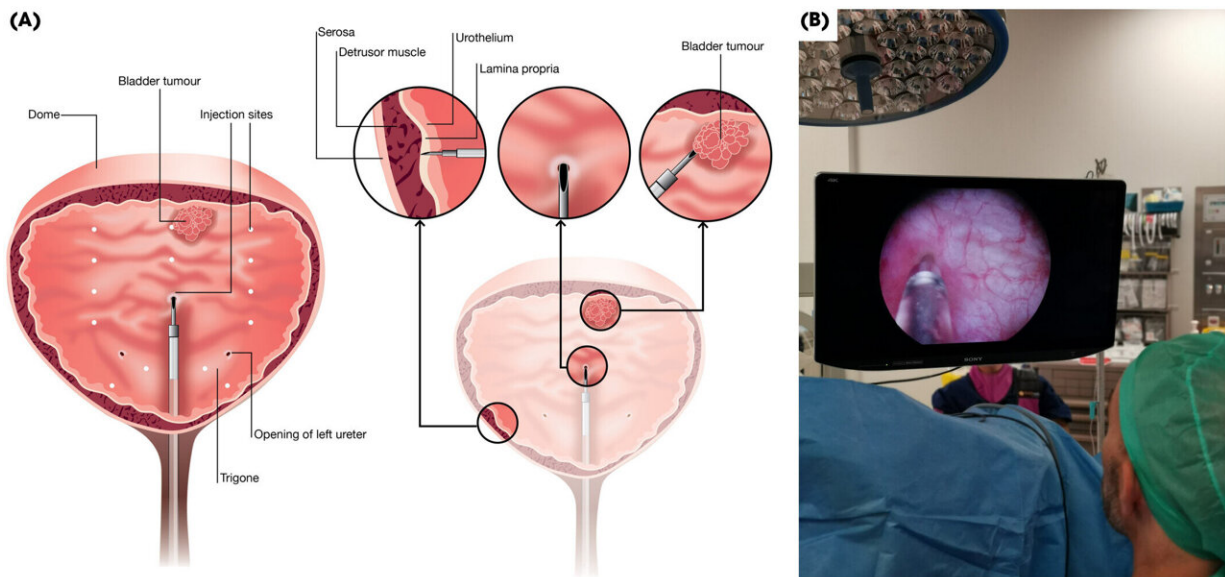


First-in-human trial finds new bladder cancer treatment safe

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Sub-urothelial injection of durvalumab, with: (A) Diagram illustrating injection method and locations; (B) Cystoscopic view of injection of durvalumab into bladder. Note (A) is a diagrammatic representation only—not all injection sites are shown. Credit: *BJU International* (2024). DOI: 10.1111/bju.16325

A first-in-human trial led by The University of Western Australia has found injecting an immunotherapy drug directly into the bladder wall to treat cancer is viable and safe.

Professor Dickon Hayne, from UWA Medical School and head of

urology for the South Metropolitan Health Service in Western Australia, was lead author of the article published in the [*British Journal of Urology International*](#).

"Bladder cancer is one of the 10 most prevalent cancers worldwide," Professor Hayne said.

"At [diagnosis](#), 75% of patients have non-muscle-invasive bladder cancer, but these patients experience high rates of disease recurrence and progression to muscle-invasive bladder cancer."

Non-muscle-invasive bladder cancer can be removed locally by key-hole surgery in the bladder followed by either chemotherapy or immunotherapy (BCG) via a catheter.

Patients with high-grade tumors, who don't respond to chemotherapy or immunotherapy drugs have a radical cystectomy—removal of the whole bladder.

"Radical cystectomies have high morbidity, and we need new options to preserve the bladder," Professor Hayne said.

"Our study showed injecting the drug durvalumab directly into [bladder wall](#) is feasible and safe, and there was evidence it was targeting the cancer without immune-related side-effects.

"This new method of treatment may have a role for high-risk non-muscle-invasive bladder cancer patients as a strategy to avoid the need for cystectomy."

Researchers plan to undertake further trials now the method has been found to be safe and feasible and hope to find more effective treatment options for non-[muscle-invasive bladder cancer](#).

More information: Dickon Hayne et al, The SUB-urothelial DUrvalumab InjEction-1 (SUBDUE-1) trial: first-in-human trial in patients with bladder cancer, *BJU International* (2024). [DOI: 10.1111/bju.16325](https://doi.org/10.1111/bju.16325)

Provided by University of Western Australia

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