

AHA Top-10 List for 2003

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The American Heart Association named its top 10 research advances for 2003 a few weeks ago in Dallas. These are issues, medications or new developments that were felt to have the most potential impact on future treatment of CVD. In this *Heartbeat* we will share some of our favorites, in no particular order.

- **Ximelagatran** (Exanta, AstraZeneca) is an exciting new anticoagulant—and the first potential alternative to warfarin (coumadin) in 50 years. This oral agent has been shown to be as effective as warfarin for preventing thromboembolism (stroke) in patients with non-valvular atrial fibrillation (SPORTIF III & V) and DVT-pulmonary embolism after knee-replacement surgery. It gets a nod as doctors appear ready to embrace the new agent based on ease of use because frequent prolonged monitoring won't be necessary. But questions of cost and possible liver toxicity still remain. This exciting new agent may be available some time next year.
- **Eplerenone** (Inspra, Pharmacia) is the new aldosterone blocker (“without boobs”—less impotence and painful gynecomastia compared to spironolactone [aldactone]) approved by the FDA last October. This should be on the pharmacy shelves as you read this. EPHEBUS, published in April and covered in “Heart Failure (HF) Redux” (September *Heartbeat*), put aldosterone blockade on the map as a major player in mortality reduction for HF patients—reducing CVD by 17% on top of ACE inhibitors and beta-blockers. Aldosterone blockade is also excellent in assisting in BP control and is associated with reversal of LVH. This is a great example of an old class of drugs coming out of the storage closet and becoming useful again with the finding of new uses and benefits.
- **ETC-216** is a synthetic form of HDL that causes regression of atherosclerosis. This made the headlines when it was shown that just 5 weeks of weekly infusions significantly reduced atheroma burden compared to controls. The idea came from a study of 40 northern Italian villagers with a natural variant of ApoA-1 and low rates of heart disease. Pfizer apparently was impressed—blown away—because it bought Esperion Therapeutics, a small biotech company, for \$1 million. Their lead product is ETC-216.
- **Drug-eluting stents**, a top 10 pick in 2001 as one of the biggest potential breakthroughs in treating CVD, got another mention for beginning to live up to their promise, as beneficial results are coming in on “real world patients” who are often sicker than those of the original studies—in spite of a little increased clotting scare.

- **Two new guidelines** released this year that should help us to treat risk more aggressively as part of our pro-active prevention programs deserve mention. The *first* are the new JNC VII Hypertension Guidelines which created a new controversial “at risk” classification of pre-hypertension (120/80) which aims to underline the potential of identifying high- normal blood pressure as a precursor to chronic hypertension. Aggressive “TLC” (Therapeutic lifestyle changes) would significantly reduce the incidence of hypertension. The *second* is the AHA guideline recommending hs (cardio) CRP as an adjunct or a tiebreaker when physicians are deciding on more aggressive management of patients deemed at intermediate 10 year risk—most metabolic syndrome patients. This could prevent the development of diabetes and subsequent CVD.

- **Automated external defibrillator (AED)** availability in key locations such as airports, malls, recreation centers and apartment complexes leads to a doubling of the number of cardiac arrest victims who survived, according to a recent study. Use by trained volunteers is expected to encourage even wider public access to AEDs and improved survival rates.

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