

Type 2 Diabetes—July 16, 2007

While most oral medications prescribed for adults with type 2 diabetes are similarly effective for reducing blood glucose, the latest research shows that the drug metformin is less likely to cause weight gain and may be more likely than other treatments to decrease so-called bad cholesterol. Research has also found that among the ten drugs studied, most oral medications will lower hemoglobin A_{1c} (HbA_{1c}) levels by up to one percentage point, but the combination of several diabetes medications is likely to achieve even greater reductions in HbA_{1c}.

Depression—January 24, 2007

Research shows that today's most commonly prescribed antidepressants are similar in effectiveness to each other but differ when it comes to possible side effects. Studies showed that about six in 10 adult patients get some relief from these drugs, while similarly 60 percent of patients also experience at least one side effect, ranging from nausea to sexual dysfunction. For patients who do not respond to one of the drugs they often try another medication within the same drug class, where about one in four patients recover.

Psychiatric Disorders—January 17, 2007

Some newer antipsychotic medications approved to treat schizophrenia and bipolar disorder are being prescribed to millions of Americans for depression, dementia, and other psychiatric disorders without strong evidence that such off-label uses are effective. While some studies suggest that atypical antipsychotics may help patients with mental health conditions for which there are no FDA-approved alternatives, the review also identified several medications' potential for serious side effects, including, increased risk of stroke, tremors, significant weight gain, sedation, and gastrointestinal problems.

Renal Artery Stenosis (narrowed kidney arteries)—October 24, 2006

Increasing numbers of patients with narrowed kidney arteries are undergoing vessel-widening angioplasty and placement of a tubular stent, but the latest scientific evidence does not show a clear advantage of that treatment over prescription drug therapy. Since no studies have directly compared the use of stents versus medications researchers found inadequate support for angioplasty, with or without a stent, over drug therapy.

Osteoarthritis—September 25, 2006

Osteoarthritis is a joint disease that causes erosion of cartilage and leads to friction between bones. Comparative effectiveness research has found that two classes of drugs commonly used to treat osteoarthritis—non-steroidal anti-inflammatory drugs (NSAIDs) and COX-2 inhibitors (a newer generation of NSAIDs)—present similar, increased risks of heart attacks while offering about the same level of pain relief. The study concluded that the sole exception is the drug naproxen, commonly sold as Aleve® or Naprosyn®, a medication that scientific evidence suggests presents a lower risk of heart attack for some patients than other NSAIDs or COX-2 inhibitors.

Anemia—May 23, 2006

Research has found no clinically significant difference in the medical effectiveness of the two drugs commonly used for managing anemia in cancer patients who are undergoing chemotherapy or radiation treatment. The two drugs, epoetin and darbepoetin, showed no clinically significant difference in improving hemoglobin concentration and reducing the need for transfusion. The review suggests that while both drugs do reduce the need for transfusion, there is no evidence that the drugs, when added to cancer treatment, improve survival.

Breast Cancer—February 9, 2006

Four common noninvasive tests for breast cancer are not accurate enough to routinely replace biopsies for women who receive abnormal findings from a mammogram or physical examination. Researchers found that each of the four tests—magnetic resonance imaging (MRI), ultrasonography, positron emission tomography (PET) scanning, and scintimammography—would miss a significant number of cases of cancer, compared with immediate biopsy for women at high-enough risk to warrant evaluation for breast cancer. The report concluded that women who wish to have a noninvasive procedure should discuss their individual risk of cancer with their health provider.

Gastroesophageal Reflux Disease (GERD)—December 13, 2005

The latest research suggests that drugs can be as effective as surgery for management of GERD (when stomach acid enters the esophagus, causing heartburn and potential damage to the esophagus), which is one of the most common health conditions among older Americans and results in \$10 billion annually in direct health care costs. The study compared treatment approaches for chronic uncomplicated GERD and found that, for the majority of patients, proton pump inhibitors (PPI) can be as effective as surgery in relieving the symptoms and improving quality of life.

Questions about comparative effectiveness research? Please contact Emily J. Rowe, Coalition for Health Services Research, at 202.292.6743 or emily.rowe@academyhealth.org.

For more information on AHRQ's Effective Health Care Program, please www.effectivehealthcare.ahrq.gov.