

ASHP–SHM Joint Statement on Hospitalist–Pharmacist Collaboration

Position

The American Society of Health-System Pharmacists (ASHP) and the Society for Hospital Medicine (SHM) believe that the rapidly emerging hospitalist model of inpatient care offers new and significant opportunities to optimize patient care through collaboration among hospitalists, hospital pharmacists (hereinafter, “pharmacists”), and other health care providers. The emerging model of care allows for deeper professional relationships among health care providers and promotes a shared interest in and responsibility for direct patient care, indirect patient care, and service activities. ASHP and SHM encourage hospitalists, pharmacists, and health care executives to seek out ways to foster collaboration between hospitalists and pharmacists.

The purpose of this consensus statement is to promote an understanding of the ways hospitalists and pharmacists can jointly optimize the care provided to patients in hospitals, examine opportunities for improving hospitalist–pharmacist alliances that enhance patient care, suggest future directions for collaboration, and identify aspects of such collaboration that warrant further research.

Background

Increases in health care spending and the expanding influence of managed care in the late 1980s and early 1990s resulted in calls for more efficient health care. The movement toward greater efficiency resulted in more emphasis on ambulatory care, fewer hospital admissions, shortened hospital stays, and an overall increase in the acuity of illness of hospitalized patients. The emphasis on ambulatory care increased the number and complexity of physician office visits, and the changing characteristics of office- and hospital-based care placed significant demands on primary care physicians and contributed to the rise of hospital medicine.

In 1996, the term “hospitalist” was introduced to the health care lexicon.¹ A hospitalist was defined as an inpatient physician who manages the care of hospitalized patients and facilitates the transfer of their care back to the primary care physician. The Society of Hospital Medicine has since defined a hospitalist as a physician whose primary professional focus is the general medical care of hospitalized patients and whose activities may include patient care, teaching, research, and leadership related to hospital medicine.²

The past decade has seen rapid growth in the number of hospitalists and the use of hospitalists by U.S. hospitals.³ In 2005, 70% of hospitals with more than 200 beds used hospitalist services, and there were over 16,000 hospitalists in practice.⁴ An estimated 20,000 hospitalists were practicing at over 2,600 U.S. hospitals in 2007.⁵

Initially, many physicians expressed concern about the potential for hospitalists to interfere in the relationship between the patient and the primary care physician, as well as about the potential negative impact on continuity of care.⁶ However, subsequent studies demonstrated increasing acceptance of hospitalists by primary care physicians, with as

many as 89% considering the hospitalist model to be superior to the historical model of hospital care being provided by primary care physicians or by specialists working on rotations.^{7,8} Numerous studies demonstrate the value of hospitalists in improving quality of care, decreasing hospital costs and length of stay, and reducing hospital readmissions.^{9–21}

As early as 1921, hospital pharmacists in the American Pharmaceutical Association (now the American Pharmacists Association) had formed a committee to address their distinct concerns. During the 1930s, hospital pharmacists began to organize state organizations and to adhere to a set of minimum standards of practice. In 1942, the American Society of Hospital Pharmacists (now the American Society of Health-System Pharmacists [ASHP]) was formed to establish minimum standards of pharmaceutical services in hospitals, provide interchange among pharmacists, promote new pharmaceutical techniques, and aid the medical profession in extending the economic and rational use of medications.²² As of 2005, there were approximately 50,000 pharmacists practicing in U.S. hospitals.²³

The modern mission of hospital pharmacy departments is to ensure optimal outcomes from the use of medicines.²⁴ Although the focus of hospital pharmacy has traditionally been on the safe dispensing of medications, direct patient care by pharmacists (clinical pharmacy) has always been a component of hospital pharmacy practice. Following the rise of pharmaceutical care in the 1980s,²⁵ these pharmacist services have expanded greatly. It has been estimated that 35–40% of hospital pharmacists are devoted to providing clinical services.²³ A systematic review in 2006 documented improved outcomes when clinical pharmacists interacted with the health care team on patient rounds, interviewed patients, reconciled medications, and provided discharge counseling and follow-up.²⁶ These findings support those of other studies in which specific clinical pharmacy services were associated with improved therapeutic and economic outcomes.^{27–31}

Opportunities for Collaboration Between Pharmacists and Hospitalists

Pharmacists and hospitalists have shared interests that provide strong incentives for collaboration. All health care professionals share, first, a commitment to and responsibility for providing safe and effective patient care. Physicians, pharmacists, and other health care providers have long collaborated in providing direct patient care. The emerging hospitalist model of care offers more opportunities for collaboration because pharmacists and hospitalists also share interest in and responsibility for indirect patient care and service activities—developing the institutional policies, processes, and infrastructure that support patient care.

Direct patient care activities typically performed by hospitalists include obtaining patient histories, conducting physical examinations, making diagnoses, developing treatment plans, monitoring patients’ responses to therapy, performing follow-up hospital visits, participating in family

meetings, and providing discharge instructions.³² Specific clinical pharmacy services that have been associated with improved health care outcomes include providing drug information, managing medication protocols and adverse drug reactions, participating in medical rounds, gathering admission medication histories, interviewing patients, reconciling patient medications, and providing discharge counseling and follow-up.^{26–31}

Pharmacists should be involved in the care of hospitalized patients and can collaborate with hospitalists in numerous ways, including

- Providing consultative services that foster appropriate, evidence-based medication selection (e.g., during rounds).
- Providing drug information consultation to physicians, nurses, and other clinicians.
- Managing medication protocols under collaborative practice agreements.
- Assisting in the development of treatment protocols.
- Monitoring therapeutic responses (including laboratory test results).
- Continuously assessing for and managing adverse drug reactions.
- Gathering medication histories.
- Reconciling medications as patients move across the continuum of hospital care.
- Providing patient and caretaker education, including discharge counseling and follow-up.

Both hospitalists and pharmacists have a responsibility for ensuring continuity as patients move across settings of care.

In addition to their direct patient care activities, hospitalists add value through their efforts in hospital service activities, student and resident education, and research. Typical service activities include participating in quality-improvement and safety initiatives, developing institutional guidelines and protocols for the treatment of specific diseases, serving on hospital committees (e.g., the pharmacy and therapeutics [P&T] committee), and working with others to introduce new technologies to the hospital setting.^{33,34}

Pharmacists also participate in hospital service activities, student and resident education, and research. For example, pharmacists serve on the P&T committee and are directly involved in managing the formulary system that guides an institution's medication use. As medication experts, pharmacists contribute to the development and implementation of patient care guidelines and other medication-use policies. Pharmacist expertise is also integral to many quality-improvement efforts (e.g., surgical infection prophylaxis) and to technology initiatives (e.g., bedside medication scanning and computerized prescriber-order-entry systems). Pharmacist provision of inservice education on medications and medication use is invaluable for all health care providers.

These overlapping responsibilities provide hospitalists and pharmacists with opportunities to collaborate on activities that can have a profound effect on care in the hospital. Hospitalists and pharmacists can work together to ensure that care is evidence-based, cost-effective, and adherent to national guidelines; establish an institutional culture of safety; develop and implement quality-improvement initiatives; meet accreditation standards; and, in many cases, foster the institution's education and research initiatives. Health

professional education and research offer the opportunities to improve patient care provided not just by a single hospital but by other facilities as well.

Opportunities to Improve Collaboration

ASHP and SHM believe that there are opportunities for improving collaboration between hospitalists and pharmacists. Barriers to collaboration include real and perceived professional boundaries, poor integration of technology systems, inadequate pharmacist and hospitalist staffing, time constraints, inadequate funding and resources, lack of third-party compensation for clinical pharmacy services, and the competing obligations weighing on both professions.

Real and perceived professional boundaries can be addressed by clear communication and by enhanced interdisciplinary educational opportunities for all members of the health care team.^{35–38} ASHP and SHM believe that, while hospitalists should serve as the primary leaders of hospital care teams, all health care professionals should be willing to assume a leadership role in treating patients and, when appropriate, accept leadership by other team members. Like all members of the care team, pharmacists require timely access to hospitalists for consultation, as well as access to patient information. The vital flow of information and communication among health care providers should be conducive to collaborating and improving patient outcomes. ASHP and SHM believe that properly applied, well-integrated technologies (e.g., electronic medical records and personal digital assistants with clinical decision support systems, including drug information) can enhance communication among all members of the health care team.

Hospitalists and pharmacists can work together to overcome limitations created by inadequate funding and staffing by providing evidence to health care executives of the value of clinical pharmacist positions and pharmacist–hospitalist collaboration. This evidence should examine the impact of these positions and such collaboration on therapeutic, safety, humanistic, and economic outcomes. Collaboration among all members of the health care team would also be encouraged by reforming the current fee-for-service reimbursement practices to base payment for care delivery on overall treatment goals (e.g., a payment rate based on diagnosis).

Conclusion

An interdisciplinary approach to health care that includes physicians, pharmacists, nurses, and other health care professionals will improve the quality of patient care. Hospitalists and pharmacists need to collaborate with each other and with other health care professionals to optimize outcomes in hospitalized patients. ASHP and SHM believe that hospitalist–pharmacist alliances should be encouraged and that the systems and technologies that enable collaboration, and the incentives for such collaboration, should be enhanced.

References

1. Wachter RM, Goldman L. The emerging role of “hospitalists” in the American health care system. *N Engl J Med.* 1996; 335:514–7.

2. Society of Hospital Medicine. Definition of a hospitalist. www.hospitalmedicine.org/Content/NavigationMenu/AboutSHM/DefinitionofaHospitalist/Definition_of_a_Hosp.htm (accessed 2007 May 29).
3. Kralovec PD, Miller JA, Wellikson L, et al. The status of hospital medicine groups in the United States. *J Hosp Med.* 2006; 1:75–80.
4. AHA hospital statistics. Chicago: American Hospital Association; 2005.
5. Hospital medicine specialty shows 20 percent growth. SHM analysis of 2005 American Hospital Association survey data. www.hospitalmedicine.org/AM/Template.cfm?Section=Press_Releases&Template=/CM/ContentDisplay.cfm&ContentID=12507 (accessed 2007 May 29).
6. Sox HC. The hospitalist model: perspectives of the patient, the internist, and internal medicine. *Ann Intern Med.* 1999; 130:368–72.
7. Auerbach AD, Nelson EA, Lindenauer PK, et al. Physician attitudes toward and prevalence of the hospitalist model of care: results of a national survey. *Am J Med.* 2000; 109:648–53.
8. Fernandez A, Grumbach K, Goitein L, et al. Friend or foe? How primary care physicians perceive hospitalists. *Arch Intern Med.* 2000; 160:2902–8.
9. Wachter RM, Katz P, Showstack J, et al. Reorganizing an academic medical service: impact on cost, quality, patient satisfaction, and education. *JAMA.* 1998; 279:1560–5.
10. Diamond HS, Goldberg E, Janosky JE. The effect of full-time faculty hospitalists on the efficiency of care at a community teaching hospital. *Ann Intern Med.* 1998; 129:197–203.
11. Stein MD, Hanson S, Tammaro D, et al. Economic effects of community versus hospital-based faculty pneumonia care. *J Gen Intern Med.* 1998; 13:774–7.
12. Craig DE, Hartka L, Likosky WH, et al. Implementation of a hospitalist system in a large health maintenance organization: the Kaiser Permanente experience. *Ann Intern Med.* 1999; 130:355–9.
13. Freese RB. The Park Nicollet experience in establishing a hospitalist system. *Ann Intern Med.* 1999; 130:350–4.
14. Rifkin WD, Connor DS, Silver A, et al. Comparison of hospitalists and primary care internists in the care of patients with pneumonia. *J Gen Intern Med.* 1999; 14(suppl):S118.
15. Rifkin WD, Connor DS, Silver A, et al. Comparing hospitalists' and community-based primary care physicians' care of patients with pneumonia. *J Gen Intern Med.* 2001; 16(suppl):S215.
16. Davis KM, Koch KE, Harvey JK, et al. Effects of hospitalists on cost, outcomes, and patient satisfaction in a rural health system. *Am J Med.* 2000; 108:621–6.
17. Halpert AP, Pearson SD, LeWine HE, et al. The impact of an inpatient physician program on quality, utilization, and satisfaction. *Am J Manag Care.* 2000; 6:549–55.
18. Bellet PS, Whitaker RC. Evaluation of a pediatric hospitalist service: impact on length of stay and hospital charges. *Pediatrics.* 2000; 105:478–84.
19. Landrigan C, Srivastava R, Muret-Wagstaff S, et al. Outcomes of hospitalization in pediatric patients insured by HMOs: comparison of care by hospitalists and traditional academic providers. *Pediatr Res.* 2000; 47:204A. Abstract.
20. Srivastava R, Landrigan C, Muret-Wagstaff S, et al. Impact of a managed care hospitalist system in academic pediatrics. *Pediatr Res.* 2000; 47:228A. Abstract.
21. Srivastava R, Landrigan C, Muret-Wagstaff S, et al. Cost savings for patients with acute conditions cared for by pediatric hospitalists in a tertiary care center. *Pediatr Res.* 2001; 49:125A. Abstract.
22. Zellmer WA. Overview of the history of pharmacy in the United States. In: Brown TR, ed. *Handbook of institutional pharmacy practice.* Bethesda, MD: American Society of Health-System Pharmacists; 2006:19–32.
23. Pedersen CA, Schneider PJ, Scheckelhoff DJ. ASHP national survey of pharmacy practice in hospital settings: dispensing and administration—2005. *Am J Health-Syst Pharm.* 2006; 63:327–45.
24. Zellmer WA. Perspectives on Hilton Head. *Am J Hosp Pharm.* 1986; 43:1439–43.
25. American Society of Hospital Pharmacists. ASHP statement on pharmaceutical care. *Am J Hosp Pharm.* 1993; 50:1720–3.
26. Kaboli PJ, Hoth AB, McClimon BJ, et al. Clinical pharmacists and inpatient medical care: a systematic review. *Arch Intern Med.* 2006; 166:955–64.
27. Bond CA, Raehl CL, Franke T. Interrelationships among mortality rates, drug costs, total cost of care, and length of stay in United States hospitals: summary and recommendations for clinical pharmacy services and staffing. *Pharmacotherapy.* 2001; 21:129–41.
28. Bond CA, Raehl CL, Franke T. Clinical pharmacy services, hospital pharmacy staffing, and medication errors in United States hospitals. *Pharmacotherapy.* 2002; 22:134–47.
29. Bond CA, Raehl CL. Clinical pharmacy services, pharmacy staffing, and adverse drug reactions in United States hospitals. *Pharmacotherapy.* 2006; 26:735–47.
30. Schumock GT, Butler MG, Meek PD, et al. Evidence of the economic benefit of clinical pharmacy services: 1996–2000. *Pharmacotherapy.* 2003; 23:113–32.
31. Kucukarslan SN, Peters M, Mlynarek M, et al. Pharmacists on rounding teams reduce preventable adverse drug events in hospital general medicine units. *Arch Intern Med.* 2003; 163:2014–8.
32. O'Leary KJ, Liebovitz DM, Baker DW. How hospitalists spend their time: insights on efficiency and safety. *J Hosp Med.* 2006; 1:88–93.
33. Hauer KE, Wachter RM. Implications of the hospitalist model for medical students' education. *Acad Med.* 2001; 76:324–30.
34. Plauth WH III, Pantilat SZ, Wachter RM, et al. Hospitalists' perceptions of their residency training needs: results of a national survey. *Am J Med.* 2001; 111:247–54.
35. Committee on the Health Professions Education Summit. *Health professions education: a bridge to quality.* Washington, DC: National Academy Press; 2003.
36. Cooper H, Carlisle C, Gibbs T, et al. Developing an evidence base for interdisciplinary learning: a systematic review. *J Adv Nurs.* 2001; 31:228–37.

37. Horsburgh M, Lamdin R, Williamson E. Multiprofessional learning: the attitudes of medical, nursing, and pharmacy students to shared learning. *Med Educ.* 2001; 35:876–83.
38. Crawford GB, Price SD. Team working: palliative care as a model of interdisciplinary practice. *Med J Aust.* 2003; 179:S32–4.

This statement was reviewed in 2012 by the Council on Pharmacy Practice and by the Board of Directors and was found to still be appropriate.

Approved by the ASHP Council on Pharmacy Practice on September 24, 2007, by the ASHP Board of Directors on September 27, 2007, by the SHM Board of Directors on September 26, 2007. Developed through the American Society of Health-System Phar-

macists Research and Education Foundation through a sponsorship from sanofi-aventis, Inc.

Daniel J. Cobaugh, Pharm.D., FAACP, DABAT (Corresponding Author, ASHP); Alpesh Amin, M.D., MBA, FACP (Corresponding Author, SHM); Thomas Bookwalter, Pharm.D. (ASHP, SHM); Mark Williams, M.D., FACP (SHM), Patricia Grunwald, Pharm.D. (ASHP); Cynthia LaCivita, Pharm.D. (ASHP); and Bruce Hawkins, B.A., B.S. (ASHP) are gratefully acknowledged for drafting this statement.

Copyright © 2008, American Society of Health-System Pharmacists, Inc. All rights reserved.

The bibliographic citation for this document is as follows: American Society of Health-System Pharmacists. ASHP–SHM joint statement on hospitalist–pharmacist collaboration. *Am J Health-Syst Pharm.* 2008; 65:260–3.