

E coli and *Enterobacteria* are the commonest causes of urinary tract infection: recurrent infections are a significant health problem for many patients.

There has been no new major class of antibiotics introduced in the last twenty years. In August 2010, a brand new variety of *Enterobacteria* was identified, New Delphi metallo- - lactamase (so-called NDM1); this was found to be resistant to most antibiotics.





Urology: where will your career take you?

Giles Brindley, UK physiologist. He was best known for his scientific presentation at the 1983 Las Vegas meeting of the American Urological Association, where he disrobed on-stage to show the audience his erection, induced by an injection of papaverine.



His work was a forerunner to the treatment of erectile dysfunction (ED, impotence) and led to the introduction of Viagra for men in 1990.

Today the assessment and management of ED is a key element of many urologists' work.

Urology: where will your career take you?



Samuel Pepys (1633–1703)

English naval administrator and Member of Parliament, famous for his detailed, personal diary chronicling day-to-day life in 17th century England.



In his diary, he describes having his bladder stone removed by Thomas Hollier on 26 March 1658, through a incision in his perineum, without any anaesthetic. He was lucky to survive (many didn't) and he celebrated each anniversary of his procedure with a special dinner.



Today litholapaxy through a cystoscope is a common procedure, usually performed under general anaesthetic as a day case.

Urology: where will your career take you?



Oncology



The first successful vaccine against tuberculosis was developed at the Pasteur Institute by Albert Calmette and Camille Guérin.

Bacillus Calmet Guerin (BCG) is an attenuated form of tubercle bacillus, now used by urologists for the treatment of high-grade, superficial bladder cancer & carcinoma in situ.



Urology: where will your career take you?







Prostate cancer is the commonest male malignancy. 13,500 patients die annually of the disease in the UK. While hormone treatment remains the standard therapy for patients with advanced disease, significant advances in treatment have been made in the last few years.

A key element of the urologist's job is managing patients with localised and advanced prostate cancer.

Urology: where will your career take you?

For more information, visit www.baus.org.uk

Oncology



Lyndon Johnson, 36th President of the United States showing his scar to photographers to dispel rumours that he was suffering from cancer. Johnson had both his gallbladder and a stone from his right ureter removed – an unusual surgical approach even in the 1960s!



Today's urologist uses small instruments to visualise the ureter and breaks up the stone using high energy sources, removing small fragments with a flexible basket.

Urology: where will your career take you?



Neuro-Urology





Ludwig Guttmann, CBE, FRS (1899–1980), a neurologist who came to England from Germany in early 1939, fleeing Nazi persecution.

In 1944, Guttmann established the National Spinal Injuries Centre at Stoke Mandeville Hospital and revolutionised the management of spinal cord injury patients, with an emphasis of good urinary tract management, treatment of pressure areas and sport, to help patients regain their physical strength and self-respect.

Stoke Mandeville first hosted an athletics event for disabled British veterans in 1948, spawning the development of the Paralympic movement, culminating in the games "coming home" to London in 2012.

Today, urologists play a key role in managing patients with all forms of neuropathic bladder.

Urology: where will your career take you?







Terence Millin, 1903-1980 was born in County Down, Ireland. After studying at St Andrew's College and Trinity College in Dublin, he read medicine at The Middlesex Hospital and Guy's Hospital in London. In 1953, he became president of BAUS.

In 1945, he published a seminal paper in The Lancet that introduced the open retropubic approach to prostatectomy, and helped to revolutionise surgery for bladder outfow obstruction.

Today, transurethral resection of the prostate (TURP) is a standard procedure used by urologists to deal with prostatic obstruction.

Urology: where will your career take you?



Stones

HM1



STONES STEN AIMING ROSSHAIRS

In 1966 an engineer at Dornier Systems, a famous West German aircraft manufacturer, accidentally discovered the effect of shockwaves on human tissue.

Following a series of extensive experiments, the first human treatment for kidney stones was performed by Christian Chaussy with a Dornier kidney lithotriptor (Human Model HM1) in 1980.

ESWL (extracorporeal shock wave lithotripsy) is now an established technique used in most urology units to treat patients with kidney stones.

Urology: where will your career take you?



Artificial Implants in Urology



Patients, both male and female, sometimes need insertion of an artificial urinary sphincter for urinary incontinence.



Urologists also implant mechanical devices for men with erectile dysfunction (impotence).

Can you work out what goes where?

Urology: where will your career take you?



Q: What do all these people have in common?



A: At some point they have all needed the attention of a urologist.

Urology: where will your career take you?