



HALF-CENTURY OF REMARKABLE PROGRESS IN UROLOGY

By Paul F. Schellhammer, MD, FACS

Over the past 50 years, the field of urology has evolved so dramatically that deciding where to begin a discussion presents a challenge.

Start with the fact that in the 1970s, sub-specialization was virtually non-existent, which of course seems inconceivable today. Urologists were expected to care for the full range of illnesses dealing with oncology, infertility, sexual dysfunction and pediatric birth defects, as well as the frequent issues of kidney stones, incontinence and bladder infections.

Treatment options were fairly limited for many conditions. For example, women often suffered from incontinence without effective interventions, and prostate cancer was generally diagnosed too late for surgery or radiation therapy.

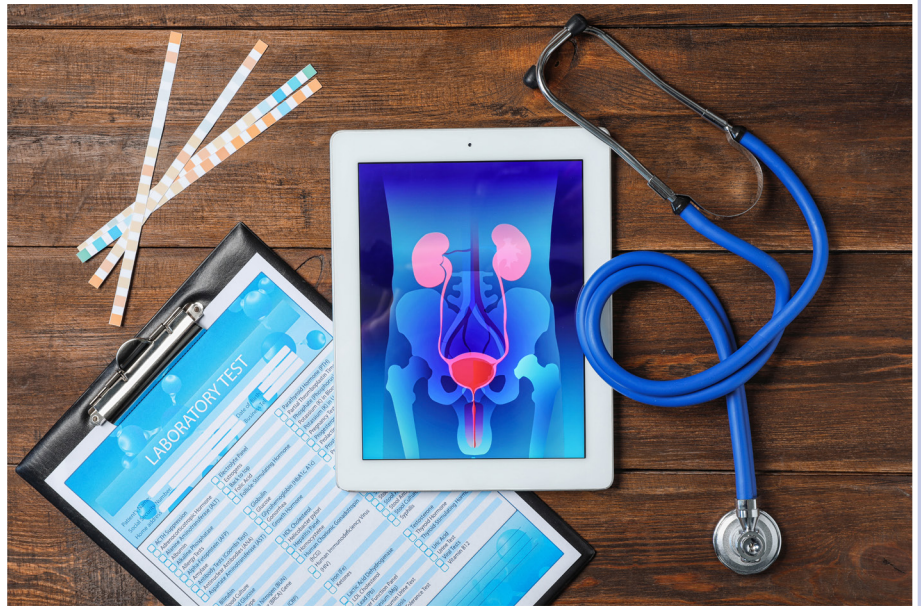
Cancer patients who did go into the operating room faced a hospital stay of three to five days or longer. Currently, thanks to earlier diagnoses, non-invasive operating approaches and robotic equipment, many patients can go home a day after surgery.

A half-century ago, chemotherapy for urologic cancers was limited to one or two highly toxic drugs that led to nausea, vomiting and dangerous dips in white and red blood cell counts. Now, medications are available to minimize these side effects. Radiation used to be delivered with less focused beams that caused damage to healthy tissue. Today's advanced imaging and focused delivery systems can precisely target the cancer.

Removal of kidney stones once required surgery via a major flank incision. Shock wave lithotripsy and direct visualization of stones from the ureter are now the norm.

When the Jones Institute for Reproductive Medicine – now SGF Jones Institute – opened in 1991, urologists became more involved in evaluating and addressing male factor infertility.

Over the past decade, immunotherapy has become a game-changer for cancer patients. Since the FDA's approval of the Provenge vaccine for advanced prostate cancer in 2010, a number of immunologic therapies have emerged. Meanwhile, research into genetic markers of diseases is leading to ever more tailored treatments.



It's important to note that urology in Hampton Roads has been at the forefront of innovation in the specialty for more than 50 years – in fact, for nearly 100 years.

In 1922, Dr. Charles Devine, Sr., with his two sons, Charles and Patrick, founded a practice in Norfolk that would evolve into Urology of Virginia. They established a urology residency and later fellowships at Norfolk General Hospital and were among the founding fathers of EVMS.

Dr. Devine Sr. also pioneered a much less invasive surgery for benign prostatic hyperplasia, which once carried a risk of potentially fatal bleeding at a time when blood transfusions were risky. He practiced with cauterizing tools on cow hearts donated by his butcher, who later became his patient.

In 2021, perhaps the biggest challenge facing urology is a looming shortage of providers, particularly given an aging population and continued advances in treatment possibilities.

In another 50 years – in reality, 20 to 25 years – I foresee that with the advent of genetic discovery and modification, our specialty and all of medicine will have evolved to a place that we can't yet imagine. ■

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