

# Coalition Reduces Amputations in 2 Communities

*Education effort proves 'hard-to-reach' patients can be reached through family, friends, and local leaders.*

BY DOUG BRUNK  
San Diego Bureau

SAN DIEGO — A community-based education effort to improve foot care among African American males with diabetes in the communities of Charleston and Georgetown, S.C., resulted in a sharp decline in amputation rates, from 79.1 per 1,000 diabetes hospitalizations in 1999 to 31.7 per 1,000 in 2002, Carolyn Jenkins, Dr.P.H., reported at the annual scientific sessions of the American Diabetes Association.

"We often label African American males as hard to reach," said Dr. Jenkins, professor of nursing at the Medical University of South Carolina College of Nursing, Charleston. "The implications [of this study] are that hard-to-reach [patients] can be reached through family, friends, and community leaders. Volunteers can effectively deliver the message [of proper foot care], and community coalitions can produce outcomes specifically in decreasing amputations."

In 1999, reducing amputations among African American males was identified as one of the priorities for action as part of the REACH 2010 (Racial and Ethnic Approaches to Community Health): Charleston and Georgetown Diabetes Coalition. Funded by a grant from the Centers for Disease Control and Preven-

tion as a national demonstration project, the coalition's overall goal is to improve foot care and self-management of diabetes for more than 12,000 African Americans in five different health systems in the two communities.

"Our action plan is organized around community-driven educational activities where people live, work, worship, play, and seek health care," Dr. Jenkins said. "We also focused on health systems change and building a sustainable coalition that can work to maintain the activity after grant funding."

A key focus of the coalition involves training health professionals, volunteers, and lay educators about proper foot care for adults with diabetes. The coalition includes five African American women who are employed full time as lay educators in their communities, 130 registered nurses who have completed a 2- to 3-day foot care course, and 15 registered nurse wound care specialists.

The lesson for lay educators is called "Check Yourself to Protect Yourself: Take Care of Your Feet." Dr. Jenkins described the lesson objectives as "standard, focused on taking care of feet, cutting nails, selecting appropriate footwear, checking feet each day using the monofilament, when to notify the health care provider [about concerns], discussing a foot exam with the health [care] provider, and methods for pre-

vention of foot problems."

Clients receive a book about diabetes self-management ("My Guide to Sugar Diabetes," available at [www.musc.edu/reach](http://www.musc.edu/reach)) as well as a patient health minirecord that helps patients track their care. Activities include "walk and talk" groups, home and telephone visits, health and information fairs, and support groups. So far, the effort has reached more than 40,000 African Americans; about 30% of these were men.

The coalition also enlisted the help of local media by placing ads in newspapers, broadcasting radio talk shows, and airing a 30-minute TV show on foot care that ran 34 times.

Dr. Jenkins reported that between 1999 and 2002, the rate of foot exams among all diabetes patients in the five health care systems improved from 49% to 74%.

Meanwhile, amputations in African American males decreased from 79.1 per 1,000 diabetes hospitalizations in 1999 to 31.7 per 1,000 in 2002.

When African American males who took part in focus groups were asked what made them become more proactive about seeking foot care, they gave comments like "we now know that if we have a foot problem, we don't need to wait for it to get better," Dr. Jenkins said. "We need to go to



The goal of REACH 2010 is to reduce amputations in African Americans with diabetes.

REACH 2010 CHARLESTON AND GEORGETOWN DIABETES COALITION FUNDED BY CDC GRANT/COOPERATIVE AGREEMENT U50CCU422184-03

our health care providers in 1-2 days."

When an audience member asked Dr. Jenkins how to win support for such an effort at the community level, she replied, "It's key that we educate policy makers about the problem and show them that we can make a difference. Stay in constant contact with them and share the information and get community members to do the same." ■

## Infected or Not?—Managing Lesions of the Diabetic Foot

BY MARK S. LESNEY  
Senior Editor

CHICAGO — Clinical symptoms are critical when distinguishing between uninfected and mildly infected diabetic foot lesions, Warren S. Joseph, D.P.M., reported at the Vascular Annual Meeting.

For instance, lack of cellulitis indicates lack of infection, as does good granulation. If the foot wound is purulent, it is infected.

Surprisingly, culturing the wound for microorganisms is not the best way to diagnose infection. This is because even noninfected diabetic foot lesions are "wound toilets" or, less bluntly, they have a significant "bioburden or bioload" of microorganisms that are simply colonizing the lesion, said Dr. Joseph of the Veterans Affairs Medical Center in Coatesville, Pa.

And, just because an ulcer is colonized does not mean it is infected, he explained.

However, in patients whose diabetic foot lesions are colonized but not infected, physicians may feel uncomfortable about not doing anything, Dr. Joseph said. Physicians know that the microbes are

there, and they feel compelled to provide treatment.

In a situation such as this, topical treatments such as those with broad-spectrum activated silver are better than systemic antibiotics.

"Antibiotics do not heal wounds; antibiotics treat infection," Dr. Joseph said, adding that he could not overemphasize the point that systemic antibiotics do not have a place in treating noninfected wounds.

Why? Because the first strain of vancomycin-resistant *Staphylococcus aureus* was found in a diabetic foot wound, and it showed up in a swab culture of a clinically noninfected wound.

According to Dr. Joseph, the Infectious Diseases Society of America's classification system developed last year defines mild infection as that extending less than 2 cm ([www.idsociety.org](http://www.idsociety.org)).

Moderate infection is greater than 2 cm and/or shows spread, streaking, or gangrene, but is still localized to the foot. Severe infections are systemic and life-threatening.

It is a misconception, Dr. Joseph point-

ed out, that all diabetic foot infections are polymicrobial.

Virtually all diabetic foot infections have been shown to be caused by just two microorganism types—*Staphylococcus aureus* and group B streptococci.

"This is great news, because when you think about what antibiotics you need for staph and strep—just about anything," he said.

"Those broad-spectrum drugs we have been using all these years we probably do not need, with one small caveat—there has been an incredible increase in prevalence of methicillin-resistant staph in [the] diabetic foot."

The bottom line is that 40% or more of all diabetic foot staph infections are methicillin resistant.

The number of diabetic foot patients who presented with methicillin-resistant *Staphylococcus aureus* doubled between 1999 and 2002, he said.

Given the wide variety of alternatives available—anything you would use for staph or strep throat—Dr. Joseph emphasized: "Do not use ciprofloxacin in the infected diabetic foot." It has poor activity against staph and strep, and it is a single-step mutation to getting staph or strep resistant to ciprofloxacin.

"You might have a nice big S sitting next to the cipro line, but give that patient the drug, [and] within a week it's going

to turn to an R," Dr. Joseph said.

He also said that he ultimately believes it will be shown that severe infections will respond to antibiotics directed against staph and strep, even if there are corresponding anaerobic microbes present.

As an example of this, he used the analogy of a snake: Remove the head (staph and strep), and the rest dies.

However, he stated that the clinical data are not there just yet to support advising against the use of broad-spectrum antibiotics for such infections, and so he could not recommend it.

Dr. Joseph disclosed financial relationships with Merck and Pfizer. ■

### VERBATIM

*'We've been talking about the lack of ability to manufacture a global vaccine for a long time. This underscores the issue.'*

Dr. Anthony Fauci, p. 31