

# Copays Can Sway Medication Use in Diabetes

BY DAMIAN McNAMARA

MIAMI BEACH — A value-based insurance program with lower copayments significantly increased use of medications for secondary prevention among people with diabetes, compared with traditional insurance coverage, according to a prospective, controlled study.

The prescription fill rate increased by nearly 5% for metformin, by almost 9% for ACE inhibitors or angiotensin II receptor blockers (ARBs), and by more than 9% for statins among 1,777 diabetics with value-based insurance, compared with a control group of 3,273 diabetics with conventional insurance.

With value-based insurance design (VBID), copayments are lowered for procedures or medications deemed beneficial according to the evidence-based literature. At the same time, copayments are increased for services or drugs that are not well demonstrated to improve outcomes. This design, therefore, acts as both incentive and disincentive for patients to improve health outcomes and control costs, Dr. Allison B. Rosen said at the annual meeting of the Society of General Internal Medicine.

VBID also improved the other primary study outcome, medication adherence, by leading to a significant 7% increase in ACE inhibitor/ARB adherence.

Although evidence-based medicine supports the use of many secondary prevention agents for people with diabetes, underutilization remains a concern, Dr. Rosen said. High out-of-pocket costs are often cited as a culprit, and VBID might make a difference by linking patient copayments to value. "There are few rigorous studies to support these positive claims," said Dr. Rosen of the University of Michigan, Ann Arbor.

So she and her colleagues enrolled active University of Michigan employees and their dependents with diabetes into a VBID program that reduced their copays for antihypertensive, lipid-lowering, and glucose-lowering agents starting in July 2006. The control patients were employees of other institutions or companies and their dependents with diabetes enrolled in the same managed care plan.

The prescription fill rate at baseline ranged from 53% for statins to 65% for metformin. Following implementation of the VBID program, there was a significant increase in the prescription fill rate for medications from all drug classes in the intervention group, compared

with the control group: There was a 4.8% increase for metformin, a 8.5% increase for ACE inhibitors/ARBs, and a 9.3% increase for statins, she reported.

Increases in adherence were less striking. The only significant improvement relative to controls was a 7% increase in adherence to ACE inhibitors or ARBs in the

intervention group. Dr. Rosen said that the limited impact was because "baseline adherence rates were quite high, surprisingly so."

In response to a meeting attendee's question, Dr. Rosen said that for VBID to work effectively, "you cannot just lower all copays. We [also] have to increase copays for low-value interventions." This was outside the scope of the current study but would need to be incorporated in a complete VBID program.

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DR. ROSEN

The study was funded by the National Institutes of Health, the University of Michigan, and the John A. Hartford Foundation. ■

A related video is at [www.youtube.com/InternalMedicineNews](http://www.youtube.com/InternalMedicineNews) (search for 67710).



## THE REST OF YOUR LIFE

### An Ironman Competes to Give Back

Dr. James Barron never took physical fitness seriously until age 30, when he served as the physician for a Marine battalion, but he'd always been intrigued by watching Ironman competitions on television—grueling events that consist of a 2.4-mile swim, a 112-mile bike ride, and a 26-mile run.

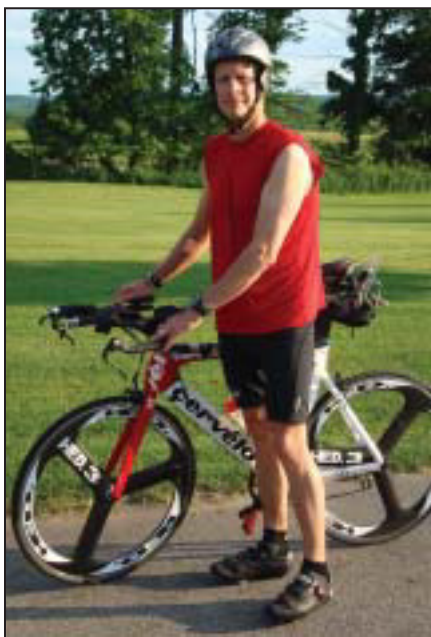
"In my mind I would think, 'Wouldn't it be great to do that someday?'" said Dr. Barron, a 44-year-old internist practicing in Grand Rapids, Mich.

The motivator for his will to ultimately become an Ironman-level triathlete came from a painful life event: the September 2001 death of his 5-year-old niece, Allie Cibulas, from inoperable brain cancer.

"She had a horrible course," Dr. Barron recalled. "I remember visiting her, being so frustrated. I had so much pent-up energy and I wanted to do something to try to make a difference in the lives of other people affected by children with any type of illness."

So in 2003 he registered for an Ironman competition in Madison, Wis., and asked friends, family, and perfect strangers to champion him by donating money to Allie's Angels—a charity serving terminally ill children and research on pediatric brain cancer that was launched in honor of his niece ([www.alliesangels.com](http://www.alliesangels.com)).

"I thought, 'I'm going to push myself to my limit and do what I can to try to help out,'" he said. "When little children go through chemotherapy, they're not prepared for it. I had never done a triathlon in my life, so it was symbolic that I was going to go do something I'd never done before and fight my own personal battle to complete it. It pales in comparison to what Allie went through, but the symbolism is that I was going to



Dr. James Barron registered for his first Ironman in response to his 5-year-old niece's death from brain cancer.

fight my hardest battle in honor of her, without having prior experience."

After nearly a year of training, when race day arrived he completed the event and helped to raise several thousand dollars for Allie's Angels. "It wasn't a lot of money," he said. "But for me it was more [about] creating awareness and putting my own sweat and tears into it."

Dr. Barron described feeling like an "imposter" in a crowd of highly trained triathletes during the race. "I remember when I crossed the finish line many hours after the winner, still seeing the winner of the race there to cheer me on and welcome me to the club," he said. "It's a feeling of acceptance. It was very emotional, thinking about my niece as I went through the race. That kind of kept me

going the whole time. It's really an amazing event. The crowds cheer you on from start to finish. Every time I felt like stopping something clicked and told me to keep going."

With his first Ironman behind him, Dr. Barron went on to improve his completion times in subsequent Ironman competitions in Lake Placid, N.Y., and in Louisville, Ky., keying in on specific charities to support for each event. On Aug. 30, 2009, he plans to return to Louisville to compete in the Ford Ironman Louisville event and help raise money for the National Alliance on Mental Illness Michigan ([www.namimi.org](http://www.namimi.org)), an organization for which his wife has volunteered. In the future he hopes to again raise money for Epilepsy Foundation Michigan ([www.epilepsymichigan.org](http://www.epilepsymichigan.org)) in honor of his wife's niece, who was diagnosed with the condition in infancy.

Dr. Barron's ultimate Ironman goal is to compete in Kona, Hawaii, the premier competition in this event.

In addition to his full-time role as a hospitalist for Michigan Medical, P.C. at Spectrum Butterworth in Grand Rapids, Dr. Barron is an essential caretaker of his wife, Dr. Denise Barron-Kraus, and their two teenage sons. Dr. Barron-Kraus left medical practice in 2000 because she suffers from mental health issues and fibromyalgia that affects her ability to perform activities of daily living. That leaves Dr. Barron precious little time for training, but he manages.

"My husband's ability to dedicate so much time and energy to exercise, in addition to his demanding work schedule at the hospital and home, is amazing to me," Dr. Barron-Kraus said. "His choice of hobby is a great one for him as he has a significant family cardiac his-

tory. He is in better shape than the 19-year-old I met in college. In addition to the physical benefits of exercise, it serves as his main stress-reliever, improving all areas of his life."

It's not unusual for Dr. Barron to train in the late evenings until midnight, or to start training at 4:30 a.m., depending on his demands for time. "It's all about prioritizing," he said.

He noted that participating in Ironman competitions have helped him achieve a "can-do mindset" for whatever challenges come his way.

"Being able to do an Ironman shows that I can accomplish just about anything I put my mind to," he said. "I believe it positively affects my work attitude and my attitude at home. The biggest thing for me is, as a physician I always want to make a difference in the lives of people."

By doing Ironman competitions, "I'm able to do that. While I haven't raised a ton of money, I've been able to add meaning to my personal life while raising money and awareness for important causes. There are a lot of people out there who don't get recognized or receive the help that they need. For me, this is one way to give," he said. ■

By Doug Brunk

#### E-MAIL US YOUR STORIES

The purpose of "The Rest of Your Life" is to celebrate the interests and passions of physicians outside of medicine. If you have an idea for this column or would like to tell your story, send an e-mail to [d.brunk@elsevier.com](mailto:d.brunk@elsevier.com).