



American Pharmacists Association Foundation News Release

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CONTACT: Tenikka Greene
(202) 429-7537; TGreene@APhAnet.org

APhA Foundation Announces 2004 *PINNACLE AWARD* Recipients

WASHINGTON, D.C. – The American Pharmacists Association (APhA) Foundation announces the winners of the 2004 *Pinnacle Awards: Recognizing contributions to health care quality through the medication use process*. The awards dinner will be held on June 15, 2004 at *The National Museum of Women in the Arts* in Washington, D.C.

The *Pinnacle Awards* are administered by the APhA Foundation Quality Center and are made possible through a grant from Wyeth Pharmaceuticals. According to William M. Ellis, APhA Foundation Executive Director/CEO, “We have created these awards because morbidity and mortality associated with medication use is a major public health problem, resulting in significant disability and up to 100,000 deaths each year. An estimated 177 billion dollars is spent annually on preventable hospitalizations, lengthened stays and/or prolonged treatment as a result of prescribing contraindicated therapy, drug-drug interactions, adverse drug reactions, duplication of drug therapy and/or errors in drug administration.”

The *Pinnacle Awards* recipients are recognized for pioneering innovative ways to improve the medication use process that increase medication adherence, reduce drug misadventures, improve patient outcomes, and increase communication between all members of the health care team.

The 2004 Pinnacle Award recipients are:

Individual Category

Bonnie Svarstad, PhD

William S. Apple Professor

School of Pharmacy, University of Wisconsin-Madison

Group Practice/Health System/Corporation Category

Fairview Pharmacy Services / University of Minnesota College of Pharmacy

“A Public/Private Partnership to Sustain Improvements in Medication Outcomes”

Minneapolis, MN

Government Agencies/Non-profit Organizations Category

US Air Force Pharmacy /Patrick Air Force Base

“Optimizing Medication Use through Process Efficiency to Improving Patient Safety & Outcomes”

Washington, DC

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Award presenters for this year's program are:

Ann Greiner
President
Greiner Health Care Consulting
Silver Spring, MD

David Pasternack
Vice President
American Heart Association
Dallas, TX

Lucinda Maine
Executive Vice President
American Association of Colleges of Pharmacy
Alexandria, VA

The keynote speaker for the event will be **Margaret E. O'Kane**. Since 1990, she has served as President of the National Committee for Quality Assurance (NCQA), an independent, non-profit organization whose mission is to improve the quality of health care nationwide. Under Ms. O'Kane's leadership, NCQA has developed broad support among the employer and health plan communities; today many Fortune 100 companies will do business only with NCQA Accredited health plans. About three quarters of the nation's largest employers use Health Plan Employer Data and Information Set (HEDIS[®]) data to evaluate the plans that serve their employees. Her keynote address is titled; "Moving the Quality Agenda Beyond HMOs."

The APhA Foundation is affiliated with the American Pharmacists Association, the national professional society of pharmacists in the U.S. The APhA Foundation, a nonprofit organization based in Washington, DC, works to design solutions to medication use problems in America. The APhA Foundation's mission is to improve the quality of consumer health outcomes affected by pharmacy.

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Additional Information About the 2004 Pinnacle Award Recipients

Individual Category

Bonnie L. Svarstad, Ph.D.

William S. Apple Professor

School of Pharmacy, University of Wisconsin-Madison

Throughout her 30-year career as a pharmaco-medical sociologist, Dr. Svarstad has focused on discovering, implementing and evaluating ways to improve the use of medicines. Her research has informed the topic of patient adherence to drug therapy and has provided the theoretical basis for practical approaches to that topic.

Her work in the late 1970s involving direct observation on the advice physicians gave patients about medications prescribed during office visits and its relationship to patient adherence is still widely cited. Svarstad's work in presenting the Health Communication Model provided a conceptual basis for understanding barriers to adherence and ways in which professional communication and adherence monitoring are linked to patient feedback, comprehension, motivation, and behavior. Her continued research and this model, helped to catalyze a shift away from models that blame patients to models that recognize the role of ineffective communication and adherence monitoring.

An excellent example of this mix of theory and application is her work on the "Brief Medication Questionnaire", a tool to screen for adherence and to uncover patient issues that affect their medication taking ability. This tool has been shown to have a greater than 80% sensitivity for detecting repeat non-adherence. The tool has been used in 20 countries by many health care disciplines and has been translated into 5 languages.

Svarstad's research has demonstrated that collaborative patient counseling and follow-up by physicians and pharmacists are predictive of better patient understanding, satisfaction, and medication adherence. One example is a study that showed patients hospitalized with congestive heart failure were less likely to be re-hospitalized when receiving collaborative care. Another area of Dr. Svarstad's work relates to provider adherence to national guidelines designed to reduce inappropriate use of psychotropic drugs in nursing homes. To better understand and improve drug use in this population, Svarstad and co-workers developed innovative screening tools for measuring provider or facility adherence to treatment guidelines and conducted a series of groundbreaking observational studies to identify the resident, staff, organizational and regulatory factors that might affect provider adherence to psychotropic guidelines in nursing homes. Her work also found that the quality of nurse-physician communication was linked to prescriber adherence to guidelines.

Dr. Svarstad's expertise has been widely recognized through appointments to the Institute of Medicine Committee to Evaluate Patient Package Inserts, the APhA Task Force on Women in Pharmacy, the National Institute of Mental Health Consensus Panel on Drugs and Insomnia, the National Advisory Counsel on Health Professions Education, and the AHRQ Scientific Review Panel. From 1997 until 2002 she served as the Chair of the FDA's Medication Guide Evaluation Committee and at the present time is a Special Government Employee to the FDA's Drug Safety and Risk Management Advisory Committee.

For over three decades, the work of Dr. Bonnie Svarstad has played a significant role in the understanding of patient adherence and the development of better methods for managing drug therapy and patient care both nationally and internationally. She is a true leader in this field.

Group Practice/Health System/Corporation Category

Fairview Pharmacy Services / University of Minnesota College of Pharmacy

A Public/Private Partnership to Sustain Improvements in Medication Outcomes

Minneapolis, MN

In the mid-1990s the University of Minnesota and the Fairview Health System, one of the largest healthcare provider corporations in Minnesota, forged a public/private healthcare partnership intended to create a new medication use system while preparing students to practice pharmacy at the highest possible level in these new practices. Medication use objectives of the program are to: 1) Ensure that all drugs are appropriately indicated, effective, safe and convenient for the patient, 2) identify, resolve and prevent drug therapy problems, 3) assure that the patient understands the specific goals of therapy, and that the patient and all providers are working to achieve these goals, and, 4) evaluate and document patient outcomes at each encounter.

From 1998 through the end of 2003, this practice has achieved positive clinical, economic and humanistic outcomes based on a total of 3,733 patients in active pharmaceutical care plans. The number of medical conditions evaluated is 26,294, and the number of medications assessed since program inception is 93,279. The number of drug therapy problems identified and resolved by Fairview's practitioners is 11,176, an average of 3 drug therapy problems per patient. The most common drug therapy problem identified and resolved was the need for additional therapy in 29% of the patients, followed by suboptimal drug dosage, adherence issues and adverse drug reactions. From the identification and resolution of drug therapy problems, direct savings to Fairview Health Services patients were \$1,245,820 or about \$250,000 per year since program inception.

Satisfaction surveys have been sent to all patients asking if their overall health and well-being has improved because of pharmaceutical care. In 2003, 95% of respondents agreed or strongly agreed. Health-related quality of life (HRQOL) was measured using the Short Form-12 (SF-12v2®) instrument. All 10 domains of HRQOL demonstrated improvements over time. Patient satisfaction with healthcare services was also measured with the Consumer Assessment of Health Plan Study (CAHPS®) 2.0 instrument in the presence and absence of collaborative pharmaceutical care services. An interesting finding is that patient ratings of their personal physician were higher in patients receiving pharmaceutical care in relation to a similar comparison group of patients who did not receive pharmaceutical care.

Using the Rand Corporation structured implicit review process applied by Medicare to assess the quality of medical care delivered in the hospital and ambulatory care settings, it was found that pharmaceutical care practitioners therapeutic outcome determinations were judged to be valid, or clinically credible, as published in the August 2003 issue of the Archives of Internal Medicine.

The Assurance® software program, licensed by the University of Minnesota, provides for collecting patient demographic information, checking for drug interactions, disease specific care planning, medication documentation, drug therapy problem identification, follow-up evaluations, physician and patient reporting, billing, workload tracking, clinical outcome tracking, and data consolidation. HEDIS performance measures such as, 'Use of appropriate medications for patients with asthma,' 'Antidepressant medication management' (Acute and Continuation Phase), and, 'Beta blocker treatment after a heart attack' are built into the care plans for these three conditions in the Assurance® software.

A continuous quality improvement system has been created by integrating national treatment guideline implementation with patient care data. This information is discussed at monthly pharmaceutical care practitioner quality improvement meetings where patient cases are presented within the context of updating drug therapy treatment goals containing new and revised national treatment guidelines.

This public/private partnership highlights progress of an academic institution toward fulfilling new professional responsibilities, combined with progress of a healthcare corporation toward understanding, sustaining, and exporting results to the healthcare industry that improve patient outcomes while reducing expenses.

Government Agencies/Non-profit Organization Category

U.S. Air Force Pharmacy/Patrick Air Force Base

“Optimizing the Medication Dispensing Process to Improve, Safety, Efficiency and Outcomes”

Air Force Pharmacy is composed of over 1,300 pharmacists and technicians providing pharmaceutical care from 78 Military Treatment Facilities around the world. Service areas include inpatient and ambulatory clinics, pharmacist-run anticoagulant, lipid, asthma and hypertension clinics as well homeland defense. Air Force pharmacy understood that to maximize pharmaceutical benefit that the medication dispensing process needed to be optimized to improve safety, efficiency and patient outcomes.

To optimize safety, a goal was set to standardize error reporting throughout all Air Force Medical Treatment facilities by implementing MedMARx, a secure web-based medication error database developed by USP. Currently all Air Force facilities now use MedMARx and the reporting system has become the benchmark for the Department of Defense. These process improvements have resulted in a 56% reduction in errors.

To standardize patient medication information to improve treatment outcomes and increase compliance, the Air Force set a standard to ensure all patients receive medication information with every prescription dispensed. This was accomplished by installing high speed laser printers at every facility. Additional technology enhancements standardized the prescription dispensing and checking system. The PharmASSIST Enterprise System was selected to optimize efficiency because the system is highly flexible; integrating software, digital imagery scanning, workstations, auto-filling dispensers and robotic units.

The Air Force, Army and Navy Chiefs of Pharmacy have collaborated to establish regional prescription refill centers. This regional concept ensures that medication inventories required for military deployments and local disasters are readily accessible on short notice, while increasing the actual inventory available to any one facility.

To date, prescription filling time has decreased by 39% and medication adherence has increased by 25%.

At Patrick Air Force Base in Florida, these dispensing efficiencies have cleared the way for dramatic improvements in patient outcomes. At Patrick Air Force base, a number of dyslipidemia patients were not at LDL goal. 57% of those patients were either under-treated or non-adherent to therapy, additionally, 14% of patients who were not at goal were on unsafe combination regimens.

To deal with these challenges, a pharmacist-run, patient education/polypharmacy clinic was developed. Furthermore the close pharmacist-prescriber interaction on base led to the development of a lipid clinic, which provides services to on-base providers as well community physicians. To address dangerous therapeutic combinations, all pharmacists were provided with guidelines and recommendations for therapeutic alternatives so they could collaborate with physicians about making changes to potentially unsafe combination regimens. A series of three educational programs were also conducted for community providers disseminating base-line treatment results, treatment guidelines, and the mechanisms to access the polypharmacy and lipid clinics.

At the end of six months, the program showed a 25.5% reduction in LDL for a group of 310 patients, including a 26% reduction in LDL for patients in multiple risk factor categories. 68.6% of patients were at LDL goal compared to 0% from the previous review. In addition, 97.5% of those patients previously classified as non-adherent or under treated have now received a prescription for a lipid-lowering agent. By helping patients reach their LDL goal it is projected that 60 hospitalizations due to cardiac events were avoided with a potential cost-avoidance saving of \$316,000 annually.

The US Air Force Pharmacy and Patrick Air Force Base are shining examples of what is possible when the medication dispensing and monitoring processes are optimized to increase efficiency, safety and improve patient outcomes.