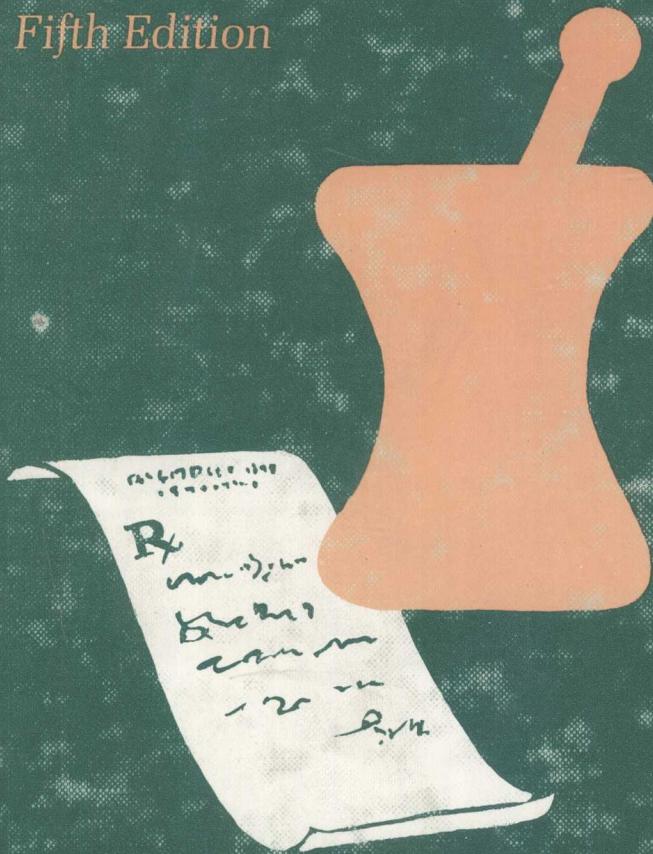


# HOSPITAL PHARMACY

*Fifth Edition*



**WILLIAM E. HASSAN, JR.**

# HOSPITAL PHARMACY



William E. Hassan, Jr., Ph.D., LL.B., FACA, FACHA

Vice President and General Counsel  
Brigham and Women's Hospital, Inc.  
A teaching hospital of the Harvard Medical School.

Chairman  
Board of Trustees  
Massachusetts College of Pharmacy and Allied Health Sciences

Formerly:

Pharmacist-in-Chief  
Peter Bent Brigham Hospital

Adjunct Professor of Hospital Pharmacy  
Massachusetts College of Pharmacy

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## PREFACE

Since the publication of the first edition of *Hospital Pharmacy* in 1965, the institutional practice of pharmacy has made great progress. Professional hospital and clinical pharmacists now practice in hospitals, extended care facilities, nursing homes, neighborhood health centers and satellite clinics. Within these environments, pharmacists contribute to the triad of *patient care, teaching and research* through clinical programs involving the taking of patient drug histories, maintaining patient drug profiles and providing surveillance for drug interactions. Also, of great importance are programs in unit dose dispensing, preparation of hyperalimentation fluids, drug abuse education, drug utilization review, the development of systems for the control of drugs, poison control centers and post-marketing surveillance of prescription drugs.

Notwithstanding the above cited developments within the profession, the original purposes and scope of the book as well as my philosophy relative to the methodology of presentation have not changed. Thus, new material has been added and no longer pertinent subjects have been deleted. Hopefully, the end result is a useful text which permits the teacher the opportunity to provide the student with academically cogent supplementary data via classroom lectures, yet provides the practitioner guidance in the development of a pharmaceutical service to meet the needs of the particular institution served.

Thanks and appreciation are hereby extended to all of my friends, colleagues and organizations who have offered their counsel and suggestions for the improvement of the book. All material quoted from the American Society of Hospital Pharmacists, Joint Commission on Accreditation of Hospitals and National Association of Boards of Pharmacy is copyrighted and used with their permission.

Boston, Massachusetts

WILLIAM E. HASSAN, JR.

# CONTENTS

1. Introduction .....	1
ASHP Statement of Goals for Institutional Pharmacy .....	5
ASHP Guidelines: Minimum Standard for Pharmacies in Institutions .....	6
Abilities Required of Hospital Pharmacists .....	12
ASHP Guidelines on the Competencies Required in Institutional Pharmacy Practice .....	13
Research in Hospital Pharmacy .....	17
Scope of Hospital Pharmacy Research .....	22
Pharmaceutical Services in Accredited Hospitals .....	23
JCAH Standards for Pharmaceutical Services .....	23
2. The Hospital and Its Organization .....	35
Classification of Hospitals .....	35
Organizational Pattern .....	37
Governing Body and Management .....	37
Administration .....	42
Medical Staff .....	43
Clinical Departments .....	44
Support Services .....	46
Nursing Service .....	47
Dietetic Services .....	48
Medical Records Department .....	48
Pathology Services .....	50
Blood Bank .....	51
Radiology .....	51
Medical Social Service Department .....	51
Anesthesia Service .....	52
Central Service Department .....	52
Pharmacy's Role in the Hospital .....	52
Hospital Contractual Relations .....	53
Shared Services .....	53
Contract Management .....	54
Institutional Management Contracts .....	55

Hospital Reorganization .....	55
Hospital Finances .....	56
Health Maintenance Organizations (HMO's) .....	57
Diagnosis Related Groupings (DRG's) .....	57
Tax Equity and Fiscal Responsibility Act (TEFRA) .....	58
 3. The Pharmacy—Its Organization and Personnel ..	60
Supportive Personnel .....	61
ASHP Statement on Supportive Personnel in Hospital Pharmacy .....	61
Pharmacy Specialists .....	63
Drug Information Specialists .....	63
Pharmacy Education .....	64
Job Descriptions .....	64
Determining the Departmental Staff—Professional .....	66
Determining the Departmental Staff—Lay Personnel .....	70
Professional Services Rendered .....	73
Charting of Pharmacy Organization .....	73
ASHP Competency Standard for Pharmacy Supportive Personnel in Organized Health Care Settings .....	76
Control of Personnel .....	81
Hiring of Pharmacists .....	82
Women in Pharmacy .....	86
Salaries .....	86
Economic Status Program of the American Society of Hospital Pharmacists .....	87
 4. The Pharmacy and Therapeutics Committee .....	91
ASHP Statement on Pharmacy and Therapeutics Committee .....	93
Purpose of the Committee .....	95
Committee Name .....	96
Committee Membership .....	96
Frequency of Meetings .....	97
The Committee Agenda .....	97
Functions of the Committee .....	97
Generic vs. Brand Named Drugs—A Committee Dilemma .....	102
Evaluation of Drugs .....	105
ASHP Technical Assistance Bulletin on the Scientific and Therapeutic Evaluation of Drugs for Hospital Formularies .....	105
Recommended Reference Materials .....	108
Recommendations .....	109
Committee's Role in the Adverse Drug Reaction Program	110

---

Drug Experience Reporting .....	111
Drug Product Defect Reporting Program.....	111
Automatic Stop Order for Dangerous Drugs .....	114
Committee's Role in Developing Emergency Drug Lists..	114
ASHP Guidelines on the Pharmacist's Role in Drug-Use Review and Patient-Care Audits .....	118
Nursing and the Pharmacy and Therapeutics Committee	121
DRG's and the Pharmacy and Therapeutics Committee ..	122
<b>5. The Hospital Formulary .....</b>	<b>124</b>
ASHP Statement on the Formulary System.....	125
ASHP Technical Assistance Bulletin on Hospital Formularies .....	127
Format and Appearance of the Formulary .....	131
Distribution of the Formulary .....	131
Keeping the Formulary Current .....	132
Use of Non-Formulary Drugs.....	132
Patient Package Inserts (PPI) .....	132
The Legal Basis of the Formulary System .....	134
Antisubstitution Laws and the Formulary .....	136
Preparation of the Formulary .....	136
Formulary vs. Drug Catalogue or List .....	137
Selection of Guiding Principles for Admission or Deletion of Drugs .....	138
Contents .....	140
Prescription Writing .....	141
Format .....	141
Size .....	142
Loose-Leaf vs. Bound .....	142
Publication .....	142
Formulary Drug Listing Service .....	143
Formulary Drug Listing Service Preparations .....	144
Categorizing and Indexing .....	145
Sample Pharmacologic Index .....	145
Text .....	147
Specialty Formularies .....	151
<b>6. Pharmacy Communications .....</b>	<b>154</b>
Selection of a Title.....	155
Contents .....	155
Format and Duplication .....	156
Distribution .....	157
Advantages .....	157
ASHP Guidelines on Pharmacist-Conducted Patient Counseling .....	158
Audiovisual Communications .....	159

---

<b>7. Investigational Use Drugs .....</b>	<b>160</b>
The U.S. Public Health Service Policy .....	160
ASHP Guidelines for the Use of Investigational Drugs in Institutions.....	164
Guidelines for Pharmacists .....	166
Control of Investigational Use Drugs.....	169
Clinical Testing for Safe and Effective Drugs .....	177
Investigational Use Drugs and the Pharmacy and Therapeutics Committee .....	182
Investigational Drug Circular.....	183
<b>8. Developing the Budget.....</b>	<b>184</b>
Sections of the Budget .....	186
The Expense Accounts—General Information .....	188
Expense Account—Salaries and Wages .....	189
Expense Account—Supplies and Material.....	189
Equipment and Construction Budget .....	190
<b>9. Purchasing and Inventory Control .....</b>	<b>193</b>
Procurement: Drug Selection, Purchasing Authority, Responsibility and Control .....	195
Role of Purchasing Agent in Drug Procurement.....	197
Role of Pharmacist in Drug Procurement.....	197
Purchasing Procedure .....	198
Controls on Purchases.....	201
Quality of Drugs .....	204
Discounts .....	205
Central Storage vs. Pharmacy Storage .....	206
Storeroom Arrangement .....	206
“Shelf-Stripping” and “Floor-Marking”.....	207
Marking of Merchandise .....	207
Control of Dated or Perishable Inventory.....	208
Taking of a Physical Inventory .....	209
The Perpetual Inventory .....	210
Materials Management .....	211
<b>10. Medical Service Representative-Pharmacist Relationship .....</b>	<b>213</b>
ASHP Guidelines for Selecting Pharmaceutical Manufacturers and Distributors .....	214
Appointments .....	216
Proper Utilization of Appointment Time .....	217
Promotional Displays .....	218
Definition of Drug Samples .....	221
Use of Samples in the Hospital .....	221

Use of Samples in Competitive Buying .....	221
Control of Drug Samples .....	222
Cataloguing of Drug Samples .....	223
Effect of Samples on Fiscal Operations .....	224
Controlled Substances Act of 1970 on Samples .....	224
<b>11. The Pharmacy Procedural Manual .....</b>	<b>226</b>
Policy and Procedures Manuals' Statement from ASHP	
Technical Assistance Bulletin on Hospital Drug	
Distribution and Control .....	227
Definition .....	232
Scope .....	232
Contents and Format .....	232
Sample Bulletins for a Manual .....	235
Special Manuals .....	241
Special Section on Clinical Pharmacy .....	242
ASHP Statement on Clinical Functions in Institutional	
Pharmacy Practice .....	242
ASHP Statement on the Role of the Pharmacist in	
Clinical Pharmacokinetic Services .....	243
ASHP Guidelines for Obtaining Authorization for	
Pharmacists' Notations in the Patient Medical Record	244
<b>12. Policy and Procedure for Drug Distribution and</b>	
<b>Administration .....</b>	<b>247</b>
Prescribing of Floor Stock Drugs .....	247
Patient Transfer or Discharge .....	250
Labeling of Floor Stock Drugs .....	250
Nursing Policy and Procedure for Administration of a	
Drug .....	251
Nursing Medication Administration Regulations .....	251
Medication Procedure—Unit Dose System .....	254
Medication Administration—General .....	257
Inspection of Nursing Drug Cabinets .....	260
<b>13. Dispensing to In-Patients .....</b>	<b>262</b>
ASHP Guidelines for Hospital Drug Distribution System	263
ASHP Statement on Unit Dose Drug Distribution .....	264
Drug Distribution—Floor Stock System .....	266
Individual Prescription Order System .....	266
The "Complete" Floor Stock System .....	267
Combination of Individual Drug Order and Floor Stock	
Systems .....	267

Selection of Charge Floor Stock Drugs .....	268
Selection of Non-Charge Floor Stock Drugs .....	269
Dispensing of Charge Non-Floor Stock Drugs .....	270
The Envelope System .....	271
Allowance or Credit Procedures on Unused Charge Drugs .....	273
Dispensing and Distribution of Non-Charge Floor Stock Drugs .....	275
Drug Basket Method .....	276
Mobile Dispensing Unit .....	276
Patient Servers Concept .....	277
Unit Dose Dispensing—General .....	278
ASHP Technical Assistance Bulletin on Hospital Drug Distribution and Control (Unit Dose Section).....	279
Unit Dose Dispensing Procedure .....	291
Unit Doses Not Administered .....	294
Other Concepts in Dispensing.....	294
Self-Medication Programs .....	296
 <b>14. Dispensing to Ambulatory Patients .....</b>	<b>300</b>
Report of the Commission on Pharmaceutical Services to Ambulant Patients by Hospitals and Related Facilities .....	301
ASHP Statement on the Provision of Pharmaceutical Services in Ambulatory Care Settings .....	302
ASHP Guidelines: Minimum Standard for Ambulatory- Care Pharmaceutical Services .....	303
ASHP Supplemental Standard and Learning Objectives for Residency Training in Ambulatory Care Pharmacy Practice .....	305
Location of Out-Patient Dispensing Area .....	310
Types of Prescriptions Received.....	310
Dispensing Routine .....	312
Prescriptions Involving Research Projects .....	314
I.R.S. Ruling on Out-Patient Dispensing.....	314
 <b>15. Distributing Ancillary Supplies .....</b>	<b>318</b>
Qualifications of the Pharmacist .....	318
Purchasing .....	318
Distribution .....	320
Application of Economic Order Quantity Model .....	322
 <b>16. Dispensing of Controlled Substances .....</b>	<b>323</b>
Comprehensive Drug Abuse Prevention and Control Act of 1970 .....	323

---

Authority to Control .....	326
Schedules for Controlled Substances .....	327
Registration Requirements .....	328
Registration Exemption for Hospital House Staff .....	329
Separate Registration for Independent Activities .....	330
Separate Registrations for Separate Locations .....	331
Exemption of Agents and Employees .....	332
Time for Application for Registration .....	332
Expiration of Registration .....	332
Application Forms .....	333
Modification in Registration .....	333
Inventory Requirements .....	334
Prescriptions .....	334
Offenses and Penalties .....	335
Labeling and Packaging Requirements .....	336
Model Set of Hospital Controlled Substances	
Regulations .....	336
Miscellaneous Regulations .....	343
Control of Narcotics by Nurses .....	344
Narcotics Delivery to Nursing Station .....	344
Protocol for Reporting Drug Abuse or Diversion .....	345
Other Systems .....	349
Special Uses .....	350
17. Tax-Free Alcohol—Its Procurement and Control ..	354
Federal Regulations .....	354
Continuing Withdrawal Permits .....	373
Dispensing Alcoholic Liquors to Patients .....	375
Alcohol Records and Automatic Data Processing ..	376
18. Dispensing During Off-Hours .....	378
Use of Nursing Supervisors .....	378
Emergency Boxes and Night Drug Cabinets .....	379
Use of Physicians .....	380
Pharmacist-On-Call .....	381
Purchased Service .....	381
Extending Pharmacy Service Hours .....	382
19. Hospital Reimbursement .....	384
Blue Cross Plan .....	384
Commercial Insurance Plans .....	385
Medicare Cost-Per-Case Management Concept .....	385
Medicare Prospective Pricing Concept .....	386
Drug Utilization Review (DUR) .....	388
Pricing of Drugs .....	389

Per Diem Drug Charge .....	390
Professional Fee Concept .....	390
Break-Even Point Pricing .....	392
Computerized Pricing and Inventory Control .....	393
Public Law 89-97 (Medicare).....	393
I. Title XVIII(A)—Compulsory Hospital Program .....	394
II. Title XVIII(B)—Voluntary Insurance Program .....	395
III. Title XIX—Medicaid .....	395
Conditions of Participation .....	396
ASHP Guidelines for Implementing and Obtaining Reimbursement for Clinical Pharmaceutical Services .	401
Use of Charge Cards.....	403
 <b>20. Prepackaging in the Hospital .....</b>	 406
Prepackaging Policy—Its Determination.....	406
Prepackaging Operation .....	408
Types of Containers .....	408
ASHP Technical Assistance Bulletin on Single Unit and Unit Dose Packages of Drugs.....	410
ASHP Technical Assistance Bulletin on Hospital Drug Distribution and Control .....	414
Labeling .....	415
ASHP Technical Assistance Bulletin on Repackaging Oral Solids and Liquids in Single Unit and Unit Dose Packages .....	421
Quality Control Guidelines for Single Packaging of Parenterals .....	423
 <b>21. Manufacturing—Bulk and Sterile .....</b>	 425
ASHP Technical Assistance Bulletin on Hospital Drug Distribution and Control .....	426
Budgetary Control .....	427
Quality Control .....	430
Good Manufacturing Practice Regulations .....	431
Work Sheet.....	451
Maintenance of Manufacturing Equipment .....	453
Intravenous Additive Program .....	455
Preparation of IV Additive Solutions .....	457
ASHP Guidelines for Pharmacist Participation in Home Parenteral Nutrition Programs .....	458
Sample Hospital Intravenous Admixture Program .....	460
 <b>22. The Pharmacy—Central Sterile Supply Room .....</b>	 470
CSSR—Philosophy and Objectives .....	471
CSSR in the Hospital Organization .....	472

Qualifications of the Hospital Pharmacist to Manage the CSSR .....	472
Personnel .....	473
Location .....	474
Planning the CSSR .....	474
Laminar Flow Hoods .....	476
Standardization Committee .....	478
 23. The Nuclear Pharmacy .....	482
Licensure Information .....	483
Types of Application Forms .....	485
Radioisotope Committee .....	485
Responsibility of Permit Holders .....	488
Responsibility of Individual Users .....	489
NABP Model Regulations for Nuclear Pharmacy .....	489
Role of the Pharmacist in the Hospital With an Isotope Pharmacy .....	492
Role of the Pharmacist in the Hospital Without an Isotope Pharmacy .....	492
Training Students in Nuclear Pharmacy .....	493
Sources of Information .....	496
 24. The Physical Plant and Its Equipment .....	498
Functional Planning .....	498
Workloads and Workflow .....	500
Location .....	515
Floor Space .....	517
Equipment Planner's Responsibility .....	522
Fixed Equipment .....	524
Movable Equipment .....	524
Suggested Equipment Lists .....	524
Equipment Electrical Safety .....	536
Cleanup Area .....	537
Nonsterile Mixing and Filling Room .....	537
Prepackaging Area .....	537
Injection Reconstitution Area .....	538
Labeling and Inspection Room .....	538
Quarantine Storage .....	538
Refrigeration Facilities .....	538
Constructing a Cold Room .....	539
Built-In Equipment .....	541
Electric Lighting and Service .....	544
Ventilation .....	545
Conveyor and Pneumatic Tube Systems .....	545
Plumbing .....	545
Finishes .....	547

25. The Pharmacy Library—Drug Information Center .....	549
Location .....	550
Physical Facilities .....	550
Selection of Contents.....	551
Drug Information Center.....	555
ASHP Supplemental Standard and Learning Objectives for Residency Training in Drug Information Practice ..	559
26. The Role of the Hospital Pharmacist in Educational and Training Programs .....	566
Professional Education of the Hospital Pharmacist .....	567
ASHP Accreditation Standard for Pharmacy Residency in a Hospital (With Guide to Interpretation).....	568
ASHP Statement on Accreditation of Pharmacy Residencies in Hospitals (With Policies and Procedures) .....	584
Internal Teaching Programs .....	588
ASHP and AHA Statement on Clinical Pharmacy and Its Relationship to the Institution .....	593
NABP Model Clinical Pharmacy Education and Training Agreement .....	594
External Teaching Programs .....	598
Specialized Pharmacy Residency Training .....	599
Drug Abuse Teaching Program .....	599
Training Emergency Medical Technicians .....	600
27. Preparation of the Annual Report.....	602
Format .....	602
Contents .....	603
Incidents Involving Medications and Pharmacists .....	606
28. Safe Use of Medications in the Hospital .....	607
Medication Error—Defined .....	607
ASHP Technical Assistance Bulletin on Hospital Drug Distribution and Control .....	608
Factors Contributing to Medication Errors.....	609
Corrective Measures.....	610
ASHP Guidelines Relative to the Safe Use of Medications in Hospitals .....	614
Drug Interaction Surveillance .....	623
Joint Commission on Prescription Drug Use .....	623

---

29. The Small Hospital, Nursing Homes, Hospices and Part-Time Pharmacists .....	626
Methods of Handling Drugs in Hospitals Without a Full-Time Pharmacist .....	628
Small Hospital-Community Pharmacist Relationship .....	628
Principles of Relationship Between Small Hospitals and Part-Time Pharmacists .....	629
Responsibilities of Community or Consulting Pharmacists Extended Care Facilities and Small Hospitals .....	632
Dispensing Prescriptions for Extended Care Facilities and Small Hospital Patients .....	633
Consulting Pharmaceutical Service .....	633
Small Hospital-Large Hospital Pharmacy Relationship ..	634
Program for Small Hospital With No Pharmacy or Pharmacist Relationship .....	635
Pharmacy's Role in Nursing Homes—Extended Care Facilities .....	636
Condition of Participation for Extended Care Facilities ..	637
Pharmaceutical Services .....	637
Drug Safety .....	639
Hospice Programs .....	640
30. Computers in the Hospital Pharmacy .....	643
Terminology .....	643
Program Criteria .....	644
Managing Computer System Development .....	645
ASHP Technical Assistance Bulletin on Hospital Drug Distribution and Control .....	647
Impact of the Computer on Dispensing Time .....	648
Model Computer Regulations .....	648
31. Professional Practices and Relations .....	654
Opportunities for a Public Relations Program .....	654
Participation in Administrative Committee Work .....	655
ASHP Statement on the Hospital Pharmacist's Role in Infection Control .....	655
Membership in Professional Associations .....	657
Cooperate with Medical Research Staff .....	658
Cooperate with Local Pharmacists .....	658
Cooperate with Nursing Staff .....	659
ASHP and ANA Guidelines for Collaboration of Pharmacists and Nurses in Institutional Care Settings ..	659
Maintain an Efficient Professional Pharmacy .....	661
Accept Speaking Engagements .....	661

Hospital Pharmacy Displays .....	662
Participation in Comprehensive Health Care Programs ..	662
Health Maintenance Organizations .....	663
Continuing Care Service—Home Care Service .....	665
Drug Rehabilitation Programs .....	665
Drug Consultation Programs .....	665
Continuing Education Programs .....	666
ASHP Statement on Continuing Education .....	666
Summary .....	668
 Index .....	671

## Introduction

The specialty of hospital pharmacy has been defined as follows:<sup>1</sup>

... the department or service in a hospital which is under the direction of a professionally competent, legally qualified pharmacist, and from which all medications are supplied to the nursing units and other services, where special prescriptions are filled for patients in the hospital, where prescriptions are filled for ambulatory patients and out-patients, where pharmaceuticals are manufactured in bulk, where narcotic and other prescribed drugs are dispensed, where biologicals are stored and dispensed, where injectable preparations should be prepared and sterilized, and where professional supplies are often stocked and dispensed.

Although the above definition may have been applicable at the time that it was written, the modern practice of hospital pharmacy involves much more. The computerization of the pharmacy department makes it possible for the staff to participate in patient education programs, poison control center activities, preparation of patient drug use profiles, parenteral nutrition program participation, cooperating in the teaching and research programs of the hospital, communicating new product information to nursing service and other hospital personnel and dispensing radiopharmaceuticals.

With such a broad definition of purpose, one might wonder about the origin of this branch of the profession of pharmacy. According to Urdang,<sup>2</sup> the hospital pharmacist was the first recognized representative of the pharmaceutical profession. He states that hospital pharmacists were employed in the hospitals which were a part of many early monasteries. Many of the descriptions of these old hospitals include a description of the "apothecary shop" and its garden for the cultivation of medicinal herbs.

From this ancient period, hospital pharmacy passes into the early American era, 1752 to be exact, when Pennsylvania Hospital, the first in North America was opened, with Jonathan Roberts as its hospital pharmacist. Since this historic date, two hundred and twenty-nine years have passed, and a number of outstanding persons associated with the hospital pharmacy have received professional recognition and the accolade of pharmaceutical historians.

The greatest strides in the profession were made in the early 1940s.