

effect), the positive result of 83% was not unexpected. However, asked independently, this question would have had less validity than it appears to within the framework of the first two questions and the large information gap they revealed. The responses from all four groups were similar and the deviation between them was less than 10%.

Scope

Respondents were asked to indicate what topics they would like to see covered by the library. Interest was expressed in all of the topics listed (Figs. 3 and 4). A large number of additional topics were mentioned as well, including sex and venereal diseases, eye and ear diseases, allergies, self-help, stress, dental health, and first aid. These facts lead us to believe that collection development for consumers needs to be as broad as possible.

Services

Nearly 20% of the respondents took advantage of the opportunity to make general comments. The overwhelming majority were favorable, which was very encouraging to the task force. Some of the comments were requests for additional services including:

- Referral services to local health agencies and physicians;
- Extended evening and weekend library hours;
- Access to information at Overlook's library for the surrounding community libraries;
- Information that is easily understood by lay people;
- A telephone reference service manned by trained medical librarians;
- Videotape instructional programs.

CONCLUSION

As revealed by this survey, seven out of ten consumers needed health information within the past year, and four out of ten could not find it. It is easy to speculate that if present trends toward health promotion continue, the information gap will surely increase.

Our findings show that information regarding health maintenance, disease prevention, and illness is being actively sought by the general public. It is our belief that the establishment of community health information services will enable the public to become knowledgeable practitioners of personal health maintenance and well-informed consumers of medical services.

Received August 5, 1981; revision accepted December 30, 1981.

Anticipating Clinical Information Needs: Preclinical Primers for the Clinical Medical Librarian

BY GLYNN HARMON, Ph.D., *Professor*

MARTHA VICTORY, *Student**

*Graduate School of Library and Information
Science
University of Texas at Austin
Austin, Texas*

SUSAN HARVEY, *Assistant Cataloger*

*Library of the Health Sciences
Texas Tech University Health Sciences Center
Lubbock, Texas*

RECENT commentary on the functions of clinical medical librarians (CMLs) has emphasized the importance of the ability of CMLs to anticipate the information needs of the clinical personnel they serve. That is, they should prepare to fulfill clinician information needs prior to the time such needs actually arise within the context of clinical problem solving. CMLs should know what specific questions to ask about different aspects of the clinical problems they encounter [1]. Moreover, clinical problem-solving logic is receiving increased attention in the literature, thus providing models from which to anticipate information needs. Because physicians and other clinicians do not normally verbalize hypothesis formulation and elimination during their decision processes, it is difficult for CMLs systematically to provide informational support to them during these processes. It becomes all the more essential, then, for CMLs to study clinician decision processes in order to enhance their own proficiency and to help clinicians assimilate information to solve problems.

PRECLINICAL PRIMERS COMPILED

It is widely recognized that a small core of health care knowledge and printed literature serves as a base for solving a very high percentage of clinical problems. Well over ninety-five percent of what the average primary care physician most commonly treats can be included in a very short list [2]. We have drawn upon this small core of knowledge in order to compile ten comprehensive

*Currently employed at Texaco Development Corporation.

HEMATOLOGIC PROBLEMS

*** Keystone to Dx: Examination of stained blood smear ***

Etiologic Factors:

Occupational/environmental: exposure to marrow toxins
 food additives
 paint solvents
 insecticides
 lead poisoning (if house paint, seen
 in gingival lead line)
 batteries
 benzene-like solvents - marrow
 depression

Genetic/race factors:

Mediterranean anemia - Thalassemia minor
 Sickle cell anemia
 Scandinavians - pernicious anemia
 Family history of anemia
 Sideroblastic anemia: hereditary, a disease
 of excessive iron loading

Drug ingestion:

Drugs of particular concern are: anticonvulsants, gold,
 chloromycetin, sulfanamides, propylthiouracil, quinidine

Eating habits: large quantities of ice (ice pica), clay, starch

Diet: deficiency of iron, B12, or folic acid (iron in spinach,
 beef, milk, eggs, chicken, liver; B12 in glandular organs,
 muscle, eggs, cheese, milk; folic acid in green vegetables
 and organs like liver and kidney)

Iron deficiency anemia (heavy menses, GI bleeding, lab
 determination of tissue iron stores, iron stain of aspirated
 bone marrow, measure serum ferritin level).

Discovery/presenting patient:

1. Routine exam discloses anemia, polycythemia or WBC abnormality
2. Anemia: weakness and easy fatigability (the cause of many
 diseases and pathophysiologic mechanisms)
3. Acute and chronic anemias: most apt as manifestation of some
 underlying disease (carcinoma of the colon or duodenal ulcer)
 Also, anemia of chronic disorders such as rheumatoid arthritis

Clues:

pallor
 jaundice
 smooth and/or red tongue
 large lymph nodes
 splenomegaly
 hemorrhages in the fundi, skin and mucous membranes
 tender bones
 manifestations of high cardiac output
 neurologic evidence of posterior and lateral column disease

Less Common Presentations:

enlarged lymph nodes or left upper quadrant mass which may be
 enlarged spleen
 bone pains from myeloma, leukemia, or lymphoma
 chronic leg ulcers
 hemolytic crises
 postural syncope
 sore tongue
 neurologic symptoms
 dysphagia

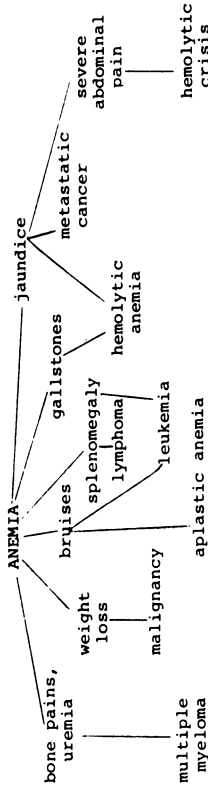
angina
 claudication
 dyspnea
 light-headedness
 Beware of latent coronary disease, peripheral
 vascular disease, chronic obstructive pulmonary
 disease, cerebral ischemia or heart failure....
 may refer to underlying chronic disease.

Routine Lab Studies:

Blood count, urinalysis, chest x-ray, ECG, erythrocyte sedimentation
 rate (a non-specific test of activity for rheumatoid disease), oral
 cholecystogram (for fatty foods intolerance, episodic abdominal pain,
 suspicion of gall bladder disease), blood smear and reticulocyte
 count (for suspected blasphemous stippling)

*** ANEMIA is a finding, not a diagnosis or disease in
 and of itself. Its specific Dx is the key to therapy
 for anemia ***

COMMON CLUSTERS AND THEIR USUAL CAUSES



ABBREVIATIONS:

Ab	Antibody	ITP	Idiopathic Thrombocytopenia
Ag	Antigen	Purpura	
CBC	Complete Blood Count	MCH	Mean Corpuscular Hemoglobin
Hb	Hemoglobin	MCT	Mean Circulation Time
Hb A	Adult hemoglobin	MCV	Mean Corpuscular Volume
Hb F	Fetal hemoglobin	PA	Pernicious Anemia
Hb S	Sickle cell hemoglobin	RBC	Red Blood Cell
Hct	Hematocrit	SCA	Sickle Cell Anemia
Ht	Hematocrit	WBC	White Blood Cell

FIG. 1.—Preclinical primer on hematologic problems.

preclinical primers relating to major disorders, disease states, and body systems. These preclinical primers can aid CMLs in their efforts to anticipate questions which may arise during their clinical work. The primers could be attached to clip boards for use before, during, or after rounds. Such primers are sketchy and would need to be supplemented frequently with reference sources, such as handbooks used by medical and nursing practitioner students. Handbooks do, however, tend to be disease oriented. In contrast, the CML primers are problem oriented and are more directly geared to information support through on-line and manual retrieval. The primers could also be quite useful to on-line searchers and reference librarians who are not involved in CML programs. Figure 1 is an example of a primer on hematologic problems.

We have placed considerable importance on the ability of the information specialist to anticipate and satisfy a need for information before that need is actually recognized by the clinical practitioner. We regard this anticipatory ability as a requisite for maximizing the CML's participation on the health care team. An understanding of clinical problem solving—data collection, hypothesis formulation and modification, logic structure, and decision making—can help the CML support clinical practitioners in the decision-making processes involved in diagnosing and treating disease. A clear distinction should be maintained, however, between the CML information support role and the actual practice of medicine.

Drawing upon Paul Cutler's *Problem Solving in Clinical Medicine: From Data to Diagnosis* [2] we have compiled a set of preclinical primers which outline ten major fields of clinical medicine. These include disorders of the endocrine, cardiovascular, pulmonary, electrolyte, gynecologic, hematologic (see Fig. 1), musculoskeletal, neurologic, renal, and gastrointestinal systems. Although each patient presents differently on the basis of family history, age, sex, race, and duration and degree of illness, most disorders are represented by a group of common presentations. In view of this, our primers include lists of the most common etiologic factors (for example, occupational, dietary, genetic, environmental), presentations, clues, and symptom clusters in each system. We believe these lists will serve as memory prompters and heuristic guides to aid in pattern recognition for the CML in the clinical situation, and to help in formulating search strategies.

Although these primers have been pilot tested by two CMLs, they still have to be tested by clinicians

in clinical settings before being refined for future distribution or publication.

REFERENCES

1. Lawrence GG. CML. *Clinical Medical Librarian*. Online 1979 Jul;3:60-3.
2. Cutler P. *Problem solving in clinical medicine: from data to diagnosis*. Baltimore: Williams & Wilkins, 1979.

Received May 12, 1981; revision accepted November 30, 1981.

Tailoring On-line Search Retrieval to Match a Library's Journal Collection

BY JULIA B. FAUST, *Librarian*

*West Suburban Hospital
Oak Park, Illinois*

THIS PAPER presents a rationale and methodology which allows a hospital library with access to the National Library of Medicine's on-line system to store, as a permanent SAVESEARCH, a list of locally held journals. The list can be used to restrict bibliographic retrieval to those journals held by the local library, thereby better utilizing the local collection and reducing the number of interlibrary loan requests.

PURPOSE

At West Suburban Hospital in Oak Park, Illinois, the articles identified in most of the approximately seventy searches processed each month are needed immediately. In order to provide immediate document delivery, most MEDLINE searches are combined with the journal subset indicator "A" (SB) so that retrieval is limited to articles in the 122 journals indexed for *Abridged Index Medicus*. This device eliminates retrieval of citations from most esoteric research journals and all foreign-language journals. However, upon careful comparison of our library's journal list of 201 titles and the list of journals covered by *Abridged Index Medicus* (AIM), we found that: (1) we subscribe to 107 journals that are not indexed in AIM; and (2) we do not subscribe to 27 journals which are indexed in AIM. Of greatest concern to us was the automatic exclusion of citations from about 107 of