Wednesday May 28, Ballroom A, 3:30 pm
Disease Management, Pharmacoeconomics, and Molecular Biology: Tools for Prevention of Hypertensive Complications

"Pharmacoeconomics: What Is It and Where Is It Going?", Jean Paul Gagnon, Ph.D., Director, Health Economic Policy, Hoechst Marion Roussel, Inc., Kansas City, MO 64137-1405

Determining the value of new medical technologies has become important to administrators in managed care organizations and integrated delivery systems as the number of risk-sharing contracts they service. Risk-sharing causes slowing of new technology efficiencies in the use of medical technologies. Managers are examining drug costs because these costs have risen in their operations. There are several factors contributing to the growth of drug costs, e.g., innovation, demographics, lifestyle behavior, structural changes in health care delivery systems, reimbursement mechanisms, and information. Pharmacoeconomics is one of the disciplines managers can use to achieve this objective for pharmaceutical products. Pharmacoeconomics is the discipline of applying the theories, tools and concepts of economics to pharmacological care. It focuses on identifying, measuring, and comparing product costs and consequences for the purpose of examining the impact of alternative disruptions. It is concerned with choices and aims at getting the best value at the best price. There are a number of tools for contrasting and comparing new technologies, e.g., cost-effectiveness, cost benefit, cost utility, cost consequence and cost effectiveness. The tool that is most frequently is cost effectiveness analysis. However, as many reports and studies reveal, it does not provide the definitive answer decision makers. There are other tools, helping decision makers evaluate new technologies, e.g., budget limitations, and other non-economic information specific to the institution. Altogether, it is clear that without economic decisions makers are using cost effectiveness in their decision making. Fundamentally, include training, accuracy of results, resources, and other factors. While pre-reviewed articles, and growth and industry studies and reports are important, managed care and integrated delivery system managers are looking for third party groups who bring increased cost sensitivity and reliability to the information they provide. This presentation will provide information on pharmacoeconomics, and it will also discuss trends in this area of information in decision making.

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Number Needed to Treat (NNT) or Friend or Foe? Henry R. Black, M.D. Department of Preventive Medicine and Social Medicine, Rush-Presbyterian-St. Luke’s Medical Center, Chicago, IL

Over the past 30 years, clinical investigators have studied more than 50,000 hypertensive volunteers in nearly 20 large, well controlled, randomized prospective trials and have uncovered that such that effective antihypertensive therapy reduces morbidity and mortality. As we approach the next millennium, other issues have become critical to the delivery of care to hypertensive patients, particularly those focused on cost and risk/benefit. Recently, investigators interested in these issues have chosen to demonstrate the relative risk/benefit in different subpopulations in a new way, by calculating the number need to treat (NNT). This method of viewing clinical trial results should assist us in determining how best to use our limited resources and in whom to focus our attention.

Such analyses have shown that only a relatively small number of elderly hypertensives (whose absolute risk is high) will need to be treated to save a life or prevent an important morbid event (stroke, coronary heart disease, congestive heart failure, for example). That is good news. On the other hand, a very large number (>10,000 for some events) of younger women with lower levels of blood pressure (whose absolute risk is very low) will require treatment to prevent a event. That is not surprising but has dangerous implications.

While it is very helpful to understand that treating elderly hypertensives is extremely cost-effective, those who control funding may well focus on the apparent "lack" of benefit of treating younger hypertensives and deny them care until their blood pressures rise to much higher levels or until they develop complications or co-morbidity.

We all intuitively believe that prevention of disease is superior to trying to treat it. We must be vigilant to guard against the biases based on NNT are used to emphasize the benefit of giving antihypertensive therapy to the elderly and used not to deny treatment to less severe until they develop complications, the treatment of which is likely to be much more costly in the

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CAN THE COST OF CARE BE CONTAINED AND QUALITY OF CARE MAINTAINED IN THE MANAGEMENT OF HYPERTENSION?

MARVIN MOSER, M.D., YALE UNIVERSITY SCHOOL OF MEDICINE

A reduction in cardiovascular complications has been accomplished by effective management of hypertension—largely without the widespread use of high cost technology. Most efforts to limit cost of care have centered on limiting the use of expensive procedures. There is an increasing emphasis on the routine use of ambulatory blood pressure monitoring and echocardiography to the evaluation of hypertensive patients despite recommendations of national committees and the lack of evidence that outcome is improved. Cost of care of hypertension, which now totals approximately 15 billion dollars annually, could also increase by more than 2.5-3.0 billion dollars if these procedures were used on 5 million of the 40 million hypertensives. There is also evidence that the use of more expensive medications will improve outcome more than less expensive drugs except in special instances.

There is a difference in cost of care of as much as a billion dollars a year if, for example, calcium channel blockers are used as initial therapy instead of a diuretic in 20 million patients, with no proof of a better outcome. Finally, we have underestimated the benefits of treatment and overestimated the cost of number of lives saved per year as the result of treatment. New, more direct and simple methods of calculating the cost/benefit of treatment must include endpoints such as prevention of disease progression and target organ damage. We can maintain the quality of care without increasing cost.

Key Words:
- hypertension, cost, echocardiography, ambulatory monitoring, diuretics, calcium channel blockers

Wednesday May 28, Ballroom B, 3:30 pm
Management of Hypertension in Special Populations/Total Disease Management

Hypertension in African-Americans: Diagnostic and Therapeutic Caveats

Edward C. Perlman, M.D., FACCP, Medical Director, heart disease, Laboratory of Clinical Pharmacology, New York University College of Pharmacy, New York, NY

Hypertension in the African-American (AA) is more prevalent, early in onset, more severe and complicated by increased incidence of left ventricular hypertrophy (LVM), congestive heart failure (CHF), non-insulin dependent diabetes mellitus (NIDDM) and obesity, especially in females. The AA community is heterogeneous. However, at least 1/3 live in poverty and greater than 1/2 in central cities. Concerns with medical costs and low socioeconomic status can affect adherence to therapy and patient follow-up. Lifestyle modification is often less effective due to deep feelings of powerlessness & hopelessness. JNC 5 notes that diuretics are especially efficacious in Blacks while monotherapy with ACE inhibitors and beta blockers is often less effective. However, consideration of co-morbid conditions, i.e., HBP and CHF for ACE inhibitors or HBP post-M.I. for beta blockers is more important than any potential ethnic difference in drug therapy. While short-acting calcium blockers, may actually be harmful. AA respond well to calcium channel blockers. Sodium restriction remains an important first step in the Black patient. Indeed, high sodium intake may explain some of the blunting of monotherapy using ACE inhibitors and beta blockers and may cause increased potassium-wasting diuretics. Cultural competency is included. The importance of future orientation, the power of religious beliefs, dietary customs and food, cultural identity with high salt, high fat meals, great acceptance of obesity especially in females and the tendency to postpone conventional treatment to only after conditions have worsened.

Key Words:
- American, Black, culture, socioeconomic status, drug therapy