

Highlights of PCORI-Funded Research Results

Since PCORI began funding research in 2012, a growing number of our funded studies have produced important results that are being reported in leading medical journals. Here are examples:

For Many with Type 2 Diabetes, Daily Finger Sticks Offer Little Health Benefit

People with type 2 diabetes who are not using insulin are often advised to check their blood sugar levels using daily finger sticks, which can be painful and inconvenient, as well as run up out-of-pocket costs for test strips. This study suggests that for these patients, daily self-monitoring does not help control diabetes or delay the need to start insulin compared with not doing so.

Young L et al. *JAMA Intern Med.* 2017 Jul 1; 177(7)



Initiative to Reduce Risky Opioid Prescribing Works

This study compared rates of opioid use in clinics in Washington State that implemented an initiative focused on more-cautious prescribing of opioid drugs with clinics that did not use such strategies. This health system-based initiative led to reductions in high-dose opioid prescribing, and patients did not report worse pain control.

Von Korff M et al. *J Pain.* 2016 Jan; 17(1)

Engaging Parents in Hospital Rounds to Ensure Patient Safety

Improving communication among patients and staff in the hospital can help reduce harmful medical errors, a leading cause of death. A PCORI-funded research team found that using a program called I-PASS, which includes parents as active participants in clinicians' rounds of pediatric units, reduced preventable adverse events by 38 percent.

Landrigan C et al. *BMJ.* 2018 Dec 5; 363:k4764

Bypass Shown to Be Most Effective Weight-Loss Surgery Procedure

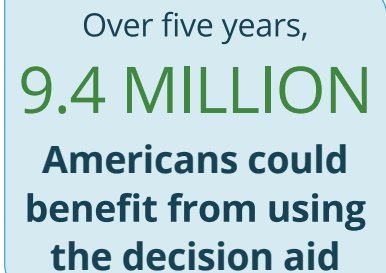
This study, the largest to date to compare weight-loss surgeries, analyzed 46,000 patients' outcomes using PCORnet. Adults who had Roux-en-Y gastric bypass, a long used approach, lost more weight and kept it off better than those who had the newest procedure, sleeve gastrectomy. Both bypass and sleeve were more effective than adjustable gastric banding. Risks of major adverse events shortly after surgery were small for all three surgeries, but were highest for bypass.

Arterburn D et al. *Ann Intern Med.* 2018 Oct 30;169(9)

Simple Questionnaire Enhances Shared Decision Making about Chest Pain

A questionnaire called Chest Pain Choice can help people who go to the emergency department with chest pain, but who are found to not be having a heart attack, decide whether to be admitted to the hospital for follow-up tests or go home and have the tests later. People who used the aid were much more likely to go home from the emergency department, with no increase in later heart-related problems.

Hess E et al. *BMJ.* 2016 Dec 5; 355



For Earaches and Strep Throat in Kids, Narrow-Spectrum Antibiotics Are Better

Narrow-spectrum antibiotics did just as well for clearing up ear infections and sore throats caused by bacteria as more-expensive broad-spectrum antibiotics did. Broad-spectrum drugs caused more side effects, such as vomiting. Unnecessary use of broad-spectrum antibiotics is associated with increasing bacterial drug resistance.

Gerber JS et al. *JAMA.* 2017 Dec 19;318(23)

Oral Antibiotics Work as Well as IV, with Fewer Costly Complications

In preventing a recurrence of infection, children discharged from the hospital after a serious bacterial infection did just as well on oral antibiotics as those sent home with an IV line to deliver antibiotics intravenously. They also had none of the frequent complications IV lines can cause.

Keren R et al. *JAMA Pediatr.* 2015 Feb; 169(2)

Shah S et al. *Pediatrics.* 2016 Dec; 138(6)

Rangel S et al. *Ann Surg.* 2017 Aug; 266(2)

Disadvantaged Patients with Chronic Pain Benefit from Tailored Nondrug Therapies

Chronic pain occurs more frequently in people with lower education and income levels. In this study, both cognitive behavioral therapy and pain educational material, each tailored to match patients' education levels, significantly lessened pain and improved physical function compared with usual care. These nondrug approaches can help manage chronic pain and reduce the need for opioids. These findings show such approaches can be effective in patients with low incomes and limited reading skills.

Thorn B et al. *Ann Intern Med.* 2018 Apr 3;168(7)

Findings Help Men Choose among Prostate Cancer Treatment Options

Two PCORI-funded studies provided men with up-to-date information about the rates of several major side effects associated with current treatments for prostate cancer. The information applies to robot-assisted surgery and newer forms of radiation therapy, as well as active monitoring instead of immediate treatment. These results will help men with prostate cancer and their families better weigh the benefits and risks of each treatment in consultation with their clinicians.

Barocas D et al. *JAMA.* 2017 Mar 21; 317(11)

Chen R et al. *JAMA.* 2017 Mar 21; 317(11)

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Blood Thinner Keeps Stroke Survivors in Their Homes

Using the blood thinner warfarin helped stroke survivors reduce future hospitalizations and stay in their homes—on average 46 more days at home over two years—compared with those who didn't take the drug after being discharged from the hospital. The drug also lowered the rates of stroke recurrence and heart attack, but staying at home rather than having to go to a nursing home or hospital was the outcome that mattered most to patients.

Xian Y et al. *BMJ.* 2015; 351

O'Brien EC et al. *Circulation.* 2015 Oct 13; 132 (15)

Shared Decision Making Helps Decisions Related to Advanced Heart Failure

Surgically implanting a left ventricular assist device (LVAD) can prolong the lives of people with end-stage heart failure. But the surgery and device carry significant risk for harms, such as infections and stroke. Using a shared decision making tool improved patients' knowledge about the potential benefits and risks of an LVAD compared with typical educational pamphlets. The aid also helped them make initial decisions better aligned with their values.

Allen LA et al. *JAMA Intern Med.* 2018 Apr 1; 178(4)

Behavioral Health Homes Improve Outcomes for People with Mental Illness

Behavioral health homes, a patient-centered way of coordinating care for patients with both mental and physical health needs, can help people with serious mental illnesses manage their conditions and possibly live longer, healthier lives. Two ways of providing a behavioral health home—a patient self-directed approach and a healthcare provider-supported approach—both significantly increased patients' knowledge and confidence to manage their own care and increased their engagement in care, but the provider-supported approach did so faster.

Schuster J et al. *Health Aff.* 2018 Feb; 37(2)

Over five years
in the United States,

466

strokes could
be avoided

For additional highlights of PCORI-funded research results, visit our website at www.pcori.org/results.

And to explore all results from PCORI-funded studies to date, visit www.pcori.org/completed-projects.