

## Changing Practice to Reduce Diabetes Complications

### Retinopathy

#### How successful is the U.S. health care system in addressing retinopathy in people with diabetes?

A third of U.S. adults with diabetes did not get a dilated eye exam in 2010. (CDC)

Blacks with diabetes were less likely to have a dilated eye exam than whites (AHRQ, 2008).

Only 63% of people over 35 with diabetes identify blindness as a serious problem caused by diabetes.

#### Why change the healthcare system?

“Every system is perfectly designed to achieve exactly the results it gets. If we want new results - and we do - we need a new system.”

--Donald Berwick, formerly Centers for Medicare & Medicaid Services & Institute for Healthcare Improvement



Diabetes can lead to costly and debilitating complications, including retinopathy which can cause vision loss and blindness.

- Treating diabetic eye disease with laser therapy can reduce the development of severe vision loss by up to 60%. (CDC, 2011)
- People with diabetes who received guideline-recommended care had substantially reduced low vision/blindness. (Sloan, 2009)

Changing health systems and provider practices benefits people with diabetes:

- *Interventions based on the Chronic Care Model* (see below) improved at least 1 process or outcome measure for people with diabetes in primary care practices. (Bodenheimer, 2012)
- *Use of electronic health records* (EHRs) led to higher achievement of care & outcome standards for patients with diabetes than using paper records - including receipt of a recommended eye exam. (Cebul, 2011)
- *Achieving NCQA patient-centered medical home recognition* led to significant improvement in the percentage of patients with diabetes who received evidence-based complications screening. (Gabbay, 2011)
- *Involvement of non-physician providers* such as pharmacists, case managers, and community health workers is strongly supported as a way to improve diabetes outcomes. (NIH, 2011)

### Diabetes and Retinopathy

People with diabetes have medical expenses more than twice as high as people without diabetes. (CDC)

Diabetes-related blindness costs the U.S. about \$500 million a year. (U.S. Renal Data System)

Vision loss is also associated with depression and social isolation. (CDC)

#### Chronic Care Model Components ([www.improvingchroniccare.org](http://www.improvingchroniccare.org))

- Health care organization
- Delivery system design
- Clinical information systems
- Self-management support
- Decision support
- Community resources and policies

The Chronic Care Model is an effective frame-work for practice redesign.

## How Can Providers Assure Quality Care Related to Major Complications for People with Diabetes?

- Assess A1C 2 to 4 times a year
- Assess and control blood pressure and blood lipids
- Consider self-monitoring for blood pressure, especially for those with poorly controlled hypertension.
- Assure receipt of annual dilated eye exams and foot exams, appropriate immunizations and other preventive services
- Assess weight; recommend physical activity, healthy diet and medical nutrition therapy as appropriate
- Review, adjust and/or administer medications
- Promote self-management training
- Assess smoking status and advise smokers to quit
- Provide psychosocial assessment; refer to a mental health specialist familiar with diabetes, as appropriate
- Assess urine albumin & albumin/creatinine ratio (ACR) and estimated glomerular filtration rate (eGFR) annually

### **Comprehensive Guidelines for Diabetes Management**

• **American Diabetes Association** •

Standards of medical care in diabetes-2013  
[*Diabetes Care*. 2013;36(Suppl 1):S11-S66]

• **American Association of Clinical Endocrinologists** •

AACE Medical guidelines for clinical practice for developing a diabetes mellitus comprehensive care plan  
[*Endocr Pract* 2011 Mar-Apr;17(Suppl 2):1-53]

• **American Academy of Ophthalmology** •

Diabetic retinopathy  
[<http://www.guidelines.gov/content.aspx?id=13502>]

• **Task Force on Community Preventive Services** •

[www.thecommunityguide.org/diabetes](http://www.thecommunityguide.org/diabetes)

Download fact sheets & references from the NACDD Diabetes Council web pages at <http://www.chronicdisease.org>. Click on *Diabetes*, then *Resources/Tools*.

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