Epidemiology of Bladder Cancer

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KEYWORDS

• Bladder cancer • Urothelium • Incidence and prevalence • Smoking
• Occupational risk factors • Arsenic • Genetic susceptibility

KEY POINTS

- Bladder cancer incidence increases with age, is higher in men, and is a major burden to the health systems because of the chronic nature of the most common non–muscle-invasive tumors.
- Cigarette smoking, occupational exposures, arsenic, *Schistosoma haematobium* infection, some medications, and genetic variation are the major risk factors associated with the disease.
- Further evidences are needed to establish the role of disinfection byproducts, fluid intake, urinary tract infections, diabetes, metabolic syndrome, viruses, and medications in bladder cancer.
- *GSTM1*-null and *NAT2* slow acetylator genotypes are associated with modest increase in risk; other low-penetrance genetic susceptibility loci have been identified but are not yet of clinical utility.
- Further work is needed to establish the role of environmental and genetic factors in patient outcome; the effect of smoking cessation strategies should be tested prospectively.

THE BURDEN OF THE DISEASE

Bladder cancer is mainly a disease of aging; its incidence and prevalence increase around the sixth decade and peak in the seventh to eighth decade of life. It is the ninth most common cancer, with 430,000 new cases diagnosed in 2012 worldwide; on average it is 3 to 4 times more common in men than in women. Incidence rates are highest in Europe, the United States, and Egypt (**Fig. 1**).[1,2] Substantial variation exists in the incidence of bladder cancer worldwide, because of differences not only in origin, mainly smoking, but also in registration.[3]

The authors have nothing to disclose.
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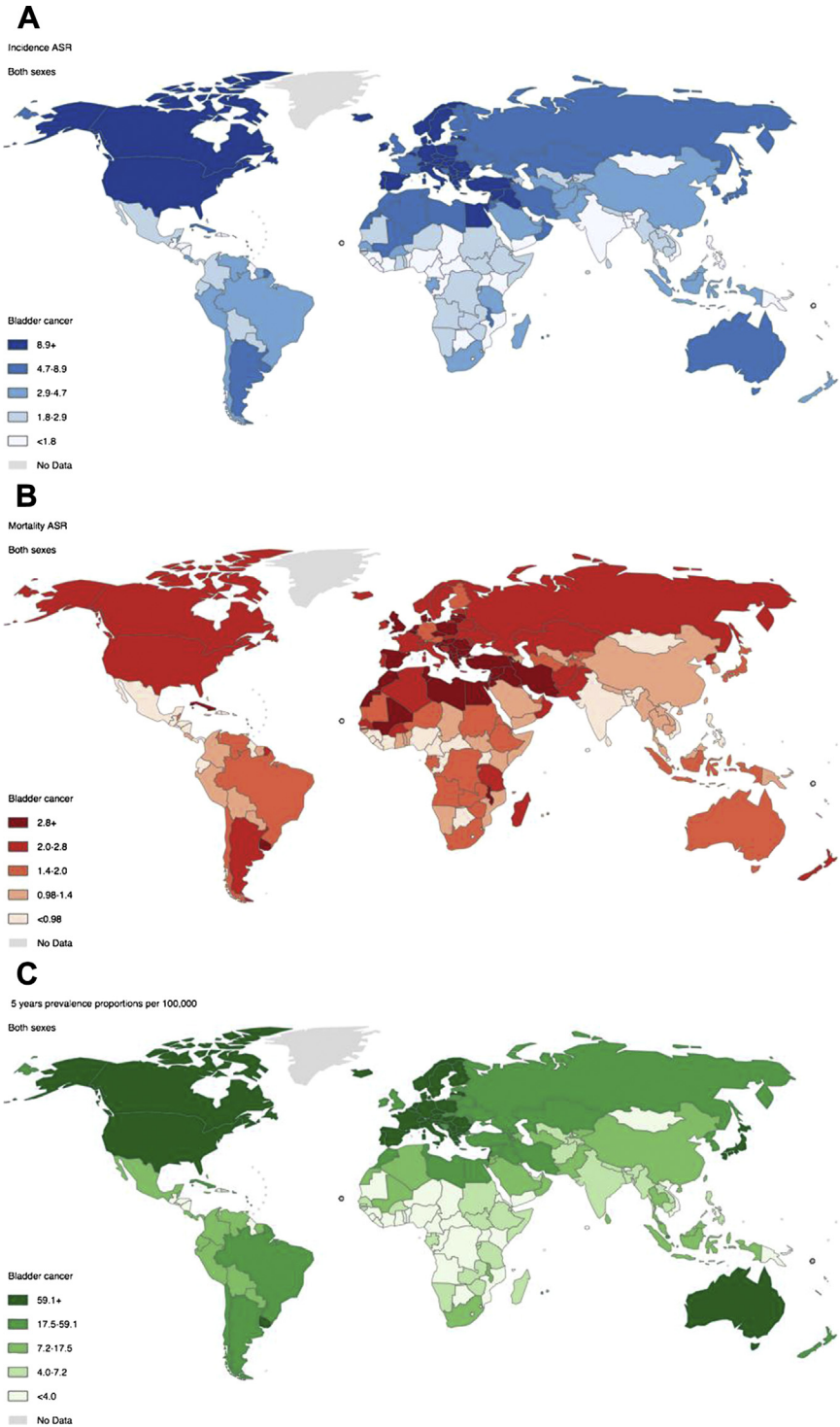

Fig. 1. GLOBOCAN maps of worldwide bladder cancer incidence (*A*), mortality (*B*), and prevalence (*C*) for both sexes. ASR, age-standardized rate. (*From* GLOBOCAN 2012: estimated bladder cancer incidence, mortality and prevalence worldwide in 2012. International Agency for Research on Cancer Web site. Available at: http://globocan.iarc.fr/Pages/Map.aspx. Accessed October 13, 2014.)