



57th Annual Scientific Session
MARCH 29 – APRIL 1 • CHICAGO

FOR IMMEDIATE RELEASE
Saturday, March 29, 2008
11:00 a.m. CDT

CONTACT: Andrew Crosby
(901) 575-0010
acrosby@crosbyvolmer.com
Amy Murphy
(202) 375-6476
amurphy@acc.org
ACC.08 Newsroom
(312) 949-3450

**PATIENTS WITH HEART FAILURE VULNERABLE TO THE FLU, DESPITE
ANNUAL VACCINATION**

Influenza Contributes to Increased Hospitalizations and Deaths in These Patients

CHICAGO, IL - Coming down with influenza, or the flu, can be potentially life-threatening for patients with heart failure (HF) and other heart conditions, which is why annual influenza vaccination is widely recommended. However, these patients may not be adequately protected, despite widespread immunization. New research presented today at the American College of Cardiology's 57th Annual Scientific Session finds that individuals with heart failure have lower immune responses to the vaccine compared to healthy individuals of similar ages, placing them at even greater risk for influenza-related hospitalization or death.

"Patients with heart failure are unable to mount as vigorous an immune response, which leaves them more vulnerable to infection," says Orly Vardeny, Pharm.D., of the University of Wisconsin School of Pharmacy and lead investigator of this study. "It's important to understand how these patients respond to the vaccine in order to devise better strategies to minimize infection-related complications and death, and lower health care costs." Dr. Vardeny stresses that these data should not preclude HF patients from annual vaccination; however, other preventive steps might be needed to bolster protection from the virus.

Dr. Vardeny and her team studied 29 patients with heart failure on ACC/AHA guideline based HF therapies and 17 healthy patients for comparison. Blood tests were done before

- more -

and after influenza vaccination to assess patients' production of antibodies and T-cell responses. Antibody and T-cell responses work in different ways to help protect individuals by preventing the ability of the virus to replicate in human cells and reducing the severity of the illness. The flu vaccine is reformulated every year and works by causing antibodies to develop in the body, and these antibodies provide protection against influenza virus infection.

“Healthy individuals had stronger antibody responses to the influenza vaccine and, therefore, better protection from infection,” said Dr. Vardeny. “Patients with heart failure did not respond as well to the newest vaccine viral strains; these are selected and incorporated into the vaccine each year to match influenza strains expected to circulate.”

Dr. Vardeny explains that the long-accepted definition of vaccine response, termed seroprotection, requires adequate immune response to one (or more) vaccine viral strains. These data suggest that measuring the response to all three viral strains contained in the vaccine may be more indicative of vaccine protection against influenza in HF patients, who show reduced immune responses to newer viruses potentially due to impaired immunological memory. Impaired immune function, therefore, leads to less vaccine protection and higher likelihood of contracting influenza infection.

The reason why patients with HF have reduced immune responses is unknown, but these researchers are exploring this question. Dr. Vardeny says it is likely due to changes in patients' immune systems that occur because of the progression of heart failure.

Influenza causes 36,000 deaths and more than 200,000 hospitalizations in the United States each year, according to the Centers for Disease Control and Prevention.

Dr. Vardeny will present this study “Decreased Antibody Responses to Influenza Vaccine in Heart Failure Patients” at 9:00 a.m. in McCormick Place, South Hall

###

The American College of Cardiology (www.acc.org) represents the majority of board certified cardiovascular physicians in the United States. Its mission is to advocate for quality cardiovascular care through education, research, promotion, development and application of standards and guidelines- and to influence health care policy. ACC.08 is the largest cardiovascular meeting, bringing together cardiologists and cardiovascular specialists to share the newest discoveries in treatment and prevention, while helping the ACC achieve its mission to address and improve issues in cardiovascular medicine.