

# BRIDGING THE GAP

## THE INFORMATION SPECIALIST AS A INTEGRAL PART OF EVIDENCE BASED MEDICINE

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Evidence-based Medicine (EBM) is the integration of best research evidence with clinical expertise and patient values(1)

The necessary skills include formulating a concise question that addresses uncertainties in patient management and quickly identifying the highest-quality relevant information from the medical literature(2)

Therefore, searching sources of information in an appropriate, systematic, complete, critical and quality assessing way is an essential step of Evidence Based Medicine.

Since 2001 University of Modena together with Ce.V.E.A.S. (Centre for Evaluation of Effectiveness of Health Care) Azienda USL and Policlinico developed educational programs for the acquisition of Evidence Based skills. Following the initial courses comprising of ten full teaching days (2001-2002), the proposal for a six weeks Master Course seemed most appropriate for an increasing demand for Evidence Based training.

Since the first edition teaching how to search for evidence it was integral part of learning sessions.

An information specialist was always the main lecturer of this session. All lessons were held in a computer equipped room in order to allow students practice online searching.

In the first year's Master Course the bibliographic research topics had been taught only in one week. Therefore, in order to integrate that module with the whole training pathway, during the second Master Course all the topics have been dealt with at the same time as the presentation of the single topics (trials, systematic reviews, guidelines,...), so as to combine theoretical lessons and the practical part of sources research. (Table 1)

Table 1: Contents and duration of modules

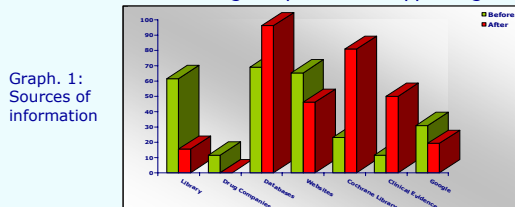
YEAR	N. OF HOURS	TOPICS
2001	7	Medline (PubMed) The Cochrane Library
2002	7	Medline (PubMed) The Cochrane Library
2003-2004	35 (one week)	How to formulate a well built question (PICO) Bibliographical databases (Medline, Embase) The Cochrane Library Clinical Evidence Guidelines Web sites Medical Gateways Independent drug information Economic Evaluations
2004-2005	35 (broken down by topic)	How to formulate a well built question (PICO) Bibliographical databases (Medline, Embase) The Cochrane Library Clinical Evidence Guidelines Web sites Medical Gateways Independent drug information Economic Evaluations

In order to investigate the impact of teaching search strategies to retrieve the best available information, we sent a questionnaire to 50 participants of EBM Courses and Masters, 26 of them respond (52%).

Participants were medical doctors, pharmacists, biologists, statisticians.

According to the students' answers the main sources for EBM (Graph 1) The Cochrane Library and Clinical Evidence are consulted much more, proportionally to the bibliographic databases, also reducing the use of search engines (Google in particular).

Furthermore, the "traditional" way of finding information through the library has been extremely reduced and above all the channels of the Drug Companies is disappearing.



Graph. 1:  
Sources of information

After the Master students declare that Medline (Graph 2) is the most consulted database.

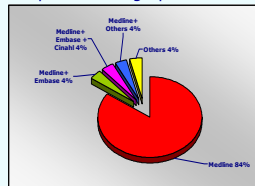
Provided the longer time given to presentation and use of other bibliographical databases, we are starting to see a more systematic search of sources.

Participants are also using strategies like Embase and Cinahl, reducing, as a consequence, the prevailing role of Medline.

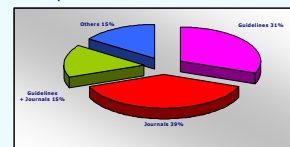
Furthermore it comes out that the participants keep on using also resources other than the primary and secondary databases (Graph 3), in order to effectively and efficiently find answers to their questions, for example through web sites of guidelines, trials' registers, using anyway an EBM oriented approach to the search.

Despite the time given to the bibliographical research and the different topics deeply dealt with, students are asking to dedicate more time to Bibliographic Citation Manager and search engines.

Graph. 2: Bibliographic databases



Graph. 3: Internet



Each EBM training pathway should then include a remarkable amount of hours regarding the way of finding the best evidence.

Since then the further development of the EBM course and its contents has necessarily involved a 'bridging' between Evidence Based principles and bibliographic research. This was attained through a multidisciplinary approach where the role of the Information Specialist becomes indispensable in so far as it acquires the necessary critical appraisal skills.

### References

- Sackett DL, Strauss SE, Richardson WS, Rosenberg W, Haynes RB. Evidence-Based Medicine: How to Practice and Teach EBM. (2nd edition). Edinburgh: Churchill Livingstone, 2000.
- Hunt DL, Jaeschke R, McKibbon KA. Users' guides to the medical literature: XXI. Using electronic health information resources in evidence-based practice. Evidence-Based Medicine Working Group. JAMA. 2000 Apr 12;283(14):1875-9.