Hospital librarianship in the United States: at the crossroads

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This paper examines recent developments in hospital librarianship in the United States, including the current status of hospital-based clinical library services. Several examples of hospital library services are presented that demonstrate some characteristics of struggling and thriving services. The implications of the informationist concept are considered. The continuation of the hospital librarian's primary role in support of patient care is explored, as core competencies are reexamined for relevancy in the new millennium.

INTRODUCTION

After decades of growth and change, hospital librarians are at a crossroads. Though we have been at this stage in our journey prior to the presentation of the informationist concept, the discussion subsequent to the publication of the editorial in the *Annals of Internal Medicine* calling for a new health information professional has provided us an opportunity to stop and reflect. Some of this reflection—played out on library electronic discussion groups, in editorials, and during professional meetings—has included vigorous defense of the value hospital librarians add to patient care and health sciences education. Some discussions involve

challenges to create new roles for clinical information specialists. But like all thoughtful travelers, we are wise to pause, assess our options, reach consensus, and move on purposefully, based on the best judgment of our best people.

This paper sets the stage for further discussion by reviewing recent developments in hospital librarianship in the United States, examining current hospital library environments and clinical library programs, and considering the future of the profession specifically in terms of the informationist concept. More generally, discussion of the traditional strengths of hospital librarians is included.

THE STATUS OF HOSPITAL LIBRARIES AT THE START OF THE NEW MILLENNIUM

In 1983, Bradley wrote that, ''Today's hospital library is an active, service-oriented special library . . . the library contributes to the hospital's primary mission of providing patients with the best possible care'' [1]. Almost twenty years later, the authors of this paper agree with Bradley's assessment. Hospital libraries in the United States entered the new millennium with a record of substantial progress during the last decades of the twentieth century. Aided by the extramural programs of the National Library of Medicine, hospital libraries were established throughout the country, and hospital librarians formed local consortia for the dual purposes of resource sharing and mutual support. Facsimile transmission of articles and online searching made their appearances in the 1970s, and access to the Internet greatly enhanced hospital library services during the 1990s.

Due partly to the advanced status of medical bibliography, especially compared with other areas of research, medical librarians were the first beneficiaries and pioneers when electronic database-searching services became available. In fact, librarians were among the most computer savvy professionals in many hospitals and took up new roles, such as being leaders of personal computer user groups, members of planning teams for computer-based instruction initiatives, members of Internet advisory committees, and, in some institutions, Web managers.

Hospital librarians have entered the new millennium with concerns for continuation of that status and progress. Rapid changes in health care delivery and reimbursement systems, closure of hospitals, and consolidation of hospitals into larger health care networks are some causes of those concerns. Libraries, as nonrevenue-generating hospital departments, are not only concerned about maintaining the quality of their services during years when budgets are flat or decreasing, but are also concerned for their very survival.

One of the few available measures of trends in hospital librarianship is the membership of the Hospital Library Section (HLS) of MLA. Section membership grew rapidly in the 1990s, peaking at 1,606 members in 1996. Since then membership levels have gone on a downward trend to the level of a decade ago. At the time of writing, the 2001 section membership is 1,285. Apparently, national MLA membership is also on a downward trend. Unfortunately, data about former section members are not currently available for analysis. Going forward, the current HLS Membership Committee will study this trend to determine why section membership is dropping. Section membership appears to indicate that hospital librarians are fewer in number and suggests that the profession is losing vitality.

There are indications to the contrary. Many hospital librarians participate fully in the activities, meetings, and leadership of the association and its chapters. Hospital librarians' voices are heard (virtually) throughout discussions on MEDLIB-L. The Hospital Library Section's newsletter, *National Network,* is read by many outside the section membership. In 2001, *National Network* was joined by another national publication for hospital librarians, the *Journal of Hospital Librarianship.*

These visible and positive contributions may do little to reduce the anxiety of some hospital librarians who perceive that their institutions will do little to preserve library services during times of economic downturns. Librarians have often looked to accrediting agencies as allies in the effort to gain support for library services. In the United States, only one organization that accredits hospital educational programs has a requirement for a librarian—the American Osteopathic Association (AOA) requires a qualified librarian for hospitals with osteopathic residency programs [2]. Even so, the AOA does not define the required educational level of a qualified librarian, nor does it require a librarian to work full-time. Other accrediting organizations—such as the Joint Commission on the Accreditation of Healthcare Organizations (JCAHO), the American Medical Association (AMA), and the National League for Nursing (NLN)—require access to medically relevant information onsite, but only NLN indicates that a librarian should be onsite [3–5]. During NLN site visits to accredit diploma and practical nursing programs, the guidelines state that there should be a meeting with the librarian [6, 7]. The Medical Library Association (MLA) has established significant standards for hospital libraries [8], and those standards are under revision by the Hospital Libraries Section. The National Network of Libraries of Medicine (NN/LM) has set up a guideline resource center designed for new medical librarians on the management of medical libraries [9]. However, it is important to note that the suggested guidelines by MLA and NN/LM are just that, suggested guidelines, and not accreditation standards.

Halberstadt, a former hospital librarian turned hos-

pital administrator, once warned that a hospital library might represent far less than 1% of the hospital's budget, but that library's budget might represent 10% of a cost cutter's goal [10]. Halberstadt stressed that hospital librarians should actively market their services and the value of those services to administrators. Many hospital librarians have followed his advice and that of hospital librarians like Ben-Shir, who urged hospital librarians to adopt corporate information center models [11]. Such efforts have not always been successful, and documentation of the value of the library to the hospital bottom line has been difficult to determine.

In recent years, vast resources available through the Internet may have given hospital administrators the impression that maintaining hospital libraries is unnecessary. The availability of free MEDLINE, direct access for health professionals to interlibrary loan ordering systems, and online document delivery may have contributed this belief. Librarians have worked to counter these impressions by educating administrators and other key hospital personnel about ways the hospital library and the Internet complement one another. Brennan recommends that administrators be made aware of the cost benefit of employing professionally trained medical librarians, rather than leaving information seeking to higher-paid health care providers [12].

The following four snapshots illustrate the great range of hospital library services. Each snapshot represents a different type of environment, beginning with rural hospital library services in the state of West Virginia. This is followed by a snapshot of urban and suburban hospital libraries in a Pittsburgh health system. The third vignette describes a thriving hospital library in Denver and the fourth, a contract library service for hospitals in Delaware.

A SNAPSHOT OF RURAL HOSPITAL LIBRARY SERVICES IN WEST VIRGINIA

Providing library services to rural hospitals often differs from traditional hospital-based library services. West Virginia provides nontraditional methods of health information access. Ohio Valley Medical Center (OVMC) in Wheeling is the only community-based hospital in the state that employs a professionally trained medical librarian. With 225 beds, OVMC is one of the larger hospitals in the state. The rest of the state's community-based hospitals rely primarily on nonprofessional librarians or personnel from other hospital departments to staff their libraries or provide some forms of library services. Additional support is provided by West Virginia's three academic health centers through various outreach programs.

The medical library at OVMC has enjoyed relative success, because it is the only professionally staffed community hospital library in the state. The last three library directors have assumed strong leadership roles in West Virginia's medical library community. In 1999, OVMC experimented for a six-month period with not having a library director. The hospital administration discovered that library services were significantly less efficient and inferior to those provided when a professional library director was employed.

The library budget has remained intact over a number of years. This can be directly attributed to strong funding and investments from the hospital's medical staff. The administrative and information services departments have also been supportive of the library. The OVMC information services department has also supported the early stages of the development of an electronic library.

West Virginia University supports a primary program in the state called West Virginia CONSULT [13]. The main purpose of this program is to provide computers and support for hospitals to access medical information. None of the employees of West Virginia CONSULT are trained librarians. The library staff of the West Virginia University's Health Sciences Library assumes responsibility for library consultation services to the community-based hospitals. Both West Virginia CONSULT and the West Virginia University's Health Sciences Library provide continuing-education services statewide to all individuals providing health sciences library services.

The West Virginia School of Osteopathic Medicine (WVSOM) also provides library services to their medical students and residents in the state through a program called Mountain State Osteopathic Postdoctoral Training Institutions (OPTI) [14]. The primary purpose of this program is to provide information access to family practice residents working in West Virginia. These residents and students have access to electronic resources that are not available at most of West Virginia's hospitals. Access is restricted to students and residents and is not available to library staff in the community-based hospitals.

Marshall University provides a similar program called Rural Net [15]. The primary purpose of this program is to provide information access to the emergency medicine residents and professionals in the state. The program also provides distance-learning opportunities as do West Virginia CONSULT and Mountain State OPTI.

A SNAPSHOT OF URBAN/SUBURBAN HOSPITAL LIBRARIES SERVICES IN A STRUGGLING HEALTH SYSTEM

The St. Francis Health System in Pittsburgh, Pennsylvania, is an independent community hospital–based health system, currently with three facilities in western Pennsylvania. In 1993, the system supported

staffed libraries in each of its three hospitals. The system also included an outpatient center, which would transform into a hospital later in the decade. Through the mid-1990s, it would be one of the strongest health systems in western Pennsylvania. In 2000, it narrowly avoided bankruptcy, closed one of its hospitals, and entered into a management agreement with the University of Pittsburgh Medical Center Health System for another of its hospitals [16, 17]. Health system staffing, including the library staff, was adversely affected during this time period.

The flagship library of the health system is at the St. Francis Medical Center. With 549 beds, it is one of the largest hospitals in Pittsburgh. In 1993, this library employed four professional librarians and one clerk. In 1994, the library lost two professional librarian positions through attrition and, by 1995, had replaced those positions with one professional librarian and one clerk. In 1996, the library director left and was replaced by one of the remaining professional librarians. At that time, mediated searching for residents was discontinued. The resulting professional vacancy was then replaced with a clerical-level position. In 1999, this position was eliminated. In 2000, two more positions were eliminated, one professional and one clerical. The current staff consists of one professional librarian and one clerk.

After 1996, other services were adversely affected as well. From 1998 to 2000, close to half of the journal subscriptions were cut, and new book purchases were reduced more than 80%. Subscriptions to some CD-ROM databases were also suspended. As noted above, the library staff cuts were part of overall reductions, and there were fewer library customers to serve. Recently, efforts have been made to strengthen online resources, and the library currently provides an online catalog, STAT!Ref, and Harrison's Online.

St. Francis Hospital of New Castle, the second largest hospital in the health system with 193 beds, has the second largest library. During the same time period (1993–2001), the staffing of the library remained constant at one professional librarian. However, the librarian assumed additional duties in the School of Radiography.

St. Francis Central Hospital, with 136 beds, was the smallest of the three hospitals in 1993 and closed its doors in 2000. Prior to the closing, the library of this hospital was staffed part-time, with hours decreasing at the librarian's request. The librarian retired approximately a year prior to the closing of St. Francis Central Hospital. The position remained vacant until that time, with library services provided by the St. Francis Medical Center. Meanwhile, St. Francis Hospital of Cranberry became a hospital in 1998. This hospital, currently the smallest in the health system with only thirty-five beds, provides a reading room with no library staffing. The library staff of the St. Francis Medical Center provides library services to the St. Francis Hospital of Cranberry.

A SNAPSHOT OF A THRIVING HOSPITAL LIBRARY

Presbyterian/St. Luke's Medical Center is a 680-bed facility in Denver with nearly 2,000 employees and 900 affiliated independent physicians. Specialty services include high-risk obstetrical care, pediatric and newborn services, limb preservation, bone marrow transplants, wound care, organ and tissue transplants, orthopedics, oncology, cardiology, neurology, sports medicine, and rehabilitation. Presbyterian/St. Luke's Medical Center's Hospital for Infants and Children offers a 138-bed ''children's hospital-within-a-hospital'' dedicated to neonatal and pediatric care.

The Denver Medical Library provides library services for Presbyterian/St. Luke's. The library is a thriving hospital library with an extraordinary history. The origins of the library can be traced back to John Cotton Dana's tenure at the Denver Public Library in the late nineteenth century. In 1893, the physicians of the city asked Dana to house their books and journals in what Dana called a ''center of public happiness.'' Eventually, the medical collection separated from the public library and became the library of the Denver Medical Society. The library was at the brink of extinction several times in its 100-plus-year history and once was saved only by the sale of some of its most rare books. The Denver Medical Library was housed in a free-standing building on land that was acquired by Presbyterian/St. Luke's, and that acquisition led to the incorporation of the library into the medical center. The name (Denver Medical Library) was retained, and, currently, the library is administratively separate from the Denver Medical Society. In addition to the medical collection, the Denver Medical Library offers the Family Health Library and a medical book ordering service.

The library's customers are served by a staff of four professional librarians and two support staff. The customer base includes Presbyterian/St. Luke's physicians, house staff, patients, employees, and family members; Denver Medical Society and Colorado Medical Society members; and HealthONE employees. Family Health Library services are provided to the general public as well as to the customers listed above.

The Family Health Library collection was created to help patients, their families, and the public find health-related information from books, magazines, videos, and health-related computer databases. Customers of the Family Health Library may place requests for health information in person or by phone, fax, mail, or email. There is no charge to the public for Family Health Library services. Patients or family members of patients at Presbyterian/St. Luke's have access to the Internet and email, computers for word processing,

PowerPoint and Excel, a fax machine, a photocopier, and a fiction book collection.

In recent years, the Denver Medical Library has maintained or increased budgets, added staff, and expanded services. The staff looks forward to continuing and expanding their services and resources.

A SNAPSHOT OF CONTRACT LIBRARY SERVICES FOR HOSPITALS

Using the title of the ''circuit-riding'' ministers of colonial days, hospital library services have also been provided by circuit-riding librarians. This model has been applied in both urban and rural communities to provide library services to health care providers whose institutions do not support onsite professional librarians.

One example of a circuit-riding library program is that of the Delaware Academy of Medicine, which serves rural, suburban, and urban hospitals. The Delaware Academy of Medicine was organized in 1930 by a group of local physicians and dentists to foster interest in medicine, science, literature, and educational activities. At that time, the library was established and began collecting books, journals, and artifacts to preserve the history of medicine and dentistry in Delaware. The Circuit Riding Medical Library Program was established in 1982. It currently serves five hospitals in Delaware and Pennsylvania: the Alfred I. duPont Hospital for Children, Delaware Psychiatric Center, Friends Hospital, Nanticoke Memorial Hospital, and St. Francis Hospital.

The circuit-riding librarians are employees of the Delaware Academy of Medicine. They spend one or two days per week at each participating hospital. Frequency and level of services are determined through contract negotiations with the participating hospitals. Some services, such as maintenance of collections and participation in grand rounds are provided at the hospitals, and other services are provided at the Delaware Academy of Medicine's Lewis B. Flinn Library. Staff at the participating hospitals may use the academy's Website, telephone, or facsimile to request literature searches and interlibrary loans when the circuit riders are not present.

SPECIALIZED HOSPITAL-BASED CLINICAL LIBRARY SERVICES

Clinical medical librarianship programs, as they are now known, were first described by Lamb. One of her first articles on the subject was published in 1974 [18]. Lamb developed the concept of the clinical medical librarian (CML) as a trained librarian participating in clinical rounds whose performance would be measured as a contribution to the improvement of patient care [19]. While much of the literature on clinical librarianship described individual programs, two recent articles discussed clinical librarianship in a broader context. One, published by Killingsworth in 2000, described three different models of clinical librarianship [20]. Morley and Buchanan's article, published in 2001, reviewed the value of clinical librarianship to patient care and included a useful appended job description of a clinical librarian at the University of New Mexico Heath Sciences Center Library [21]. Royal listed all active programs in 1993 in a paper that identified thirty clinical medical library programs, which were based either at very large medical centers or at universities [22].

A review of the literature of the past decade on the impact of clinical library service programs yielded a report of a survey of forty randomly selected medical schools regarding such services by Demas and Ludwig [23] and articles by Veenstra, Veenstra and Gluck, and Royal in 1992 and 1993 [24–26]. Veenstra reports that a survey of house officers indicated that the information provided in an intensive care unit aided in diagnosis, contributed to a better understanding of therapy, and resulted in improved patient care. Royal's 1993 study described the success of a clinical medical library program in an academic autopsy pathology service. Results of the survey over an eleven-month period indicated that the use of a clinical librarian program increased efficiency in evaluating the literature as perceived by the pathologists.

To illustrate types of clinical library services, examples of two successful but very different programs are given below.

A SNAPSHOT OF A LITERATURE ATTACHED TO CHART (LATCH) PROGRAM

Abington Memorial Hospital is a fully accredited, not-for-profit, 508-bed community teaching hospital. It is a comprehensive regional health center, serving people in Montgomery, Bucks, and Philadelphia Counties. Abington Memorial Hospital has a strong educational mission and sponsors five residency programs. The hospital provides postgraduate medical education in affiliation with several area medical schools. The hospital also operates the Abington Memorial Hospital Schools of Nursing, Radiologic Technology, and Medical Technology.

The Abington Memorial Hospital (AMH) library director has worked at AMH since she began her graduate library education in the early 1980s. At that time, she started a clinical library program with the family practice residents. She attended morning report twice a week and attended rounds three times a week. The residents were enthusiastic about the program and reported that the provided articles increased their knowledgebase. This program continued for five years. A new interim chair thought it was a violation

of confidentiality to have the librarian attend rounds, so the program was terminated.

Rather than let the clinical library program cease, the librarian initiated a Literature Attached to Chart (LATCH) program. Having focused on clinical librarianship during graduate studies, the librarian knew that the origins of clinical librarianship were in a LATCH program, first reported in the literature in 1975 [27]. A LATCH program would allow her to meet the information needs of nurses, who were seldom able to spend time in the library. Given concerns about confidentiality, the librarian sought support from nurse administrators, educators, and the literature. The legality of LATCH programs had been reviewed by Babish and Warner in 1983, and that article eased administrative concerns [28].

Support from nursing administration allowed the library to build the journal collection in nursing specialties. This step was deemed necessary to support an effective and speedy LATCH program. (The library currently subscribes to 140 nursing titles.) The librarian then promoted the programs to the nurse managers and piloted the program on two of the nursing units. In order to educate the staff, the nurse educators and the librarian scheduled orientation sessions for all three shifts on both units.

The librarian designed a LATCH request form, using many Medical Subject Headings (MeSH) subheadings, so that requesters could narrow or expand their topics. Pads of request forms were provided to each unit, as the LATCH pilot program was introduced. When learning of the program, nurses expressed enthusiasm and delight that the library would support their needs for patient care information.

The library's ability to fill requests was supplemented by the resources of a local consortium of hospital libraries. An evaluation form was included with each completed request. The evaluation form asked about the appropriateness and timeliness of the service and asked if the customer would use the service again. The evaluation indicated that the pilot was an overwhelming success, and the LATCH program was expanded to all of the nursing units.

The librarian's goal was to annually increase LATCH requests, and the increase was approximately 15% each year. Over the eighteen years of the program's existence, more than 10,000 requests have been filled. The librarian's presentation about LATCH was made a routine part of nursing orientation, so that all newly hired nurses learned about the benefits of the program, which now includes all departments of the hospital.

The LATCH program has expanded but operates with the basic guidelines developed in the 1980s. One change has been the preference of staff to call LATCH requests in to the library. AMH staff members can now request library services through the hospital's Website. Response to the program continues to be positive. The librarian notes that health care providers even take the time write thank-you notes for the LATCH services.

A SNAPSHOT OF A HOSPITAL LIBRARY PROVIDING CLINICAL LIBRARY SERVICES THROUGH PARTICIPATION IN MORNING REPORTS OR ROUNDS

Christiana Care Health System is a community-based partnership of physicians, hospitals, and other health care providers. Based in Wilmington, Delaware, Christiana Care Health System (Christiana Care) is one of the largest health care providers in the mid-Atlantic region, serving all of Delaware and portions of seven counties bordering the state in Pennsylvania, Maryland, and New Jersey. The components of the health system include two hospitals, the Eugene du Pont Preventive Medicine and Rehabilitation Institute, a long-term care facility, visiting nurse services, and wellness centers.

The Christiana Care Medical Libraries provide clinical library services to residents and medical students to support the patient care decision-making process with evidence from the health sciences literature. Clinical library services have been offered at Christiana Care for over a decade. The program was initiated when the Department of Medicine asked if reference librarians could attend morning report and provide literature searches based on the cases of newly admitted patients. A similar service was established with the Department of Family Medicine the following year. The basic components of the services have changed little over the years. Librarians attend morning report (also referred to as morning rounds) with the residents once or twice per week. Reports (or rounds) are meetings held in conference rooms, not ''walking'' rounds conducted in patients' rooms. After the meetings, the librarians confer with the medical-dental staff who serve as faculty or with the chief residents to determine topics for literature searching. The librarians return to the libraries, complete the searches, and make the information available to the residents by midday.

The information provided to the residents usually consists of citations, full text of selected articles, and, as appropriate, selections from books or online resources. One change in the service has been the greater use of email to deliver search results to the residents and to point the residents to other resources networked by the libraries, such as MICROMEDEX, MD Consult, and Books@Ovid. Library staffing determines the frequency of participation in reports. The departments would prefer daily library participation, and the libraries would be delighted to provide it if additional reference staff could be added.

There is great variety in how reports are conducted,

and the librarians respond to the differences in structure and style. Some faculty members discuss one case in detail; others spend equal time discussing all of the newly admitted patients. Some faculty members make requests for specific articles; some help the residents develop clinical questions for the librarians; and other faculty members rely on the librarians to determine which topics to search. All participants rely on the librarians to respect the confidentiality of the patients and providers whose care is discussed. The librarians never record patient names and, when discussing cases, never use patient names.

The two departments involved with the program have different assignments for chief residents and for residents responsible for teaching. Responsibilities have changed over time within the departments as well. During one year, the Department of Medicine created a teaching rotation for upper-year residents. These teaching residents were expected to conduct literature searches, especially on days when librarians were not at rounds. This activity quickly led to one-on-one teaching of those residents by one of the clinical librarians. In conjunction with the faculty, the clinical librarians developed a trial program for the teaching residents. The program included:

- assessment of the residents' search proficiency
- formal searching instruction
- parallel searching by residents and clinical librarians
- comparisons of searching results on searches conducted by both the residents and librarians
- evaluation of the residents' participation

This addition to clinical library services was very well received by faculty members and residents. Library staff found the trial program exciting and rewarding in the knowledge that the residents were gaining strong searching skills. However, the additional time invested in the program was considerable. The residency year following the trial program did not include teaching resident rotations, but the program was reestablished for the residency year 2001/2002.

Another change has been the interest of the faculty in evidence-based medicine (EBM). Searches for the clinical program had always been filtered for such quality indicators as publication in major journals and currency. The techniques of EBM searching assisted the clinical librarians in limiting searches to high-quality studies. To support EBM searching, the libraries added the three EBM Reviews databases—Best Evidence (ACP), Cochrane Database of Systematic Reviews (COCH), and Database of Abstracts of Reviews of Effectiveness (DARE)—to the Ovid databases networked for Christiana Care.

In addition to the primary goal of enhanced decision making by residents, the librarians have noted other benefits to participation, such as:

- increase in requests for library services (unrelated to morning reports)
- continuing education for the librarians
- awareness of trends in health care that support collection and resource development and opportunities for on-the-spot teaching
- increased knowledge of the major diseases treated at Christiana Care
- promoting Christiana Care (and library services) to prospective residents

Applicants to residency programs in Medicine and Family Medicine all attend morning report and observe the clinical librarians ''in action.'' Feedback from applicants indicates that the clinical library program is very well received.

Another benefit of the clinical library program is the positive image of librarians conveyed throughout the Christiana Care Health System. Being seen as members of the health care team has led to increased participation by librarians in systemwide committees that focus on both clinical and business concerns. Some examples of such committee appointments include the Complementary Medicine Assessment Committee, Patient and Family Education Committee, Patient Safety Committee, and Primary Care Guidelines Team.

THE INFORMATIONIST: A NEW DIRECTION FOR CLINICAL LIBRARIANS?

In 1997, Giuse called for a ''cultural shift'' in clinical librarianship [29]. She was followed by Davidoff and Florance, who proposed the creation of a new, hybrid health care professional. This new professional, called the informationist, would ''bridge the literature-practice gap'' [30].

In many ways, clinical medical library programs have initiated the cultural shift suggested by Giuse and have started to bridge the literature and practice gap. Davidoff and Florance emphasize the need for formal clinical training for informationists. Current CML programs address these needs in different ways. In some hospitals, CMLs regularly attend grand rounds both as resource personnel and for the librarians' clinical education. In settings where morning reports are multidisciplinary or instructional in nature, CMLs often receive clinical education ''on the job.'' In the two successful hospital CML programs described above, the clinicians who receive CML services are concerned only with the librarians' expertise in searching and teaching. They express no concerns about the librarians' clinical expertise (or lack thereof).

Because corporate cultures and information needs are unique, existing clinical library programs differ widely. Described components include the following: mentored instruction and practice in searching; clinical course-work in medical and nursing schools; atten-

dance at morning report, rounds, and clinical conferences as members of the patient treatment team; and committed personnel, both library and medical [31, 32]. In these programs, CMLs gain high levels of clinical knowledge and demonstrate effective searching techniques and interpretation of the medical literature [33]. These programs have the potential for demonstrating to clinicians that CMLs are capable of managing information needs in a way that cannot be reproduced or replaced by any other source [34].

One of the problems confronting the success of these programs is funding. CML programs represent much time-intensive activity, and, even if funds are allocated to initiate CML programs, sustaining such support is difficult. In 1996, Vanderbilt University's administration made the conscious decision to absorb the cost of the clinical medical library program [35]. Earlier, the initial funding for the program at the University of Connecticut Health Center at Farmington was provided by a grant from the National Library of Medicine [36]. As Lipscomb recently lamented, ''The pressure to reduce health care costs and the climate for library budgets make it difficult to sustain programs requiring a great amount of library staff time and providing personalized service to a limited number of departments'' [37]. In 2001, the University of Texas Medical Branch closed its clinical medical library program.

So, if current CML programs are so costly, why do any still exist? Studies have shown that clinical medical library programs actually work. In 1986, an evaluation of the clinical medical library program at the Veterans Administration Medical Center in Hampton, Virginia, demonstrated that the CML provided literature that clinicians found valuable and time saving [38]. Earlier, Scura and Davidoff reasoned that a clinical medical library program was cost effective in more than one way. By providing relevant information quickly, the ordering of inappropriate tests was prevented, patient care decisions were affected in 20% of cases, and case-related learning behavior was changed [39]. A survey conducted by Demas, in 1991, reported that ''a genuine feeling of respect [by clinicians] for the librarian's information seeking skills was evident'' [40]. Again, the work of the CML was to formulate and understand the clinical question, search the literature, and provide the relevant information [41].

The informationist role described by Davidoff and Florance requires a standard, core curriculum that includes basic medical procedures and concepts, understanding of the conventions of clinical trials, application of biostatistics, and epidemiology. A supervised practicum would be required, graduates would need to be certified, and programs accredited. The informationist would be well versed in retrieval, synthesis, and presentation of medical information, as well as in functioning capably on the clinical care team. In addition to providing information to all members of this team, the informationist would obtain health care information for patients and their families. A pilot program on the informationist concept is in progress at the Moffitt Cancer Center [42]. It will be instructive to see the pilot unfold and to learn more about the effect of this type of program on the quality of patient care.

Davidoff and Florance propose that the informationist report directly to clinical directors and that their services be billed directly. However, it is not clear to the authors of this article that problems with funding in the current CML culture are going to be any better in the proposed new informationist culture. Rather, the creation of a new profession may instead create a distraction from the key benefits of effective retrieval and management of knowledge-based information provided by current CMLs. The expertise required to manage, organize, retrieve, and evaluate information makes the CML best suited to helping others learn these skills [43].

The full extent of CML programs has not been explored or appreciated thoroughly in the Davidoff and Florance editorial. Despite the evidence that CML programs are effective in meeting needs of the clinical team, it appears that the lack of true equity on the clinical team precipitated the call for the cachet of a new title, the informationist. However, the documented strengths of CML programs—which include time efficiency, influence on patient care decisions, cost effectiveness, and positive influence on information-seeking behavior of clinicians—do not leave much room for an argument to create a new profession with similar aims. Instead, CMLs should continue to build on acknowledged strengths and improve on what they do best.

HOSPITAL LIBRARIANSHIP: "BACK TO THE FUTURE"

Hospital librarianship is alive and well, and it will continue to thrive if its members have a clear sense of purpose. New-to-the-profession librarians, interviewed for a special column in the Winter 2000 issue of *Medical Reference Services Quarterly,* all recommend taking charge of the future by proactively marketing library services. Several emphasize a ''focus on library services beyond physical walls'' and ''demonstrating—publicly—that managing information is not easy . . . we are the professionals who know how to handle information'' [44]. Fuller and her coauthors see ''integrating knowledge resources at the point of care'' as an opportunity for hospital librarians [45]. Other suggestions for leaders and future leaders include being able to witness and analyze the ''big picture'' and to understand the ''real information needs and challenges facing clinicians, administrators, and the entire hospital staff'' [46]. Marketing, knowing librarians' value, seizing opportunities at the point of care, and collab-

orating as colleagues operating within the same ''big picture'' are some strategies that hospital librarians can and do employ.

Arriving at a crossroads is a good time to look right and left, to look back and to look forward. It is a good time to articulate the facts of what we have done best. In so doing, we can see more clearly the right path for us. It is a good time to remind ourselves that the most technologically sophisticated hospital library environment, virtual or physical, is worthless if our primary customers cannot get the information they need to provide the best patient care or make the best administrative decisions for our hospitals. We need to be the experts and to master these information systems instead of trying to teach our customers to ''do what librarians can do'' [47]. We need to perfect an unsurpassed service ethic of excellence, emphasizing serving, not teaching, our customers.

Not all hospital librarians expect this for the future. Some predict a ''continued transition from a searcher role to an instructor role with regard to . . . online resources . . . spending a higher percentage of their time teaching users . . . and the volume of literature searches done by the hospital librarian will decrease'' [48]. This trend is not evident in hospitals that provide CML programs. The volume of mediated literature searches actually increases markedly in those hospitals. Now is a good time to ask ourselves if we want to teach our customers to search the literature themselves, or if we want to spend our time providing direct services to those customers and teaching them in other ways. As information access experts, part of our responsibility is to identify and provide outstanding databases, journals, books, and other resources that are available to our customers when we are not. We should not present the resources as a substitute for our expertise. They are only very modest surrogates.

In addition to delivering the best possible services to the point of need, another hospital library trendsetter points out that ''taking charge of the future'' means participating in and contributing to administrative committees that are planning the future of the parent organization [49]. Hospital librarians serve as organizational Web managers or consultants on hospitalwide Web advisory teams, on complementary and alternative medicine resource committees, on patient and family education committees, on hospital performance improvement teams, on information technology desktop collaboration teams, and on patient safety committees.

This kind of proactive participation will enable us to ''ensure that the right information is available, in the right format, as speedily as possible, so that it can be fully integrated into the patient care experience'' [50]. Even more significant, ''access to the right knowledge at the right time'' is our most valuable service [51]. Regardless of the vast leaps made in digitizing information, as Holtum notes, there is ''no magic black box containing the world of medical knowledge [from] which busy clinicians will be able to . . . receive precisely targeted feedback during the clinical encounter'' [52]. Focused, high-quality patient-care information will be most cost effective and reliable when obtained by using the skills of specialists, and hospital librarians are the specialists in this arena. Holtum challenges us to compare the searching efficiency and cost effectiveness of a highly salaried clinician with the precision and recall of a search completed by a highly trained and experienced hospital library professional who earns a more moderate salary [53]. Killingsworth observes that we need to be the ''preferred provider of medical information . . . at the point of need'' [54].

To secure preferred provider status in our organizations, we need to market in ways that demonstrate return on investment (ROI). Studies by Marshall, King, Klein, and others have contributed significantly to our ability to place a value on hospital library services related to patient care. Integration of biomedical information with the patient record is going to be increasingly important in the future [55], and we want to be part of these efforts. Hospital librarians will experience and undergo radical change between 2000 and 2010 and beyond, but, at our essential core, we always have been and always will be the standard-bearers of excellence in information organization and retrieval. We will continue to hone our skills and ''be pathbreakers in the derivation of new knowledge forms,'' such as literature profiling (trend or pattern recognition) and text mining [56].

At the same time, we must find ways to document the value of the services provided by hospital librarians. The 1992 Rochester study demonstrated the value of the library to physicians and patients by pointing out the positive economic impact on the hospital, in terms of decreasing length of stay and avoiding unnecessary tests [57]. Killingsworth postulated that these data would have been much stronger if any of the fifteen hospitals in the study had offered a CML program [58]. Van Toll, Reel, and Hardy asked how ''can hospital librarians evaluate the influence of their services on the quality and cost of medical care?'' [59]. These might seem like lofty objectives, but, as early as 1985, Buchanan encouraged us to ''hold the view that the focus of hospital librarians must change from a passive 'input' orientation to a result or 'output' orientation'' [60]. The authors agree with our MLA leadership: our success will hinge on our ability ''to contribute in significant, (tangible) ways to excellence in clinical . . . and administrative decision-making'' [61].

Hospital librarians stand at a crossroads. Drawing on our strengths, we will go forward, addressing challenges like the informationist concept, looking for new ways to apply our clinical library expertise, and con-

tinually improving services in support of patient care excellence.

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