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Michael S. Maddux, Pharm.D., FCCP; Executive Director
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Should Organized Clinical Pharmacy Promote a Consistent Process of Patient Care Provided by Clinical Pharmacists That Can Apply to Any Clinical Practice Setting?

Part II: Current Models of Clinical Pharmacy Practice

2012 ACCP Public and Professional Relations Committee[a]

Editor's note: This is the second installment of a four-part commentary prepared expressly for the ACCP Report. See part I in last month's issue of the ACCP Report at http://www.accp.com/report/index.aspx?iss=0512&art=1

As noted in part I of this series, we believe there should be a consistent process of patient care provided by clinical pharmacists that can be consistently applied to any clinical practice, extending from the ambulatory care setting to the intensive care unit. For such an approach to patient care practice by clinical pharmacists to be effective, it should be simple, straightforward, and easily described, but it must also be comprehensive, readily accessible, easy to document, and applicable to the care of all patients. In addition, other health care stakeholders, including physician organizations, payers, other health care providers, and patients, should readily understand it. As mentioned previously, it also should be articulable, measurable, codeable, and researchable.

As we explore WHAT it is that clinical pharmacists do, we must examine the currently existing models of clinical pharmacy practice. These models represent several different approaches to managing a patient's medications, and all have similarities and differences. Not all clinical pharmacists across the United States follow one specific model; their practices are likely to be a function of their background, training, and practice environment. The clinical pharmacy practice models described in the literature include (1) pharmaceutical care practice, (2) medication therapy management (MTM), (3) comprehensive medication management (CMM) as integrated into the patient-centered medical home (PCMH), and (4) the Society of Hospital Pharmacists of Australia (SHPA) Standards of Practice for clinical pharmacy. A fifth approach, the individualized medication assessment and planning (iMAP) process, is the focus of ongoing work that has not yet been published. Other examples exist in practice, including collaborative working relationships between physicians and pharmacists, disease state management, and specialty clinics/programs. In part II of this series of commentaries, we summarize five different models of clinical pharmacy practice. Next month, the strengths, weaknesses, and applicability of these models to all practice settings will be explored as we continue to ask WHAT it is that clinical pharmacists do.

Clinical Pharmacy Practice Model	Description of Model	Key Elements	Steps
Pharmaceutical care[1]	The pharmaceutical care model is now defined as a patient-centered way to deliver medication management services. The model stresses a pharmacist's responsibility for a patient's drug-related needs and being held accountable for the commitment. The purpose is to achieve positive patient outcomes. The pharmacist ensures that all of a patient's drug therapy is indicated, effective, and safe and that the patient is able and willing to adhere to instructions. It is a generalist practice, consistent with the concepts of primary care and the medical home.	The pharmaceutical care model has three key components: 1) Identify a patient's actual and potential drug therapy problems (DTPs). 2) Resolve actual DTPs. 3) Prevent potential DTPs from becoming actual DTPs. The pharmaceutical care process has three key steps: 1) ASSESSMENT 2) CARE PLAN 3) EVALUATION **In the standards of care for pharmaceutical care, the practitioner:** 1) Collects patient-specific information to use in decision-making regarding all drug therapies 2) Analyzes assessment data to determine that drug-related needs are being met; that all medications are indicated, effective, and safe; and that the patient is able and willing to take the medication as intended 3) Analyzes assessment data to determine whether any DTPs are present 4) Identifies goals of therapy that are patient-centered 5) Develops a care plan including interventions to resolve DTPs, achieve goals of therapy, and prevent DTPs 6) Develops a schedule to follow up and evaluate the effectiveness of drug therapies and any adverse events experienced by the patient 7) Evaluates the patient's outcomes and determines progress toward achieving goals of therapy, identifies safety and adherence issues, and assesses whether new DTPs have developed	**1) ASSESSMENT of patient's drug-related needs** Includes a pharmacotherapy workup and a full review of systems to identify DTPs. All DTPs are categorized and must fall under one of four categories, composed of seven types of DTPs: a. Indication i. Unnecessary drug therapy ii. Needs additional drug therapy b. Effectiveness i. Ineffective drug ii. Dosage too low c. Safety i. Adverse drug reaction ii. Dosage too high d. Adherence i. Patient not able or willing to take medication **2) CARE PLAN development to meet patient's needs** Four categories of interventions are selected to establish goals of therapy: a. Resolve DTPs. b. Achieve goals of therapy. c. Prevent future DTPs. d. Schedule follow-up. Types of interventions that can occur: a. Initiate new drug therapy. b. Change dosage regimen. c. Change the drug product. d. Discontinue drug therapy. e. Institute a monitoring plan. f. Patient-specific instructions. g. Removal of barriers to obtain medication. h. Drug administration device provided. i. Refer patient. **3) Follow-up EVALUATION** Each condition is categorized into eight predetermined outcomes: a. Resolved b. Stable c. Improved d. Partly improved e. Unimproved f. Worsened g. Failure h. Expired (patient died)

Clinical Pharmacy Practice Model	Description of Model	Key Elements	Steps
Medication therapy management (MTM)[2]	MTM is defined as a distinct service or group of services that optimize therapeutic outcomes for individual patients. In this model, the patient is empowered to take an active role in managing his or her medications.	All MTM services should include: (1) Establishing a pharmacist-patient relationship in which the pharmacist provides individualized services specific to the patient (or caregiver) to whom services are provided. (2) The interaction between the patient (or caregiver) and pharmacist preferably occurs through face-to-face communication. (3) Opportunities for pharmacists and other qualified health care providers to identify patients who should receive MTM services. (4) Payment for MTM services consistent with contemporary provider payment rates. (5) Processes to improve continuity of care, outcomes, and outcome measures.	The MTM service model has five core elements: **1) Medication therapy review (MTR)** A systematic process of collecting patient-specific information a. Assessing medications to identify medication-related problems (MRPs) by reviewing indication, effectiveness, safety, and adherence b. Developing a prioritized list of MRPs c. Creating a plan to resolve MRPs Two main types of MTR: a. Comprehensive: annual and after transitions of care b. Targeted: addresses specific MRP **2) Personal medication record (PMR)** a. A comprehensive record of all medications (prescription, over-the-counter, herbal, and other dietary supplements), which is intended for patients to use in medication self-management. b. Can be created as part of discharge process in the institutional setting or as part of patient care in the ambulatory care setting. c. Patients are responsible for documenting any changes to their therapeutic regimens to ensure a current and accurate record. **3) Medication-related action plan (MAP)** a. Intended for patient use; contains a list of actions for self-management The pharmacist-created MAP includes items the patient can act on that are within the pharmacist's scope of practice or agreed on by other members of the health care team. **4) Intervention and/or referral** Recommendations on selection of medications; options to address MRPs, recommended monitoring parameters, and follow-up care. **5) Documentation and follow-up** a. MTM services should be documented in a consistent manner, and follow-up MTM visits are scheduled on the basis of the individual patient's medication-related needs. b. Documentation for patients may include the PMR, MAP, and educational materials. c. Documentation to physicians may include a cover letter, the patient's PMR, the SOAP note, and the care plan.

Clinical Pharmacy Practice Model	Description of Model	Key Elements	Steps
Patient-centered primary care collaborative (PCPCC) MTM in the patient-centered medical home (PCMH)[3]	The goal of the PCPCC is to improve the quality of care and eventually the health of all patients, specifically through the PCMH model. It is believed that maximizing the appropriate use of medications through comprehensive medication management is critical for the PCMH to succeed. Face-to-face contact is not required in this model; telephone or a virtual clinic structure is acceptable.	The PCMH model emphasizes a team approach to patient care and emphasizes that medication management must be comprehensive and encompass all of a patient's medications and that pharmacists and other medication management practitioners should be coordinated with other team members in the PCMH.	The medication management model in the PCMH is made up of four steps. 1) **Assessment of the patient's medication-related needs** a. Assessment of all medications b. Uncovering the patient's medication experience c. Electronic linking of medication to indication and goals of therapy 2) **Identification and categorization of the patient's medication-related problems (MRPs), based on the following four categories** a. Appropriateness i. Is the medication appropriate? ii. Is there a condition that is not being treated or prevented in which a medication should be indicated? b. Effectiveness i. Is the most effective medication being used? ii. Is the dose appropriate to achieve the goals? c. Safety i. Does the patient have any adverse events? ii. Is the dose so high it could cause toxicity? d. Adherence i. Is the patient able and willing to take the medication as intended? 3) **Development of a care plan** a. Intervention to solve the MRPs. b. Establish goals for each condition. c. Design personalized plans to optimize each patient's medication experience. d. Establish measurable outcome parameters. e. Determine follow-up time frames. 4) **Follow-up evaluation to determine actual patient outcomes** a. If goals are not met, a reassessment is done to determine whether any MRPs are interfering.

Clinical Pharmacy Practice Model	Description of Model	Key Elements	Steps
SHPA **(Society of Hospital Pharmacists of Australia)[4]**	The SHPA developed Standards of Practice for clinical pharmacy with the objective to "optimize patient outcomes by working to achieve the quality use of medicines (QUM)." Clinical pharmacy practice is defined as "the practice of pharmacy as part of a multidisciplinary health care team directed at achieving QUM." The document includes not only a model of practice, but also the other types of activities clinical pharmacists may be engaged in, including rounding, providing drug information to health professionals and patients, reporting and managing adverse drug reactions, and participating in research.	The standards define the procedures for clinical pharmacy services for individual patients in great detail. In these standards, the two overlapping components are (1) a MAP and (2) the discrete clinical activities that contribute to the plan. The MAP focuses on overall patient outcomes, and it states that to carry out the plan, a pharmacist will perform several specific clinical activities. The MAP contains six fundamental components: a. Interpretation of patient-specific data b. Identification of clinical problems (focus on problems that require their expertise) c. Establishment of therapeutic goals d. Evaluation of therapeutic options e. Individualization of therapy f. Monitoring of patient outcomes	**10 specific clinical activities that contribute to the components of a MAP:** 1) Accurate medication history 2) Assessment of current medication management 3) Clinical review 4) Decision to prescribe a medicine 5) Therapeutic drug monitoring 6) Participation in multidisciplinary ward rounds and meetings 7) Provision of medicine information to health professionals 8) Provision of medicine information to patients 9) Information for ongoing care 10) Adverse drug reaction management For each of the above clinical activities, an appendix is provided. Each activity description then has an introduction section, goals for the activity, procedures for the activity (extensive), and a role for a pharmacy technician with the activity (if applicable). The standards also provide guidance on documenting clinical activities and the MAP.

Clinical Pharmacy Practice Model	Description of Model	Key Elements	Steps
iMAP program (individualized medication assessment and planning) (*Mary Roth McClurg, personal communication, May 2012*)	The iMAP program is a patient-centered, comprehensive MTM program. The program consists of 10 essential steps in the provision of patient care. Although it is being studied in those 65 years and older, it is applicable to other age groups, especially patients with multiple comorbidities and using multiple medications. A full description of this model is not available at this time.	The iMAP program is outlined in 10 essential steps. Care along each step is individualized to meet the needs of the patient. Several steps of the process are further described, including conducting a comprehensive medication review, identifying MRPs, and documenting encounters. For example, when assessing and documenting MRPs, the clinical pharmacist is guided by the iMAP tool (REF #5). This tool categorizes MRPs into seven general categories. Several subcategories under each large category are provided to further classify the MRP. The general categories are: 1. Drug therapy needed 2. Suboptimal dosing 3. Medication monitoring needed 4. Suboptimal drug 5. Adverse drug event present 6. Suboptimal duration, administration, or frequency 7. Nonadherence Once an MRP is identified and documented, a recommendation or intervention is proposed to the primary care provider, consensus is reached, and the plan is implemented to optimize medication use. To track interventions made by the clinical pharmacist, a list of 20 possible recommendations is included as part of the iMAP tool to document the intervention used to resolve the MRP (e.g., add a drug, discontinue a drug, decrease a dose, increase a dose, switch to a more effective agent).	**The 10 steps in this MTM model:** 1) Review and synthesize information from medical record. 2) Conduct comprehensive medication review with patient. 3) Identify MRPs. 4) Formulate assessment/propose plan to optimize medication use. 5) Communicate proposed plan to primary care provider. 6) Implement plan once consensus is reached. 7) Educate patient. 8) Document plan in medical record and provide written summary to patient. 9) Reconcile medications at all encounters, when possible, including transitions of care. 10) Provide ongoing face-to-face and telephone follow-up.

[a]*Committee members: Ila Harris (Chair), Beth Phillips (Vice Chair), Eric Boyce, Sara Griesbach, Charlene Hope, Denise Sokos, and Kurt Wargo.*

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2012 Pharmacotherapy Preparatory Review Course Instructional Materials Now Available

Instructional materials are now available for the 2012 edition of Updates in Therapeutics®: The Pharmacotherapy Preparatory Review and Recertification Course, the same course that was presented live at ACCP Updates in Therapeutics® 2012.

Updates in Therapeutics®: The Pharmacotherapy Preparatory Review and Recertification Course is ideal for pharmacy professionals who are preparing for the Pharmacotherapy Specialty Certification Examination administered by the Board of Pharmacy Specialties and for those seeking a self-paced review and refresher of disease states and therapeutics. Developed by Board Certified Pharmacotherapy Specialists, the course content provides a comprehensive review of the knowledge domains covered in the pharmacotherapy specialty certification examination. The course uses a case-based approach, with strong emphasis on the thought processes needed to solve patient care problems in each therapeutic area.

The course materials are available in a variety of formats to best suit your learning style. The online course, print workbook and CD-ROM package, and online workbook and CD-ROM package are available for continuing pharmacy education credit. The maximum number of continuing pharmacy education credits available for the preparatory course is 24.0 hours. Instructional materials are available in the following formats:

- **Course Workbook.** Presenter handouts are provided in a perfect-bound book. These materials include case studies, study questions with answer explanations, and literature citations for further reference.
- **Online Book.** Information contained in the printed course workbook is also available in this online version. The online book provides access to course workbook contents as PDF (Portable Document Format) files.
- **CD-ROM.** The CD-ROM includes the presenters' lectures, which are audio-synchronized to the slide presentations from the live program. The CD-ROM is both PC and Macintosh compatible and contains MP3 files of the presenters' lectures. (The CD-ROM is not CD-audio compatible.)
- **CD-ROM and Course Workbook with CE.** This package includes the full course workbook and a CD-ROM, plus access to the Web-based posttests for continuing pharmacy education credit.
- **Web-Based Online Course with CE.** This combination provides participants with the online workbook and includes the presenters' lectures, which are audio-synchronized to the slide presentations from the live program. The online course also provides the MP3 files of the presenters' lectures. In addition, the online course provides participants access to the Web-based posttests for continuing pharmacy education credit.
- **CD-ROM and Online Workbook with CE.** This package includes the CD-ROM and full course online workbook, plus access to the Web-based posttests for continuing pharmacy education credit.

The American College of Clinical Pharmacy is accredited by the Accreditation Council for Pharmacy Education as a provider of continuing pharmacy education. The Universal Activity Numbers (UANs) for Updates in Therapeutics®: The Pharmacotherapy Preparatory Review and Recertification Course are as follows:

Pediatrics; Geriatrics; and Gastrointestinal Disorders
Activity No. 0217-0000-12-019-H01-P; 3.0 contact hours

Fluids, Electrolytes, and Nutrition and Critical Care
Activity No. 0217-0000-12-020-H01-P; 3.0 contact hours

Ambulatory Care and Endocrine and Metabolic Disorders
Activity No. 0217-0000-12-021-H01-P; 3.0 contact hours

Neurology and General Psychiatry
Activity No. 0217-0000-12-022-H01-P; 3.0 contact hours

Infectious Diseases, HIV/Infectious Diseases, Nephrology
Activity No. 0217-0000-12-023-H01-P; 3.0 contact hours

Oncology Supportive Care; Men's and Women's Health; and Pharmacokinetics: A Refresher
Activity No. 0217-0000-12-024-H01-P; 3.0 contact hours

Biostatistics: A Refresher and Study Designs: Fundamentals of Design and Interpretation
Activity No. 0217-0000-12-025-H04-P; 3.0 contact hours

Cardiology I, Cardiology II, and Cardiology III
Activity No. 0217-0000-12-026-H01-P; 3.0 contact hours

All pharmacotherapy preparatory course modules are application-based activities. To receive continuing education credit, you must successfully complete and submit each Web-based posttest to ACCP by October 31, 2013.

Statements of credit for continuing pharmacy education will be available to participants immediately after the successful completion of each Web-based posttest at www.accp.com/ce. Learning objectives, faculty disclosures, target audience, program goals, technical requirements, and samples of the pharmacotherapy preparatory course are available at http://www.accp.com/bookstore/ppc12.aspx.

The Pharmacotherapy Preparatory Review Course for Recertification

The Pharmacotherapy Preparatory Review and Recertification Course may be completed for recertification credit. A minimum of 21.0 hours of recertification credit will be available for participants each year. To earn recertification credit for the Pharmacotherapy Preparatory Review and Recertification Course, BCPSs must attend the live program or complete the instructional materials for home study and successfully complete the program's Web-based posttest by **September 1, 2012.** Only completed tests will be eligible for credit; no partial or incomplete tests will be processed.

The Pharmacotherapy Preparatory Review and Recertification Course may be completed for recertification credit, either in live or home study format, up to two times, in nonconsecutive years, during the 7-year recertification cycle.

2012 Ambulatory Care Pharmacy Preparatory Review and Recertification Course Instructional Materials Now Available

Instructional materials are now available for the 2012 edition of Updates in Therapeutics®: The Ambulatory Care Pharmacy Preparatory Review and Recertification Course, the same course that is presented live each year during ACCP Updates in Therapeutics®.

Updates in Therapeutics®: The Ambulatory Care Pharmacy Preparatory Review and Recertification Course is ideal for pharmacy professionals who are preparing for the Ambulatory Care Specialty Certification Examination administered by the Board of Pharmacy Specialties and for those seeking a self-paced review and refresher of disease states and therapeutics. Developed by board-certified pharmacists, the course content provides a comprehensive review of the knowledge domains covered in the Ambulatory Care Pharmacy Specialty Certification Examination. The course uses a case-based approach, with strong emphasis on the thought processes needed to solve patient care problems in each therapeutic area. NEW for 2012, the Ambulatory Care Pharmacy Preparatory Review and Recertification Course has been approved for BCACP recertification credit.

Course materials are presented in a variety of formats to suit different learning styles. Continuing pharmacy education credit is available upon successful completion of online posttests. The maximum number of continuing pharmacy education credits available for the preparatory course is 26.5 hours. Instructional materials are available in the following formats:

- **Course workbook.** Presenter handouts are provided in a bound book; these include case studies, study questions with answer explanations, and literature citations for further reference.
- **Online book.** Information contained in the printed course workbook is also available in this online

version. The online book provides access to course workbook contents as Portable Document Format (PDF) files.

- **CD-ROM.** The CD-ROM includes the presenters' lectures, which are audio-synchronized to the slide presentations from the live program; these are also available in a downloadable MP3 file format. The CD-ROM is both PC and Macintosh compatible. (The CD-ROM is not CD-audio compatible.)
- **CD-ROM and Course Workbook with CPE.** This package includes the full course workbook and a CD-ROM, plus access to the Web-based posttests for continuing pharmacy education credit.
- **Web-based Online Course with CPE.** This combination provides participants with the online workbook and the presenters' lectures, which are audio-synchronized to the slide presentations from the live program; the lectures are also available in a downloadable MP3 file format. The online course additionally provides participants access to the Web-based posttests for continuing pharmacy education credit.
- **CD-ROM and Online Workbook with CPE.** This package includes the CD-ROM and full course online workbook, plus access to the Web-based posttests for continuing pharmacy education credit.

Instructional components also are priced for individual sale. Orders for the Ambulatory Care Pharmacy Preparatory Review and Recertification Course instructional materials may be placed online at http://www.accp.com/bookstore/apc12.aspx. Orders may also be placed by telephone at (913) 492-3311 or by fax at (913) 492-0088.

Product	Price	Member
Online course with 26.5 continuing education credits	$525.00	$360.00
Print book and CD-ROM package with 26.5 continuing education credits	$545.00	$380.00
Online book and CD-ROM package with 26.5 continuing education credits	$535.00	$370.00
Print book	$240.00	$155.00
Online book	$230.00	$145.00
CD-ROM	$360.00	$230.00

Recertification Products

Product	Price	Member
Online course with 26.5 continuing education/recertification credits	$575.00	$430.00
Online book and CD-ROM package with 26.5 continuing education/ recertification credits	$595.00	$445.00
Print book and CD-ROM package with 26.5 continuing education/ recertification credits	$615.00	$460.00

The American College of Clinical Pharmacy is accredited by the Accreditation Council for Pharmacy Education as a provider of continuing pharmacy education. The Universal Activity Numbers (UANs) for Updates in Therapeutics®: The Ambulatory Care Pharmacy Preparatory Review and Recertification Course are as follows:

Updates in Therapeutics®: The Ambulatory Care Pharmacy Preparatory Review and Recertification Course—Psychiatric Disorders and Oncology
Activity No. 0217-0000-12-010-H01-P (3.0 contact hours)

Updates in Therapeutics®: The Ambulatory Care Pharmacy Preparatory Review and Recertification Course—Diabetes Mellitus and Endocrine Disorders
Activity No. 0217-0000-12-011-H01-P (3.0 contact hours)

Updates in Therapeutics®: The Ambulatory Care Pharmacy Preparatory Review and Recertification Course—Nephrology, Obstetrics/Gynecology, and Men's and Women's Health
Activity No. 0217-0000-12-012-H01-P (3.0 contact hours)

Updates in Therapeutics®: The Ambulatory Care Pharmacy Preparatory Review and Recertification Course—Gastrointestinal Disorders, Epilepsy & Headache/Migraine, and Neurology: Alzheimer Disease and Parkinson Disease
Activity No. 0217-0000-12-013-H01-P (3.0 contact hours)

Updates in Therapeutics®: The Ambulatory Care Pharmacy Preparatory Review and Recertification Course—Transplantation, Immunizations, and Pulmonary Disorders and Smoking Cessation
Activity No. 0217-0000-11-014-H01-P (3.0 contact hours)

Updates in Therapeutics®: The Ambulatory Care Pharmacy Preparatory Review and Recertification Course—Dermatology/EENT, Infectious Diseases, and HIV & AIDS
Activity No. 0217-0000-12-015-H01-P (2.5 contact hours)

Updates in Therapeutics®: The Ambulatory Care Pharmacy Preparatory Review and Recertification Course—Bone/Joint & Rheumatology, Biostatistics: A Refresher, and Study Designs: Fundamentals of Interpretation
Activity No. 0217-0000-12-016-H01-P (3.0 contact hours)

Updates in Therapeutics®: The Ambulatory Care Pharmacy Preparatory Review and Recertification Course—Cardiology I
Activity No. 0217-0000-12-017-H01-P (3.0 contact hours)

Updates in Therapeutics®: The Ambulatory Care Pharmacy Preparatory Review and Recertification Course—Cardiology II and Emergency Medicine
Activity No. 0217-0000-12-018-H01-P (3.0 contact hours)

All continuing pharmacy education activities associated with Updates in Therapeutics®: The Ambulatory Care Pharmacy Preparatory Review and Recertification Course are application-based activities. To receive continuing pharmacy education credit, you must successfully complete and submit the Web-based posttest to ACCP by October 31, 2013. To receive BCACP recertification credit, you must successfully complete and submit the Web-based posttest to ACCP by September 1, 2012.

Learning objectives, faculty disclosures, target audience, program goals, technical requirements, and samples of the Ambulatory Care Pharmacy Preparatory Review and Recertification Course are available at http://www.accp.com/bookstore/apc12.aspx.

ACCP and AACP Establish Inaugural IOM Anniversary Pharmacy Fellowship

The Boards of the American Association of Colleges of Pharmacy and the American College of Clinical Pharmacy are pleased to announce a new Anniversary Fellowship at the Institute of Medicine (IOM). This is the first year that candidates will be sought for the IOM Pharmacy Fellowship, which will support a pharmacist as an early-career health policy or health science scholar.

Created to celebrate the 35th anniversary of the IOM's establishment, the purpose of the IOM Anniversary Fellows programs is to enable talented, early-career health policy or health science scholars to participate actively in the work of the IOM and to further their careers as future leaders in the field. The fellowships will be awarded for a 2-year period, during which time the Fellows will be expected to continue working at their main academic post. The Fellows will be assigned to a board of the IOM, attend its meetings, and actively participate in the work of an appropriate expert study committee or roundtable, including contributing to its report or other products. The Fellows will be invited to the IOM Annual Meeting; moreover, they will take part in an intense 1-week orientation to health policy in Washington, DC. This will introduce the Fellows to a variety of perspectives, including legislators, government officials, industry, patient interest groups, scientists, and health professionals. Each Fellow will be assigned to an IOM member, who will serve as a senior mentor for the duration of the fellowship. In addition, each Fellow will be provided a flexible research stipend of $25,000.

Fellowships require a commitment of 10%–20% of the successful candidate's time. Candidates who are chosen as Fellows will hold exceptional promise to become future national leaders in biomedical science, health care, health policy, and medical professionalism. A Call for Nominations, including details of the nomination requirements and process, was sent in late May to all Full ACCP Members and ACCP Fellows. Complete nominations must be submitted no later than June 30, 2012, to be considered for the 2-year period beginning October 1, 2012. For more information, please visit http://www.accp.com/docs/misc/IOM_Fellowship.pdf.

Virtual Poster Symposium Best Poster Competitions Won by Reidt and Lam

The winner of the Best Poster Award from the 2012 Virtual Poster Symposium was selected on Tuesday, May 22, 2012, during the Tuesday session of the 2012 Virtual Poster Symposium. The winner of the Best Student and Resident Poster Award was selected on Thursday, May 24, 2012. Poster finalists for both categories were required to give a 6- to 8-minute presentation by Skype as well as a 3- to 5-minute question-and-answer session with the judges. In all, 93 abstracts were presented during the Virtual Poster Symposium. Of these, 33 were reports of original research, 25 described innovative clinical pharmacy services, and 35 were resident and student submissions.

In addition, several papers were encore presentations of work that had been presented in abstract form at other scientific meetings.

Shannon Reidt from the University of Minnesota College of Pharmacy, Minneapolis, won the Best Poster Award for "Building a home care medication therapy management practice at a visiting nurse agency." Dr. Reidt's coauthor on the poster was Jenifer L. Morgan, also from the University of Minnesota College of Pharmacy. The other finalists in this category were Andras Farkas from the Nyack Hospital, Nyack, New York; Lance Wollenberg from the University at Buffalo School of Pharmacy, Buffalo, New York; and Tony K.L. Kiang

from The University of British Columbia, Vancouver, British Columbia, Canada.

Erwin H. Lam from the University of Arizona, Tucson, won the Best Student and Resident Poster Award for "Evaluation of prescribed empiric cellulitis therapy at an academic medical center emergency department." Mr. Lam's coauthors were Joseph M. Bissing, Satoru Ito, Asad E. Patanwala, and Kathryn R. Matthias, all from the University of Arizona, Tucson. The other finalists in this category were Jennifer H. Austin from the University of Chicago Medical Center, Chicago, Illinois, and Jacob Marler from the University of Tennessee College of Pharmacy, Memphis.

Finalists from both the Best Poster and Best Student and Resident Poster competition will present their research during the Scientific Platform Presentations at the 2012 Annual Meeting. The 2012 Annual Meeting will be held from October 21–24, 2012, in Hollywood, Florida. Each winner received a plaque and $250 to help offset travel expenses associated with attending the 2012 Annual Meeting. Serving as finalist judges for the two competitions were Debra Barnette, John Bosso, David Hoff, Sandra Kane-Gill, Jim Koeller, Jill Kolesar, and Roger Sommi. Abstracts for all the 2012 Virtual Poster Symposium presenters are available in the May issue of *Pharmacotherapy*.

The next abstract award competition will be held at ACCP's 2012 Annual Meeting. The deadline to submit abstracts for the Annual Meeting is June 15, 2012, for the Original Research, Clinical Pharmacy Forum, and Resident and Fellow Research-in-Progress. The deadline to submit abstracts for the Student Submissions and Late Breaker categories is July 6, 2012. ACCP is now accepting abstracts at https://accp.confex.com/accp/2012am/cfp.cgi

Plan Ahead to Ensure a Successful Career: Enroll in the ACCP Academy Career Advancement Program

American College of Clinical Pharmacy ACADEMY

New clinical practitioners with residency training (or equivalent experience) who practice in any professional setting are encouraged to participate in the Career Advancement Certificate Program, which is designed to facilitate clinical career development. The program will help new practitioners advance their careers as clinicians, establish credible interprofessional and patient-centered roles, extend their clinical practices through mentoring and precepting, and employ practical strategies to enhance their professional standing and recognition. Career Advancement program participants complete required readings, 18.0 hours of required modules, and 10.0 hours of electives in earning their certificates.

Take advantage of this valuable resource and enroll in the program today. The program's prerequisite, the Career Advancement Primer, will be offered this fall at the 2012 ACCP Annual Meeting in Hollywood, Florida. Visit the ACCP Academy at www.accp.com/academy to learn more about the Career Advancement Certificate Program and to complete a program application. The ACCP Academy also provides three other unique professional development programs leading to certificates of completion in Leadership and Management, Research and Scholarship, and Teaching and Learning.

Washington Report

John McGlew
Associate Director of Government Affairs

HHS Regulation Expands Definition of Nonphysician Practitioners on Hospital Staffs to Include Pharmacists

On Wednesday, May 9, 2012, U.S. Department of Health and Human Services (HHS) Secretary Kathleen Sebelius announced new regulations that would allow hospitals to expand their definition of "medical staff" to allow nonphysician practitioners, including pharmacists, to have privileges like other medical staff members.

The rule revises the Medicare Conditions of Participation for hospitals and critical access hospitals.

Under the new regulation, hospitals would have the flexibility to grant other practitioners—such as pharmacists, advanced practice nurses, and physician assistants—the power to perform the duties they are trained for and allowed to do within their scope of practice and state law. Accordingly, the new regulations would only apply in states that already permit pharmacists to enter into collaborative practice agreements.

The rule requires that the medical staff examine the credentials of all eligible candidates (as defined by the hospital governing body) and then make recommendations for privileges and medical staff membership to the governing body.

These steps are intended to help achieve the key goal of President Obama's regulatory reform initiative to reduce unnecessary burdens on business and save almost $1.1 billion across the health care system in the first year and more than $5 billion in 5 years.

According to the Centers for Medicare & Medicaid Services (CMS), the rule is written to encourage physicians and hospitals to enlist qualified nonphysician practitioners to fully assist them in taking on the work of overseeing and protecting the health and safety of patients. This applies not only to the "work" of the medical staff—such as quality innovation and improvement, best practices application, and establishment of professional standards—but also to the everyday duties of caring for patients.

The rule reaffirms the agency's belief that an interdisciplinary team approach to patient care is the best model for patients and states that physicians must be the leaders in overall care delivery for hospital patients.

The rule also establishes new provisions that would allow a hospital to use preprinted and electronic standing orders, order sets, and protocols for patient orders. Under these provisions, the nursing and pharmacy leadership of a hospital would be full partners in approving preprinted and electronic standing orders, order sets, and protocols and in ensuring that these orders are periodically reviewed to determine the continuing usefulness and safety of the orders and protocols.

Areas Not Addressed in the Final Rule

The rule does not address the issue of payment for services. Under the new regulations, hospitals would have the authority to grant privileges to pharmacists; however, this does not establish a pathway for pharmacists to bill directly for their services.

The agency stated that any expansion of Medicare Part B coverage was outside the scope of the proposed rule and would not be considered part of this rulemaking process.

The agency declined to act on requests to change the rule to require that the professional responsible for the patient or the person who ordered the medications also receive the report regarding pharmaceutical drug error, adverse event, or incompatibility issues. It also noted comments that the hospital pharmacy department should be included in the development of criteria for pharmacist privileging decisions.

The agency considered these requests outside the scope of the proposed rule, so it would make no changes to this provision; however, the agency stated that it might consider these comments when undertaking future rulemaking.

Click here to read the HHS Press Release on the Final Rule.

Click here to view the Final Rule in full.

Senator Franken Highlights Pharmacist-Provided Patient Care

In a letter to CMS Acting Administrator Marilyn Tavenner, Senator Al Franken (D-MN) highlighted quality interventions delivered by pharmacists that dramatically reduced medication errors when patients were discharged from hospitals.

The senator called for regulations regarding stage 2 meaningful use of health information technology to include a requirement that pharmacists deliver medication reconciliation services to patients.

The letter cited two Minnesota-based studies showing that pharmacist-led medication reconciliation resulted in improved clinical outcomes and reduced medication errors.

A study from the Hennepin County Medical Center found that although the implementation of a system of medication reconciliation at point of discharge using electronic health records (EHRs) reduced the error rate from 92% to 70%, the rate was reduced to zero when pharmacists were assigned to review medication orders.

A study from the Mayo Clinic found pharmacists working as part of a multidisciplinary medication reconciliation pilot to be an "outstanding resource" for reducing the number and severity of medication errors. The Mayo Clinic has since expanded the role of pharmacists coordinating with the discharge team and has updated its electronic medical records to improve medication reconciliation upon discharge.

The stage 2 meaningful use proposed rule already recognizes that medication reconciliation can reduce medication errors; that discharge from a hospital is an important setting for a quality intervention; and that quality intervention at hospital discharge should include targeting medication errors. Senator Franken called on CMS to consider these three areas opportunities to require pharmacist-provided medication reconciliation at hospital discharge.

The senator went on to identify three areas in which the proposed rule should be strengthened:

- Requiring medication reconciliation at hospital discharge as well as hospital admission (the proposed rule requires only medication reconciliation on admission)
- Requiring hospitals to check the summary of care record for medication errors at discharge (the proposed rule requires only the collection of the summary of care record)
- Requiring medication reconciliation as part of e-prescribing at discharge and engaging pharmacists in the medication reconciliation process as part of e-prescribing technology, including certifying e-prescribing technology that allows the pharmacist to communicate back with the hospital to correct medication errors in real time

The senator also acknowledged that the financial incentives in the traditional fee-for-service health care model actually discourage hospitals from using this intervention nationwide.

The senator later highlighted the value of pharmacist-led medication reconciliation at a Senate Health, Education, Labor and Pensions (HELP) Committee hearing on health care delivery reform, held on May 16.

Click here to read Senator Franken's letter.

About Health Information Technology Meaningful Use

The Health Information Technology for Economic and Clinical Health (HITECH) Act, enacted as part of the American Recovery and Reinvestment Act of 2009, was signed into law on February 17, 2009, to promote the adoption and meaningful use of health information technology.

CMS is offering up to $44,000 over 5 years from Medicare, or $63,750 over 6 years from Medicaid, to eligible health professionals who adopt EHRs and use them in a meaningful way. The agency has developed performance measures to define meaningful use criteria. Stage 1 rules were implemented in 2011, and stage 2 objectives will be required for early EHR adopters starting in 2014.

Click here to read the stage 2 meaningful use proposed rule.

Support ACCP-PAC!

Against a backdrop of congressional stalemate and Supreme Court uncertainty over the future of the Affordable Care Act (ACA), the expansion of the definition of Medicare nonphysician practitioners and Senator Franken's letter calling for pharmacists to deliver medication reconciliation services to Medicare and Medicaid patients serve as examples of positive, incremental, public policy progress for clinical pharmacy.

Regardless of the outcome of the November elections or the outcome of the Supreme Court's ruling on the ACA, health delivery will continue to evolve. ACCP's efforts in Washington remain focused on developing, advancing, and positioning clinical pharmacists through a variety of public and private initiatives, including the Patient-Centered Primary Care Collaborative (PCPCC).

To achieve our goals, it is vital that we help elect congressional leaders who understand and value the role of clinical pharmacists as integral members of patient-centered, interdisciplinary teams. ACCP has the only PAC dedicated to advancing the practice of clinical pharmacists. Political contributions are an essential component of a comprehensive advocacy strategy.

With more than 12,000 members eligible to contribute, ACCP-PAC is in a position to become one of the most prominent pharmacy PACs, thereby influencing future advances in pharmacy practice. To do this, we need YOUR SUPPORT!

If each ACCP member contributed just $25, ACCP-PAC would raise $300,000. Please consider donating at least $25 to ACCP-PAC.

CLICK HERE to support clinical pharmacy through your PAC contribution today!

For more information on any of ACCP's advocacy efforts, please contact:

John K. McGlew
Associate Director, Government Affairs
American College of Clinical Pharmacy
1455 Pennsylvania Avenue NW Suite 400
Washington, DC 20004-1017
(202) 621-1820
jmcglew@accp.com

From the Desk of an ACCP PBRN Community Advisory Panel Member: What Makes a Great Research Question?

A great research question usually begins with a broad idea that is both interesting to the researcher and important to answer. It may stem from repeated observations about the potential relationship and impacts of two or more factors on a result or outcome. It may result from a root-cause analysis in which previously unrecognized relationships are identified that require further study. Sometimes, asking the right question *is* the answer. Lipowski suggests three steps in formulating great research questions: (1) ask interesting questions, (2) select the best question for research from among the many possible questions, and (3) turn the research question into a testable hypothesis.[1]

Let's take the interesting, but general, research question "Do standard concentrations of medication improve patient safety?" Remember, great research questions contain a series of defined variables that may or may not have an association, correlation, or causation. If definitions do not exist in the literature or cannot be derived ostensibly (i.e., by observation), you need to describe exactly what the variable means in elemental terms. Sometimes, a pilot study is necessary to validate a variable's definition. Alternatively, you could simply describe how the variable is measured and justify why this measurement is reliable and reproducible. In the previous example question, the two general variables are as follows: (1) standard concentration and (2) patient safety. What is meant by "standard concentration"? Is the research about all different types of medications or a subset, perhaps those that could be hazardous to the patient or costly to the organization? What are the standard concentrations, and where are these standards derived? In what units are the concentrations expressed and measured? What factors make up the derivation of a "standard concentration"? How is patient safety quantified – regarding hazard reduction (a function of the medication itself), error reduction (a function of the operator), or adverse event reduction (a function of the receiver of medication)? What aspect of a patient's safety would likely be improved? What other factors affect patient safety? Does the question apply to any situation regardless of the patient's physical location or medical condition? Do different standard concentrations have different effects on patient safety?

Each of these questions further refines the research question by creating a context for its study. In addition, these questions identify the important variables necessary to develop research hypotheses.

A hypothesis specifies a relationship between two or more variables. In practice-based research, a hypothesis typically involves a prediction that a program or treatment will cause or be related to a specified outcome. In our example, distilling the general research question "Do standard concentrations of medication improve patient safety?" to a specific research hypothesis might be "There is a significantly positive correlation between the number of heparin concentrations available for intravenous continuous infusion and the number of hemorrhages that require blood transfusion for patients receiving heparin for venous thromboembolism in a pediatric hospital during a 1-year period." In this hypothesis, a greater specificity about the variables' definitions, regarding medication type, administration, location, patients, and outcome, will allow you to measure and correlate the variables so that you can infer an answer to the research question.

When developing your next great research question, begin with the broad idea or general problem, and always remember to write it down. Then, narrow your question by a series of iterations that both expand and focus on each variable that might be involved. This process allows you to select measurable variables and ask the research questions that the literature and your own observations tell you are salient for understanding and predicting relationships within the purview of your study.

Richard H. Parrish II, BSPharm, Ph.D., BCPS Member, ACCP PBRN Community Advisory Panel

[1]Lipowski EE. Developing great research questions. Am J Health Syst Pharm 2008;65:1667–70.

From the Desk of an ACCP PBRN Community Advisory Panel Member: Multi-Site Clinical Investigations: A Solution for Recruitment Challenges?

Ask any clinical investigator, "What is the most difficult aspect of completing a research project," and he or she will likely reply with "recruitment," or successfully meeting target accrual of the study. Institutional review boards (IRBs) support this notion with evidence that between 20% and 30% of all approved research protocols never enroll a single participant. Failure to meet enrollment goals could potentially result in studies that lack sufficient power to answer the primary research

question and may increase the risk of inaccurate interpretations of study findings.

The most common reason for under-enrollment or difficulty recruiting for studies is high screen failure, which can stem from prohibitive inclusion or exclusion criteria, limiting the ability to locate potential research subjects. For example, I was involved in a study with the goal of enrolling patients with heart failure who were naive to β-blocker therapy. In reality, it was challenging to find potential subjects who had not been placed on a β-blocker because evidence of the beneficial mortality-reducing effects of β-blockers was widely accepted at that time. It was necessary to modify the study's enrollment criteria to include those who were maximized on current doses of β-blocker for at least 1 month rather than naive to this therapy.

Instead of modifying enrollment criteria to help improve recruitment, an alternative option is to add study sites. Transforming an investigation from a single-center study to a multicenter study carries many advantages. Aside from increasing recruiting opportunities through additional sites, researchers can take advantage of differing racial or ethnic demographics in various recruiting locations. For one study, I was interested in examining genetic markers of microalbuminuria in Hispanic/Latino patients compared with age-matched white patients with diabetes mellitus. The primary recruiting site was fairly homogeneous from an ethnicity standpoint, and it was taking many months to recruit, especially with the age-matching component. We were fortunate to work with an organization housed within our university's Institute for Clinical and Translational Research. This network offered the opportunity to collaborate with additional sites and had a built-in infrastructure to aid in the logistics, such as a consortium IRB and multi-site data management services. We added two other sites and met our accrual goal much more quickly. My positive experience with the additional sites led to another collaborative effort with one of the sites for a study investigating immune responses to influenza vaccine in patients with heart failure.

In summary, expanding clinical studies from single- to multi-site designs can help meet accrual and ensure adequate power to investigate the hypothesis of interest. Moreover, a multi-site approach increases the potential to form fruitful collaborations for additional research and expands enrollment to include often-underrepresented populations, thus increasing the generalizability of clinical studies.

Orly Vardeny, Pharm.D. Member, ACCP PBRN Community Advisory Panel

Pharmacotherapy Pearls

Call to *Pharmacotherapy* Reviewers to Update Their Areas of Expertise and Contact Information

Wendy R. Cramer, B.S., FASCP
Richard T. Scheife, Pharm.D., FCCP

Our current Web page for reviewers, authors, and editors, which can be found at http://pharmacotherapyjournal.org, provides access to a link to our sophisticated online manuscript management system called ScholarOne Manuscripts. This Web-based software allows authors to submit new and revised manuscripts and allows reviewers to perform their reviews online. For the system to work optimally for both reviewers and the journal, it is imperative that the reviewers' areas of expertise, as well as their contact information, be accurate and current.

To this end, we ask that all reviewers for *Pharmacotherapy* update their areas of expertise (choosing as many areas as appropriate) and contact information in our system. To do so, please follow these steps:

1. Go to http://mc.manuscriptcentral.com/pharmacotherapy, enter your user ID and password into ScholarOne Manuscripts, and sign in. If you have forgotten your user ID and password, go to "Password Help," and your user ID and password will be e-mailed to you. If you have not established an account, click on "New User? Register here" in the top right corner.
2. Click on "Edit Account" at the top right of the screen.
3. Make the appropriate edits on your areas of expertise and contact data.

We have created more than 100 descriptors of areas of reviewer expertise (e.g., anticoagulation, bacterial resistance, acute coronary syndrome). These categories are:

ACE inhibitors
Acute coronary syndrome
ADHD
Administration
Adverse drug reactions
AIDS
Allergy
Alzheimer disease
Ambulatory
Aminoglycosides
Analgesia
Anemias
Anesthesiology
Anticoagulation

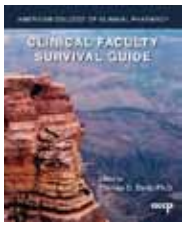
Antiepileptic drugs
Antifungals
Anti-inflammatories
Antiplatelets
Antiretrovirals
Antivirals
Anxiety
ARDS
Arrhythmias
Arthritis
Asthma
Bacterial resistance
Biotechnology
Bioterrorism
Bipolar
Botulism
Breastfeeding
Burns
CAD
Cardiology
Community practice
Complementary and alternative medicine
Computer technology
Contraception
COPD
C-reactive protein
Critical care
Cytochrome P450
Dementia
Depression
Dermatology
Diabetes
Dialysis
Drug abuse
Drug information
Drug safety
Endocrinology
Epidemiology
Ethics
Evidence-based medicine
Febrile neutropenia
Fluids and electrolytes
Fluoroquinolones
Forensic medicine
Gastroenterology
Geriatrics
Glaucoma
Gout
Headache
Heart failure
Hematology
Hospice
Hypertension
Immunizations
Immunology
Industry
Infectious disease
Insomnia
Legal
Lipids
Liver
Lyme disease
Managed care
Migraine
Nausea
Neonatology
Neurology
Neuromuscular-blocking agents
Neuropathy
Neurosurgery
Nuclear medicine
Nutrition
Obesity
Oncology
Ophthalmology
Outcomes
Parkinson disease
Patient safety
Pediatrics
Peptic ulcer disease
Pharmacodynamics
Pharmacoeconomics
Pharmacogenomics
Pharmacokinetics
Pharmacology
Pharmacy education
Pharmacy practice
Pregnancy
Psychiatry
Public health
Pulmonary
Quality of life
Renal
Restless leg syndrome
Septic shock
Sickle cell
Smoking cessation
Spinal cord and brain injury
Statistics
Stereoisomers
Steroids
Stroke
Study design
Surgery
Thrombocytopenias
Thyroid
Toxicology
Transplantation
Travel medicine
Urology
Vancomycin
Women's health

As you well know, this maneuver will help ensure that you receive papers in your specific areas of expertise. We appreciate your taking the time to update this information.

Summer … A Time of Transition

Those wonderful summer days are here … and, together with the beautiful weather, this time of year signals a change in professional situation for many of us. ACCP Publications has the resources you need to ease your professional transition. The following paragraphs highlight just a few of the titles available from the ACCP Bookstore.

FOR NEW FACULTY AND PRACTITIONERS



The ***Clinical Faculty Survival Guide*** provides practical information, advice, and encouragement to ensure your success as a clinical faculty member in the varied roles of practitioner, teacher, researcher, and scholar. As a new faculty member, you will find this book helpful and easy to read as you obtain a head start on a long and successful career. And if you are a more seasoned faculty member who serves as a mentor to younger colleagues, you will find the book's content useful and advantageous for imparting career advice.

Step-by-step suggestions and advice provide the knowledge and skill you need in the important subjects of Clinical Practice; Leadership; Teaching, Precepting, and Mentoring; Research and Scholarship; and Lifelong Learning.

Comprehensive references and links to useful resources are provided throughout.

Promotion and Tenure Confidential.
It is never too early to begin thinking about that all-important venture of working toward tenure. How do you begin? *Promotion and Tenure Confidential*, an astute and practical book, shows that the P&T Committee is not just about

research, teaching, and service but also about human relations and political good sense. Drawing on research and extensive interviews with junior and senior faculty from across many institutions, the book provides clear-sighted guidance on planning and managing an academic career, from graduate school to tenure and beyond.

ACCP Ambulatory Care New Practitioner Survival Guide/Resource Manual. Just beginning your practice in an ambulatory care setting? *ACCP's Ambulatory Care New Practitioner Survival Guide/Resource Manual* is intended to provide assistance to both new and seasoned clinicians practicing in the ambulatory care setting, with detailed examples of successful clinical practices that are invaluable for building or expanding your practice.

The manual is divided into Clinical Services and Education sections, and it includes an extensive list of references for further study. The unique layout makes it convenient to draw out forms, protocols, algorithms, and specific policies relevant to your particular setting. The members of the ACCP Ambulatory Care Practice and Research Network have generously submitted and reviewed the information they have found valuable in their own practices and made it available in an easy-to-use format.

FOR NEW RESIDENTS

The ***Resident Survival Guide*** is a detailed guidebook for clinical pharmacy residents as they embark on their residency experience. When you have made the momentous decision to seek a residency, many opportunities will open up, and many challenges will present. Within your residency program, you will transition into a superbly skilled and licensed professional. You will acquire knowledge while confronting heavy workloads, patient care responsibilities, challenging assignments, and demands on your time from preceptors, team members, and students. The *Resident Survival Guide* will assist you in meeting these challenges and taking advantage of these opportunities. The authors—leaders in the clinical pharmacy profession—offer potential and current clinical pharmacy residents insights and advice for understanding and learning to manage the challenges while gaining lifelong advantages from the residency experience.

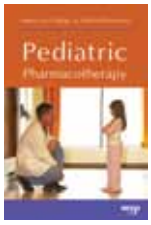
FOR NEW STUDENTS

Upcoming titles that will soon be available to enhance your studies include the following.

The ACCP Field Guide to Becoming a Standout Pharmacy Residency Candidate – Written for first-, second-, and third-year pharmacy students planning to pursue postgraduate residency training, *The ACCP Field Guide to Becoming a Standout Pharmacy Residency Candidate* will offer a multiyear, stepwise approach for maximizing curricular and extracurricular experiences to best prepare for postgraduate residency training.

As the number of applicants for pharmacy residency positions continues to increase, it will become even more important to begin early in your academic career to position yourself for the available residency opportunities. For students wishing to become a standout candidate, the *Field Guide* will provide detailed information on:

- Defining (and Redefining) Career Goals
- Achieving Academic Excellence
- Gaining Valuable Work Experience
- Maximizing Experiential Education
- Developing and Maintaining a Positive Professional Network
- Engaging in Scholarly Activity: Research, Publications, and Presentations
- Distinguishing Your CV and Portfolio
- Completing Those All-Important Fourth-Year Activities



Pediatric Pharmacotherapy

Pharmacotherapy education has long been without a source for concise pediatric pharmacotherapy information. ACCP's upcoming *Pediatric Pharmacotherapy* is designed specifically to meet the need for pediatric-specific knowledge. Written especially for pediatric pharmacotherapy students, the book will be divided into sections, written by recognized leaders in pediatric pharmacy on the following topics:

- Introduction to Pediatric Pharmacotherapy
- Cardiovascular/Pulmonary

- Gastrointestinal
- Renal/Endocrinology
- Neurology/Psychology
- Infectious Diseases/Immunology
- Hematology/Oncology

Watch for these and other innovative new publications coming soon from ACCP Publications.

No Matter Where You Are on Your Pharmacy Career Path, These ACCP Publications Are Must-Reads:

Nourishing the Soul of Pharmacy: Stories of Reflection. ACCP has collected a series of essays that provide a reflective look at the pharmacists' role in patient care – essays developed to enhance the practitioners' empathy for their patients and to elicit deeper bonds among pharmacists as well as other health care professionals. This goal is consistent with the imperative for practitioners to always show care and compassion for the patients they serve, as an essential ingredient of pharmacy's continuing evolution as a health profession.

Reflection in this volume refers to stories, particularly of patient encounters, that lead to complex insight and improved patient care. This book is intended for a variety of audiences: practitioners, educators, and students as well as perhaps patients, caregivers, and health care professionals who seek a better understanding of pharmacists and the roles they perform.

For educators wishing to adopt the volume as a supplementary textbook, an appendix for using reflection as a learning strategy is included.

Clinical Pharmacy in the United States: Transformation of a Profession is a comprehensive account of the evolution of clinical pharmacy and is an insightful must-read for anyone who cares about the profession of pharmacy.

Beginning with an overview of the profession's evolution and proceeding through the decade-specific chapters that follow, the authors trace the clinical pharmacy movement from its beginning to the present day. The book's unique organization gives an important context beyond the profession of pharmacy by providing a concise overview of U.S. culture, politics, economics, technology, health, and other events, melded with the major clinical pharmacy–related events. A timeline that chronicles the key events flows across the bottom of the pages. Distributed throughout the book are reflective essays—personal accounts that provide an on-the-ground perspective and impart a "you-are-there" dimension.

Pharmacy students, residents, and fellows should all read this book … as should those who have lived through this rich history.

Visit the ACCP Bookstore often and find valuable additions to your professional library in the categories of:

- Therapeutics
- Research and Outcomes Assessment
- Teaching and Learning
- Practice Development
- Leadership and Administration

Have a great summer and enjoy your best deals on professional publications from ACCP!

ACCP Volunteer Recognition

The following individuals have made significant contributions to ACCP during the past 2 years. ACCP congratulates these individuals for being nominated by their peers and thanks them for their significant contributions to the organization.

ACCP National StuNet Advisory Committee

Alexander Flannery, Pharm.D., is a PGY1 pharmacy resident at the Medical University of South Carolina and South Carolina College of Pharmacy.

Tiffany Pon, Pharm.D., is a PGY1 pharmacy resident at the University of California, Davis Medical Center. She was a member-at-large in 2010–2011.

Middle East Chapter of Clinical Pharmacy

Ziad Nassour is the president of the Lebanese Order of Pharmacists in Beirut, Lebanon.

Leila Khoury is a consultant for the World Health Organization and is the past president of the Lebanese Order of Pharmacists in Beirut, Lebanon.

Randa Aoun is a technical manager at Droguerie Mercury in Beirut, Lebanon.

Georges Sili is a community pharmacist at Sili Pharmacy in Beirut, Lebanon.

Lydia Rabaa Khabbaz, Pharm.D., Ph.D., is a faculty of

pharmacy at the University Saint Joseph – School of Pharmacy in Beirut, Lebanon.

Lama Soubra, Pharm.D., Ph.D., is a faculty of pharmacy at the Beirut Arab University – School of Pharmacy in Beirut, Lebanon

Soha Sinno is an adjunct faculty at Beirut Arab University – School of Pharmacy in Beirut, Lebanon.

Ruba Eed is an associate professor at the Lebanese International University School of Pharmacy in Beirut, Lebanon.

Ziad Damergi is a community pharmacist at the Damergi Pharmacy in Byblos, Lebanon.

Rony Zeenny is a clinical assistant professor at the Lebanese American University – School of Pharmacy in Byblos, Lebanon.

Southern California College of Pharmacy
Kirsten La, Pharm.D., is a pharmacist clinical specialist at the Long Beach Memorial Medical Center.

Women's Health Practice and Research Network
Sally Rafie, Pharm.D., BCPS, is an assistant professor and clinical pharmacist at the University of California, San Diego.

David Lourwood, Pharm.D., FCCP, BCPS, is a clinical pharmacy specialist at Poplar Bluff Regional Medical Center.

Adult Medicine Practice and Research Network
David Lourwood, Pharm.D., FCCP, BCPS, is a clinical pharmacy specialist at Poplar Bluff Regional Medical Center.

Visit http://www.accp.com/membership/vrp.aspx to view the current listing of volunteers recognized and their specific contributions to the College.

2012 ACCP Clinical Pharmacy Challenge Registration Now Open

ACCP's national pharmacy student team competition returns in 2012. Now in its third year, the Clinical Pharmacy Challenge offers eligible teams the opportunity to compete in up to four online rounds, with the top eight teams advancing to the live quarterfinal competition at the 2012 ACCP Annual Meeting in Hollywood, Florida. Team registration is now available online. Please note all team registrations must be initiated by a current faculty member at the respective institution. Students interested in forming a team should contact their ACCP College of Pharmacy Faculty Liaison. All team registrations must be completed by the deadline of September 4, 2012. Click here to register.

Competition Overview

The ACCP Clinical Pharmacy Challenge is a team-based competition. Teams of three students will compete against teams from other schools and colleges of pharmacy in a "quiz bowl"–type format. Only one team per institution may enter the competition. Institutions with branch campuses, distance satellites, and/or several interested teams are encouraged to conduct a local competition. ACCP will provide a written examination that institutions may use as a basis for their local competition, if they so desire. This examination is available by e-mail request, which may be made by the ACCP Faculty Liaison or registering faculty member. Please address your e-mail request to Michelle Kucera, Pharm.D., BCPS, at mkucera@accp.com.

Preliminary rounds of the national competition will be conducted virtually in September. The quarterfinal, semifinal, and final rounds will be held live at the ACCP Annual Meeting in Hollywood, Florida, October 20–22, 2012. Competition Schedule.

Each round will consist of questions offered in the three distinct segments indicated below. Item content used in each segment has been developed and reviewed by an expert panel of clinical pharmacy practitioners and educators.

- Trivia/Lightning
- Clinical Case
- Jeopardy-style

Each team advancing to the quarterfinal round held at the ACCP Annual Meeting will receive three complimentary student full meeting registrations. Each team member will receive an ACCP gift certificate for $125 and a certificate of recognition. In addition, semifinal teams not advancing to the final round will receive a semifinal team plaque for display at their institution. The second-place team will receive a $750 cash award ($250 to each member) and a commemorative team plaque. The winning team will receive a $1500 cash award ($500 to each member), and each team member

will receive a commemorative plaque. A team trophy will be awarded to the winning institution.

Students are not required to be members of ACCP to participate. Team registration may be submitted online and must be initiated by a current faculty member at the respective institution. Students interested in forming a team should contact their ACCP Faculty Liason. If no ACCP Faculty Liaison has been identified, any faculty member from the institution may initiate the registration process. The registering faculty member must confirm the eligibility of all team members and/or alternates online before a team will be permitted to compete in the Clinical Pharmacy Challenge. The deadline to complete team registration and confirm eligibility is September 4, 2012.

Click here for more information, or contact Michelle Kucera, Pharm.D., BCPS, at mkucera@accp.com.

New Members

Heba Abdel Aal
Ala'a Abu-Ghefreh
Mary Adame
Anthony Aiudi
Mohammed Alkudsi
Sonia Allen
Susan Alu
James Angello
Evon Anukam
Phyo Aung
Ahmed Bawazeer
Michelle
Bayogha-Mayissa
Mathew Benson
Shay Bingham
Michelle Blank
Amy Boblitt
Shirley Bonanni
Brian Bothwell
Sarah Bowen
Joseph Braasch
Lori Braaten
Lisa Brandt
Sara Brewer
Jeremiah Brinkman
Michael Brodeur
Jera-Marie Bupp
Desiree Burgers
Thomas Burkey
Jennifer Byrd
Amy Carlson
Amanda Carpenter
Concepcion Carrascosa
Wilson Chan
Wei Terk Chang
Mary Charboneau
Samantha Chetosky
Kenneth Cheung
Christopher Chevalier
Chi Wah Simon Chou
Stephanie Chu
Jonathan Cicci
Elsie Cicone
Lachelle Claman
Kyle Connaughton
Steven Connell
Catherine Côté
Michelle Crandall
Amy Crouch
Laura Cudd
Sarah Culbreth
Douglas Daley
Dawn Dalton
Daniela Dandridge
Angela Dau
Noelle De Leon
Margo DeLisle
Clement Desbiens
Debra Devereaux
David Dietrick
Thuyen Dinh
Peter Dippel
Claudia Dominguez
Krista Donohoe
Jason Dover
Han Duong
Barton Easterly
Hebatuallah Ahmed Ebraheem
Tauna Eckersley
Nellianna Edelen
Bedeer Elsherbiny
Bobby Endo
Crystal Endsley
April English
John Erekson
Robert Esp
Tara Esse
Greg Estep
Gary Falzone
Alanna Farrell
David Folmar
Becky Franosch
Jennifer Frederick
Stephen Freeman
Stacey Friedman
Kathy Garrison
Michael Geisler
Jody Gembarski
Michele Gervais
Kristin Gililland
Rebecca Glotzbach
Lori Glover
Marlee Grabiel
Jenalyn Greenwood
Jonathan Grey
Merry Grimmett
Mary Groesser
Brenda Gunnoe
Carrie Hall
Erica Harker
Kristi Hartnady
Mohamed Hashem
Jonathan Hass
Katie Heavner
Marika Heinicke
Jayne Hill
Loan Hoang
Sarah Hollis
Naoko Horie
Ji Yeong Hwang
Natalie Inthirath
Keli Ishman
Jacquelyne Ivery
Jisha Jacob
Sohyun Jeong
Amber Johnson
Johmyrin Johnson
Joseph Jordan
Erin Juedeman
Carolyn Jung
Dipti Kalra
Nainy Kathuria
Megan Keck
Babatunde Kehinde
Mark Kelley
Shana Khorsand Manafian
Hyun Joo Kim
Katie Kim
Min Jeung Kim
Philip King
Terry King
Mark Klanjac
Matthew Klein
Daniel Knolhoff
Ryan Koleno
Chao Yuan Ku
Dawit Lakew
Ibrahim Lala
Bryan Lam
Cecile Lamour
Binh Le
Ainah Lee
Hyon-Zu Lee
Nathan Leedahl
Patricia Leong
Kayla Lewis
Qin Li
Daniel Lieu
Zhijun Liu
Irene Lo
Tomy Lukose
Thuy Luu
Jessica Ly
Chunlai Ma
Taline Makdessian
Sarah Mann
Michelle Marbury
Katie Martinez
Randy Martinez
Dan Massey

James Masterson
Anson Mathew
Daniel Maurer
Joellen Maurer
Laura May
Morgan McCormick
Julie McCoy
Colleen McQuinn
Julie Mellenthin
Yvonne Mendoza-Becerra
Rachael Midkiff
Shaoping Mo
Michael Moawad
Lobat Mohajeri
Lindsy Moore
Whitney Morejon
Gregory Morgano
Stacey Moultrie
Emily Muehling
Eileen Mullane
Jessica Murrer
Lisa Musick
Bryan Nakamura
Shaimaa Nawar
Ashey Nebbia
Olivia Ng
Christine Nguyen
Nguyen Nguyen
Uyen Nguyen
Kenneth Noyes
Daniel Oh
Monica Oh
Ifeyinwa Ojemaye
Crosby Oldham
Haleh Ouranos
Angie Owen
Nathon Parker
Atit Patel
Hiren Patel
Jasmine Patel
Laura Pequeno
Amy Perry
Ronald Peterman
Nels Peterson
Laura Petges
Thao Pham
Tuy-Van Phan
Amber Powell
Pamela Quah
Kayla Randle
Christine Rash
Bharath Ravichandran
Arathi Reddy
William Richelieu
Carriann Richey
Nancy Rivera
Roxanna Rodriguez-Ramirea
Brian Roland
Nora Roman
Kristin Ross
Nancy Ross
Stephanie Ross
Amanda Rowatt
Janet Royals
Amy Ruuska
Daniel Saldivar
Sridevi Sambhara
Jenna Scheffert
Kevin Scott
Eve Segal
Ann Segraves
Lysane Senecal
Ankush Sharma
Indu Shekar
Jessica Shen
Kun Shen
Paramjit Sher
Kaylee Shin
Kelly Short
Laura Siemianowski
Katherine Simondsen
Catherine Simpson
Jilian Skog
Nathan Skorodin
Blake Sowards
James Stanley
Taya Staples
Gina Stassinos
Marta Stavreff
Patricia Steffensmeier
Catherine Sury
Whitney Taylor
Sarah Tennant
Bethani Thomas
Charity Thompson
Robert Thompson
Annelise Thomsen
Megan Tibbitts
Andrew Ticcioni
Logan Tinsen
Andrew Titterton
Krista Torrey
Nicholas Trumm
Traviss Tubbs
Donna Vasil
Jamie Von Bokel
Hiep Vu
Ryan Walker
Kim Walters
Hsiao-Ting Wang
Kristen Ward
Ian Waugh
Jessica Weintraub
Sharon Wendell
Julia West
Melanie Weytkow
Matthew White
Ruthan White
Whitney White
Jessica Whitmoyer
Amelia Wiechart
Angelina Williams
Nicole Wilson
Eithandar Win
Venny Wong
Angela Wood
Kristen Wright
Merle Wysor
Zhengzheng Xie
Ann Yapel
Marc Young
Yelena Zaychik
Yuan Zhao
Man Zhu

The following individuals recently advanced from Associate to Full Member:

Deborah Brokaw
Jodi Bryner Loyles
Larry Calhoun
Carla Christensen
Samantha Cotter
Rabih Dabliz
Bryan Edwards
Nathaniel Eraikhuemen
Melissa Gervase
Juliette Kim
Annie Lambert
Erin Mancl
Ryan Mynatt
Elaine Poon
Ericka Ridgeway
James Tjon

New Member Recruiters

Many thanks to the following individuals for recruiting colleagues to join them as ACCP members:

Jennifer Arnoldi
Donald Brophy
Lindsey Carter
Jennifer Cocohoba
Nathan Culver
Ryan Dull
Shareen El-Ibiary
Christopher Frei
Kathey Fulton
Nehal Hashem
Nicholas Helbling
Vanthida Huang
Michael Jann
Sarah Lucas
Mary Mably
Gary Matzke
Megan McCartan
Rohit Moghe
Toni Ripley
Jo Ellen Rodgers
Kristina Rokas
Eric Schmitt
Veronica Vernon
Kristen Ward
Caroline Zeind