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Editorial

## Improving Men's Health

### Evidence and Opportunity

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What does it mean to be a healthy man? According to the World Health Organization (WHO), "[h]ealth is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity."<sup>1</sup> This is a very high standard to achieve and is not likely to characterize many male patients seen in physicians' offices. Still, the promotion of health and prevention of disease are important to both physicians and patients.

The articles published in this theme issue of *JAMA* on men's health fulfill our editorial commitment to publish original and important research and commentary that can inform clinical decisions and patient care.<sup>2</sup> The content of this issue also reflects the broad components of health, addressing topics relevant to the physical, mental, and social well-being of men.

Lower urinary tract symptoms are commonly reported by middle-aged and older men.<sup>3-4</sup> Medical treatment of male lower urinary tract symptoms may include an  $\alpha$ -adrenergic receptor antagonist, a 5 $\alpha$ -reductase inhibitor, or an antimuscarinic agent.<sup>5-6</sup> However, when several conditions contribute to a lower urinary tract symptoms (benign prostatic hyperplasia, detrusor overactivity, bladder outlet obstruction), monotherapy may not be effective.

In this issue of *JAMA*, Kaplan and colleagues<sup>7</sup> report results of a randomized placebo-controlled trial to evaluate the efficacy and safety of the antimuscarinic tolterodine extended release, the  $\alpha_1$ -receptor antagonist tamsulosin, or both agents vs placebo in men with moderate to severe lower urinary tract symptoms including overactive bladder symptoms (urgency and frequency with or without urinary incontinence) and benign prostatic hyperplasia. They found that significantly more patients receiving combination therapy with tolterodine extended release and tamsulosin reported benefit compared with men receiving either medication alone or placebo, and that the response rates in the monotherapy groups were comparable to that in the placebo group. There has been concern that antimuscarinic therapy could increase urinary retention in men with potential bladder outlet obstruction, but the incidence of acute urinary retention in this study was low. Although these findings may provide a treatment option for some men with lower urinary tract symptoms, the relatively short duration of the study (12 weeks) and the rather modest clinical benefits must be balanced against the potential for adverse effects that may occur with longer-term use of the drug combination.

Prostate cancer is the second leading cause of cancer in men and the second leading cause of cancer death among US men.<sup>8</sup> Screening for prostate cancer by determination of the prostate-specific antigen (PSA) level is a common practice.<sup>9</sup> However, there is little evidence that PSA screening reduces prostate cancer mortality, particularly among elderly men. In their study reported in this issue, Walter and colleagues<sup>10</sup> assessed PSA screening among patients seen at US Department of Veterans Affairs facilities who did not have a history of prostate cancer, an elevated PSA level, or symptoms of prostate disease. The authors found that PSA tests were ordered for 56% of men who were

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70 years or older. Even more surprising was that among men 85 years or older, 36% of men in poor health and 34% of men in good health had a PSA test. Given that treating a screen-detected prostate cancer may produce more harm than benefit in an elderly man, is this rate of screening good medicine? In an insightful editorial, Albertsen<sup>11</sup> reviews key questions to ask and key information to share with patients before ordering a PSA test.

When prostate cancer is diagnosed, radical prostatectomy can be curative if disease is limited to the prostate. However, extraprostatic disease is common at the time of diagnosis and optimal treatment for patients with disease extending beyond the prostate is not established. In this issue of *JAMA*, Thompson and colleagues<sup>12</sup> report results of a clinical trial in which patients with pathologically advanced prostate cancer were randomly assigned to either observation or external beam radiation therapy to the prostatic fossa after radical prostatectomy. During a median follow-up time of nearly 15 years, men who received radiotherapy had significantly reduced risks of PSA relapse and disease recurrence, but there were no statistically significant differences between the 2 groups in risks of metastasis-free survival and overall survival.

Age-related decline in testosterone levels<sup>13</sup> has been associated with a number of adverse effects and symptoms including sexual dysfunction, diminished lean body mass, and depression, and the use of testosterone replacement therapy (TRT)—in an attempt to mitigate these effects—is increasing.<sup>14</sup> One concern, however, is a potential adverse effect of TRT on the prostate. Also in this issue, Marks and colleagues<sup>15</sup> report the results of their investigation of the effects of TRT vs placebo on prostate tissue androgen levels and prostate-related clinical features including histological changes. In this 6-month trial, men who received TRT experienced no significant changes in prostate histology, tissue biomarkers, or cancer incidence or severity, and only minimal changes in prostate volume, PSA level, and voiding symptoms compared with men receiving placebo. However, whether TRT is safe over a longer duration than 6 months cannot be determined from these results.

Gonadal aging is discussed in this issue of *JAMA* by Lewis and colleagues,<sup>16</sup> who summarize some of the data linking the ticking "male biological clock" to declines in fertility<sup>17</sup> and to increased risks of fetal loss as well as autism,<sup>18</sup> and schizophrenia<sup>19</sup> in offspring. These authors also discuss the complex interrelationship of hypogonadism, erectile dysfunction, cardiovascular disease, depression, and benign prostatic hypertrophy in aging men.

Although there are no known interventions to stop the countdown of the biological clock, the future need not necessarily be one of illness and infirmity. As reported in this issue by Willcox and colleagues,<sup>20</sup> the absence of certain midlife risk factors are related to healthy survival. These authors analyzed data from a prospective nested cohort within the Honolulu Heart Program/Honolulu Asia Aging Study, of US men of Japanese ancestry living in Hawaii since 1965, to assess midlife biological, lifestyle, and sociodemographic factors that are linked to survival. The authors were particularly interested in the factors associated with "exceptional survival," defined as the absence of coronary heart disease, stroke, cancer (excluding non-melanoma skin cancer) chronic obstructive pulmonary disease, Parkinson disease, diabetes, and cognitive or physical impairment (difficulty walking a half mile before age 85 years). Among the authors' findings were that high grip strength (presumably related to physical fitness), avoidance of overweight, smoking, and excessive alcohol consumption, and the absence of hyperglycemia and hypertension in midlife were strongly associated with overall and exceptional survival in these men of Japanese ancestry.

Among gay men or men who have sex with men (MSM), lifestyle factors associated with health outcomes—in particular, sexual behaviors linked to an increased risk of human immunodeficiency virus (HIV) infection—have been the subject of intense study for the past several decades. While this attention has been of critical importance to identify HIV prevention and treatment strategies, the health care needs of this population are clearly not limited to HIV or other sexually transmitted infections (STIs). In their article in this issue of *JAMA*, Makadon and colleagues<sup>21</sup> discuss issues physicians should consider when providing routine health care for MSM. The authors review the particular need for substance use assessment in this population, the importance of creating a respectful clinical environment where the emotional and mental health challenges of being a sexual minority can be discussed and addressed, as well as counseling and testing for STIs.

One social role that may influence men's health is fatherhood. Also in this issue, Garfield and colleagues<sup>22</sup> examine how being a father can have both positive and negative influences on health. For example, the desire to set a good example for one's children can lead men to quit smoking, limit alcohol use, and engage in regular physical activity. On the other hand, the desire to be a good financial provider can be stressful, as can the demands to balance work and family life. In light of the limited formal investigation of the links between fatherhood and well-being, Garfield and colleagues suggest both clinical and research avenues to advance understanding of the potential connections.

This theme issue of *JAMA* on men's health not only provides new research findings and practical insights that physicians may apply in patient care, but also should serve as a gentle reminder for all male physicians to take stock of their own health. Physicians should take a moment to reflect on whether their own health behaviors and personal health care are consistent with the recommendations and care they provide for their patients.<sup>23</sup> For instance, male physicians who have not had a recent physical examination should consult their own personal physicians to schedule a (perhaps overdue) periodic health examination. This examination might include a cardiovascular disease risk assessment and appropriate preventive measures, such as indicated immunizations and necessary health screenings, ie, perhaps colonoscopy and PSA testing, if needed. Male physicians also should consider making a pledge to adopt well-established components of a healthy lifestyle, including a more healthful diet, regular exercise, smoking cessation, weight control, and stress reduction. Despite increased professional pressures and clinical demands, male physicians must somehow find the time and devote the effort to staying healthy—for their families, for their significant others, and for themselves. And in doing so, what better way to set an example for their male patients about what it means to be a healthy man.

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