
# CLUES TO THE NEWS

| | |
|---|---|
| WHAT: | American Diabetes Association's 75th Scientific Sessions |
| WHERE: | Boston Convention and Exhibition Center |
| WHEN: | June 5-9, 2015 |
| EMBARGOES: | Abstracts selected for Poster Presentation or Published Only are embargoed from the time of submission until 10:00 a.m. ET, Saturday, June 6, 2015. Abstracts selected for Oral Presentation are embargoed from the time of submission until the time of presentation. Abstracts in violation of the embargo policy will be withdrawn from the Sessions. |
| NOTE: | All press briefings are embargoed until time of presentation. |
| NEWS ROOM: | Room 259, Boston Convention and Exhibition Center<br>Phone number during the meeting: 617-954-3954<br>Hours: Friday-Monday, 7 a.m.-5:30 p.m., and Tuesday, 7 a.m.-noon (ET) |
| CONTACT: | Kevin Kase, Director, Communications<br>703-299-2006, kkase@diabetes.org |

## SCIENTIFIC SESSIONS OVERVIEW

Nearly 30 million Americans have diabetes, 8.1 million of whom remain undiagnosed. Many of the 86 million who have prediabetes don't know that they are at risk of developing type 2 diabetes. At the American Diabetes Association's 75th Scientific Sessions, more than 2,300 abstracts will be presented and more than 15,000 scientists, physicians and other health care professionals from around the world will attend.

91 SYMPOSIA (no abstracts) are scheduled (Friday - Tuesday) with cutting-edge reports. 50 ORAL SESSIONS (7 opening with State-of-the-Art or award lectures) – presenting 385 abstracts (Friday - Tuesday).

POSTER SESSIONS

- More than 1,900 General Posters will be displayed, with embargoes lifted on Saturday, June 6, at 10 a.m. (ET).
- 342 Late-Breaking Posters (no advance abstracts and labeled LB) will be presented in regular poster sessions with others in their topic category.
- 60 Audio Posters Tours with a head phone icon in Abstract Book and Final Program. Tour is in addition to General Poster Session Presentation.

SELECTED OTHER "NO-ABSTRACT" SESSIONS

- 3 Current Issues – Includes: The Great Debate—Current Controversies in Diabetic Foot Care; Are They Really Worth It? Debating the Value of New Insulins in the Management of Type 2 Diabetes; and Adipose Inflammation—Friend or Foe?
- 10 Special Lectures and Addresses – including the Banting Medal and Outstanding Scientific Achievement Award Lectures.
- 10 Professional Section Interest Group Discussions – complications; foot care; nutritional science and metabolism; exercise; behavioral medicine and psychology; diabetes education; diabetes in youth; clinical endocrinology, health care delivery and public health; pregnancy and reproductive health; epidemiology and statistics.

The following pages offer insights on selected papers that strike us as newsworthy, with presentation times highlighted in bold. (Numerals in parentheses refer to abstract numbers.)

*4:15 – 6:15 p.m.*

*Orals*
*New Insights into the Effects of Oral Agents*

DPP-4 inhibitors and cancer? Study finds no link
People with diabetes are more than twice as likely to also be diagnosed with cancer. Yet, there have been few studies that look at whether the medications used to treat them may increase that risk even further. The SAVOR study (11-OR) examined whether the DPP-4 inhibitor, Saxagliptin, part of a new class of drugs being used to treat diabetes, increased cancer incidence or mortality over 2.1 years of follow up. It did not.

What about CVD?
There has been some question as to whether DPP-4 inhibitors could interfere with the efficacy of ACE inhibitors' ability to protect high-risk diabetes patients from cardiovascular events. This study (12-OR) finds no link between DPP-4 inhibitors and CVD risk in patients treated with both types of drugs. A separate study (13-OR) found no association between DPP-4 inhibitor use and acute cardiovascular events or cardiac hospitalizations and procedures such as stinting.

**But wait, there's** more!
This database study (14-OR) found that the DPP-4 inhibitor Vildigliptin did a much better job than sulfonylureas (another class of diabetes treatment drugs) of protecting patients against the risk of microvascular diseases, such as neuropathy and retinopathy. Reducing microvascular complications is considered one of the clearest indicators of effective diabetes management.

Seniors with diabetes, take heart
This study (15-OR) found that the SGL-2 inhibitor, Dapagliflozin, did not increase cardiovascular risk in elderly people with diabetes after 4-5 years, but did lower blood glucose levels.

Sulfonylureas (SUs): also heart-safe
This large meta-analysis (16-OR) found no association between SUs, a class of inexpensive diabetes treatment drugs, and CVD risk, including mortality, myocardial infarction and stroke. Other good news for this class of drugs was found in (150-OR), which showed that adding SUs to metformin delayed the need for intensification of glucose-lowering therapy, as compared to other diabetes drugs such as DPP-4 inhibitors.

SATURDAY, JUNE 6, 2015

*8:45 a.m.*

*Oral*
Sustained loss leads to sustained gains People with type 2 diabetes who lost weight and kept it off for five years maintained better blood glucose and blood pressure control than those who lost weight and then gained it back. This award-winning study (58-OR) also found that those who maintained at least a 7 percent loss of body weight at the end of one year were most likely to be successful at keeping the weight off long-term.

2:00 p.m.

*Oral*
Phoning it in
Could cell phone applications signal the next trend for low-cost interventions for managing diabetes? This study (86-OR) showed how a cell phone app, Drag n' Cook, helped Asian American participants make their own recipes healthier. Participants had to cook at home at least three times per week, attend regular focus groups and input recipes. The app then made suggestions for healthy modifications. Using the app helped participants greatly improve their diets by lowering sugar, calories, total fat, cholesterol and sodium intake.

SUNDAY, JUNE 7, 2015

2:15 p.m.

*Oral*
Adding insulin before meals
For people with diabetes, balancing insulin and meals can be tricky. As researchers make progress on developing closed loop, artificial pancreas systems, the question of how much insulin to administer before meals must be addressed. These two studies (219-OR) found that administering 80 percent of pre-meal bolus was optimal and that adding basal insulin to the pre-meal bolus lowered post-prandial hyperglycemia.

2:30 p.m.

*Oral*
Lowering post-prandial hyperglycemia
People who have type 1 diabetes often see spikes in blood glucose levels after eating, a problem that persists when using a closed loop, artificial pancreas system. This study (220-OR) found that taking the medication Liraglutide—typically used

to lower glucose levels in people with type 2 diabetes—once daily, in conjunction with the use of a closed-loop system, reduces post-prandial hyperglycemia.

2:45 p.m.

*Oral*
Online/phone-based diabetes intervention
In 2002, the landmark Diabetes Prevention Program (DPP) showed that type 2 diabetes could be prevented or delayed through lifestyle intervention. However, the in-person interventions used in that clinical trial were expensive. Researchers have since been searching for lower-cost interventions that achieve similar results. This randomized, controlled study (213-OR) found that an online/phone-based intervention program could achieve statistically significant improvements in weight loss and blood glucose levels in people with prediabetes over six months. This low-cost, fully automated program suggested individually tailored, weekly goals for people with prediabetes, communicating with them online and by email. This was supplemented by automated phone calls and a supportive cell phone application.

2:45 p.m.

*Oral*
Normal-life use of the artificial pancreas for adolescents
Home use of overnight, closed-loop insulin delivery has been shown to improve glucose control in adolescents with type 1 diabetes. This study (221-OR) showed that it was also feasible and safe for young people with well-controlled diabetes to use such a system for seven days under normal life conditions, without increasing the risk of hypoglycemia.

3:00 p.m.

*Oral*
Telephone and video-based depression therapy
People who have diabetes are at increased risk for depression, and those who get depressed while living with diabetes have poor health outcomes. This study (214-OR) looked at the effectiveness of treating people with depression using telephone and video-based therapy and found those who were most depressed achieved the greatest gains in reducing depression, anxiety and stress, as well as improving diabetes self-management.

3:00 p.m.

*Oral*
Artificial pancreas at camp
This study (222-OR) compared glucose regulation using insulin pumps to use of a bihormonal, bionic pancreas (which uses both insulin and glucagon) in preadolescents (6-11 years old) attending a diabetes summer camp. It found that

use of the bionic pancreas was safer and more effective than the insulin pump over a five-day period during which campers chose their own meals and took part in all camp activities. The bionic pancreas both reduced the mean glucose and the amount of time that campers were hypoglycemic.

3:15 p.m.

*Oral*
Long-term use of the artificial pancreas in real-world settings
This long-term, six-center trial (223-OR) of 30 type 1 diabetes patients using a closed-loop system in real-world settings in the US and Europe found the system was both safe and effective. The system reduced the duration of hypoglycemia and increased time in the target range for blood glucose during four-week use of closed-loop control.

3:30 p.m., 4:00 p.m.

*Orals*
Diabetes educators – wave of the future?
These two studies (208-OR and 210-OR) found that Certified Diabetes Educators (CDEs) could significantly improve patient outcomes. One study looked at using diabetes educators to intensify treatment at primary care practices following pre-approved medication intensification protocols, and found this improved blood glucose and LDL (bad cholesterol) control. The other study (210-OR) found that adding diabetes educator visits to primary care treatment significantly lowered blood glucose levels in patients with elevated A1C and had the greatest benefit over time for those who had the poorest control. At a time when diabetes prevalence and costs are on the rise, CDEs could be one solution for bringing costs down.

3:30 p.m.

*Oral*
Resetting blood glucose levels
This study (224-OR) found that resetting blood glucose levels to near normal after overnight use of a closed loop, artificial pancreas system in a home or supervised outpatient setting more effectively controls subsequent daytime blood glucose levels than use of an insulin pump.

3:45 p.m.

*Oral*
Use the pump settings
This study (225-OR), which controlled blood glucose levels to a range rather than to a specific target, found that a one-time update of insulin delivery parameters using data collected from a patient over the past several days was not more effective at regulating blood glucose levels than using a patient's pump settings to initialize the

artificial pancreas system. It also found the artificial pancreas was more effective in maintaining good blood glucose control than doing so manually, without use of the fully automated closed loop system.

4:00 p.m.

*Oral*
Insulin pump effectiveness – not as good as expected
Few studies have been done measuring the effectiveness of insulin pumps in real-world settings. This large retrospective analysis (226-OR) of 442 patients using a variety of insulin pumps in England looked at blood glucose control over a 30-month period and found only 30 percent maintained A1C levels below the target of 7.5 percent; 30 percent maintained average control, with levels between 7.5-8.5 percent; and the remaining 40 percent were in poor control, with levels at 8.5 percent or higher.

5:15 p.m.

*OraIs*
Taking your medication pays off
This study (262-OR) found that Medicare-aged patients with high medication adherence enjoyed much lower total medical expenditures than those who were the least adherent. Conversely, when out-of-pocket expenditures went up, adherence went down. Not surprisingly, a separate study (305-OR) found that eliminating prescription co-payments increased medication adherence and lowered blood glucose and cholesterol levels among uninsured, low-income people with type 2 diabetes. Note: 305-OR will be presented Monday, June 8 at 3:45 p.m.

MONDAY, JUNE 8, 2015

2:15 p.m.

*Oral*
Scaling the DPP
In 2009, the YMCA of the USA partnered with UnitedHealthcare to develop a free, community-based, intensive lifestyle intervention model to see if it would lower health care expenditures. The program, which provided weekly lifestyle coaching in a group setting delivered by Y employees, was offered in 751 locations across the country. Roughly one-third of those who participated lost 5 percent or more of body weight. After three years, this study (299-OR) found there were modest reductions in health care expenditures for participants.

3:15 p.m.

*Oral*

Redesigning care for VA patients

Poor control of diabetes leads to dangerous and often expensive complications, such as amputations, nerve damage and heart and kidney disease. This study (303-OR), which focused on patients with type 2 diabetes who remained in poor control despite receiving routine diabetes care in the VA system, found that a more intensive treatment program could significantly improve blood glucose levels in a population of mostly African American males. The Advanced Comprehensive Diabetes Care (ACDC) program used existing VA staff to increase one-on-one communication with patients via telephone to help manage their treatment, including medications, self-management behavior and depression. Redesigning care in this way can be easily replicated and expanded throughout the VA system.

TUESDAY, JUNE 9, 2015

11:30 a.m.

*Oral*

Two hormones are better than one

A true artificial pancreas would deliver both insulin, which lowers blood glucose levels, and glucagon, which raises blood glucose levels. These two studies (383-OR) compared a dual-hormone delivery system, a single hormone artificial pancreas and a conventional insulin pump in outpatient settings, over two and three nights. The dual hormone artificial pancreas was most effective at improving glucose control in patients ages 9 to 70, with greatly reduced episodes of hypoglycemia, compared to the other systems.