



## Central Library, Quality Department and EBM Group join their forces at S.Orsola-Malpighi Hospital, Bologna, Italy.

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### QUALITY SYSTEM OF THE CENTRAL LIBRARY

The quality system of the Central Library is integrated in the quality system of the Hospital, that is certified ISO 9001/2000, hence the instruments of the quality System have been adopted by the Library.

As defined in Pubmed 2005 (ref.1) "Quality Control is a system for verifying and maintaining a desired level of quality in a product or process by careful planning, use of proper equipment, continued inspection, and corrective action as required".

According to this definition, the quality system of the Central Library is represented here in FIGURE 1

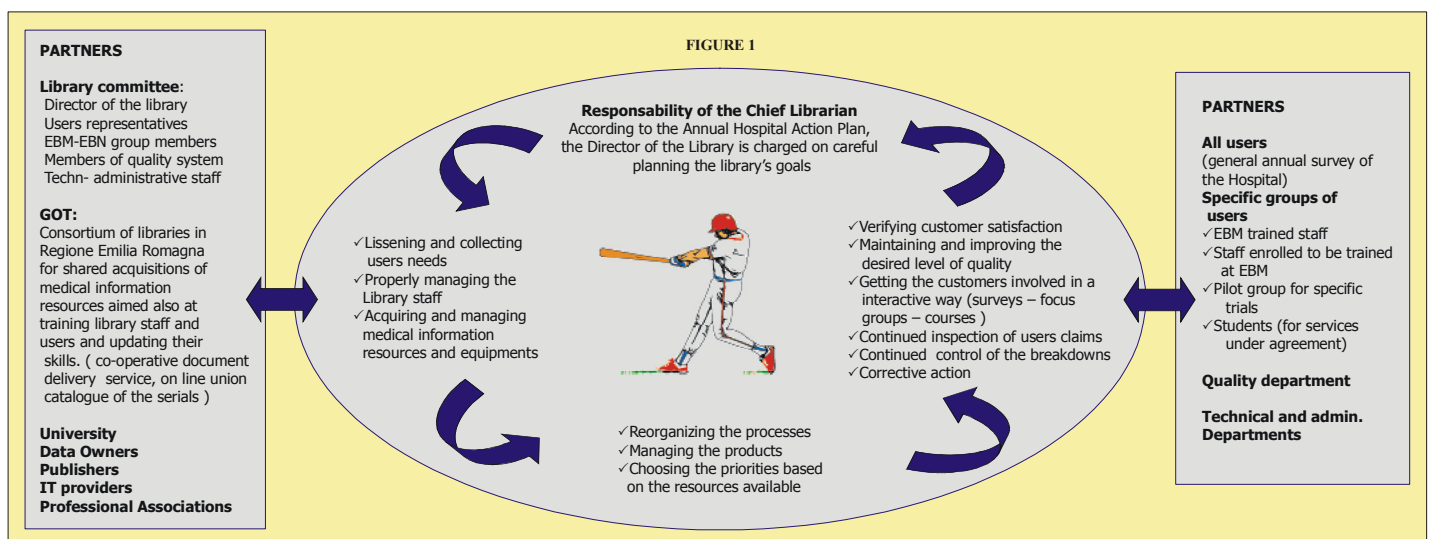
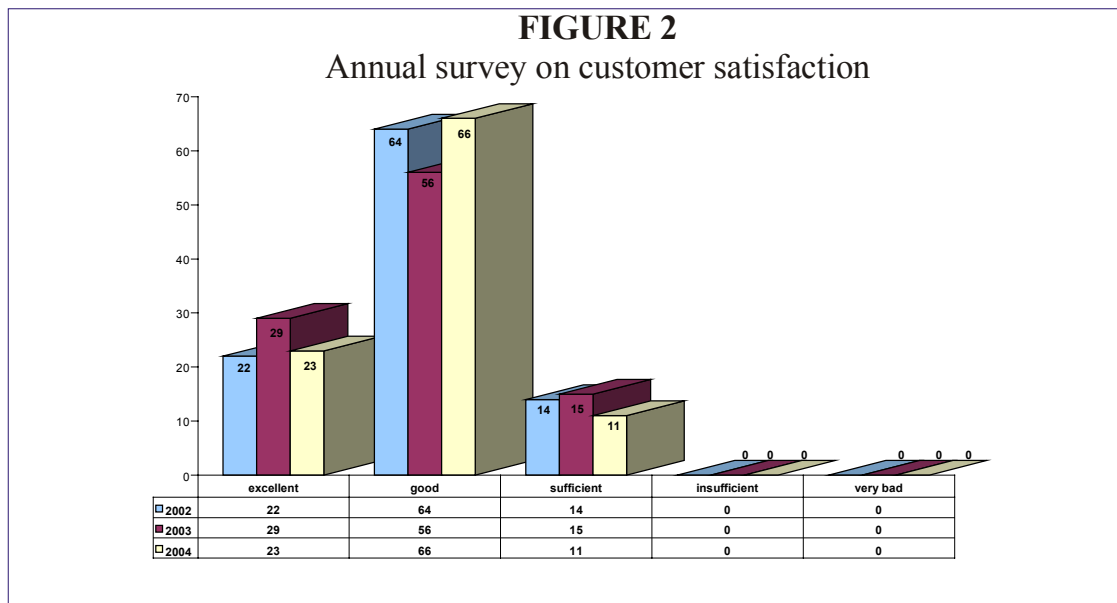


Figura 1

## THE 2002- 2004 ANNUAL SURVEY

The Central Library services are evaluated through the general annual survey of the Hospital concerning the satisfaction of the inner customer. This survey collects the expectations of the users, assesses the level of satisfaction and dissatisfaction and is helpful toward the planning of corrective and improvement actions.

The results of 2002-2004 annual survey concerning the satisfaction of the inner customer are reported in FIGURE 2: in the last three years the customers have judged our service like good, excellent and sufficient. Nobody has never judged it insufficient or very bad.



## SPECIAL AGREEMENT BETWEEN THE EBM GROUP AND THE MEDICAL LIBRARY

David Sackett (3) said to his MD colleagues: “ We can learn a great deal about current best information sources from librarians and other experts in medical informatics and should seek hands-on training from them as an essential part of our clinical training.”

By agreement with the EBM Group, the Central Library beside subscribing to the more commonly used electronic resources and databases, has been particularly engaged in acquiring the main EBM resources such as Cochrane Library database, Clinical evidence, TRIP meta-database, EBM guidelines. The group of regional purchase GOT has been helpful toward obtaining discounted prices plus free trial periods and formation for librarians.

For its part, the EBM group dedicates some lessons of its courses to the informative resources with particular emphasis on those organized by the Central Library and available in the Hospital Intranet accessible from the Library homepage.

The Central Library periodically publishes a short guide for the use of the intranet electronic journals and databases with instructions, password and search techniques and deliver it to all the participants to the EBM/EBN courses.

By means of a specific plan and with the authorization of the LAN manager, a pilot group of doctors and nurses has qualified to be connected also from home to the intranet electronic resources, overcoming the firewall: at the end of January 165 people were offered the opportunity for remote connection; after one month 68 persons joined the initiative and 15 of them asked for a brief course at the Library on how to configure their PC at home.

### **THE 2005 QUESTIONNAIRE ON THE USE OF ELECTRONIC RESOURCES AND ITS SPIN-OFF ON CLINICAL PRACTICE**

A questionnaire has been handed out in January 2005 to 100 doctors of the Hospital who have attended Introductory courses on the EBM tools held by the EBM Group during 2003-2004 (TRAINED GROUP) . A control group of 100 doctors not yet trained but registered for 2005 EBM courses was given the same questionnaire( NOT YET TRAINED GORUP ). Several MDs of both groups have attended User education courses organized by the Central Library. The survey was aimed at the understanding of how the doctors of the hospital use the electronic resources for their scientific information; what are the differences between the two groups and what is the spin-off on the clinical practice of the two groups.

The results of the questionnaire are given in Tables 1-5. Two groups enrolled:

TRAINED GROUP = MDs of the Hospital who have attended Introductory courses on the EBM tools held by the EBM Group during 2003-2004; some of them have also attended User education courses organized by the Central Library on available Databases and subscribed Electronic Journals.

NOT YET TRAINED GROUP = MDs of the Hospital not yet trained but registered for 2005 EBM courses; some of them have also attended User education courses organized by the Central Library on available Databases and subscribed Electronic Journals (full text).

100 questionnaires sent per group; 70 were returned from the “trained group”, 59 from the “not yet trained group”.

**table 1 - KNOWLEDGE of RESOURCES**

Services	Valid answers		Knowledge		Fisher's test
	TRAINED GROUP	NOT YET TRAINED	TRAINED GROUP	NOT YET TRAINED	
Best Evidence	66	52	70%	48%	p = 0.023
Cinahl	62	47	47%	40%	p = n.s.
Clinical Evidence	67	51	70%	61%	p = n.s.
<b>Cochrane Library</b>	70	54	<b>100%</b>	<b>82%</b>	<b>p &lt; 0.0001</b>
Codifa	61	47	38%	40%	p = n.s.
<b>EBMguidelines</b>	66	50	<b>89%</b>	<b>66%</b>	<b>p = 0.003</b>
<b>Embase</b>	64	49	<b>78%</b>	<b>41%</b>	<b>p &lt; 0.0001</b>
ImagesMD	63	47	51%	47%	p = n.s.
Medline	70	58	100%	98%	p = n.s.
Micromedex	62	46	57%	50%	p = n.s.
<b>Trip Metadatabase</b>	64	46	<b>53%</b>	<b>9%</b>	<b>p &lt; 0.0001</b>
Electronic Journals	68	54	93%	91%	p = n.s.

Comments to the table :

- the statistically significant differences between the two groups about the knowledge of resources are highlighted
- the best known resources are the one dealt with during the EBM and Library's courses

**table 2 - USEFULNESS OF THE RESOURCES**

Services	Valid answers		Indispensable / very useful		Chi-square Test
	TRAINED GROUP	NOT YET TRAINED	TRAINED GROUP	NOT YET TRAINED	
Best Evidence	44	24	73%	67%	p = n.s.
Cinahl	25	14	52%	36%	p = n.s.
Clinical Evidence	46	27	78%	59%	p = n.s.
<b>Cochrane Library</b>	70	42	<b>86%</b>	<b>74%</b>	<b>p = 0.029</b>
Codifa	17	15	24%	53%	p = n.s.
EBMguidelines	59	29	81%	69%	p = n.s.
<b>Embase</b>	48	17	<b>67%</b>	<b>35%</b>	<b>p = 0.028</b>
ImagesMD	27	18	41%	60%	p = n.s.
Medline	70	56	89%	91%	p = n.s.
Micromedex	32	20	55%	65%	p = n.s.
Trip Metadatabase	29	10	55%	60%	p = n.s.
Electronic journals	62	48	86%	90%	p = n.s.

Comments to the table:

- the number of valid responses depends on the positive answer concerning the awareness of the resource
- Among those who know Cochrane Library and Embase the "trained group" finds these resources more useful than the "not yet trained group"



**table 3 - HOW FREQUENTLY ARE RESOURCES UTILIZED**

Services	Valid answers		Use at least once per week		Chi-square Test
	TRAINED GROUP	NOT YET TRAINED	TRAINED GROUP	NOT YET TRAINED	
Best Evidence	44	26	30%	35%	p = n.s.
Cinahl	30	17	17%	12%	p = n.s.
Clinical Evidence	46	28	33%	39%	p = n.s.
<b>Cochrane Library</b>	68	42	<b>59%</b>	<b>38%</b>	<b>p = 0.008</b>
Codifa	21	16	19%	41%	p = n.s.
<b>EBMguidelines</b>	56	31	<b>41%</b>	<b>36%</b>	<b>p = 0.013</b>
<b>Embase</b>	47	19	<b>34%</b>	<b>21%</b>	<b>p = 0.026</b>
ImagesMD	27	19	22%	21%	p = n.s.
Medline	68	57	75%	72%	p = n.s.
Micromedex	33	20	36%	40%	p = n.s.
Trip Metadatabase	31	14	31%	21%	p = n.s.
Electronic journals	61	47	74%	79%	p = n.s.

Comments to the table:

- the number of valid answers depends on the positive responses on the awareness question
- among those who know Cochrane Library and Embase the “trained group” uses more often these resources compared to the “non trained group”

**table 4 - USEFULNESS OF THE RESOURCE VRT ADDRESSING THE CLINICAL QUESTION**

Services	Valid answers		always / often		Chi-square Test
	TRAINED GROUP	NOT YET TRAINED	TRAINED GROUP	NOT YET TRAINED	
Best Evidence	42	25	71%	84%	p = n.s.
Cinahl	26	16	50%	69%	p = n.s.
Clinical Evidence	43	26	77%	88%	p = n.s.
Cochrane Library	65	39	82%	82%	p = n.s.
Codifa	20	15	35%	60%	p = n.s.
EBMguidelines	54	27	85%	78%	p = n.s.
Embase	44	18	75%	56%	p = n.s.
ImagesMD	26	19	38%	37%	p = n.s.
Medline	67	53	93%	98%	p = n.s.
<b>Micromedex</b>	29	18	<b>62%</b>	<b>83%</b>	<b>p = 0.004</b>
Trip Metadatabase	29	13	69%	54%	p = n.s.
Electronic journals	56	46	84%	93%	p = n.s.

Comments to the table:

- the number of valid answers corresponds to the positive answer to the awareness question
- the “not yet trained group” considers more helpful Micromedex than the “trained group”

**table 5 - FURTHER ANSWERS**

Further answers with no statistically significant differences between the two groups.

The majority of the medical doctors of the two groups says:

- 1 Answering to a clinical query takes on the average half an hour or one hour
- 2 Internet connection and printer are available within the ward
- 3 They know how to use E.J. and they do not need fotocopies any more
- 4 They rarely need to go to the Medical Library personally

Some suggestions to the Library from the users of both groups:

- ✓ To enlarge the range of electronic journals / to improve the access facilities
- ✓ To spread information on the availability of the service and resources
- ✓ To have the librarian available for consultation on electronic information resources
- ✓ To unify the Hospital network with the University network in order to avoid superposition and in order to enlarge the range of available resources

## **CONCLUSIONS:**

A positive judgment of the Central Library's services has been given by the users. There are statistically significant differences between the two groups WRT using some of the resources dealt with during the EBM and Library's courses: Medline, Cochrane, EJ and EBM Guidelines are the top four best known resources; Medline and EJ are also considered the most useful WRT addressing a clinical query and are used for searches at least once per week by both groups Micromedex is considered more helpful by the control group than by the EBM trained group; among those who know Cochrane Library and Embase the "trained group" finds these resources more useful than the "not yet trained group".

The hardware available at every ward appears to be adequate.

Compatibly with staff and economic resources, the Central Library will address the suggestions put forward by the users in the questionnaire.

Follow up and continuing improvement actions are planned.

## **REFERENCES:**

- (1) Random House Unabridged Dictionary, 2d ed.
- (2) Cacciari P., Bortoluzzi L., Castellucci C., Pavani A., Sangiovanni D., Capelli M. "La certificazione ISO9001 del Sistema qualità dell'Azienda Ospedaliera di Bologna-Policlinico S.Orsola-Malpighi" in "De Sanitate" Qualità e Sicurezza nella Sanità - n.27, Giugno 2001 pag.2-13

(3) Sackett D. et al, Evidence based Medicine: how to practice and teach EBM, Churchill Livingstone, 2000

Acknowledgments: the authors would like to thank Giangiorgio Marchesini for the graphic work.