

# CONTENTS *Annals of Internal Medicine*

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## ARTICLES

### Diabetes and Hearing Impairment in the United States: Audiometric Evidence from the National Health and Nutrition Examination Surveys, 1999 to 2004

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K.E. Bainbridge, H.J. Hoffman, and C.C. Cowie

Using data from the National Health and Nutrition Examination Survey, 1994–2000, Bainbridge and colleagues found that hearing impairment was twice as prevalent in patients with diabetes than those without diabetes. This association was independent of known risk factors for hearing impairment. Physicians should be especially alert to the benefits of screening persons with diabetes for hearing impairment.

Summary for Patients I-20

### The Effect of Comorbid Illness and Functional Status on the Expected Benefits of Intensive Glucose Control in Older Patients with Type 2 Diabetes: A Decision Analysis

11

E.S. Huang, Q. Zhang, N. Gandra, M.H. Chin, and D.O. Meltzer

In this decision analysis model to estimate the net benefits of treating to a hemoglobin A<sub>1c</sub> level of 7% rather than 7.9% among 60- to 80-year-old persons with several different life expectancies, net benefits of tight control ranged from 51 to 116 quality-adjusted days. Benefits decreased with advancing age and as life expectancy decreased, suggesting that the target hemoglobin A<sub>1c</sub> value can be higher in elderly people with comorbid disease.

### Relationship of Specific Vaginal Bacteria and Bacterial Vaginosis Treatment Failure in Women Who Have Sex with Women

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J.M. Marrazzo, K.K. Thomas, T.L. Fiedler, K. Ringwood, and D.N. Fredricks

Bacterial vaginosis often persists after treatment, possibly because of bacterial vaginosis-associated bacteria (BVAB). Among 335 women who have sex with women, *Clostridia* BVAB1, BVAB2, or BVAB3; *Peptoniphilus lacrimalis*; and *Megasphaera* phylotype 2 at baseline and lower adherence to treatment were associated with persistent bacterial vaginosis 1 month after treatment. Microbiological analysis at the time of diagnosis may predict treatment failure.

Summary for Patients I-30

## IMPROVING PATIENT CARE

### Public Reporting of Antibiotic Timing in Patients with Pneumonia: Lessons from a Flawed Performance Measure

29

R.M. Wachter, S.A. Flanders, C. Fee, and P.J. Pronovost

The administration of antibiotics within 4 hours to patients with community-acquired pneumonia is a widely used, but often criticized, quality-of-care measure. The authors make 5 recommendations for future development of publicly reported quality measures.

## REVIEW

### Meta-analysis: Effects of Adding Salmeterol to Inhaled Corticosteroids on Serious Asthma-Related Events

33

E. Bateman, H. Nelson, J. Bousquet, K. Kral, L. Sutton, H. Ortega, and S. Yancey

Many question whether adding long-acting  $\beta$ -agonists to treatment regimens of patients whose asthma is not controlled with inhaled corticosteroids alone is safe. In 66 GlaxoSmithKline trials involving 20 966 patients with persistent asthma, twice-daily 50- $\mu$ g salmeterol plus inhaled corticosteroids did not seem to alter risk for asthma-related hospitalizations but decreased risk for severe exacerbations requiring systemic corticosteroids. One asthma-related death and 1 intubation occurred in patients receiving combination therapy.

## CLINICAL GUIDELINES

### Screening for Asymptomatic Bacteriuria in Adults: U.S. Preventive Services Task Force Reaffirmation Recommendation Statement

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U.S. Preventive Services Task Force

The U.S. Preventive Services Task Force (USPSTF) reaffirms their 2004 recommendation to screen for asymptomatic bacteriuria with urine culture in pregnant women at 12 to 16 weeks' gestation or at the first prenatal visit, if later (grade A recommendation). They do not recommend screening for asymptomatic bacteriuria in men and nonpregnant women (grade D recommendation).

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**Screening for Asymptomatic Bacteriuria in Adults:  
 Evidence for the U.S. Preventive Services Task Force  
 Reaffirmation Recommendation Statement**

**K. Lin and K. Fajardo**

Lin and Fajardo's systematic review supports the USPSTF recommendation in this issue on screening for asymptomatic bacteriuria. This article is only available at [www.annals.org](http://www.annals.org).

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**PERSPECTIVE**

**Surrogate Decision Making: Reconciling Ethical  
 Theory and Clinical Practice** 48

**J.T. Berger, E.G. DeRenzo, and J. Schwartz**

Many adult patients do not have the cognitive capacity to make decisions and must rely on surrogates. The basis for surrogates' decisions is typically the patients' known wishes, what the surrogate thinks the patient would decide, or the patient's supposed best interests. However, this framework has limitations. The authors review research on surrogate decision making, compare actual practice with normative standards, and offer ways to improve practice.

**EDITORIALS**

**Hearing Loss and Diabetes: You Might Not Know What  
 You're Missing** 54

**K. Hirose**

In this issue, Bainbridge and colleagues report that people with diabetes in the National Health and Nutrition Examination Survey had increased risk for hearing loss compared with nondiabetic persons. Their study opens up potential directions for future research, in terms of medical or surgical therapies that may halt the progression of diabetic cochleopathy, whether tighter glycemic control has a protective effect against the development of hearing loss, and the clinical implications of diabetes-related hearing loss.

**Drug Safety and Salmeterol: The Controversy  
 Continues** 56

**K.B. Weiss**

In this issue, Bateman and colleagues combined patient data from randomized efficacy trials to determine whether incidence of severe asthma-related events differs in persons receiving salmeterol plus inhaled corticosteroids versus inhaled corticosteroids alone. Although the study is well executed and uses sound methods, the data source has limitations. The best advice in the absence of new data may be to use combination therapy only for indications that accord with nationally accepted clinical guidelines, and to not use long-acting  $\beta$ -agonists as first-line treatment.

**Taking Our Vital Signs: The Year in Review** 58

**The Editors**

The Editors review changes and accomplishments from the past year at *Annals*.

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**Repeatedly False-Negative Rapid HIV Test Results in a  
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**IN THE CLINIC**

**Acne** ITC1-1

This issue provides a clinical overview of acne, focusing on prevention, diagnosis, treatment, practice improvement, and patient information. Readers can complete the accompanying CME quiz for 1.5 credits.

Cover photograph by Kenneth Deitcher, MD

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