

## **Preliminary Request for the Board of Pharmacy Specialties to Consider a New Specialty February 6, 2012**

1. Name of the practice area of the proposed specialty.

Cardiology Pharmacy Practice

2. Description of the specialty practice area, the work of pharmacists engaged in it, and its overall impact on society.

The cardiology pharmacy practice area focuses on the pharmaceutical care of cardiovascular patients. Pharmacists specializing in cardiology practice as members of interprofessional health care teams in a variety of settings, including coronary care units (CCU), telemetry units, medical wards, emergency departments (ED), medical intensive care units (ICU), surgical intensive care units (SICU), cardiovascular intensive care units (CVICU), and specialty outpatient clinics which focus on dyslipidemia, heart failure, hypertension, anticoagulation, and cardiac transplant, arrhythmias.

The Heart Failure Society of America (HFSA) and the ACCP Cardiology Practice and Research Network (PRN) are currently working on a joint white paper highlighting the role of the pharmacist as an integral member of the multidisciplinary heart failure team. The activities of cardiology pharmacists identified by the HFSA/ACCP Cardiology PRN writing group include, but are not limited to the following list.

- Disease state management
- ADR prevention and intervention
- Critical pathway design and implementation pertaining to cardiovascular disease states
- Therapeutic drug monitoring (e.g. digoxin)
- Dose adjustments based on renal function, hepatic function, and potential drug interactions.
- Appropriate titration of medications based upon evidence-based guidelines and potential for adverse effects (e.g. beta blockers, diuretics, and aldosterone antagonists).
- Improving guideline adherence
- Identifying and avoiding contraindicated drugs based on patient specific parameters
- Identifying drug-disease interactions
- Pharmacokinetic monitoring
- Improving communication in transitions of care environments
- Identifying effective medication substitutions
- Improving patient knowledge of cardiovascular medications, adverse effects, and self-care skills through education.
- Adherence to Joint Commission Core Measures and best practice standards.
- Providing support to heart failure teams through research
- Pharmacotherapy-related education about cardiovascular medications to student pharmacists, medical students, and residents.

A substantial number of pharmacists specializing in cardiology are also involved in clinical studies, health services (outcomes), basic, and/or translational research.

Pharmacists specializing in cardiology possess unique knowledge and experience in the care of cardiovascular patients. Many have completed formal, post-graduate residency training in cardiology practice environments. They possess unique knowledge of the epidemiology and pathophysiology of cardiovascular disease; interpretation of diagnostic procedures used in cardiology; cardiovascular pharmacotherapy; advanced cardiac life support medications and procedures, the application of pharmacokinetics, pharmacodynamics, and pharmacogenomics to cardiovascular care; and operational and clinical systems designed to assure medication safety. They also contribute to, and evaluate, biomedical literature pertinent to cardiovascular pharmacotherapy.

The role of the clinical pharmacist has also been supported as part of a multidisciplinary team caring for patients with cardiovascular disease.<sup>1-3</sup> In the cardiovascular ICU alone, clinical pharmacy services and related interventions have been associated with significant economic benefit.<sup>4</sup> Pharmacists specializing in cardiology have also demonstrated a tremendous value to healthcare by optimizing patient safety. In one report, clinical pharmacists identified 24 medication errors per 100 admissions in patients hospitalized for cardiovascular disease.<sup>5</sup> Because pharmacists are uniquely adept at identifying and resolving medication errors and have been shown to improve the quality of care in hospitalized patients with cardiovascular disease, proper care of these patients requires a pharmacist as part of the healthcare team.<sup>2,6</sup>

3. Estimates of potential numbers of pharmacists who might seek such certification (using available data such as number of residents and residency programs, organizational member surveys, and evolving practice and environmental changes in the profession expected to support the specialty practice).

The American Heart Association has over 400 pharmacist members and the ACCP Cardiology Practice and Research Network now includes more than 950 active members. We conducted a survey of our PRN membership in October 2011 to determine the interest and need for a cardiology specialty certification.

Out of approximately 950 Cardiology PRN members, 171 completed the survey; 78.5% were inpatient clinicians, and more than half (63%) had a primary academic appointment. There was equal representation of new (5 years or less since end of training) and seasoned (6+ years since completion of training) practitioners. A majority of respondents were in favor of a cardiology specialty board certification (80.6%), including 21 out of 23 PGY-2 cardiology program directors. Of those in favor of specialty certification in cardiology, 95% stated they would take the exam if it became available. 67% believed board certification in cardiology would improve multidisciplinary recognition of pharmacist credentials over advanced qualifications (AQ Cardiology).

4. Potential sources of financial resources to develop and implement the specialty prior to receipt of candidate fees.

The organizations listed below support consideration by BPS of this request for recognition of the proposed specialty. A firm commitment to providing resources to help develop and implement the specialty is in place from at least one of the organizations listed. It is expected that each of the organizations listed, and perhaps others, will actively consider its role in financial support and resource development in any and all next steps should BPS move forward in its process of recognition of this proposed specialty.

5. Name(s) and contact information of the requestor(s).

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2. Peterson ED, Albert NM, Amin A, Patterson JH, Fonarow GC. Implementing critical pathways and a multidisciplinary team approach to cardiovascular disease management. *Am J Cardiol.* 2008;102:47G-56G
3. White CM. Ensuring that patients receive full cardiac pharmacotherapy services: A pharmacist's call to arms. *Ann Pharmacother.* 2006;40:2248-2250
4. White C, Chow M. Cost impact and clinical benefits of focused rounding in the cardiovascular intensive care unit. *Hosp Pharm.* 1998;33:419-423
5. LaPointe NM, Jollis JG. Medication errors in hospitalized cardiovascular patients. *Arch Intern Med.* 2003;163:1461-1466
6. Unos-appendix b-attachment i--xiii-1:Designated transplant program criteria. [http://www.unos.org/docs/Appendix\\_B\\_AttachI\\_XIII.pdf](http://www.unos.org/docs/Appendix_B_AttachI_XIII.pdf). Accessed November 2, 2011.