How to do a bibliographic search
Where do I start?

Dr S. Aziz
Objectives

• List the Sources of literature
• Describe the key databases
• To use the key databases for literature search and literature review
Sources of literature

The main sources from where literature can be searched are as ...

- Magazines & newspapers
- Electronic database
- Research Reports
- Books
- Encyclopedia & dictionary
- Journals
- Theses
- Conference papers

www.drjayeshpatidar.blogspot.com
Bibliographic references are the “basement” of a paper

• The references provide the scientific background that justifies the research project and the methods that are used

• A thorough literature search and the reading of the most important papers identified should be the first step of every research project
Bibliographic search

MANUAL SEARCH

Index medicus

ELECTRONIC SEARCH

Bibliographic web database sources

(select the one that fits your needs better)
Bibliographic electronic search

HUGE AMOUNT OF INFORMATION

Clear ideas and experience are needed to get what you need, save time and optimize the accuracy of your search
Where to start when you need information

- **A quick review of a topic**
  - UpToDate
  - Emedicine

- **Drugs**
  - Micromedex MDConsult
  - UpToDate Drugs@FDA.gov

- **Extensive review**
  - Cochrane Library

- **Everything else**
  - Start with PubMed/Embase
Medline
Medical Literature Analysis and Retrieval System Online

- Medline is the electronic database of indexed citations and abstracts of the US National Library of Medicine (NLM)
- It includes bibliographic information for articles and abstracts covering medicine, nursing, pharmacy, dentistry, veterinary medicine, and health care, and preclinical sciences journal articles
- It contains >21 million records from approximately 5,000 selected publications from 1950 to the present.
EMBASE
Excerpta Medica Database

• Produced by Elsevier science
• > 24 million indexed records and > 7,600 indexed peer-reviewed journals
• 1974 to present
• Includes ≈ 30% of Medline records
• > European emphasis vs Pubmed
• Useful to search for non English language publications
EMBASE
Excerpta Medica Database

Core strengths:

• coverage and in-depth indexing of the drug-related clinical literature, with a particular focus on adverse drug reactions

• emphasis on Evidence Based Medicine (EBM) indexing including systematic reviews

• coverage and indexing of journals and articles relevant to the development and use of medical devices
WEB OF SCIENCE

- Online academic citation index provided by Thomson Reuters®
- Can be accessed through ISI Web of knowledge®
- Provides access to 7 electronic databases
- Has indexing coverage from the year 1900 to present
- Encompasses 11,261 journals selected on the basis of impact evaluations and 46.1 million records (incl. conference proceedings)
- All titles are translated in English
• Important for clinical searches and especially for clinical trials or systematic reviews

• The core is the database of systematic reviews

• Includes also the Cochrane central register of controlled Trials and the Cochrane methodology register
CINAHL
Cumulative Index to Nursing and Allied Health Literature

• Most important database for nursing sciences
• Includes >1800 journals from 1982 + book chapters, audiovisuals, softwares, conference proceedings
• Emphasis also on biomedicine, behavioral sciences, education, etc
• No free version
Other electronic databases

- Allied and Complimentary Medicine Database (AMED)
- Applied Social Sciences Index and Abstracts (ASSIA)
- British Nursing Index (BNI)
- Digital Dissertations
- Health Management Information Consortium Databases (HMIC)
- National Research Register (NRR)
- Popline (Population database)
- PsycINFO (database of abstracts on psychology/psychiatry)
- Toxline (bibliographic toxicology database)
You can access electronic databases through electronic interfaces

PubMed

OVID

EBSCO, Dialog
OVID

- Commercial organization (Ovid Technologies) that provide access to several bibliographic databases, including Medline and Embase.
- The database/s available to you depends on the subscriber
- Less user friendly vs Pubmed, but allows complex searches
PubMed

- PubMed is a service of the US National Library of Medicine (NLM) at the National Institute of Health (NIH)
- It was developed in 1996 by the National Center for Biotechnology Information (NCBI) at the National Library of Medicine as part of the Entrez retrieval system
- Provides free access to MEDLINE
- Includes additional selected life sciences journals not in MEDLINE
PubMed

- PubMed contains all citations from the medical literature back to 1953
- PubMed is updated daily directly from publishers
- PubMed links directly to the home pages of the journals
- Medline is hosted on PubMed. All other vendors which offer Medline actually license their Medline from the National Library of Medicine and there is a significant delay
Impact of PubMed

- PubMed contains over 21 million citations of medical literature
- ≈ 500,000 records are indexed yearly
- 90% of all Medline searches are done in PubMed
- Today, the number of PubMed searches ranges from 500,000 to over one million per day
Why to use PubMed?

• It is the most used medical database platform of its kind in the world
• It is free
• It is very user friendly
• Your patients use it
• Your lawyers, drug reps, accountants and nursing staff use it
How to use PubMed?
Interactive tutorials for training

Using PubMed
- PubMed Quick Start Guide
- Full Text Articles
- PubMed FAQs
- PubMed Tutorials
- New and Noteworthy

PubMed Tools
- PubMed Mobile
- Single Citation Matcher
- Batch Citation Matcher
- Clinical Queries
- Topic-Specific Queries

More Resources
- MeSH Database
- Journals in NCBI Databases
- Clinical Trials
- E-Utilities
- LinkOut

Pubmed Tutorial

Go to:
- Understanding the Vocabulary
- Building the Search
- Managing the Results
- Saving the Search
- Getting the Articles
PubMed
Simple subject search

Display Settings: Summary, 20 per page, Sorted by Recently Added

Results: 1 to 20 of 413

1. Differential proteome analysis of conditioned medium of BPH-1 and LNCaP cells.
   Chen WZ, Pang B, Yang B, Zhou JG, Sun YH.
   Related citations

2. Identification of Prostate-Enriched Proteins by In-depth Proteomic Analyses of Expressed Prostatic Secretions in Urine.
   J Proteome Res. 2012 Feb 29. [Epub ahead of print]
   PMID: 22339264 [PubMed - as supplied by publisher]
   Related citations

Use Boolean operators (AND - OR - NOT)
PubMed
Simple subject search

Automatic query translation
How to improve the accuracy of your PubMed search

- **Use MeSH headings**
  - MeSH headings are *Medical Subject Headings*
Using MeSH Headings

The MeSH controlled vocabulary is a distinctive feature of MEDLINE. It imposes uniformity and consistency to the indexing of biomedical literature. MeSH terms are arranged in a hierarchical categorized manner called MeSH Tree Structures and are updated annually.

Previous Indexing:
- Adenocarcinoma (1966-1984)

All MeSH Categories
- Diseases Category
  - Neoplasms
    - Neoplasms by Histologic Type
      - Neoplasms, Glandular and Epithelial
        - Carcinoma
          - Adenocarcinoma
            - Carcinoma, Renal Cell

All MeSH Categories
- Diseases Category
  - Neoplasms
    - Neoplasms by Site
      - Urogenital Neoplasms
        - Urologic Neoplasms
          - Kidney Neoplasms
            - Carcinoma, Renal Cell

➤ 25000 MeSH headings
MeSH SubHeadings

Carcinoma, Renal Cell
A heterogeneous group of sporadic or hereditary carcinoma derived from cells of the kidneys. There are several subtypes including the clear cells, the papillary, the chromophobe, the collecting duct, the spindle cells (sarcomatoid), or mixed cell-type carcinoma. Year introduced: 1985

PubMed search builder options
Subheadings:
- analysis
- blood
- blood supply
- chemically induced
- chemistry
- classification
- complications
- diagnosis
- diet therapy
- drug therapy
- economics
- embryology
- enzymology
- epidemiology
- ethnology
- etiology
- genetics
- history
- immunology
- metabolism
- microbiology
- mortality
- nursing
- parasitology
- pathology
- physiopathology
- prevention and control
- psychology
- radiography
- radionuclide imaging
- radiotherapy
- rehabilitation
- secondary
- secretion
- surgery
- therapy
- ultrasonography
- ultrastructure
- urine
- veterinary
- virology

Restrict to MeSH Major Topic.
Do not include MeSH terms found below this term in the MeSH hierarchy.

PubMed search builder
"Carcinoma, Renal Cell/diagnosis"[Mesh]

Add to search builder
Search PubMed
Contemporary management of small renal masses.


Department of Urology, University of Eastern Piedmont, Maggiore della Carità Hospital, Novara, Italy. alessandro.volpe@med.unipmn.it
How to improve the accuracy of your Pubmed search

Set up your limits/filters

Display Settings: Summary, 20 per page, Sorted by Recently Added

Results: 16

Filter your results:

- English (14)
- Free Full Text (6)
- Published in the last 5 years (16)
- Review (0)

clinical renal cell and necrosis and kaplan meier survival curves

cell and papillary renal cell carcinoma.

P, Pummer K, Zigeuner R.
Set up your limits/filters

Display Settings:  Summary, 20 per page, Sorted by Recently Added

Results: 16

Limits

Dates
Published in the Last: Any date

Type of Article
- Clinical Trial
- Editorial
- Letter
- Meta-Analysis
- Practice Guideline
- Randomized Clinical Trial

Languages
- English
- French
- German
- Italian
- Japanese
- Spanish

Species
- Humans
- Animals

Sex
- Male
- Female

Ages
- All Infant: birth-23 months
- All Child: 0-18 years
- All Adult: 19+ years
- Newborn: birth-1 month
- Infant: 1-23 months
- Toddler: 2-4 years

Search Field Tags
Field: All Fields

Text Options
- Links to full text
- Links to free full text
- Abstracts
How to improve the accuracy of your PubMed search

Use PubMed Advanced Search Builder
How to improve the accuracy of your Pubmed search

Use Clinical queries under PubMed Tools
Results of searches on this page are limited to specific clinical research areas. You can set your category and emphasize sensitivity or specificity.
You have a very specific question
You want a very specific answer

Pubmed Clinical Queries

Results of searches on this page are limited to specific clinical research areas. Fill in the form.

(prostate cancer and proteomics)

Clinical Study Categories

Category: Prognosis
Scope: Narrow

Results: 5 of 82

- Differential proteome analysis of conditioned medium of BPH-1 and LNCaP cells. [Chin Med J (Engl). 2011]
- Identification of Prostate-Enriched Proteins by In-depth Proteomic Analyses of Expressed Pro. [J Proteome Res. 2012]

Systematic Reviews

Results: 5 of 12

- Differential proteome analysis of conditioned medium of BPH-1 and LNCaP cells. [Chin Med J (Engl). 2011]
- Identification of Prostate-Enriched Proteins by In-depth Proteomic Analyses of Expressed Pro. [J Proteome Res. 2012]

82 vs 413 results
When you are happy with your search...

| Display Settings: | Summary, 20 per page, Sorted by Recently Added |

- Format
  - Summary
  - Summary (text)
  - Abstract
  - Abstract (text)
  - MEDLINE
  - XML
  - PMID List

- Items per page
  - 5
  - 10
  - 20
  - 50
  - 100
  - 200

- Sort by
  - Recently Added
  - Pub Date
  - First Author
  - Last Author
  - Journal
  - Title

Send to: 

Filter your results:

Choose Destination
- File
- Clipboard
- Collections
- E-mail
- Order
- My Bibliography

Download 122 items.

Format
- Abstract (text)

Sort by
- Recently Added

Abstract

OBJECTIVE: To assess both clinical and biological efficacy and toxicity of sorafenib in patients with metastatic renal cell carcinoma who have been previously treated with anti-vascular endothelial growth factor receptor (VEGFR) tyrosine kinase inhibitors.


Department of Medical Oncology, San Camillo and Forlanini Hospitals, Rome, Italy. mancusoan@gmail.com

Phase II escalation study of sorafenib in patients with metastatic renal cell carcinoma who have been previously treated with anti-angiogenic treatment.

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OBJECTIVE: To assess both clinical and biological efficacy and toxicity of sorafenib in patients with metastatic renal cell carcinoma (mRCC) previously treated with an anti-angiogenic vascular endothelial growth factor receptor (VEGFR) tyrosine kinase inhibitor.

METHODS: Sorafenib is an orally active multikinase inhibitor approved for the treatment of mRCC. Drug-focused translational research on tissues (i.e. B-RAF) and plasma (VEGFR-α, circulating endothelial cells, endothelial progenitor cells) was performed to define biological predictive and prognostic markers and their related kinetics. Patients with mRCC pretreated with an anti-angiogenic treatment, an Eastern Cooperative Oncology Group performance status (ECOG PS) of 0-2 and adequate organ function were eligible. Patients received sorafenib 400 mg twice a day continuously in 4-week cycles. Patients with no progressive disease at 12 weeks continued to receive sorafenib at the standard dose, whereas progressing patients received an increased dose (600 mg twice a day) with early disease restaging after 4 weeks. Patients who progressed at 600 mg twice a day went off study. Efficacy (overall tumour control) was assessed by Response Evaluation Criteria in Solid Tumors.
Save your searches on the **CLIPBOARD**

The **clipboard** will hold the articles on your PC for 8 hours. At the end, click on **Clipboard** to collect your articles.
Save your searches on the **My NCBI Save search feature**
Use the RELATED ARTICLES feature

Active surveillance of small renal masses: progression patterns of early stage kidney cancer.


Division of Urology, Department of Surgery and of Surgical Oncology, Princess Margaret Hospital and the University Health Network, University of Toronto, Toronto, Ontario, Canada. m.jewett@utoronto.ca

Abstract

BACKGROUND: Most early stage kidney cancers are renal cell carcinomas (RCCs), and most are diagnosed incidentally by imaging as small renal masses (SRMs). Indirect evidence suggests that most small RCCs grow slowly and rarely metastasize.

PubMed creates this set by comparing words from the title, abstract, and MeSH terms using a powerful word-weighted algorithm. Citations are displayed in rank order from most to least relevant.
Use **SINGLE CITATION MATCHER** under PubMed Tools

**Pubmed Single Citation Matcher**

- Use this tool to find PubMed citations. You may omit any field.
- Journal may be the full title or the title abbreviation.
- For first and last author searching, use smith jc format.

- **Journal:**
- **Date:** yyyy/mm/dd (month and day are optional)
- **Volume:**
- **Issue:**
- **First page:**
- **Author name (see help):**
- **Only as first author**
- **Only as last author**
- **Title words:**

[Go  Clear]
Use **SINGLE CITATION MATCHER**
under PubMed Tools

- You know the year, the words in title, the journal but you can’t remember the rest - try it here
- You know the author, the year but don’t know the rest
- Use all kinds of combinations here!
Store your bibliography in a
REFERENCE MANAGER SOFTWARE

EndNote ®

Reference manager ®
Look for **FREE FULL TEXT ARTICLES**

1. **Growth kinetics in von Hippel-Lindau-associated renal cell carcinoma.**
   - Jilg CA, Neumann HP, Gläsker S, Schäfer O, Ardelt PU, Schwartd M, Schultz-Seaemann W.
   - Related citations

2. **Incidentally detected small renal masses - investigation and management.**
   - Rao K, Royce PL.
   - Related citations

3. **Free Full Text**

**Display Settings:** Summary, 20 per page, Sorted by Recently Added

**Results:** 16

- Send to:
  - All (73)
  - English (74)
  - Free Full Text (16)
  - Published in the last 5 years (64)
  - Review (27)

**Find related data**
- Database: Select
  - Find items

**Display Settings:** Abstract

**Growth kinetics in von Hippel-Lindau-associated renal cell carcinoma.**
- Jilg CA, Neumann HP, Gläsker S, Schäfer O, Ardelt PU, Schwartd M, Schultz-Seaemann W

Department of Urology, Albert Ludwig University of Freiburg, Freiburg, Germany. Cordula.Jilg @uniklinik-freiburg.de
LOOK FOR FULL TEXT ARTICLES

• Select the papers you need to read to write your manuscript

• If they are not available online for free, access your institutional library website (some/most journals archives will be available online, others in hard copy at your library)

• If they are not available in your institutional library, buy the paper on the journal website
Summary of key points
How to do a bibliographic search

• Start with clear ideas of what you are looking for
  - If you do not have a thorough knowledge of the topic, reading a couple of recent good reviews can be helpful

• Use electronic tools
  - PubMed is the easiest way in most cases
  - Other interfaces can be used for complex searches or systematic reviews

• Learn how to make your search quick and accurate
  - Online tutorials
  - Practice
Summary of Key points
How to do a bibliographic search

• Identify and use the most appropriate Mesh terms

• Don’t forget to look at references of the most relevant papers on the topic

• Archive your bibliography
  - Hard copies are difficult to manage
  - Use possibly a reference manager software

• Download and print selected full text articles
References

• Volpe Alessandro
  Mar 15-16 Roma 2012
BUON LAVORO !!