LATCH at the Washington Hospital Center, 1967–1975

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ABSTRACT

Immediate access to needed information is essential if medical personnel are to provide quality health care. At the Washington Hospital Center, *Literature Attached to Charts*, LATCH, was created in 1967 to provide the required information quickly. As a collection of a few relevant articles attached to the patient's chart, it supplies current literature on some aspect of the patient's illness. Following an account of the program's inception, an analysis of 1,935 LATCH requests for the years 1968–1975 reveals that new physicians, that is, interns and first-year residents, requested LATCHes most often. Requests in areas of internal medicine were the most common. The data also show that the program has been well received by its users. LATCH has affected the medical library in several ways. The program has been partially responsible for increases in staff, in the number of journal subscriptions, and in the number of literature searches requested. The program has also brought about greater access to the collection via the card catalog. An important effect has been the tremendous development of professional expertise in the staff preparing the LATCH.

IN recent years there has been an increased emphasis on improving the quality of health care. The Quality Assurance Program (QAP) developed by the American Hospital Association, the Professional Standards Review Organizations (PSROs) mandated by PL 92-603, and the Lawrence Weed Problem Oriented Medical Record (POMR) are all examples with this end. One requirement for quality health care is immediate access of medical personnel to up-to-date, relevant information from the vast and ever-expanding store of medical literature. West has written of this prerequisite for quality health care: "The scope and magnitude of clinically relevant information is now so great that no physician can know more than a very small fraction of the whole. The quality of medical practice is de-

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pendent on the capacity of the physician to mobilize information promptly in caring for his patients" [1]. Moreover, West has defined the role the library should take to meet this requirement: "If clinical practice is to be increasingly academic in character, libraries will assume a more important role. Libraries will become more directly involved in patient care. It will be necessary to have information more closely at hand. . . . The information must be brought closer to the patient" [2]. More and more medical libraries are assuming this role and are becoming directly involved with patient care by providing the necessary information at the bedside. The recent advent of the clinical librarian illustrates one form of this increased involvement.

At the Washington Hospital Center the required bedside information is provided by *Literature Attached to Charts* (LATCH), developed at the Washington Hospital Center by its former medical librarian, Jane M. Fulcher. The hospital has 925 beds and a house staff of about 200. It has teaching affiliations with George Washington and Georgetown universities, and also supports a diploma school of nursing. This paper will describe the development of the LATCH, examine the experience of the library with it at the Washington Hospital Center, and assess the effects the LATCH has had on the medical library.

DEVELOPMENT OF THE LATCH

Two fundamental assumptions were the basis for the development of the LATCH program: (1) patients will receive better medical care if their physicians and nurses are familiar with the recent literature, and (2) the library can substantially increase staff familiarity with such medical literature by placing it near the patient to whom it relates. Hence, a LATCH consists of a collection of a few good articles on some aspect of the patient's illness. This collection is attached to the chart of the patient at the request of any of the health care personnel attending him. Frequently, the patient's physician will write his request for a

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LATCH on the patient's chart along with his other orders. The unit clerk relays his request to the library by telephone. The process of producing a LATCH has been described elsewhere in detail [3-6].

The Washington Hospital Center began using the LATCH in September 1967, with support from a Medical Library Resource Grant from the National Library of Medicine.* In the initial stages of the program the librarian selected patients from the hospital's daily census sheet following guidelines suggested by the chiefs of the various specialties, the director of medical education, and the director of nursing services. Based on the admitting diagnosis, LATCHes were prepared for each patient selected. These early LATCHes consisted mainly of articles on the pathophysiology of the patients' illnesses. The difficulties in preparing good LATCHes for the selected patients on the basis of admitting diagnosis quickly became apparent. This diagnosis was usually described in very general terms on the census sheet, and it was often changed after further evaluation of the patient. Furthermore, many of the physicians were not interested in LATCHes containing only descriptive articles about common conditions. Thus, these LATCHes were often inadequate. The library, however, found that many physicians and nurses were willing to volunteer requests. These staff members wanted recent literature on an unusual disease they had encountered or more literature on one aspect of an illness, such as drug therapy. With this knowledge the librarian, beginning January 1, 1968, no longer selected patients for LATCHes. The library devoted its energies to responding within one or two hours to every request volunteered.

There was some initial resistance to the LATCH concept. Some physicians believed that it was a physician's responsibility to do his own literature searching and that a librarian did not have sufficient medical expertise to select applicable articles. When the usefulness of the LATCH was demonstrated, and, in the majority of cases, the librarian was able to select appropriate articles, most of this initial resistance was overcome.

Copyright also posed a problem. Although many publishers granted permission to make single photocopies from their books and journals for use in the LATCHes, several major ones

refused. This problem was alleviated somewhat by the use of tearsheets from duplicate journals of these publishers.

LATCH USE

The Washington Hospital Center Medical Library has now used the LATCH for almost ten years. The library's experience for the years 1968-1975 will be described. Whenever a LATCH is attached to a patient's chart, a cover sheet containing information about the request is stapled to the collection of articles. Upon its return to the library, the LATCH is cataloged and shelved for future use. A copy of the request, along with its NLM call number and any comments, remains on file. The data used to describe the experience with the LATCH were obtained from these records.

The data were used to answer three questions: Who requests the LATCH? What subjects are requested? What do its users think of the LATCH?

A total of 1,935 requests were examined for the period 1968-1975 (see Table 1). Data from the 1967 requests were not included because the majority of the topics were selected by the librarian rather than volunteered by hospital staff. Of the 1,935 requests, 124 or 6.4% were excluded because they contained incomplete information in one of the areas other than "comments." The remaining 1,811 requests provided the data for Tables 2-4.

Who requests the LATCH? In view of the assumptions made in its establishment, it was expected that attending physicians and staff nurses using the LATCH as a current awareness tool would request them most often. This appears to be a secondary function. The LATCH has been used primarily to educate new physicians (see Table 2). While attending physicians and staff nurses

TABLE 1

LATCH REQUESTS

Year	Number of requests
1968	197
1969	249
1970	282
1971	253
1972	301
1973	210
1974	179
1975	264
Total	1,935

TABLE 2

REQUESTS BY REQUESTER CATEGORY, 1968–1975

Requester	Number of requests	% requests
Attending physician	226	12.4
Staff nurse	139	7.7
Medical intern	853	47.1
Surgical intern	106	5.9
Medical student	14	0.8
Resident, first year	280	15.5
Resident, second year	87	4.8
Resident, third year	37	2.0
Resident, fourth year	29	1.6
Fellow (neonatology, pulmonary, endocrinology)	37	2.0
Other	3	0.2
Total	1,811	100.0

account for 20.1% of the requests, interns, both medical and surgical, and first-year residents account for 68.5%. The LATCH seems to be of great assistance to these new physicians who have much to learn about clinical medicine. It saves them time and provides them with relevant material.

It was found that the LATCH is used most heavily by residents in internal medicine (Table 3), amounting to over 60% of the requests; about 22% of the total number of residents are in this department.

What subjects are requested? The data indicate that the majority of the subjects were in internal medicine (see Table 4). Five of the classes with percentages over 5%, that is, WF-respiratory

TABLE 3

REQUESTS OF RESIDENTS BY DEPARTMENT, 1968–1975

Department	Number of requests	% requests
Internal medicine	270	62.5
General surgery	71	16.4
Obstetrics and gynecology	12	2.8
Otolaryngology	10	2.3
Oral surgery	2	0.5
Ophthalmology	7	1.6
Urology	16	3.7
Orthopedics	35	8.1
Neurosurgery	9	2.1
Total	432	100.0

system, WG-cardiovascular system, WH-hemic and lymphatic systems, WI-gastrointestinal system, and WK-endocrine system, all pertain to internal medicine. This distribution reflects the large number of requests from the department of

TABLE 4

SUBJECT CLASSIFICATION OF REQUESTS, 1968–1975

Major classes of NLM schedule*	Number of requests	% requests
QS Human anatomy	2	0.11
QU Biochemistry	15	0.83
QV Pharmacology	80	4.42
QW Bacteriology and immunology	26	1.44
QY Clinical pathology	17	0.94
QZ Pathology	33	1.82
W Medical profession	1	0.06
WA Public health	2	0.11
WB Practice of medicine	34	1.88
WC Infectious diseases	76	4.20
WD 100 Deficiency diseases	2	0.11
WD 200 Metabolic diseases	53	2.93†
WD 400 Animal poisoning	2	0.11
WE Musculoskeletal system	130	7.18
WF Respiratory system	96	5.30
WG Cardiovascular system	229	12.65
WH Hemic and lymphatic systems	170	9.39
WI Gastrointestinal system	241	13.31
WJ Urogenital system	97	5.36
WK Endocrine system	160	8.84
WL Nervous system	132	7.29
WM Psychiatry	38	2.10
WN Radiology	9	0.49
WO Surgery	13	0.71
WP Gynecology	24	1.33
WQ Obstetrics	6	0.33
WR Dermatology	84	4.63
WS Pediatrics	8	0.44
WU Dentistry, oral surgery	1	0.06
WV Otorhinolaryngology	11	0.61
WW Ophthalmology	18	0.49
WY Nursing	1	0.06
Total	1,811	99.53†

*There were no requests in classes QT, QX, WD 300, WD 500, WD 600, WD 700, WT, WX, and WZ.
†Total does not equal 100.00% because of round-off error.

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internal medicine. The three other classes with over 5%: WE-musculoskeletal system, WJ-urogenital system, and WL-nervous system, can be accounted for by the postgraduate education programs offered. The Washington Hospital Center has active residencies in orthopedics, urology, and neurosurgery.

What do its users think of the LATCH? In ascertaining an answer to this question, it was found, surprisingly, that 67.3% (1,219) of the requests had no comments added. Although this overwhelming lack of opinion on the LATCH's usefulness could be interpreted negatively, it is speculated that the personnel reading the LATCHes are too busy to supply comments. Nevertheless, the personal feedback the library has received indicates that the LATCH is very useful. Of 855 comments on 592 requests, 71.8% termed the LATCH as "very useful." "Moderately useful" accounted for 25.2%; 3.0% were "not useful."

In summary, the data collected reveal three major points about the library's experience with LATCH: (1) new physicians are the most heavy users of the LATCH, (2) it is most often requested for topics in internal medicine, and (3) the program has been very well received by its users.

EFFECTS OF THE LATCH ON THE LIBRARY

The basic assumption underlying the LATCH program is that the patient will receive better care if the personnel treating him are familiar with the information in his LATCH. At present no method has been devised to determine whether the LATCH has this desired effect. Only subjective comments from users suggest that the LATCH has helped them to provide better care for their patients. On the other hand, the effects the LATCH has had on the collection, the services, and the staff can be assessed.

LATCH has affected the library's collection in two ways. First, during the period 1968–1975, the number of paid journal subscriptions increased by 38%. Only part of this can be attributed to LATCH. Although many titles were added that appeared frequently in literature searches for LATCH requests, this increase also reflects the growth of the journal market. In addition, the program's emphasis on the fast delivery of information to the bedside requires the library to have in its own collection the journals used for the LATCH. Sometimes interlibrary loans are used in LATCHes that need a classic paper; the borrowed

article is then added to the LATCH on the nursing unit when it arrives.

Second, as was stated earlier, upon the patient's discharge his LATCH is returned to the library, cataloged, and shelved with the books. This practice has resulted in over 1,000 up-to-date information packages and has greatly expanded the collection's coverage of clinical medicine. Whenever one of these packages is reused for a LATCH request, the most recent literature is added to it to keep it current.

LATCH has also affected the services offered by the library. First, access to the collection via the card catalog has increased. The LATCHes returned to the library are fully cataloged with key-word titles as well as subject headings. These key-word titles allow users to easily locate information that would be difficult for them to find if they only had subject headings to search under. For example, "locked-in syndrome" is a key-word title entry. Hence, this full cataloging has helped both the library's users and its staff to locate more information more quickly.

Second, in an effort to reduce repeated LATCH requests for certain types of information, but still provide the needed information close to the patient's bedside, the library began placing basic textbooks on the nursing units. A new resident on the coronary intensive care unit can, for example, consult a current monograph on the heart for a review of the complications of myocardial infarct.

Another effect of the program has been an increase in the number of literature searches requested aside from the LATCH. During the years 1971–1975 the library experienced an increase of 417% in these search requests. Having seen what the library can do in the LATCH, many users have come to rely on the library for information they do not have the time to search for themselves.

Finally, the LATCH program has had a substantial effect on the staff of the library. The Medical Library Resource Grant initially provided funds to hire a half-time clerical assistant to allow the librarian to spend time preparing the LATCHes. This position was absorbed by the library, and has since become full time. The library has also added an assistant librarian.

The greatest effect has been the tremendous development of professional expertise in the staff producing the LATCH. The librarians working with it have learned much about medicine and its practitioners. They have discovered the value of the older literature and have acquired a sense of perspective in dealing with the vast body of

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medical knowledge. The staff has become aware of the controversies, trends, and current developments in clinical medicine. By using the literature to find answers to specific questions, they have developed critical judgment in evaluating various books and journals. Moreover, they have been able to locate information more quickly simply because they have handled it. Finally, the staff has derived a sense of satisfaction from this meaningful, direct involvement in improving the quality of health care.

CONCLUSION

Speaking of the future role of medical libraries, Bishop has said, "As our knowledge and information increase in complexity, so does the need increase for people trained to thread their way through this maze of information, to find what is pertinent, combine it with what is related, merge it into what is needed. . . . Our society has entered a phase in the evolution of health care that requires such a service" [7]. *Quality* health care demands such a service. The LATCH program at the Washington Hospital Center is a move in this direction.

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