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ARTICLES

Cost-Effectiveness of Digital Mammography Breast Cancer Screening 1

A.N.A. Tosteson, N.K. Stout, D.G. Fryback, S. Acharyya, B.A. Herman, L.G. Hannah, and E.D. Pisano, for the DMIST Investigators

Digital mammography is more accurate than film mammography in younger women and in women with dense breasts. In a cost-effectiveness analysis, Tosteson and colleagues estimate that using digital mammography in all women would cost more than \$300 000 per quality-adjusted life-year (QALY) gained compared with film mammography. Targeting digital mammography on the basis of age or both age and breast density would cost \$26 500 to \$84 500 more per QALY gained than film mammography. In women age 65 years or older, the cost-effectiveness of density-targeted digital mammography is much less certain. Relative to film mammography, digital mammography for everyone is not cost-effective. Targeting it to certain subgroups can be cost-effective.

The Effect of Drug Concentration Expression on Epinephrine Dosing Errors. A Randomized Trial 11

D.W. Wheeler, J.J. Carter, L.J. Murray, B.A. Degnan, C.P. Dunling, R. Salvador, D.K. Menon, and A.K. Gupta

In this study, 28 physicians used epinephrine ampules labeled with either a mass concentration (mg/mL) or a ratio (1:1000) to manage a simulated pediatric acute anaphylaxis scenario. Fourteen percent of those using ratios and 79% of those using mass concentration gave an epinephrine dose that was within 10% of the correct dose. When physicians used ampules labeled with a ratio, the mean overdose was 231 μ g and the mean delay before administration was 91 seconds compared with physicians using ampules labeled with a mass concentration. Labeling ampules with mass concentrations would increase patient safety.

Summary for Patients I-30

REVIEWS

Systematic Review: Comparative Effectiveness of Angiotensin-Converting Enzyme Inhibitors and Angiotensin II Receptor Blockers for Treating Essential Hypertension 16

D.B. Matchar, D.C. McCrory, L.A. Orlando, M.R. Patel, U.D. Patel, M.B. Patwardhan, B. Powers, G.P. Samsa, and R.N. Gray

The authors systematically reviewed trials that directly compared angiotensin-converting enzyme (ACE) inhibitors

with angiotensin-receptor blockers (ARBs) in adults with essential hypertension. They found good evidence that the 2 classes of agents had similar long-term effects on blood pressure, with no consistent differences in mortality, cardiovascular events, progression to diabetes, left ventricular function, and kidney disease. The ACE inhibitors caused chronic cough more often than ARBs.

Meta-analysis: Effect of Monotherapy and Combination Therapy with Inhibitors of the Renin-Angiotensin System on Proteinuria in Renal Disease 30

R. Kunz, C. Friedrich, M. Wolbers, and J.F.E. Mann

The authors performed a meta-analysis of randomized trials comparing ARBs with placebo or alternative treatments for proteinuria. They also reviewed combination therapy (ARBs plus ACE inhibitors) versus monotherapy for proteinuria. Pooled data from 49 studies involving 6181 participants and 72 comparisons showed that ARBs and ACE inhibitors were equally effective in reducing proteinuria compared with placebo or a calcium-channel blocker. Combination therapy with ARBs and ACE inhibitors reduced proteinuria more than either agent alone.

UPDATE

Update in Nephrology 49

S. Goldfarb

This Update in Nephrology features 9 articles published in 2005 and 2006. Topics include acute and chronic renal failure, radiographic contrast and renal disease, renal artery stenosis, and kidney donation.

POSITION PAPER

Achieving a High-Performance Health Care System with Universal Access: What the United States Can Learn from Other Countries 55

American College of Physicians

Many industrialized countries have health care systems that provide universal access to care that is better and less expensive than U.S. health care. This policy paper from the American College of Physicians seeks to learn from the lessons provided by these countries. It describes health care in the United States, compares U.S. health care with health care in other countries, describes the lessons these

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countries can teach, and recommends actions to develop a high-performance health care system in the United States.

EDITORIALS

Inhibitors of the Renin–Angiotensin System: Proven Benefits, Unproven Safety 76

P.S. Parfrey

The most important contribution of the systematic reviews by Matchar and colleagues and Kunz and associates is that they tell us what we do not know, which is the adverse effects of long-term therapy with these agents. We need a large, long-term, 3-group, randomized, controlled trial involving monotherapy and combination therapy with angiotensin-receptor blockers and angiotensin-converting enzyme inhibitors. Until then, physicians should closely monitor patients with late-stage kidney disease who are using combination therapy with these 2 drug classes.

Learning from the Health Care Systems of Other Countries 78

H.C. Sox

This issue includes a policy paper from the American College of Physicians on effective health care systems in other countries and what the United States might learn from them. During 2008, *Annals* will publish a series of articles and commentaries that further discuss the health care systems of some exemplar countries. These successful national health care systems share 1 essential characteristic: The government guarantees that every citizen will have health insurance.

ON BEING A DOCTOR

Princess Abra 80

P. Moorehead

Once upon a time, Abra and I met in the emergency room. She had no hair and the side of her head was scarred from surgery, but she was pretty anyway. Soft in her voice and

sweet of nature, she was helpful as I examined her, even though she wasn't feeling well. Abra wore her toque elegantly, as though it were a crown. This is the kind of child who gets cancer.

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G.N. Braman

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A.C. Tsai; S.E. Pratt; S.M. Kirk; A. Fugh-Berman

Clinical Observation

Fever-Induced ST-Segment Elevation with a Brugada Syndrome–Type Electrocardiogram 82

S. Kalra, S.B. Iskandar, S. Duggal, and R.D. Smalligan

IN THE CLINIC

Insomnia ITC1-1

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

Cover photograph by Parsh Mehta

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