



Clinical Digest

PREVENTIVE MEDICINE

Risks of AMI in RA

The cardiovascular risks attributable to rheumatoid arthritis (RA) have received too little recognition, according to Dr. Gurkupal Singh, an investigator from Stanford University School of Medicine, Los Angeles, CA, who spoke at the European Congress of Rheumatology meeting in Berlin, Germany this past June. The result, he explained, is that “more patients with RA are presenting with heart attacks requiring hospital treatment.” What’s more, he added, hospital mortality following acute myocardial infarction (AMI) has not improved at all in those patients over the past 10 years.

The Stanford team studied data from the U.S. Nationwide Inpatient Sample, looking at all hospitalizations with a primary diagnosis of AMI and a secondary diagnosis of RA or diabetes between 1991 and 2001. Over the decade studied, there was a 30% drop in the case fatality rate among AMI patients

with diabetes. By contrast, the case fatality rate among AMI patients with RA declined by just 0.03% per year.

The marked difference, the researchers suggest, is due to the aggressive preventive and therapeutic treatment that patients with diabetes now receive. They propose that improved routine screening for coronary disease and increased emphasis on modifying cardiovascular risk factors among patients with RA would better their outcomes. Only an estimated one third of patients with RA are taking low dose aspirin, said Dr. Singh, despite the evidence that it reduces cardiovascular risk.

A related report delivered at the same meeting by researchers from McGill University, Montreal, Canada, summarized findings of a case-control study that used data from 41,885 patients with RA. The investigators found that all disease modifying anti-rheumatic drugs were associated with a 20% reduction in the risk of AMI. Current use of selective cyclooxygenase-2 inhibitors, on the other hand,

was associated with a 70% increase in AMI risk.

Source: Heartwire News Release. June 16, 2004.

NUTRITION

Hospital Diet Deficiencies

Joking aside, hospital food actually may be harmful to some patients, according to researchers from the Donald W. Reynolds Department of Geriatric Medicine, Little Rock, AR; the University of Oklahoma College of Medicine, Oklahoma City; and the University of Texas Medical School, Houston. In a study of prescribed diets commonly served in two hospitals—one a research-oriented medical center and the other a metropolitan VA—investigators found that the diets often lacked important nutrients.

For every item served in seven prescribed meal plans, researchers recorded the recipe in a database that allowed them to analyze the nutritional value of each food serving precisely by weight. Data were collected from thousands of recipes.

When they compared the nutrients in the hospital diets with published age-specific minimum daily intake requirements, the researchers found both good news and bad. Most of the diets supplied adequate energy, protein, and vitamin A. They were generally deficient, however, in a number of essential vitamins and minerals, such as vitamin D, vitamin C, folic acid, alpha-tocopherol, and calcium.

Nutrient deficits can have serious consequences for elderly patients, especially those who are hospitalized for long periods, say the researchers. They also point out that older patients often have advanced nutritional deficiencies upon admission; rarely eat everything they’re served while in the hospital; and may have age-related or treatment-related digestive, absorptive, or metabolic problems. When restricted diets are the order of the day, the researchers urge practitioners to consider alternative means of giving patients the nutrients they need.

Source: *JAMA*. 2004;291:2194–2196.

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ORTHOPEDICS**Homocysteine and Hip Fracture**

Homocysteine levels may be a good indicator of the potential for hip fracture in older patients, say researchers from the Hebrew Rehabilitation Center for Aged Research and Training Institute, Tufts University, Boston University School of Public Health, and Harvard Medical School, all in Boston, MA. In a study of 1,999 male and female Framingham Study participants, aged 59 to 91, those whose total homocysteine values placed them in the highest quartile had a significantly higher risk of hip fracture, compared with those whose values placed them in the lowest quartile.

During the 12 to 15 years of follow-up, 41 men and 146 women broke their hips. For men in the highest quartile, the risk was almost four times higher; for women, the risk was nearly doubled.

The apparent gender differences, the researchers say, may be explained by the lower background incidence of hip fracture in men. The differences in absolute risk between the highest and lowest quartiles in men and women were more similar (8.8 and 9.5 fractures, respectively, per 100 participants at 14 years of follow-up) than

were the hazard ratios (3.84 and 1.92, respectively). The effect of the homocysteine concentration on risk of hip fracture is, therefore, most likely similar in men and women.

There's little evidence, say the researchers, that homocysteine has a direct effect on bone. They cite studies suggesting a genetic link between elevated plasma homocysteine concentrations and reduced plasma folate concentrations. They point out, however, that the problem might be fixed through simple dietary adjustments, because folate and vitamins B₁₂ and B₆ are major determinants of homocysteine concentrations in older people.

Source: *N Engl J Med.* 2004; 350:2042-2049.

GERONTOLOGY**Prescribing for Elders**

We've heard a lot about the prescription of inappropriate drugs for older patients. Now, researchers from the University of California, Los Angeles; the VA Greater Los Angeles Healthcare System, Los Angeles, CA; RAND Health, Santa Monica, CA and Washington, DC; and Brigham and Women's Hospital and Harvard Medical School, Boston, MA say that inappropriate drug use may be the least of the pre-

scribing problems. They found that failures to prescribe indicated medications, to monitor medications appropriately, to document necessary information, to maintain continuity, and to educate elderly patients are far more common problems.

The researchers surveyed 372 patients from two managed care organizations and reviewed their medical records. The patients listed all their medications and were asked about specific care they received. The researchers used a set of quality indicators they had developed in the Assessing Care of Vul-

nerable Elders project, which were modified and approved by a clinical committee of national geriatric experts and by the American College of Physicians Task Force on Aging. They focused on 43 quality indicators that pertained to pharmacologic care.

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scribed nonsteroidal anti-inflammatory drugs (NSAIDs) and were considered at high risk for gastrointestinal (GI) bleeding (because they were older than 75, being treated with warfarin, or had a history of peptic ulcer disease or GI bleeding) were also given appropriate GI prophylaxis. Approximately half of the patients who were eligible for beta-blockers for coronary artery disease or heart failure didn't receive the drugs. Aspirin was underused as a prophylactic agent, as were calcium, vitamin D, and medications to prevent and treat osteoporosis.

Although the overall pass rate in the domain of "education, continuity, and documentation" was 81%, only 10% of the patients using NSAIDs had any documentation within their medical records about GI risks or the justification for NSAID use if GI risks were present. Notably, when these patients were interviewed, about half mentioned that their physician had discussed these risks with them. Moreover, 70% of them reported that their physician had reviewed their drug regimen with them within the past year.

In the "monitoring" domain, six of nine quality indicators had a pass rate of less than 60%. Monitoring of electrolytes and renal function after initiation of diuretic and angiotensin converting enzyme therapy

was poor. Indicators related to anticoagulant monitoring were satisfied only about half the time. Follow-up on a response to medication was documented for about two thirds of the patients. Only a quarter of patients who weren't responding to antidepressants were checked for the need to change or adjust the dosage in a timely manner.

The underuse of potentially beneficial medications continues to be a considerable problem, the researchers say. As possible reasons for the underuse they cite insufficient evidence of clinical benefit due to underrepresentation of older patients in drug trials, physicians' fear of polypharmacy, and such financial barriers as insufficient insurance coverage for outpatient prescription drugs. Even patients with drug coverage, however, were at risk for not receiving indicated medications, sufficient monitoring, continuity of care, and follow-up. In particular, the researchers found that physicians paid inadequate attention to the potential for adverse effects of medications, as demonstrated by the low pass rates in the areas of evaluating patients' risk, educating patients and documenting risks, and monitoring response to medication.

Source: *Ann Intern Med.* 2004; 140:714-720.

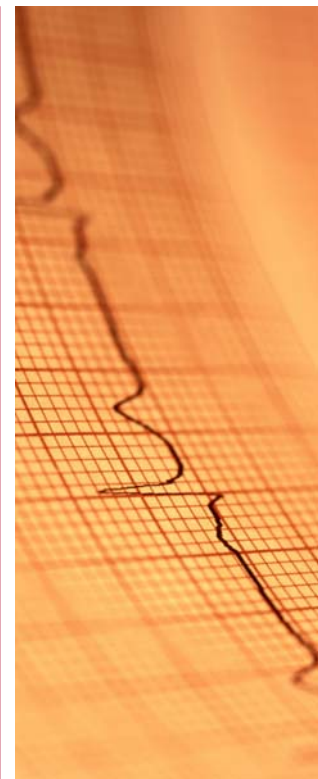
**PULMONARY
DISEASE**

A Scoring System for PE

There are several options for treating pulmonary embolism (PE). Knowing which one will work best for a given patient may depend on identifying the risk for adverse events. To help clinicians in the often difficult decision making process, researchers from the Canterbury Respiratory Research Group and Christchurch School of Medicine and Health Sciences in New Zealand came up with a simple scoring system based on electrocardiogram (ECG) results.

An earlier study had established that an ECG score correlated with the degree of pulmonary hypertension. A score greater than 9 was suggestive of systolic pulmonary artery pressure greater than 50 mm Hg. The researchers speculated that the ECG score also could be used to identify patients with the greatest amount of perfusion defects on ventilation/perfusion (V/Q) scanning due to PE.

They reviewed 229 cases in which both the V/Q scan and the ECG results could be evaluated. They categorized percentage perfusion defects as less than 30% in 78 scans, between 30% and 50% in 84 scans, and



greater than 50% in 67 scans. The ECG scores differed significantly between these percentage perfusion defect groups. The mean ECG scores were 2.6 in patients with perfusion defects of less than 30%, 3.2 in those with perfusion defects of 30% to 50%, and 5.3 in those with perfusion defects greater than 50%.

An ECG score of 3 or more predicted perfusion defects of greater than 50% with a sensitivity of 70% and a specificity of 59%. An ECG score of 6 or more was 40% sensitive and 90% specific in predicting perfusion defects of greater than 50%. ●

Source: *Chest.* 2004;125: 1651-1656.