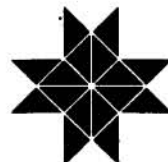


The Relationship Between the College of Pharmacy and University Hospitals

**A REPORT BY THE
PHARMACY REVIEW COMMITTEE**

University of Minnesota
Health Sciences Center
Fall of 1973





UNIVERSITY OF MINNESOTA
TWIN CITIES

Office of the Dean

College of Pharmacy
115 Appleby Hall
Minneapolis, Minnesota 55455

January 12, 1973

FROM: Lawrence C. Weaver, Dean
College of Pharmacy
John H. Westerman, Director
University Hospitals

TO: Dr. Mellor Holland, Associate Dean, Dentistry, Chairman
Ms. Kathy Gunderson, Communications Consultant, Staff
Dr. Yusuf Abul-Hajj, College of Pharmacy Committee on
Organization
Dr. Ellis Benson, Head, Laboratory Medicine
Mr. James Clinite, Instructor, College of Pharmacy
Dr. Hugh F. Kabat, Head, Clinical Pharmacy Department
Dr. Russell Lucas, Medicine
Mr. Gary Peterson, Hospital Administration
Ms. Lois Recker, Nurse Clinician
Dr. Henry Sosin, Surgery

The Joint Program Statement of the College of Pharmacy and University Hospitals was developed in 1967 as the College began to initiate their clinical education program. In view of the rapid expansion of clinical education as a central element in the College's student preparation and because the chief laboratory for this clinical education is the University Hospitals, we think it appropriate to undertake a comprehensive review of the relationship between the College of Pharmacy and University Hospitals.

We are asking you to serve on an important committee to study the present relationship and to make recommendations for a continuing relationship. Because Colleges of Pharmacy and Teaching Hospitals throughout the United States are initiating similar cooperative ventures and because Minnesota has been a national pace setter in clinical education for pharmacists, the model developed by this committee will be emulated widely.

Specifically we would expect the Committee to:

- A. To define existing system of Pharmacy Service - Education at University Hospitals.
- B. Review 1967 Joint Program Statement of the College of Pharmacy and University Hospitals.

- C. Identify the objectives of program stressing quality service as well as developing the concept of clinical education. These objectives should be developed against the backdrop of providing a model that can be emulated.
- D. Recommend resources required to meet objectives.
- E. Identify existing resources available to meet objectives.
- F. Determine and recommend additional resource requirements.
- G. Recommend a program and administrative structure to insure coordination of resources (required and available) to meet objectives and to implement the recommended course of action.

Among the printed resources available to the Committee are:

- A. Joint Program Statement of the College of Pharmacy and the College of Medical Sciences - University Hospitals, August 21, 1967.
- B. Projection of staff and space requirements for the Pharmacy Department at University of Minnesota Hospitals, December, 1967.
- C. Pharmacy programs at the University of Minnesota Hospitals, study with recommendations, August 18, 1967.
- D. Satellite Pharmacy evaluation, a review of the Satellite Pharmacy Program.
- E. A Series of Editorials on Clinical Pharmacy Services and Education by Dr. Donald E. Francke appearing in Drug Intelligence and Clinical Pharmacy beginning October, 1972.

We anticipate that the Committee will consider presentations by the Dean of the College of Pharmacy and the Director of Pharmacy Services as well as any other outside resource persons they wish to hear.

We would hope that the work of the Committee might be concluded before the end of the current academic year.



UNIVERSITY OF MINNESOTA
TWIN CITIES

Office of the Dean

School of Dentistry
136 Owre Hall
Minneapolis, Minnesota 55455

November 13, 1973

Dean Lawrence C. Weaver
College of Pharmacy
115 Appleby Hall
University of Minnesota

Mr. John H. Westerman, Director
University Hospitals
B313 Mayo
University of Minnesota

Dear Dean Weaver and Mr. Westerman:

Enclosed is the report of the Pharmacy Review Committee on the "Relationship Between the College of Pharmacy and University Hospitals." The report contains the major deliberations of the Pharmacy Review Committee and the recommendations by the Committee for strengthening the relationship between the College of Pharmacy and University Hospitals.

In responding to the charge you gave the Pharmacy Review Committee, an effort was made to concentrate on recommending a program and administrative structure which would permit advancement of education and service endeavors by pharmacy in University Hospitals. The members of the Committee recognize the great potentials in a joint relationship of the College of Pharmacy and University Hospitals to the health sciences and the State of Minnesota. We trust that the report of the Pharmacy Review Committee may be useful in furthering their contributions.

Sincerely,

Mellor R. Holland, Chairman
Pharmacy Review Committee

MRH:ajm

Enclosure



UNIVERSITY OF MINNESOTA
TWIN CITIES

Office of the Dean

College of Pharmacy
115 Appleby Hall
Minneapolis, Minnesota 55455

December 6, 1973

Mellor R. Holland, Chairman
Pharmacy Review Committee
School of Dentistry
136 Owre Hall
Minneapolis, MN 55455

Dear Dr. Holland:

We have reviewed the report of the Pharmacy Review Committee on the Relationship between the College of Pharmacy and the University Hospitals and find it a most impressive document.

The purpose of the Pharmacy Review Committee was to review the 1968 College of Pharmacy - University Hospitals agreement and make findings and recommendations with regard to:

- 1) Evaluation of what had been done,
- 2) Identification of joint efforts that should now be considered,
- 3) Organizational arrangements to accomplish new directions.

We are pleased that the number and scope of programs have increased to the point where the College of Pharmacy now has its largest instructional element in the University Hospitals.

We concur with the Committee's recommendations in most respects. We do feel that the Senior Faculty and Head position, which is so critical to implementation of the recommendations, should have the same title as that of the Clinical Chiefs of Service in the Medical and Dental Schools. It is our intention to establish a search committee to seek out the person for this position.

We wish to thank the Pharmacy Review Committee for its thoughtful consideration of this important relationship which will, no doubt, become a model for many others across the nation.

Sincerely,

J. H. Westerman, Director
University Hospitals

L. C. Weaver, Dean
College of Pharmacy

cc: Pharmacy Review Committee Members

UNIVERSITY OF MINNESOTA

REPORT OF THE PHARMACY REVIEW COMMITTEE ON THE RELATIONSHIP BETWEEN THE COLLEGE OF PHARMACY AND UNIVERSITY HOSPITALS

Introduction

In 1967 the College of Pharmacy initiated a clinical education program for pharmacy students. Given the role of University Hospitals in providing an environment for clinical education, it became apparent that the relationship between these two health sciences units needed to be strengthened and the Pharmacy Department of University Hospitals needed to be expanded to meet educational needs. Considerable effort went into planning that joint venture. The Joint Program Statement of the College of Pharmacy and the College of Medical Sciences - University Hospitals¹ was developed as the main guideline. In addition, the Hospitals' Pharmacy Department was studied for the purposes of making program recommendations² and projecting staff and space requirements.³ These three reports remain useful documents for improving the clinical pharmacy education and service programs common to the Hospital and the College.

Much progress has been made since 1967. Clinical pharmacy education has become a part of every pharmacy student's education at this University; the College of Pharmacy has created a departmental structure to foster and meet the need for clinical education for pharmacists; and University Hospitals has become the College's principal laboratory for clinical education. Many of the objectives established in 1967 have been accomplished. Others are still under development.

¹"Joint Program Statement of the College of Pharmacy and the College of Medical Sciences - University Hospitals", August 21, 1967.

²Kabat, Hugh F., "Pharmacy Programs at the University of Minnesota Hospitals: A Study with Recommendations", August 18, 1967.

³"Projections of Staff and Space Requirements for the Pharmacy Department, University of Minnesota Hospitals", December, 1967.

In light of the rapid expansion of clinical pharmacy education at University Hospitals since 1967, Lawrence C. Weaver, Dean, College of Pharmacy, and John H. Westerman, Director, University Hospitals appointed a Pharmacy Review Committee on January 12, 1973 to study the present relationship between these two health sciences units and to make recommendations for their continuing relationship.

The Committee members were as follows:

Yusuf J. Abul-Hajj, Associate Professor and Chairman, College of Pharmacy
Committee on Organization, College of Pharmacy
Ellis S. Benson, Professor and Head, Laboratory Medicine and Pathology,
Medical School
Richard J. Bertin, Ph.D. Candidate, College of Pharmacy, Secretary
James C. Clinite, Instructor, College of Pharmacy and Staff Pharmacist,
University Hospitals
Kathleen C. Gunderson, Consultant/Trainer, Hospital Personnel Services, Staff
Mellor R. Holland, Professor and Associate Dean, School of Dentistry, Chairman
Thomas F. Jones*, Associate Director, University Hospitals and Assistant
Professor, College of Pharmacy
Hugh F. Kabat, Professor and Head, Clinical Pharmacy Department, College
of Pharmacy
Russell V. Lucas, Professor, Department of Pediatrics, Medical School
Gary R. Peterson, Assistant Director, University Hospitals
Lois A. Recker, Nurse Clinician, Nursing Services, University Hospitals

*Replaced Gary R. Peterson in April, 1973

The original charge to the Pharmacy Review Committee was to:

- A. Define existing system of Pharmacy Service - Education at University Hospitals.
- B. Review 1967 Joint Program Statement of the College of Pharmacy and University Hospitals.
- C. Identify the objectives of program stressing quality service as well as developing the concept of clinical education. These objectives should be developed against the backdrop of providing a model that can be emulated.
- D. Recommend resources required to meet objectives.
- E. Identify existing resources available to meet objectives.
- F. Determine and recommend additional resource requirements.
- G. Recommend a program and administrative structure to insure coordination of resources (required and available) to meet objectives and to implement the recommended course of action.

After initial information on the background of the relationship and the present needs of the two units was collected, the original charge was reviewed. It was the consensus of the Committee that the College of Pharmacy and University Hospitals would best be served by concentration on Item G of the original charge -- to "recommend a program and administrative structure to insure coordination of resources (required and available) to meet objectives and to implement the recommended course of action." The Committee felt the two units were in the best position to make decisions concerning resources (Items D, E, and F) and could do so once their objectives were clear and joint decision-making facilitated.

The Committee consulted several resource persons as well as related literature and documents (see appendices). As the Committee learned about the development of clinical pharmacy education in the College and the Hospital, it also increased its respect for those who have contributed to the accomplishments of the past six years. Nevertheless, the needs of this relationship have changed, and it is appropriate that a thorough analysis is again undertaken.

The following report of the Pharmacy Review Committee deliberation is divided into five sections: the nature of the relationship, joint program goals, needs, objectives for a joint relationship, and organizational structure.

I. The Nature of the Relationship

The Regents' "Health Sciences--Mission Statement and Proposed Structure and Governance"⁴ clearly establishes the purpose for a relationship between the College of Pharmacy and University Hospitals. "The Regents believe the primary mission of the disciplines organized within the Health Sciences will be to educate health care professionals for the needs of the State."⁵ "The University

⁴University of Minnesota Board of Regents, "Health Sciences--Mission Statement and Proposed Structure and Governance", July 10, 1970.

⁵"Statements on the Mission of the Health Sciences", ibid.

Hospitals . . . should provide facilities and resources through which exemplary models of health care programs can be tested and the delivery of comprehensive health care services can be used as a teaching laboratory and demonstration model for all the health professions.⁶ Thus, pharmacy education, research, and service are of concern to both health science units.

The difficulties in the relationship often arise around factors which influence the two units to emphasize different aspects of the tri-fold mission. At a very basic level, the College must focus on education for this is its reason for existing. At this same level, the Hospital must focus on service, for patient needs can never be compromised for education.

A view of the present situation at University Hospitals also shows that it must be a financially viable organization. Third party payors are increasingly refusing to pay educational costs. The increased capability of other hospitals is increasing the competition for patient census. The present demands for pharmacy service under situations of limited staff and resources inhibit the formation of new programs. Traditionally, the less immediate demands for education are de-emphasized when immediate service needs are pressing.

It is thus not feasible to approach this relationship as that of two institutions sharing the same goals to the same degree. At best, the relationship between the College of Pharmacy and University Hospitals should be viewed as two entities with different primary tasks but which coexist in a positive symbiotic relationship. Each needs to respect and help meet the primary concerns of the other because in the long run both institutions benefit.

Two other comments from the Regents' Mission Statement seem especially relevant to the relationship in question. The Regents emphasized research and development of innovative systems for health care delivery and the development

⁶"Governance and Structure of the Health Sciences, University of Minnesota", ibid.

and education of new types of health care personnel to serve these emerging systems and extend the effectiveness of present personnel. This seems to be what the new developments in clinical pharmacy are primarily concerned with.

II. Joint Program Goals

The key to an effective relationship is the identification of and follow-through on goals common to both institutions. The Committee has identified and supports the long-term goals described below. Possible means of implementing them are merely suggested since the Committee felt those decisions are best left to persons who are responsible and accountable for such programs.

The Committee feels that the major joint goal for the College and the Hospital is to further develop and evaluate clinical roles for pharmacists in their associations with both patients and other health professionals. This goal relates to all the following and is in concurrence with the Regents' Mission Statement.

Other joint program goals are as follows:

- A. Creation of a model inpatient pharmacy service to meet all patients' pharmacy-related needs. This includes:
 - 1. Safe, efficient drug distribution systems.
 - 2. Assessment of drug dosage, drug efficacy, drug interactions, and drug side effects.
 - 3. Patient education in reasons for and effects of drug administration, dosage, and compliance with prescribed therapy regimens.

The following have been identified as some of the possible approaches to the above goal:

- a. Unit dose systems.
- b. Self-administration of medications.
- c. I.V. additive programs.
- d. Decentralized pharmacy services.

- e. Computer inventory and charging.
 - f. Patient drug profiles.
 - g. Computer maintenance of drug profiles and analysis of drug interactions.
- B. Creation of a model outpatient pharmacy service to meet outpatients' pharmacy needs. This includes:
- 1. Safe, efficient drug distribution.
 - 2. Assessment of drug dosage, drug efficacy, drug interactions, and drug side effects.
 - 3. Patient education in reasons for and effects of drug administration, dosage, and compliance with prescribed therapy regimens.
 - 4. Patient follow-up to determine compliance, frequency, and nature of side effects.
- The following have been identified as some of the possible approaches to the above goal:
- a. Patient drug profiles.
 - b. Computer analysis of drug interactions.
 - c. Computer inventory and charging.
 - d. Pharmacist consultation with patient upon receipt of drugs.
- C. Maximization of the use of University Hospitals as a clinical pharmacy education laboratory. This involves:
- 1. Exposing students to patient concerns -- medical and behavioral.
 - 2. Exposing all health sciences students to the role of the pharmacist and the roles of other health professionals in order to enhance a team approach to health care delivery.
 - 3. Providing pharmacy students with opportunities for exercising graded responsibility in meeting patients' pharmacy-related needs.
 - 4. Developing clinical pharmacist role models for students to emulate.
- D. Provision of drug information, consultation, and education to health professionals, in-house and throughout the state.
- E. Advancement of the state of knowledge in clinical pharmacy service and education by research and careful evaluation of new programs.

F. Definition, development, and evaluation of expanded health care roles for pharmacists in order to meet health care needs of the public.

Expanded pharmacist roles identified for exploration are:

- a. Public health function of pharmacists.
- b. Liaison between patient and physician via closed circuit television, for example, in areas where a physician is not directly available.
- c. Minimal diagnosis and drug prescription role.
- d. Community health care referral role.
- e. Increased participation in health care teams.
- f. Consumer drug education role.

III. Needs

The needs of a system affect the way it operates and the type of administrative structure which will function most effectively. The following needs were identified during presentations to and deliberations of the Committee. The Committee feels these needs warrant early consideration. They are the need for:

1. Clearer deliniation between service costs and educational costs.
2. Resolving time conflicts between service and educational commitments for supervisory staff.
3. Space for consultation with outpatients, outpatient drug dispensing, and the drug information center.
4. Reduction in time between ordering and receipt of medication.
5. Adequate staff expansion to compensate for current and planned increases in workload and teaching activities.
6. Proper compensation from educational funds for staff time spent on educational activities.
7. Review of hospital commitment to clinical pharmacy educational program.
8. Clinical subjects to be taught by persons who work in the clinical environment.
9. The establishment of policies for usage of the drug information center commensurate with space and staff available.

10. A mechanism for College of Pharmacy participation in determining establishment, maintenance, and termination of pharmacy-related patient care programs.
11. More experimentation with new and innovative pharmaceutical concepts. Examples are:
 - a. Unit dose distribution system.
 - b. Decentralized pharmacy service.
 - c. Enhanced work with Family Practice Clinic.
12. Increased involvement of pharmacy students in clinical settings.
13. Exploring the potential for graded student responsibility for providing pharmacy services.
14. Exploring the potential of increased clinical activities and capabilities of pharmacists so they can serve as role models for students.
15. Structured planning and coordination of student involvement in clinical settings.

IV. Objectives for a Joint Relationship

Any organizational framework must be formulated to cope with the common goals as well as the potentially conflicting goals and needs of the College of Pharmacy and University Hospitals. Therefore, a joint clinical pharmacy unit which constitutes the overlap between the College of Pharmacy and University Hospitals must be clearly defined. The following are objectives which, though they may have been addressed at one time, need to be readdressed. Reaching the joint program goals requires meeting the following:

Authority, responsibility, boundaries:

1. Clearly defined authority and responsibility vested in concerned parties sufficient to carry out the goals enumerated.
2. A clearly defined relationship to the College of Pharmacy in order to achieve the goals primary to that unit.
3. A clearly defined relationship to the University Hospitals in order to facilitate the goals primary to that unit.
4. The capacity to adjudicate conflicting demands and goals between University Hospitals and the College of Pharmacy.

5. The capacity to initiate innovative academic and service functions.
6. A clearly defined structure indicating what levels and in what ways the Hospital administrative hierarchy interacts with the College administrative hierarchy.

Division of financial responsibilities:

1. A clearly defined mechanism for determining financial responsibilities (University Hospitals vs. College funds).
2. Application of program budgeting such that the reason for and source of funds is related to the expenditure.

Planning:

1. Provision for careful advanced planning of all pharmacy staff functions, staff time required, and needed staff assignments.

This necessitates:

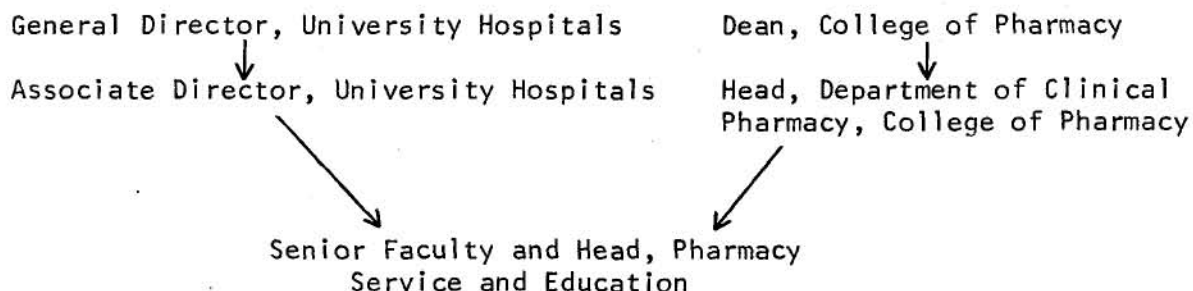
- a. Advanced planning of all staff educational functions.
- b. Advanced planning of all staff service functions.
2. Provision for some flexibility as to the actual staff members who are able to perform the above functions in order to facilitate the coordination of educational and service needs.
3. Provision for periodic review of activities by concerned parties. This requires that at the outset of a program the degree of involvement of the College and the Hospital be made clear.

Personnel Policies:

1. Given a period of transition, the Hospitals' Pharmacy Department should move toward jointly funded, full faculty appointments, consistent with University policy, for all professional staff. This would:
 - a. Facilitate maximum flexibility in service and educational assignments.
 - b. Increase commitment to and innovation in education.
 - c. Expand the role of the pharmacist as an active member of the health care team.
2. Staff members should teach only in those areas of clinical practice in which they have experience and demonstrate competence.
3. Clearly defined criteria for academic advancement and remuneration.
4. Joint selection and periodic evaluation of any personnel involved in pharmacy service and education.

V. Organizational Structure

In order for a joint relationship to meet the above program goals, needs, and objectives, the following organizational plan for clinical pharmacy at University Hospitals is recommended:



The newly created position of Senior Faculty and Head, Pharmacy Service and Education position would serve to coordinate the efforts of the University Hospitals Pharmacy Department in its service and educational commitments. This individual would be directly accountable to the administrators of both the University Hospitals and the College of Pharmacy. The Senior Faculty and Head would hold a jointly funded academic appointment and would be physically based at the Hospitals. The primary functions and responsibilities of this position would be the following:

1. To establish, communicate, monitor, and evaluate the service, educational, and research objectives for the University Hospitals pharmacy program. Each pharmacist should understand his role in this process.
2. To establish and maintain high standards of pharmacy service, education, and research. Excellence in pharmacy related care must be valued above all else. This must be communicated in each service, education, and research program.
3. To coordinate all educational, service, and research functions. A mechanism must be provided within the department for coordinating all assignments -- service, teaching, committees, community service, etc. -- of all pharmacy staff.
4. To relate to other clinical departments in the hospital in a manner which will enhance the development of an appropriate clinical role for pharmacists on the health care team.

Further delineation of the organization structure of the clinical pharmacy unit will depend on a more precise definition of functional objectives, the

managerial style of the Senior Faculty and Head, and the transitional adjustments which must be made to accommodate current personnel in the Hospital Pharmacy Department and the faculty of the College of Pharmacy. However, two alternative means of organizing the University Hospitals Pharmacy Department are suggested.

A majority of the Committee members felt it would be beneficial for the Senior Faculty and Head, Pharmacy Service and Education to delegate responsibilities along functional lines, such as those cited by Kabat,⁷ which relate to service and education. This would have the benefit of further emphasizing the overlap between service and education, of facilitating a team approach to both by professionals and non-professionals working within an area, and of increasing coordination of service and educational activities by placing joint supervisory responsibility closer to the level of application. A disadvantage would be the need for a person or persons to carefully monitor educational programs particularly to make sure subject matter which did not fall within one of these areas was taken care of and courses which involved several areas were properly coordinated.

A minority of the Committee members felt there should be a Director of Pharmacy Service and a Director of Pharmacy Education. These persons would be directly responsible for service or educational activities in the department and would be directly accountable to the Senior Faculty and Head, Pharmacy Service and Education. The advantage of this structure is that it facilitates greater coordination of all service activities and all educational activities. Its disadvantage is that it may be difficult to coordinate the two together below the level of the Senior Faculty and Head.

Regardless of the departmental structure the Senior Faculty and Head finds most appropriate for getting the job done, the Committee sees the real key as one of balance: balance between developing exciting new concepts in clinical

⁷Kabat, Hugh F., Op cit., pp. 13-17.

pharmacy and maintaining respect for carrying out essential daily service activities of a drug distribution system; balance between doing creative research on the effort of a new pharmacy program on patient care and remembering the importance of the single patient; and balance between publishing such that others may benefit from your progress and helping the first year student to understand what a pharmacy is.

Summary

This report comprises the major deliberations of the Pharmacy Review Committee in their efforts to make recommendations for the continuing relationship between the College of Pharmacy and University Hospitals. The Committee felt it could contribute most by concentrating on a program and administrative structure which would permit mutual influence on objective setting, implementation, and review.

The Regents' Mission Statement clearly points out that pharmacy education, research, and service need to be of concern to both units. The Committee recognizes that forces operating on the two systems dictate different priorities. However, because of their overlapping concerns, the tension which arises from different priorities can be used to stimulate innovations beneficial to both institutions.

The Committee feels that the major joint goal for the College and the Hospital is to further develop and evaluate clinical roles for pharmacists in their associations with both patients and other health professionals. This goal includes many facets which are outlined in this report. The Committee also identified several needs currently present in the clinical pharmacy program which relate to both education and service.

In order to cope with the common goals as well as potentially conflicting goals and needs of the two health science units, a joint clinical pharmacy unit must be clearly defined in terms of its authority, responsibility, and boundaries; the division of financial responsibilities between the parent units; the mechanism

for planning; and its personnel policies. Recommended objectives are contained in the report.

In order to meet the identified joint program goals, needs, and objectives, the Committee has recommended an organizational plan. A newly-created position of Senior Faculty and Head, Pharmacy Service and Education would serve to coordinate the efforts of the University Hospitals Pharmacy Department in its service and educational commitments.

The members of the Pharmacy Review Committee recognize the great potential found in a joint relationship of the College of Pharmacy and University Hospitals to the health sciences and the State of Minnesota and hope that these recommendations may be of use in strengthening their contributions.

Appendix A

Resource Persons Consulted by
the Pharmacy Review Committee

1. Donald E. Francke, Ph.D., editor, Drug Intelligence and Clinical Pharmacy; formerly active in pharmacy service and education at the University of Michigan, University of Cincinnati, and the Veterans Administration.
2. Thomas F. Jones, Associate Director, University Hospitals and Assistant Professor, College of Pharmacy.
3. Marie Perreault, Director, Department of Pharmacy, University Hospitals.
4. Lawrence C. Weaver, Dean, College of Pharmacy.
5. John H. Westerman, General Director, University Hospitals.

Appendix B

Bibliography of Materials Consulted
by the Pharmacy Review Committee

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2. College of Pharmacy, "Education for Community Practice."
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