
6	Pharmacology and Pharmacy	261	2.48
7	Engineering, electronics	260	1.8

← ممكن الـ (Impact factor) بحسبها لكل (journals)
 ← او ممكن بحسبها عن طريق انه نأخذ الـ (Average) والـ
 بحسب الـ (median impact factor) .

AGGREGATE IMPACT FACTOR

- The aggregate Impact Factor for a subject category is calculated the same way as the Impact Factor for a journal, but it takes into account the number of citations to all journals in the category and the number of articles from all journals in the category.

- An aggregate Impact Factor of 1.0 means that that, on average, the articles in the subject category published one or two years ago have been cited one time.

اناهون عم احكي عنك (articles) الوجوده
بكل ال (journals) ← (in that category)

- The median Impact Factor is the median value of all journal Impact Factors in the subject category.

← بـ الـ (journals Impact factor) احنا بنأخذ بعين الاعتبار فقط الـ (citation) لهاي الـ (articles) بـ (journals) مهينة

← لكن بـ الـ (Aggregate Impact factor) احنا بنأخذ

بعين الدء اعتبار مسن الـ (citation) لي (articles) بـ (journals) مهينة (8) بـ الـ (Aggregate Impact factor)

احنا بنأخذ بعين الدء اعتبار
number of citations
to all journals in the
category

number of articles
from all journals in the
category

AGGREGATE IMPACT FACTOR

- The Aggregate Impact Factor mitigates the importance of absolute citation frequencies. It tends to discount the advantage of large journals over small journals because large journals produce a larger body of citable literature.
- For the same reason, it tends to discount the advantage of frequently issued journals over less frequently issued ones and of older journals over newer ones.
- **Because the journal impact factor offsets the advantages of size and age, it is a valuable tool for journal evaluation.**

ما يعطينا (Aggregate Impact factor) ← الـ

Something accurate like (journal impact factor)

valuable tool for journal evaluation ← (journal impact factor) احنا بنعتبره ✕

الفاصل الثاني في
(evaluate journal)

③ EIGEN FACTOR SCORE

The Eigen factor Score calculation is based on the number of times articles from the journal published in the past five years have been cited in the JCR year, but it also considers which journals have contributed these citations so that highly cited journals will influence the network more than lesser cited journals. References from one article in a journal to another article from the same journal are removed, so that Eigenfactor Scores are not influenced by journal self-citation. All else equal, journals generating higher impact to the field have larger Eigen factor scores.

A journal's Eigen factor score is our measure of the journal's total importance to the scientific community.

↑ journal
Impact

↑ Eigen factor
score

لأنه عدد المرات التي صار لها (citation) (in the past 5 year) يكون كبيرة

EIGEN FACTOR SCORE

- With all else equal, a journal's Eigen factor score doubles when it doubles in size. Thus a very large journal such as the Journal of Biological Chemistry which publishes more than 6,000 articles annually, will have extremely high Eigen factor scores simply based upon its size.
- Eigen factor scores are scaled so that the sum of the Eigen factor scores of all journals listed in Thomson's Journal Citation Reports (JCR) is **100**. In 2006, the journal Nature has the highest Eigen factor score, with a score of 1.992. The top thousand journals, as ranked by Eigenfactor score, all have Eigenfactor scores above **0.01**.

کتاب عندهم
بشكل عام
ن

TOP EIGEN FACTOR SCORE JOURNALS (GENERAL)

Rank	Journal	Category	1 st Published
1) 1.56	Nature (2012)	Molecular And Cell Biology	1869
2) 1.54	Proceedings Of The National Academy Of Sciences Of The United States Of America (2012)	Molecular And Cell Biology	1914
3) 1.35	Science (2012)	Molecular And Cell Biology	1880
4) 1.04	Physical Review Letters (2012)	Physics And Chemistry	1958
5) 0.836	Journal Of The American Chemical Society	Physics And Chemistry	1880

TOP EIGEN FACTOR SCORE JOURNALS (PHARMACOLOGY & PHARMACY)

Sub Rank	Name Of Journal	Sub Category	1 st Published
1 (.093)	Antimicrobial Agents And Chemotherapy (2015)	Infectious Diseases	1953
2 (.063)	Nature Reviews Drug Discovery (2015)	Molecular And Cell Biology	Na
3 (.057)	Journal Of Controlled Release (2015)	Pharmacology	1984
4 (.054)	Journal Of Antimicrobial Chemotherapy (2015)	Infectious Diseases	1975
5 (.05)	Neuropsychopharmacology (2015)	Neuroscience	1987

ARTICLE INFLUENCE SCORE

- The Article Influence determines the average influence of a journal's articles over the first five years after publication.
- It is calculated by dividing a journal's Eigen factor Score by the number of articles in the journal, normalized as a fraction of all articles in all publications.
- Article Influence scores are normalized so that the mean article in the entire Thomson Journal Citation Reports (JCR) database has an article influence of 1.00.
- In 2016, the top journal by Article Influence score is Annual Reviews of Immunology, with an article influence of 27.454. (This means that the average article in that journal has twenty seven times the influence of the mean journal in the JCR.)
- The mean Article Influence Score is 1.00. A score greater than 1.00 indicates that each article in the journal has above-average influence. A score less than 1.00 indicates that each article in the journal has below-average influence.

ماذا يعني ليه انه

2 ago

← ال (Eigen factor) بحسبنا كم ال (article) صار لها
(in the last 5 years) ← (citation)

← ال (Article influence score) :-

هون من اسمها (influence) مهنة بد ها تدرسي
تأثير ال (article) الموجوده بـ ال (journals) خلال
أول (5 سنوات) (after publication)

← يعني شو تأثيرها خلال او 5 سنوات (after publication)
من (in the last 5 years)

← هون احنا بندرس (average influence of journals articles)

← كيف بنعمل (calculation) ؟!

عن طريق انه احنا نقسم ال

$$= \frac{\text{journal's Eigen factor score}}{\text{number of articles in the journal}}$$

← لانه ال (Eigen factor score) يعطينا ال (score) خلال ال
(in the last 5 years) ← (each 5 years)

IMMEDIACY INDEX

معنى :-

(The Immediacy Index) is the average number of times an article is cited in the year it is published.

هاي معنية (journal)

❖ The journal Immediacy Index indicates how quickly articles in a journal are cited.

هاي لكل
ال (journal)
الي يكون تابعة

❖ The (aggregate Immediacy Index) indicates how quickly articles in a subject category are cited.

(for a specific subject)

JOURNAL CITED HALF-LIFE

- The median age of the articles that were cited in the JCR year.
- Only journals cited 100 or more times in the JCR year have a cited half-life.
- A higher or lower cited half-life does not imply any particular value for a journal. For instance, a primary research journal might have a longer cited half-life than a journal that provides rapid communication of current information.
- Cited half-life figures may be useful to assist in collection management and archiving decisions.
- Dramatic changes in cited half-life over time may indicate a change in a journals format.
- Studying the half-life data of the journals in a comparative study may indicate differences in format and publication history.

← يعني حتى اشوف انه في عنا (half-life) لـ (journals)
معيّنه ، لازم يكون صار لها (citation) . 100 مره او أكثر من
100 مره ← هذا حتى احكي انه الـ (journal) لها
(cited half-life)

← يعني اذا حكت انه وحده (journal) لها (cited half-life)
عالي ، او الـ (cited half-life) لها قليل هذا الدّ شيء ما يعطينا
(particular value) لي (journal) معيّن

HOW TO EVALUATE A JOURNAL (MORE TERMS)?

- ❖ SCImago Journal Rank Indicator (SJR) = Scientific Journal Ranking.
- ❖ Source Normalized Impact per Paper (SNIP).
- ❖ h index.

HOW TO EVALUATE A JOURNAL (MORE TERMS)?

❖ The SCImago Journal Rank (SJR):

- is a prestige metric based on the idea that "all citations are not created equal". With SJR, the subject field, quality and reputation of the journal (ranking of Journal) has a direct effect on the value of a citation.
- Note: Percentage of journal self citations limited to a maximum of 33%.

❖ Source Normalized Impact per Paper (SNIP):

- Measures contextual citation impact by weighting citations based on the total number of citations in a subject field. The impact of a single citation is given higher value in subject areas where citations are less likely, and vice versa.
- Note: a measure where context is given importance in citations: Likelihood of citation.

HOW TO EVALUATE A JOURNAL (MORE TERMS)?

❖ h Index:

- Expresses the journal's number of articles (h) that have received at least h citations.
- It quantifies both journal scientific productivity and scientific impact and it is also applicable to scientists, departments and others.
- h measure is highly dependent on the 'academic age' of a researcher as h grows as citations accumulate.

↑ h-Index, ↑ (Citation)

(SJR)

← يعني سمعة الـ (Journal) ، الـ (quality) لـ (data)
 الي بتنشرها الـ (Journal) ، بتلعب دور مهم
 (direct effect) على الـ (value) تبع الـ (Citation)

(SNIP)

← هذا بيعطي (weighting) لـ (citations) بالاعتماد على
 (total number of citations in a subject field)
 يعني كم عدد الـ (citations) الي سجلت من الـ (chemistry field)
 من كل (journals)
 كم عدد الـ (citations) الي صارت مثلا لـ (Pharmacy field)
 لكن هون لانه اسمها (per paper) بيعطي (value)
 (for each paper)

← يعني كل ما كان الواحد بيعمل (citation) لـ (journal)
 الـ (impact factor) الها اعلى ، كل ما كان هذا الـ
 (citation) قيمة افضل

CLASSIFICATION OF MEDICAL INFORMATION (SECONDARY RESOURCES)

example
of
secondary
resources



HOME BROWSE EDITOR'S CHOICE VIRTUAL ISSUES ABOUT JOINT VIRTUAL ISSUES

The polyphenol resveratrol promotes skeletal growth in mice through a sirtuin 1-bone morphogenic protein 2 longevity axis

Ming Zhao, Seon-Ye Ko, Ross Garrett, Gregory R Mundy, Gloria E Gutierrez, James R Edwards

British Journal of Pharmacology | First published: 20 August 2018

Abstract | Full text | PDF | References | Request permissions

Cysteine residues in mitochondrial intermembrane space proteins: more than just import

Markus Habich, Silja Lucia Salscheider, Jan Riemer

British Journal of Pharmacology | First published: 20 August 2018

Abstract | Full text | PDF | References | Request permissions

The bidirectional interaction between the sympathetic nervous system and immune

BJP
Impact
2 year Impact Factor
6.810
Number of cites
4,576
5 year Impact Factor
5.468
Number of cites
23,062
EigenFactor
0.03895
Ranked 12/261
Article Influence
1.382



Impact Factor: 3.838
ISI Journal Citation Reports® Ranking: 2017: 47/261 (Pharmacology & Pharmacy)
Online ISSN: 1365-2125

Abstract | Full text | PDF | References | Request permissions

Free Access

Issue highlights

British Journal of Clinical Pharmacology | Pages: 2173-2174 | First published: 14 September 2018

Abstract | Full text | PDF | Request permissions

No abstract is available for this article.

Free Access

Comment on "Massive" metformin overdose by Chiew et al.

Garry G. Graham

British Journal of Clinical Pharmacology | First published: 12 September 2018

Abstract | Full text | PDF | References | Request permissions

BJCP
Impact
2 year Impact Factor
3.838
Number of cites
1,869
5 year Impact Factor
4.188
Number of cites
4,707
EigenFactor
0.01868
Ranked 47/261
Article Influence
1.206

2. SECONDARY LITERATURE

وابيملها
evaluation

- A secondary source is one that gives information about a primary source. In this source, the original information is selected, modified and arranged in a suitable format.
- Secondary sources involve: summary, collation, generalization, analysis, synthesis, interpretation, or evaluation of the original information (primary resource).
- Secondary research is contrasted with primary research in that primary research involves the generation of data, whereas secondary research uses primary research sources as a source of data for analysis.
- Some of the examples of secondary researches are government consensus, public agency annual reports, magazines, newspapers, journals, online databases etc.

2. SECONDARY LITERATURE (INDEXING AND ABSTRACTING SERVICES)

Example

Indexing and Abstracting Services

- **Indexing service:** provides only bibliographic information (is a list of works on a subject or by an author that were used or consulted to write a research paper, book or article) that is indexed by topic.
- **Abstracting service:** also provides a brief description or "abstract" of information contained in a specific citation.
- Both provide access to primary literature.
- Each can cover different journals, texts, publications.
- Cost will vary from \$150 to \$60,000 / year

عباره عن معلومات
تفصيلية عن
(topic)
معين

انه يحدد طريقة البحث
بحيث انه يعمل

- **Evaluated Secondary Resources:**
- ✓ Choosing or limiting the search retrieval to meta-analysis, guidelines, or systematic reviews will also identify citations with the strongest research methods and design.
- **The goal of guidelines and systematic reviews** is to identify relevant research and in addition to classifying the research by strength, also combine the research results statistically to provide a new, global research result.
- **Currently available evaluated bibliographic databases** (like ACP Journal Club, Best Evidence, Cochrane Library, Evidence-Based Medicine) depend upon human experts to identify the best citations.

SECONDARY LITERATURE

❖ Advantages:

- ① **Cost-effect**, ready made observations, less time spent on gathering information.
- ② Statistically reliable, **less requirement of expertise** from internal team.
- ③ **Trustable and ethical** practices existing to support or organize other researches.

❖ Disadvantages:

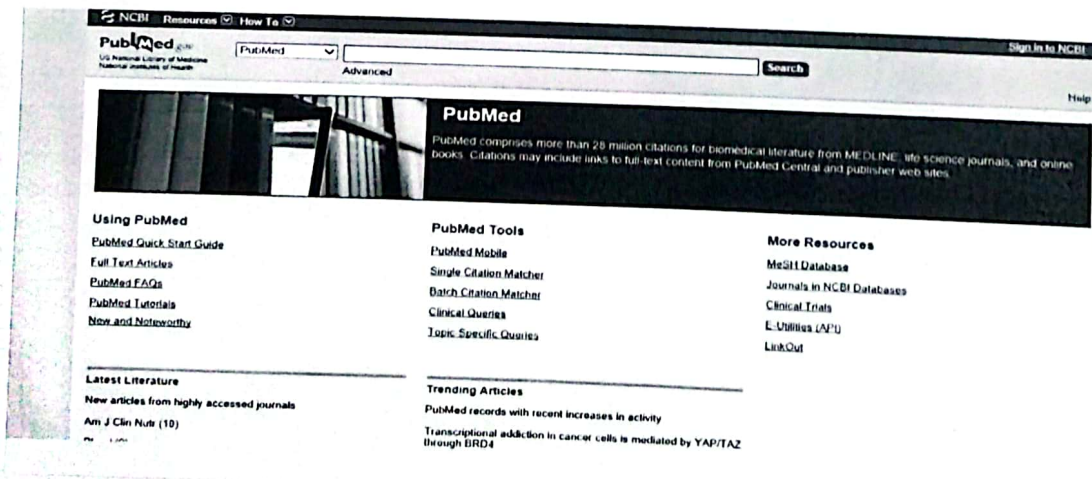
- ① Information may be **unsuitable** for current research project.
- ② The data may **lack details** that fulfill goal of the client at present.
- ③ Not customized, **may require intensive study** to judge validity of data.

KEY DATABASES FOR MORE DETAILED SEARCHING PHARMACY

Example
Secondary
Literature

- Google Scholar
- MEDLINE (PubMed) : <https://www.ncbi.nlm.nih.gov/pubmed/>
- International Pharmaceutical Abstracts (IPA) : <http://www.ovid.com/site/catalog/databases/109.jsp>
- EMBASE: <https://www.elsevier.com/solutions/embase-biomedical-research#search>
- Scopus <https://www.scopus.com/search/form.uri?display=basic>
- Web of Science: http://apps.webofknowledge.com/WOS_GeneralSearch_input.do?product=WOS&search_mode=GeneralSearch&SID=F4ZarpazbGEe7CBjdl&preferencesSaved=
- Cochrane Library : <https://www.cochranelibrary.com/>

PubMed is a free search engine accessing primarily the MEDLINE database of references and abstracts on life sciences and biomedical topics. The United States National Library of Medicine at the National Institutes of Health maintains the database as part of the Entrez system of information retrieval



International Pharmaceutical Abstracts (IPA) contains information from over 800 pharmaceutical, medical, and health-related journals published worldwide since 1970. This extensive database covers all aspects of pharmacy, drug therapy and related ethical issues. It also includes coverage of issues relating to toxicology, non medical and pharmacist prescribing and health promotion

Wolters Kluwer

Ovid® search.ovid.com

Log in Register Product login

Journal Books Collections Databases Platforms Featured Subjects Customer Support

Home > Databases > International Pharmaceutical Abstracts (IPA)

Database

International Pharmaceutical Abstracts (IPA)

Publisher: Clarivate Analytics (UK) Limited

Coverage: 1970-Present

[Request a Trial](#)

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Free Instant Access This Month

Visible Body Anatomy & Physiology

Interactive 3D teaching resource, comprised of 50 modules that incorporate 3D models, illustrations, and animations to present core content of basic anatomy and physiology courses.

Global Health

The only specialist bibliographic abstracting and indexing database dedicated to public

Description **Details** **Also Recommended**

Comprehensive database provides indexing and abstracts for pharmaceutical and medical journals published worldwide. It is essential to anyone interested in keeping abreast of today's health-related drug literature.

Embase is a biomedical and pharmacological bibliographic database of published literature designed to support information managers and pharmacovigilance (practice of monitoring the effects of medical drugs after they have been licensed for use) in complying with the regulatory requirements of a licensed drug, useful for dietary supplements information and it is more global than Medline

SEARCH CART MENU

Embase®

Improve your biomedical research with the world's most comprehensive biomedical literature database.

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[Embase sign in](#)

Designing search formulas

In literature monitoring, the ideal search will find all ADRs without turning up too many irrelevant results. How do you design a search formula that maintains this balance?

[Read the white paper](#)

PV best practices

This new application note for Embase's PV Wizard shows you how to build an optimized search query designed to find all adverse events for a medicinal substance.

[Read the application note](#)

Scopus is Elsevier's abstract and citation database launched in 2004. Scopus is the largest abstract and citation database of peer-reviewed literature: scientific journals, books and conference proceedings, in top-level subject fields: life sciences, social sciences, physical sciences and health sciences

Scopus Search Sources Alerts Lists Help SciVal Register Login

Document search [Compare sources](#)

Documents Authors Affiliations Advanced

Search

E.g., "Cognitive neuroscience" AND autism

[Limit](#)

Article title, Abstract, Keywords

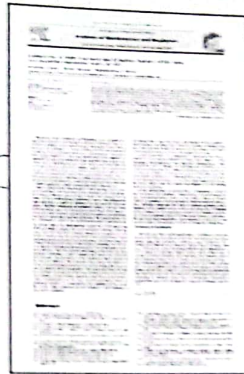
Reset form [Search Q](#)

Search tips

Searches Focus on Different Content

Embase

Embase focuses on the full text indexing of biomedical content, bringing insights through structured indexing of content

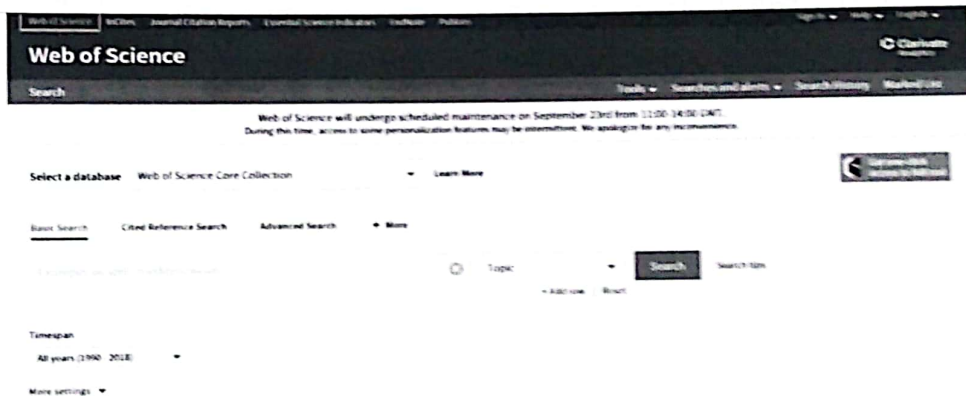


Scopus

Scopus focuses on abstracts and citations, enabling navigation of the published literature

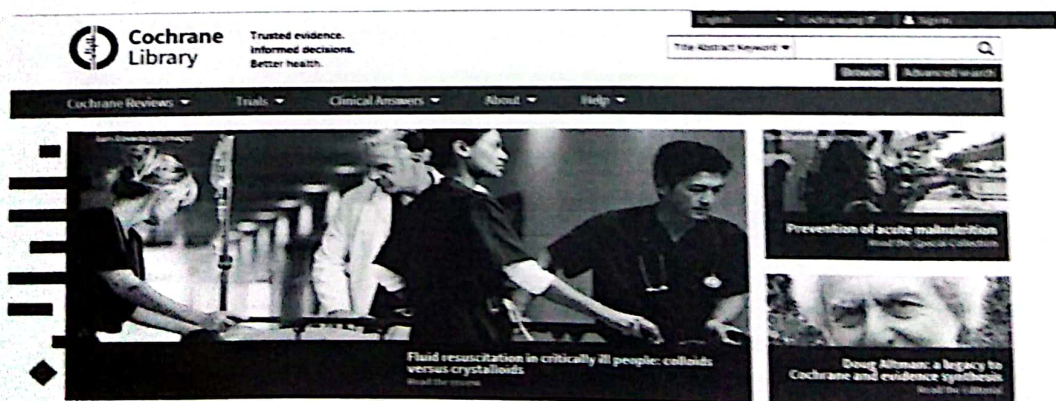
Scopus

Web of Science is an online subscription-based scientific citation indexing service originally produced by the Institute for Scientific Information, now maintained by Clarivate Analytics, that provides a comprehensive citation search.



Cochrane is a non-profit, non-governmental organization formed to organize medical research findings so as to facilitate evidence-based choices about health interventions faced by health professionals, patients, and policy makers. Cochrane includes 53 review groups that are based at research institutions worldwide.

The **Cochrane Database of Systematic Reviews (CDSR)** is the leading journal and database for systematic reviews in health care. CDSR includes Cochrane Reviews (systematic reviews) and protocols for Cochrane Reviews as well as editorials and supplements.



SOME MORE INFORMATION RESOURCES

BIOSIS PREVIEW (service of Web of Science)

This is most helpful when seeking more basic science information about activity of compounds on a cellular level.

CANCERLIT

This is most helpful when seeking information about oncology therapies and quality of life issues

CUURENT CONTENTS CONNECT (service of Web of Science)

This is most helpful when seeking information about recent drug research or developments

IOWA DRUG INFORMATION SYSTEM (IDIS)

provides in addition to biomedical publications a comparative effectiveness plus tool to compare specific medications, but limited number of journals are covered

SOME MORE INFORMATION RESOURCES

▪ LEXISNEXIS

Medication, legal and business news. Useful to locate information about recent medical news or research.

▪ REACTIONS WEEKLY

Case report of Adverse reactions and drug safety. Weekly indexing/abstracting services.

▪ PHARMACOECONOMICS & OUTCOMES NEWS WEEKLY

most useful for economic impact of disease and medical interventions

TRACING ARTICLES – SPECIFY YOUR RESEARCH

▪ Words

▪ In title, abstract, authors' name and institution, Keywords

▪ MeSH terms: Medical Subject Headings (*MeSH*) are used by indexers to describe articles for MEDLINE records Restricted thesaurus of medical terms

▪ Can combine terms

▪ 'AND'

▪ Hypertension and bendroflumethazide

▪ 'OR'

▪ Hypertension or bendroflumethazide

▪ Can limit search to selected number of years, language, human studies ... etc limitation factors

هون لائی لکھل
article
مہینہ

NOTE

The most accurate classification for any given source is not always obvious. Primary and secondary are relative terms, and some sources may be classified as primary or secondary, depending on how they are used.

A third level, the tertiary source, such as an encyclopaedia or dictionary, resembles a secondary source in that it contains analysis, but attempts to provide a broad introductory overview of a topic.

Tertiary

← اي معلومه بدنا اياها ← اول اسئء بسخدم ال
دقة هية مصادر ال primary وال secondary *

3. TERTIARY RESOURCES

- Collection of data & concepts drawn from primary literature.
- Generally present a summary of well-established and documented drug and therapeutic information and include textbooks, formularies, drug compendia (summaries of drug information that are compiled by experts who have reviewed clinical data on drugs) and electronic drug databases.

Advantages:

- 1 Convenient. Information is well established.
- 2 They offer a quick, easy introduction to your topic.
- 3 They may point to high-quality primary and secondary sources. ✓

سهل انه تحصلها

3. TERTIARY RESOURCES

Disadvantages:

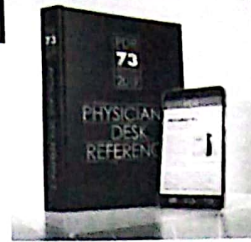
- 1 Because of their distance, they may oversimplify or otherwise distort a topic.
- 2 By rehashing secondary sources, they may miss new insights into a topic.
- 3 Gap between written evidence and being within the tertiary resource.
- 4 Traditional Gap between hard copy and soft copy.

according ~~to the subject~~ (Tertiary) example (مثال حسب الموضوع)

TERTIARY RESOURCES

❖ Product information

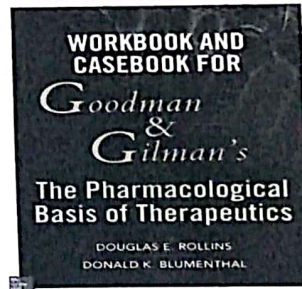
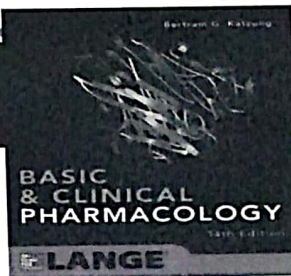
- Drug Information handbook
- Physicians' Desk Reference
- Martindale: The Complete Drug Reference
- BNF (British National Formulary)
- Micromedex
- Drugs.com
- Lexi Comp group



TERTIARY RESOURCES

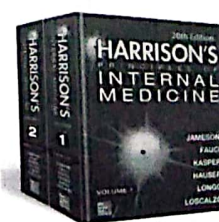
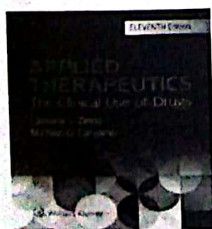
❖ Pharmacology

- Rang & Dale's Pharmacology
- Basic & clinical Pharmacology (Bertram G. Katzung)
- Goodman & Gilman's: the Pharmacology basis of Therap
- Brody's Human Pharmacology: Molecular to Clinical



TERTIARY RESOURCES

- ❖ Therapy evaluation / Drug of choice
- Applied Therapeutics: The Clinical Use of Drugs
- Pharmacotherapy: A Pathophysiologic Approach (Joseph T. DiPiro)
- The Merck Manual Of Diagnosis And Therapy (Merck)
- Harrison's Principles of Internal Medicine



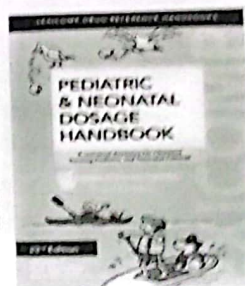
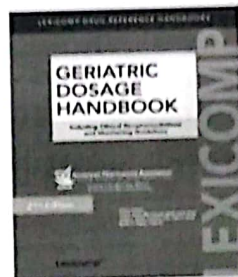
TERTIARY RESOURCES

- ❖ Adverse Effects
 - Meyler's Side Effects of Drugs: The International Encyclopaedia of Adverse Drug Reactions
- ❖ Drug Interactions
 - *Harsten and Horn's Drug Interactions* Analysis and Management
 - Drug Interactions facts – Fact & Comparison products
 - Food Medication Interactions (FMI)



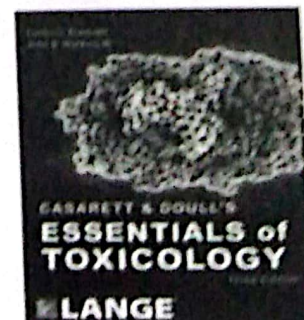
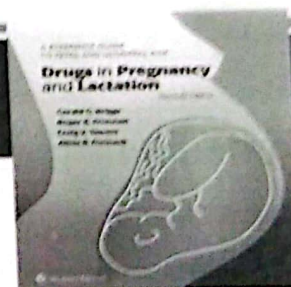
TERTIARY RESOURCES

- ❖ Geriatric dosage recommendation
 - Merck Manual of Geriatrics.
 - Geriatrics Dosage Handbook
- ❖ Paediatric dosage forms
 - Paediatric dosage Handbook
 - The Harriet Lane Handbook



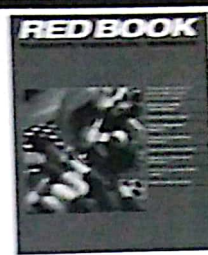
TERTIARY RESOURCES

- ❖ Teratogenicity, Lactation
 - *Drugs in Pregnancy and Lactation: A Reference Guide to Fetal and Neonatal Risk*
 - *Catalog of Teratogenic Agents*
- ❖ Toxicology
 - *Goldfrank's Toxicologic Emergencies*
 - *Casarett & Doull's Essentials Of Toxicology*
 - *Casarett & Doull's Toxicology The Basic Science Of Poisons*



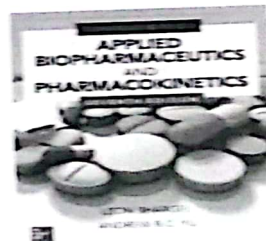
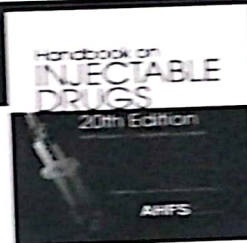
TERTIARY RESOURCES

- ❖ Availability of Dosage forms
 - American Drug Index
 - Red Book (Red book Drug topics)
- ❖ Compounding , Formulation
 - Merck Index
 - Remington: The Science and Practice of Pharmacy
 - Trissel's Stability Of Compounded Formulations
 - The United States Pharmacopeia (USP)



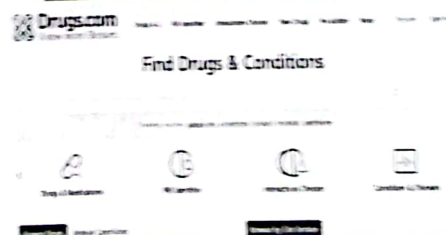
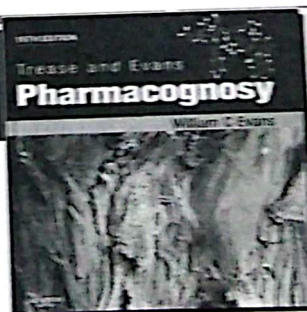
TERTIARY RESOURCES

- ❖ Incompatibility and stability
 - Handbook of Injectable drugs
 - Trissel's 2 Clinical Pharmaceutics Database
 - King Guide to Parenteral Admixtures
- ❖ Pharmacokinetics
 - Basic Clinical Pharmacokinetics
 - Applied Biopharmaceutics and Pharmacokinetics



TERTIARY RESOURCES

- ❖ Dietary supplements
 - Natural Medicines Comprehensive Database
 - Natural Standard
 - PDR for Herbal Medicines
 - Trease and Evans' pharmacognosy
- ❖ Identification of product
 - IDENT-A-Drug
 - Drugs.com



① تعرفوا (Advantage) والـ (Disadvantage)
لي الـ (primary) والـ (secondary) والـ
(tertiary)

② How to evaluate journal in (primary resources)

③ تعرفوا أيش الأمثلة على (tertiary) والـ (secondary)
والـ (primary)

primary	secondary	tertiary	الأمثلة
	هبة عبارة عن (web site)	مقسم حسب الـ (subject)	

هدية الزبني