

ACCP POSITION STATEMENT

Practice Guidelines for Pharmacotherapy Specialists A Position Statement of the American College of Clinical Pharmacy

The ACCP Clinical Practice Affairs Committee, Subcommittee B, 1998–1999

(Pharmacotherapy 2000;20(4):487–490)

Preamble

The purpose of these practice guidelines is to describe the level of clinical pharmacy practice, knowledge, specialized skills, and unique functions that characterize the pharmacotherapy specialist.

Pharmacotherapy is that area of pharmacy practice that ensures the safe, appropriate, and economical use of medications. To function in this capacity requires specialized education and/or structured training in the clinical sciences. The pharmacotherapy specialist possesses unique professional knowledge and skills gained through advanced training in the biomedical, pharmaceutical, and clinical sciences, as well as through practice experiences. The pharmacotherapy specialist is skilled in the use of sound judgment in the collection, interpretation, and application of patient-specific data that are used to assist with the design, implementation, and monitoring of therapeutic regimens. Knowledge and skills of the pharmacotherapy specialist may be acquired through primary academic curricula, post-graduate residency or fellowship training, or innovative and extensive pharmacy practice experiences. The skills of the pharmacotherapy specialist, when applied across the entire continuum of the health care system, benefit individual patients, health care organizations, and society in general. The pharmacotherapy

This document was approved by the ACCP Board of Regents on January 17, 2000. It replaces "Practice Guidelines for Pharmacotherapy Specialists" (Pharmacotherapy 1990;10:308–311).

Address reprint requests to the American College of Clinical Pharmacy, 3101 Broadway, Suite 380, Kansas City, MO 64111.

A complete list of the members of the ACCP Clinical Practice Affairs Committee, Subcommittee B, for 1998–1999 appears in the Acknowledgment section of this paper.

specialist is a licensed pharmacist and graduate of an accredited college or school of pharmacy.

The pharmacotherapy specialist is recognized by the pharmacy, medical, and allied health professions and by society in general as an expert in the area of applied pharmacotherapeutics and as an integral member of the health care team. Regardless of whether the specialist practices in acute or ambulatory care, the pharmacotherapy specialist meets the guidelines outlined in this document by the routine performance of the activities described in the assessment factors as part of daily pharmacy practice responsibilities.

Guideline I

The pharmacotherapy specialist designs, implements, monitors, evaluates, and modifies patient pharmacotherapy to ensure effective, safe, and economical patient care.

Rationale

Using specialized knowledge of pharmacology, pharmacokinetics, pathophysiology, pharmacoeconomics, and therapeutics, the pharmacotherapist takes responsibility for patient outcomes. The pharmacotherapy specialist manages pharmacotherapy by evaluating therapeutic agents in the context of patients and populations and working collaboratively to assure their effective, safe, and economical use. The pharmacotherapy specialist makes clinical observations and incorporates them with information gained from other health care providers to optimize therapeutic decisions. The pharmacotherapy specialist participates in the evaluation of drug efficacy; identifies, reports, prevents, and participates in the management of adverse reactions; and initiates appropriate

changes in the pharmacotherapeutic management of patients. This may include the discontinuation of drug treatment regimens, the prevention of unnecessary or potentially harmful treatment regimens, individualized adjustment of therapy in patients having unstable disease entities, management and monitoring of chronic drug therapy, or management of the drug formulary.

Assessment Factors

1. Collaborates with other health professionals to make therapeutic decisions such as drug and drug product selection, therapeutic drug monitoring, and drug dosing.
2. Participates in the planning and development of patient treatment.
3. Investigates therapeutic alternatives and recommends or initiates the management of patient-related problems based on interpretation of relevant literature and clinical experience. Communicates the results of these investigations to health care practitioners in a manner appropriate to the training, skill, and need of that health professional.
4. Assists in the management, monitoring, and modification of drug therapy in patients with chronic disease.
5. Reviews patient records and orders regarding drug therapy and recommends and initiates changes as appropriate.
6. Evaluates patients by means of interview and, when appropriate, physical assessment to determine past medical history, previous medication use, present medical history, present medication use, present medical condition, and response to therapy. The pharmacotherapy specialist performs accurate and reproducible physical examination in accordance with their formal training and experience.
7. Interprets laboratory and other patient-specific data to aid in determining treatment plans and monitoring response to therapy.
8. Solves therapeutic queries posed by physicians and other health care providers.
9. Identifies complications resulting from drug therapy and recommends or initiates the necessary treatment alternatives to minimize or negate them.
10. Utilizes available state-of-the-art knowledge and technology to assess, improve, and monitor drug therapy regimens.
11. Establishes procedures for detecting significant drug-drug, drug-laboratory, drug-food, and drug-herbal interactions, and develops the necessary means to minimize adverse patient consequences that might result from such interactions.
12. Effectively communicates oral and/or written therapeutic recommendations or other aspects of drug therapy to health professionals, peers, patients, the public, and health care managers.
13. Assesses and participates in the management of patients with drug overdose and patients exposed to poisons.
14. Performs basic cardiac life support, and assesses and participates in drug therapy management during medical emergencies.
15. In conjunction with licensed medical practitioners, develops, manages, and assists in the implementation of pharmacotherapeutic protocols.
16. Works with other health care providers and relevant committees to develop programs for improving drug use and quality of patient care.
17. Documents the economic impact of clinical pharmacy activities for use by organized health care managers, practitioners, institutions, and providers.
18. Identifies therapeutic categories or individual therapeutic agents warranting drug utilization evaluation. Develops and conducts drug utilization evaluation in these targeted areas.
19. Coordinates the timely, accurate delivery of medications to patients in conjunction with other pharmacy practitioners.
20. Utilizes pharmacokinetic principles in the formulation of therapeutic drug regimens.
21. Coordinates the timing and collection of drug concentration samples in biologic fluids, interprets drug concentration results, makes recommendations to physicians regarding dosage adjustments, and monitors response to recommended dosage regimens.
22. Interprets patient-specific data, physical findings, medical history, and other pertinent information to aid in designing treatment plans, and monitors the patient's response to the recommended dosage regimen.
23. Evaluates the biomedical literature to determine optimal therapeutic drug-monitoring strategies and population

- pharmacokinetic parameters.
24. Interprets and applies population pharmacokinetic data to the design of patient-specific drug dosage regimens.
 25. Determines patient-specific pharmacokinetic parameters on the basis of measured drug concentrations and prospectively applies these data to dosage regimen design.
 26. Educates health professionals, students, patients, and the public regarding the utility of clinical pharmacokinetics.

Guideline II

The pharmacotherapy specialist retrieves, analyzes, evaluates, and interprets the scientific literature as a means of providing patient- and population-specific drug information to health professionals and patients.

Rationale

Having expertise in literature evaluation and specialized training in therapeutics enables the pharmacotherapy specialist to retrieve and apply drug treatment information. The pharmacotherapy specialist will interpret the primary literature, evaluate its applicability to given patient care situations, and apply it in the synthesis of a solution to patient-specific drug therapy problems.

Assessment Factors

1. Identifies and retrieves the best available information about pharmacotherapy by searching appropriate tertiary, secondary, and primary sources. The pharmacist is adept at using computer technology to collect information.
2. Evaluates biomedical and pharmacoeconomic literature to determine criteria for optimal use and monitoring of therapeutic agents.
3. Routinely reviews biomedical and pharmacoeconomic literature relevant to the pharmacotherapeutic management of patient populations.
4. Evaluates the literature with regard to study design and methodology, statistical analysis, and significance of reported data so that appropriate assessments and conclusions may be applied to the solution of drug therapy problems.

Guideline III

The pharmacotherapy specialist participates in

the generation of new knowledge relevant to the practice of pharmacotherapy, clinical pharmacy, and medicine.

Rationale

The pharmacotherapy specialist has responsibility for the continuing development and refinement of knowledge regarding the appropriate use of medications. This knowledge may be generated by conducting research and clinical experimentation of therapeutic agents, by devising new and innovative approaches to pharmacotherapy practice, or by evaluating outcomes of new and innovative roles of pharmacotherapy specialists. The pharmacotherapy specialist has the responsibility to effectively convey the results of pharmacotherapeutic research to health professionals, patients, the public, and health care managers.

Assessment Factors

1. Identifies pharmacotherapeutic questions to be studied or problems to be solved within the realm of pharmacotherapy practice.
2. Develops, implements, evaluates, and participates in scientifically valid and ethically designed studies.
3. Supports internal and external mechanisms for review of research protocols with regard to study design and protection of human subjects.
4. Collects data regarding the outcomes of patients managed by the pharmacist.
5. Presents research results at scientific meetings and publishes results in the scientific literature.

Guideline IV

The pharmacotherapy specialist educates health care professionals and students, patients, and the public regarding rational drug therapy.

Rationale

Experience and training in education combined with specialized knowledge and skills in pharmacotherapeutics render the pharmacotherapy specialist uniquely qualified to educate health care providers and consumers regarding effective, safe, and economical use of drugs. The specialist may teach in either the classroom or the clinical environment (e.g., instruction during hospital rounds, patient conferences, primary care settings, ambulatory clinics, emergency

departments, etc.). The pharmacotherapy specialist is experienced in behavior modification and communication with patients, peers, and students. When applied appropriately, these skills may result, for example, in improved patient compliance with drugs and altered physician prescribing habits.

Assessment Factors

1. Assumes responsibility for the education of all members of the health care team involved in patient pharmacotherapy.
2. Participates in continuing education programs concerning pharmacotherapeutics.
3. Develops patient education materials and participates in patient instruction programs to facilitate appropriate medication therapy and compliance.

Guideline V

The pharmacotherapy specialist continually develops his/her knowledge and skills in applicable practice areas and demonstrates a commitment to continued professional growth by engaging in a lifelong process.

Rationale

The frequent introduction of new pharmacotherapeutic agents into practice, the increasing complexity and technicality of new drugs and biologic products, and the evolution of pharmacotherapy practice necessitate that the pharmacotherapy specialist continually refine, improve, and expand the unique, advanced skills which he/she possesses.

Assessment Factors

1. Participates in professional organizations related to areas of expertise, thereby nurturing and enhancing personal knowledge and leadership skills.

2. Increases personal level of knowledge and skills by reading professional journals, and attending or participating in professional seminars, professional symposia, and national and international conferences.
3. Obtains board certification.

Acknowledgments

Prepared by the 1998–1999 ACCP Clinical Practice Affairs Committee, Subcommittee B: Terry L. Seaton, Pharm.D., BCPS, St. Louis College of Pharmacy, St. Louis, MO; Aileen Bown-Luzier, Pharm.D., Department of Pharmacy Practice, SUNY at Buffalo, Buffalo, NY; Catherine E. Cooke, Pharm.D., BCPS, School of Pharmacy, University of Maryland, Baltimore, MD; John F. DeConinck, B.S., Owen/Cardinal Healthcare Corp., Desert Springs Hospital Pharmacy, Las Vegas, NV; Robert E. Dupuis, Pharm.D., BCPS, School of Pharmacy, University of North Carolina, Chapel Hill, NC; Rex W. Force, Pharm.D., BCPS, Department of Family Medicine, Idaho State University, Pocatello, ID; Peter Gal, Pharm.D., BCPS, FCCP (Chair), Greensboro Area Health Center, Greensboro, NC; Darrell Hulisz, Pharm.D., BCPS, Department of Family Medicine, University Hospitals of Cleveland, Cleveland, OH; Nathan L. Kanous, II, BCPS, School of Pharmacy, University of Wisconsin–Madison, Madison, WI; Dannielle C. O'Donnell, Pharm.D., BCPS, College of Pharmacy, The University of Texas at Austin, Austin, TX; Eric Racine, Pharm.D., Pharmacy Department, Harper Hospital, DMC, Detroit, MI; Theresa Salazar, Pharm.D., School of Pharmacy and Pharmacal Sciences, Purdue University, West Lafayette, IN; Allen F. Shaughnessy, Pharm.D., FCCP, BCPS, Harrisburg Hospital Family Practice; Harrisburg, PA; Ronald Taniguchi, Pharm.D., Pharmacy Services, Kaiser Permanente, Hawaii Region, Honolulu, HI; and Kay M. Uttech, Pharm.D., BCPS, College of Pharmacy, University of Illinois at Chicago, Chicago, IL.

Significant contributions to the development of this paper were made by Karen S. Oles, Pharm.D., BCPS, Wake Forest University School of Medicine, Winston-Salem, NC.