



ASHP Foundation News Release

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Researchers to Study Value of Pharmacists in Emergency Departments

BETHESDA, Md. (October 30, 2008) — The emergency department (ED) of any hospital can be a notoriously chaotic, high-paced unit, and ED healthcare professionals are continuously challenged to provide safe yet quality healthcare to patients with a wide range of ailments, from minor to critical. These factors increase the potential for medication errors to occur. While studies have been conducted to demonstrate that pharmacists in inpatient settings can reduce the number of potentially harmful medication-related errors that occur, very little similar data exists to show the effect of pharmacists on patient safety in EDs.

In response, the American Society of Health-System Pharmacists (ASHP) Research and Education Foundation has awarded \$50,000 to a physician-pharmacist research team to conduct a study entitled “Medication Errors Recovered by Emergency Department Pharmacists” over a 1-year period.

Jeffrey M. Rothschild, M.D., M.P.H., Brigham and Women’s Hospital, Assistant Professor of Medicine, Harvard Medical School, and William W. Churchill, M.S., R.Ph., Executive Director of Pharmacy Services, Brigham and Women’s Hospital in Boston, Massachusetts, are the principal investigator and co-principal investigator, respectively, for this study. “There is growing evidence that clinical pharmacists improve care in a variety of inpatient settings, including critical care units,” says Dr. Rothschild, “and the emergency department shares some characteristics that are similar to critical care units. ED pharmacists are cropping up in many places where there’s not yet sufficient data to show the degree to which they can improve patient outcomes. We think that there’s a business case to demonstrate that ED pharmacists improve care and at the same time reduce some of the costs associated with medication errors as well.”

“There are a few studies that look at only one institution or only a small number of patients,” says Mr. Churchill. “Our study will be bigger and more widespread than any currently published. It will be across four very busy academic medical center emergency departments and involve 800 hours of direct observation. Our hope is that the results will contribute to the body of scientific work that supports our belief that pharmacists make a terrific difference and that every emergency department across the country should have a pharmacist.”

The study will be conducted at four academic medical centers with established ED pharmacist programs: Brigham and Women's Hospital, Boston; Cedars-Sinai Medical Center, Los Angeles, California; Grady Health System, Atlanta, Georgia; and the University of Wisconsin Hospital and Clinics, Madison.

Over the next year, three observers at each site will spend 2 to 4 hours at a time shadowing emergency department pharmacists during the busy evening shift. Observers will document any instance in which a pharmacist has recovered a medication error and, at the end of each observation period, will enter their data into a database. "Recover," in this study, means either the ED pharmacist catches an error before it reaches a patient or recognizes an error has occurred and intervenes to reduce or prevent harm.

After 200 hours of observation has been conducted at each site, Rothschild and Churchill will analyze the data, looking at the number of patients in the ED during the observation periods, the number of patients for which the pharmacist had to intervene, the number of recovered medication errors, and the number of medication orders reviewed by the pharmacist. The results of the pilot study, which are expected in late 2009, will lay the groundwork for future large-scale prospective controlled studies that will comprehensively demonstrate the effects of ED pharmacist interventions on medication safety.

"This study is looking at only one slice of what an ED pharmacist does," explains Dr. Rothschild. "Recovering medication errors is one of the most important ways that pharmacists contribute in the ED. But future studies will look at the whole universe of activities involving the ED pharmacist, such as providing education and information about medications regarding administration and preparation and assisting with complying with guidelines. Results from those studies will better support the business case justification for having pharmacists in the ED. There are many cost-saving measures with which ED pharmacists can assist."

Churchill hopes that one future study will be a comparative one. "The ideal study to do next would be of an emergency department that has pharmacists and one that does not. We could look at costs, outcomes and many other things. But right now, we have the building blocks of an excellent study that can shape our future: four very prestigious academic medical centers around the country with very seasoned, well-versed researchers and the ASHP Foundation. We are very appreciative of the Foundation for enabling us to do this study."

"The ASHP Foundation was very pleased to offer funding to support this study for two reasons," says Stephen J. Allen, the Foundation's Executive Vice President and CEO. "First, the study supports one of our strategic priorities, to design and study safe and effective medication-use systems. Second, the study will evaluate the influence of the pharmacist's role in medication management in the challenging area of emergency care. The fact that it is a multi-center design adds to its value and application across many varied practice sites."

For more information about this research grant program, visit <http://www.ashpfoundation.org>

The ASHP Research and Education Foundation was established in 1968 by the American Society of Health-System Pharmacists as a nonprofit, tax-exempt organization. The mission of the Foundation is to improve the health and well-being of patients in hospitals and health systems through appropriate, safe and effective medication use. The Foundation provides leadership and conducts education and research activities that foster the coordination of interdisciplinary medication management leading to optimal patient outcomes. Emphasis is given to programs that will have a major impact on advancing pharmacy practice in hospitals and health systems, thereby improving public health.