

A prescription for drug safety in rural hospitals

By Linda Homewood

Improving medication safety in small rural hospitals has been a work-in-progress for researchers at the College of Pharmacy. The project's principal investigator, Abraham Hartzema, Pharm.D., a College of Pharmacy professor and eminent scholar, said improving patient safety and preventing medication errors were the research team's primary goals.

UF has collaborated with the Department of Health's Office of Rural Health and Florida Medical Quality Assurance Inc. to increase the safety of medication management in 12 rural Florida hospitals. Designated as critical access hospitals, these facilities have 25 or fewer beds and provide emergency medical treatment to small communities.

"These hospitals have very limited resources and staffing. They often do not have a pharmacist physically on staff and must contract with pharmacists at other sites for medication review," Hartzema said.

The researchers presented their work on drug safety in rural hospitals in December at the American Society of Health-System Pharmacists' mid-year clinical meeting in Orlando.

The *Journal of the American Medical Association* in 1995 published a study that found medication errors resulted from 16 types of failures in the hospital management system. Aspects of the management system related to drug knowledge, dosing, allergies,

transcription, tracking and interservice communication accounted for 78 percent of the errors. In 2000, the Institute for Safe Medication Practices studied adverse events nationally that led to serious injury or death. The study found pharmacy management systems can prevent errors at every stage of the medication process.

To work toward creating a management system, the Department of Health's Office of Rural Health awarded nearly \$95,000 each year for three years to establish internal quality control for each of the 12 critical access hospitals. The hospitals enlisted UF as a research and education provider. In the first year, UF faculty made site visits and organized summit conferences and hospital staff completed a needs assessment and started two medication safety initiatives. Each hospital appointed medication safety officers and established medication safety committees. In the second year, UF faculty continued to make site visits and observed operational procedures established by the newly formed committees.

Hartzema's project team includes Almut Winterstein, Ph.D., a clinical assistant professor, and Jessica De Leon, Ph.D., coordinator of research programs at UF; Tom Johns, Pharm.D., associate director for pharmacy services at Shands Healthcare, Alyson Widmer from Shands/UF Information Technology; and Robert Winkler,



PHOTO COURTESY OF DR. HARTZEMA

Dr. Abraham Hartzema meets with hospital staff at George E. Weems Memorial Hospital in Apalachicola.

hospital administrator, and Warren Bailey, Pharm.D., from Doctor's Memorial Hospital in Bonifay.

The Agency for Healthcare Research and Quality awarded an additional \$150,000 six-month grant last fall to fund health information technology planning, which includes computer systems that allow for timely review of new prescription orders by pharmacists in other locations. This planning grant will lead to larger funding for implementation — a goal the UF team is working toward, Hartzema said. **P**