

# ALTERNATIVE VIEWPOINTS

## Uncertain Economic Impact of Nesiritide in Advanced Decompensated Heart Failure

Tobias Gerhard, Ph.D., Issam Zineh, Pharm.D., Almut G. Winterstein, Ph.D., and Abraham G. Hartzema, Ph.D.

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Number 5, Volume 27 of *Pharmacotherapy* presented two review articles discussing the controversial role of nesiritide in acute decompensated heart failure.<sup>1,2</sup> The article in favor of nesiritide by Dr. Munger and his colleagues concluded its discussion stating that, despite high acquisition cost, nesiritide is cost-beneficial due to a reduction in hospital cost. However, in a paper previously published in *Pharmacotherapy*, we questioned the conclusions of the single study cited in support of this statement.<sup>3,4</sup> The study cited by Munger and his colleagues compared treatment costs of nesiritide with dobutamine based on pooled results from two randomized controlled trials. However, patients in one of these trials were not randomized to nesiritide versus dobutamine, but rather to nesiritide versus standard care chosen

at physician discretion. The standard care patients who actually received dobutamine (57%) were significantly sicker than those receiving nesiritide, thus confounding any comparison and making an unsuitable basis for economic modeling. Using a model based on clinical data from the single randomized trial of nesiritide versus dobutamine and incorporating appropriate sensitivity analyses, we showed that nesiritide does not show robust economic superiority over dobutamine. In fact, within the uncertainty of our model (i.e., 95% confidence interval) either nesiritide or dobutamine may be the more effective treatment strategy at lower cost.

In short, the jury is still out on the economic consequences of nesiritide use in acute decompensated heart failure, which shouldn't come as a surprise given the paucity of clinical outcomes data. Economic models of healthcare interventions are merely extensions of available clinical data and should be used with great care when the comparative effectiveness of interventions is debatable, as is the case for nesiritide versus other treatments. What is needed are more comparative efficacy and effectiveness data for nesiritide versus appropriate control treatments before economic consequences can be definitively modeled.

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From the Department of Pharmacy Practice and Administration, Ernest Mario School of Pharmacy and the Center for Education and Research on Mental Health Therapeutics, Institute for Health, Health Care Policy, and Aging Research, Rutgers, The State University of New Jersey, New Brunswick, NJ (Dr. Gerhard); the Departments of Pharmacy Practice and Pharmaceutics, College of Pharmacy, Cardiovascular Medicine, College of Medicine, University of Florida, Gainesville, Florida (Dr. Zineh); and the Department of Pharmacy Health Care Administration, College of Pharmacy, University of Florida, Gainesville, Florida (Drs. Winterstein and Hartzema).

Please address correspondence to: Tobias Gerhard, Ph.D., Center for Education and Research on Mental Health Therapeutics, Institute for Health, Health Care Policy, and Aging Research, Rutgers, The State University of New Jersey, 30 College Avenue, New Brunswick, NJ 08901; telephone: (732) 932-8634; fax: (732) 932-6872; e-mail: tgerhard@rci.rutgers.edu.

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### **Authors' Reply**

The authors declined to reply.