

# Commentaries on “Embracing Complexity: A Consideration of Hypertension in the Very Old” and Author’s Response

## Commentary

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**A**T 40-month follow-up of 664 men, mean age 80 years, and at 48-month follow-up of 1488 women, mean age 82 years, hypertension significantly increased the relative risk of new coronary events 2.0 times in men (95% confidence interval [CI], 1.5–2.5) and 1.6 times in women (95% CI, 1.5–2.5) (1). In this study, hypertension significantly increased the incidence of new coronary events in men and in women younger and older than 80 years.

At 42-month follow-up of 664 men, mean age 80 years, and at 48-month follow-up of 1488 women, mean age 82 years, hypertension significantly increased the relative risk of new atherothrombotic brain infarction 2.2 times in men (95% CI, 1.5–3.3) and 2.4 times in women (95% CI, 1.8–3.2) (2). In this study, hypertension significantly increased the incidence of new atherothrombotic brain infarction in men and in women younger and older than 80 years.

At 43-month follow-up of 926 men and 1976 women, mean age 81 years, hypertension significantly increased the risk ratio of new congestive heart failure 2.5 times (95% CI, 2.1–2.9) (3). In this study, hypertension significantly increased the risk ratio of new congestive heart failure in men and women younger and older than 80 years.

This author concurs with Dr. Goodwin’s (4) agreement with Dr. Applegate (5) that “a physician prevents more strokes, heart attacks, episodes of heart failure, and deaths by treating 1000 men and women aged 65 years and older than one would by treating 1000 50 year olds with the same level of high blood pressure.” Data from 650 men and women, aged 80 years and older (mean age 83 years) in the Systolic Hypertension in the Elderly Program trial showed that, compared with placebo, antihypertensive drug therapy reduced the incidence of stroke 45%, of heart failure 64%, of coronary events 27%, of cardiovascular events 31%, of coronary plus cardiovascular deaths 17%, and of all-cause mortality 3% (6).

Gueyffier and colleagues (7) collected data from all participants aged 80 years and older in randomized controlled trials of antihypertensive drug therapy through direct contact with other investigators. Their meta-analysis of data from 1670 persons aged 80 years and older (mean age 83 years) in 7 trials demonstrated that antihypertensive drug therapy significantly decreased stroke 34%, heart failure 39%, and major cardiovascular events 22%, and

insignificantly increased all-cause mortality 6% (7). These data show that antihypertensive drug therapy improves quality of life in persons aged 80 years and older by reducing stroke, heart failure, and major cardiovascular events without significantly increasing all-cause mortality.

Unless data from the ongoing Hypertension in the Very Elderly trial (8) show that antihypertensive drug therapy is not beneficial in very elderly hypertensive patients, this very elderly group should be treated (9). At this time, we cannot justify an age threshold beyond which hypertension (9) or hypercholesterolemia (10–14) should not be treated.

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