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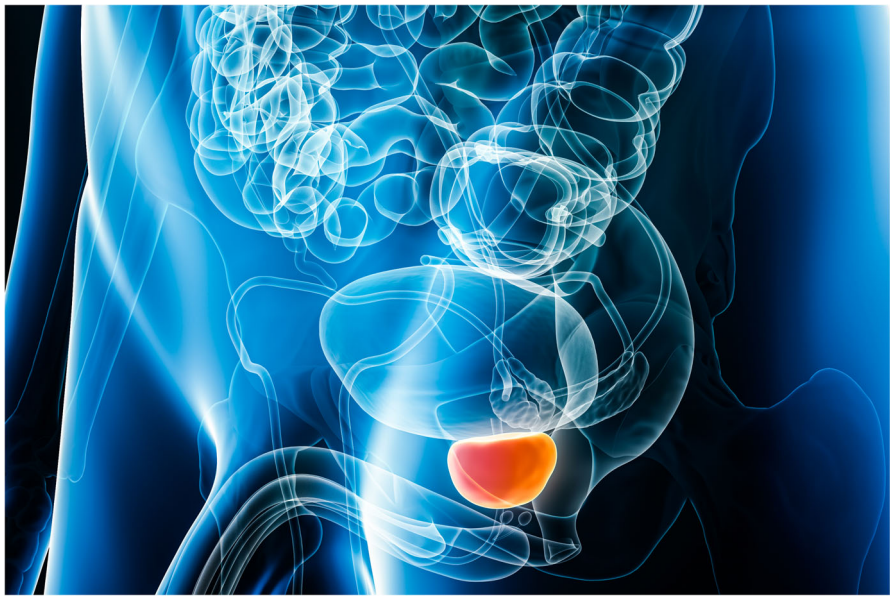
Research Highlights

Prostate cancer: detection, treatment and follow-up

This month's column focuses primarily on prostate cancer. McHugh et al. reported results of a new polygenic risk score that was developed from 130 DNA variants associated with an increased risk of prostate cancer. They invited over forty thousand men aged 55 to 69 years attending primary care centres in the United Kingdom to participate. A total of 6393 men were tested, of whom 745 had a polygenic risk score in the top decile. Approximately two-thirds of these men underwent an MRI and prostate biopsy of whom 187 were found to have prostate cancer. Their median age was 64 years and ranged from 57 to 73. Of the 187 men, 103 were felt to have intermediate or high-risk disease. The authors concluded that 74 of the men with clinically significant disease would have been missed by the current prostate cancer diagnostic pathway currently being used in the UK. The authors cautioned that their study relied on SNPs only identified in men of European ancestry and therefore would need to be validated in other ethnic populations. The authors also commented that additional studies were needed to determine the appropriate age for polygenic risk score testing and the need to assess the trade-off of benefits, harms and cost effectiveness of any new prostate screening algorithms incorporating genomic risk assessment.

McHugh JK, Bancroft EK, Saunders E et al. Assessment of a polygenic risk score in screening for prostate cancer. *N Eng J Med* 2025; 392: 1406–17.



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Monda et al. assessed trends in the surgical treatment of localised prostate cancer to determine the extent of overtreatment of screen-detected disease. They analysed data from two USA based retrospective cohorts: the nationally based Surveillance, Epidemiology and End Results (SEER) registry and the Michigan Urological Surgery Improvement Collaborative (MUSIC). From 2010 to 2024 a total of 162 558 men in the SEER registry and 23 370 men in the MUSIC registry underwent a radical prostatectomy. During this period the number of men found to have pathological grade group 1 disease fell from 32.4% to 7.8% in the SEER registry and from 20.7% to 2.7% in the MUSIC registry. Furthermore, a detailed analysis of contemporary patients showed a higher incidence of higher-risk preoperative features. The authors concluded that reduction in the proportion of men with pGG1 disease reflected improved diagnostic pathways and greater adherence to active surveillance protocols.

Monda SM, Demus T, Jaime-Casas S et al. Trends in surgical overtreatment of prostate cancer. *JAMA Oncol* 2025; doi:10.1001/jamaoncol.2025.0963.

Tilki et al. assessed the implications of a persistently elevated PSA following a radical prostatectomy. They relied on a discovery cohort of over 30 000 men undergoing a radical prostatectomy for clinical stage T1–T3 disease at the University Hospital Hamburg-Eppendorf in Hamburg, Germany from 1992–2020 and a validation cohort of almost 13 000 men treated at the Johns Hopkins Medical Institution in Baltimore, Maryland, USA from 1990–2017. They found that among patients with a persistently elevated post operative PSA those men with a pre-prostatectomy PSA greater than 20 ng/mL had a reduced all-cause mortality (adjusted hazard ration 0.69) when compared to men with a pre-prostatectomy of 20 ng/mL or less. They attributed this finding to the failure to clear higher PSA levels from the serum

within two months of surgery. They found that a higher persistent post-operative PSA level was associated with a worse prognosis. They also found that men with high pre-operative PSA values took longer to clear their post operative PSA levels and therefore to minimize overtreatment men should be assessed for at least three or more months before initiating additional treatments.

Tilki D, Chen MH, Wu J et al. Persistent prostate-specific antigen following a radical prostatectomy for prostate cancer and mortality risk. *JAMA Oncol* 2025; doi:10.1001/jamaoncol.2025.0110.

Finally, on another topic, Vodstrcil et al. explored the impact of treating male partners of women suffering from bacterial vaginosis. They conducted an open label, randomised, controlled trial of 164 monogamous couples. All women received antimicrobial agents. In the partner-treated group, men received metronidazole 400 mg tablets and 2% clindamycin cream applied to the penile skin twice daily for 7 days. Recurrent vaginosis was assessed at 12 weeks. Vaginosis recurred in 35% of the women in the partner-treated couples and 63% of the women in the control group. Some men experienced nausea, headache and a metallic taste.

Vodstrcil LA, Plummer EL, Fairley CK et al. Male-partner treatment to prevent recurrence of bacterial vaginosis. *N Eng J Med* 2025; 392: 947–57.

Research Highlights is written by Peter Albertsen.