EDITORIAL

How to consult databases?☆

¿Cómo consultar bases de datos?

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The activities inherent to the medicinal practice require additional input to the medical devices and medicines, *information*, and the major sources of access are bibliographic data bases.[1] These should be consulted as part of the process of critical evaluation of literature, because they are resources supported by academic and scientific authorities,[2] that differentiate them from the thousands of sources of information available on the Internet, App stores and the market in general.

The medical professional should consult databases when he requires bibliographic information for health care practice, teaching or research, which are the activities that generate him questions. The best route to identify and consult the relevant database is to start with the recommendations of the specialized literature,[3] the basic texts of clinical epidemiology[4] and research, manuals of elaboration of Guidelines of Clinical Practice,[5] the systematic revisions,[6] the series of publications about the use of medical literature,[7] pages, blogs, social networks and different technologies of information and communication, whose authorship be of recognized organizations.

In health the first portals or websites dedicated to the collection of access to these databases emerged.[8] One of the most comprehensive Web sites is the information system set up jointly by the National Institute of Health (NIH), the National Center for Biotechnology (NCBI) and the National Library of Medicine (NLM) in the US, including recognized resources such as *PubMed, Ominy Medline Plus*.

Since its inception, the Colombian Journal of Cardiology has been governed by the regulations and guidelines of authorities on topics of scientific publications in the world, allowing it to be indexed in databases such as Lilacs, Science Direct and Scopus. This editorial is part of the strategies focused on training and educating specialists who use it in their routine update on issues of cardiology and cardiovascular surgery, in identifying and using relevant bibliographic data bases for their research projects as well as in creating manuscripts and in decision making.

Today, thanks to the popularity of the Internet and to programs led by organizations such as the World Health Organization (WHO),[9] to achieve universal access to scientific knowledge produced in medicine and related sciences, with the premise that ''scientific information is a tool for improving public health'', projects of open access and many databases that do not require payment to be consulted especially in lower income countries, have been created.

The challenge now is to know how to use databases adequately.[10] Therefore, the reader will find below a series of recommendations to make the query:

1. Know the general characteristics of the resource. Contents, update, authors, publishers, reviewers and target audience; that information is available in sections identified by phrases or terms such as *about, presentation, introduction* (Fig. 1).

Each database has a structure for consultation and characteristic support symbols such as wildcards (characters
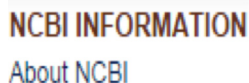
National center for Biotechnology information   Virtual library

NCBI INFORMATION

About NCBI

Acerca de la BVS

Acerca del modelo de la BVS

Acerca de BIREME

Fuente: http://www.ncbi.nlm.nih.gov/About/   Fuente: http://regional.bvsalud.org
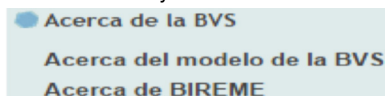
Figure 1   Sections of the web pages of the database of NCBI (USA) and Bireme (PAHO) where their characteristics are listed.

that replace the end of a word to make the most sensitive search; some are: *, &, %. For example: Cardio * will recover pediatric cardiology, cardiac therapy, cardioplegia, cardiology) and Boolean operators (AND, Y, +). These grants are consulted in user manuals, tutorials, user guides and instructions (Fig. 2).

2. Descriptive elements. Every document (book, magazine article, trial, video, image, interview) has elements that constitute points of entry of information databases. Use this information when searching: title, author, abstract or introduction, keywords or descriptors (later, this topic will be deepened). An advantage of information in health sciences is the precision of the titles and content writing; literary figures are rarely used. When no specific search field is stablished, the machines review these elements and then the content to generate results. Search by fields will give more accurate results (Figs. 3 and 4).

In the first screen these options are not displayed, identify advanced search section or search by fields to deploy them (Figs. 5 and 6).

3. Search by themes or descriptors. Some sciences have created *Thesaurus or* specialized lists of words, exclusive or with a connotation to that science. These provide a brief description of the concept, the list of synonymous terms that should be replaced by the agreed term and taxonomic structure of the term (the most famous *Thesaurus* in health sciences is the MESH, translated into Spanish and Portuguese by Bireme, entity attached to the Pan American Health Organization (PAHO), as DECS). They allow more specific results and require the knowledge of these terms by those who visit. All bibliographic, academic and scientific databases offer this type of search (Fig. 7).

When you create a document, assign descriptors, which except for proper names, unreleased tracks, discoveries or inventions, are taken from Thesauri in order that they can be easily recoverable in databases.

4. Advanced searches. The databases let you combining several terms, themes with themes, themes with authors, with journal titles, with names of institutions, among others, by means of Boolean operators and use of parentheses. The

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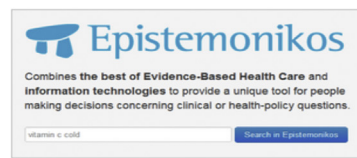
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Cómo funciona

PASO 1: BUSCA LA RESPUESTA A TU PREGUNTA

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Fuente: www.epistemonikos.org

Figure 2   Aid from Cochrane, PubMed and Epistemonikos databases.