EDITORIAL AND COMMENT

Hypertension Among the Young Invincibles

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Hypertension is a common condition in the United States, affecting over 65 million Americans.¹ Rates of hypertension continue to rise as our population grows older, heavier and more sedentary. Minority populations, particularly African Americans, are disproportionately affected, both in terms of prevalence and the severity of hypertensive sequelae.² From a public health perspective, hypertension remains a major risk factor for coronary artery disease, stroke, chronic renal failure, and peripheral vascular disease. Although there has been improvement in control rates over the past few decades, rates of blood pressure control for the general population with hypertension remain only about 50 %.¹

Young adults often consider themselves to be immune from chronic diseases. We generally think of hypertension as a condition affecting middle-aged and elderly patients, but the young are increasingly affected as well. A cohort study of children and adolescents obtaining preventive care found that only 26 % of those with hypertension had a correct diagnosis in their electronic medical records.³ Missing a diagnosis of hypertension in a young patient has real consequences. The CARDIA study demonstrated that even prehypertension among young adults was associated with significant subsequent increase in cardiac risk.⁴

The United States Preventive Task Force recommends, at a Grade A level, screening all adults beginning at age 18 years for hypertension, but with unclear intervals.⁵ The Joint National Committee on Hypertension's 7th report (JNC 7) recommends screening intervals of every 2 years for normotensive patients and yearly for those with prehypertension (120–139/80–89 mmHg).⁶ The new JNC 8 report clarifies and simplifies hypertension treatment goals for all young patients at <140/90 mmHg.⁷

In this issue of JGIM, Gooding and colleagues make an important contribution to our understanding of hypertension in young adults.⁸ First, they document, in a large and diverse national sample of individuals aged 24–32 years, a prevalence of hypertension approaching 25 %. As expected,

rates were higher among smokers, the obese, the poor and less educated, and African Americans. Compared to the general population, young adults in this cohort were far less likely to be aware of their hypertension or to have controlled blood pressure.

Access to health care proved to be an important determinant of hypertension awareness. In a multivariate model, those who had a checkup within 2 years were more than twice as likely to be aware of their hypertension as those who had not received preventive care. Hypertension awareness was also associated with being insured. Findings like these are yet one more reason for young adults to seek insurance under the Affordable Care Act.

The myth of invulnerability among these “young invincibles,” however, appeared to be strong. Study participants who considered themselves to be in excellent health were far less likely (64 %) to be aware of their hypertension. Given the asymptomatic nature of hypertension and the long delay prior to developing target organ damage, we should not be surprised that many young people are unaware that they have hypertension. Nevertheless, that nearly 20 % of a young population has uncontrolled hypertension remains a finding of striking magnitude.

Among participants who were aware of their hypertension, barely half (55 %) were controlled to goal levels. Factors that we would anticipate to be associated with control, like insurance status and access to preventive care, were not positive predictors of controlled blood pressure. Normal weight was associated with control, which may just reflect more easily achieved pharmacologic control. The observation of higher control rates among women compared with men deserves further study.

This study by Gooding et al. raises a number of important questions.⁸ In spite of effective screening methods and treatments, a large group of young adults remains hypertensive. As this cohort ages, the consequences will be dire. Public health officials and primary care physicians will need to construct effective and innovative measures to screen for hypertension and to convince young adults and their clinicians of the importance of blood pressure control.

We know we can do better, because others have done so. A large Canadian study reported a 66 % hypertension control rate, and 84 % of the 20–39 year old age group had normal blood pressure (<120/80 mmHg).⁹ Improving control rates will probably require a combination of more effective screening, accurate diagnosis and therapy that is both cheap and

convenient. Targeted screenings of young adults at schools, work and social events could easily improve awareness rates. Better use of home blood pressure monitoring and ambulatory blood pressure monitoring would target those needing therapy, while freeing others from the burden of unnecessary treatment. Numerous trials have demonstrated the efficacy of cheap and convenient anti-hypertensive drugs. In addition to pharmacologic management, several lifestyle interventions have been shown to be effective in reducing blood pressure. These include sodium restriction, weight loss, exercise and moderation of alcohol intake.⁶ The task will be difficult, but the potential rewards in terms of life expectancy, morbidity and health care costs at a population level will be substantial.

Conflict of Interest: The author declares that he/she does not have a conflict of interest.

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