# Urologists to the Desert Rats: Serendipitous Skills of the World War II Urologists

#### Peter Grice, Jonathan Goddard

Leicester General Hospital, Gwendolen Road, Leicester. LE5 4PW

The defining skills of the early urologists were those of endoscopy. It was the ability to use these modern diagnostic tools that characterised the new speciality in the early 20th century. On the outbreak of World War II, British doctors of every grade, speciality and skill were mobilised into the Royal Army Medical Corps (RAMC) and deployed to all theatres of war. One major battle zone of World War II was the Anglo-American campaign in North West Africa. This paper looks at the experiences of some of the doctors who were, or subsequently became well-known British urologists and how their expertise both contributed to and was enhanced in this desert war.<sup>13</sup>

#### **Operation Torch**

Operation Torch was the invasion of North Africa by British and United States forces in November 1943. It was the first major allied operation of World War II and the largest amphibious invasion to that date.<sup>4</sup> The strategy of opening a second front not only helped the Soviet Union but provided a naval launch pad for the subsequent invasion of the so-called 'soft underbelly' of Europe.<sup>5</sup>

A force consisting of 90,000 troops was escorted by a huge naval fleet consisting of 350 warships and 500 troop transporters.<sup>6</sup>

Feggetter GY. Diary of an RAMC Surgeon at War, 1942-1946, by Lieutenant Colonel George Y. Feggetter, RAMC. 1946. https://wellcomelibrary.org/item/b19687266#. Accessed September 17, 2018.

England RC of S of. Poole-Wilson, Denis Smith - Biographical entry - Plarr's Lives of the Fellows Online. https://livesonline.rcseng.ac.uk/biogs/E008850b.htm. Accessed September 17, 2018.

**<sup>3.</sup>** England RC of S of. Gow, James Gordon - Biographical entry - Plarr's Lives of the Fellows Online. http://livesonline.rcseng.ac.uk/biogs/E008637b.htm. Accessed September 17, 2018.

Beam JC. The Intelligence Background of Operation TORCH. 1983. http://www.dtic.mil/docs/citations/ ADA129136. Accessed September 20, 2018.

<sup>5.</sup> Walker DA. OSS and Operation Torch. J Contemp Hist. 1987;22(4):667-679. doi:10.1177/002200948702200406.

<sup>6.</sup> Brown D, Hobbs D. Carrier Operations in World War II.; 2009.

The Allies faced Italian and German troops but the invasion was also opposed by the Vichy French. For propaganda purposes, Winston Churchill even suggested that British troops wear American uniforms due to animosity between the British and Vichy French government at the time.<sup>7</sup> All British troops were assigned to the Eastern Task Force, which was under the command of Lieutenant-General Kenneth Anderson.<sup>7</sup> The British troops who fought in North Africa in the Second World War have become known as the Desert Rats; although strictly the name given to the troops of the 7th Armoured Division, it has become synonymous with all the soldiers of this desert war.

# Our Urologists enter the theatre of war

George Young Feggetter (1905 – 2000) (Fig. 1) became interested in urology after working with George Grey Turner (1877 – 1951) in his native Newcastle. He subsequently furthered his urological training with a visit to Alexander von Lichtenberg (1880 – 1949) in Berlin in 1933, who had pioneered intravenous urography.

Feggetter then worked under Edward Canny Ryall (1865-1934) and with Terence Millin (1903 – 1980) who were pioneering Transurethral Resection of Prostate (TURP) at All Saints Hospital in London before the war.<sup>8</sup> He published one of the earliest British papers on TURP<sup>9</sup> and in 1936 wrote a review on bladder outflow obstruction whilst First Surgical Assistant to the British Postgraduate Medical School.<sup>10</sup>

On the outbreak of war Feggetter worked in the Emergency Medical Service on the home front then joined the RAMC in 1942. He was posted to North Africa as part of Operation Torch.<sup>1</sup> We are fortunate to have a detailed account of his activities during the war as Feggetter bequeathed his war diary to the Imperial War Museum.

<sup>7.</sup> Mangold P. Britain and the Defeated French : From Occupation to Liberation, 1940-1944. I.B. Tauris; 2012.

England RC of S of. Feggetter, George Young - Biographical entry - Plarr's Lives of the Fellows Online. https://livesonline.rcseng.ac.uk/biogs/E008593b.htm. Accessed September 17, 2018.

Doyle RW, Feggetter GY. Endoscopic resection of the prostate: a critical survey of 150 cases. Br Med J. 1935;1(3864):147-151. http://www.ncbi.nlm.nih.gov/pubmed/20778807. Accessed October 9, 2018.

**<sup>10.</sup>** Feggetter GY. Bladder Neck Obstruction in General Practice. *Postgrad Med J.* 1936;12(132):404-413. http://www.ncbi.nlm.nih.gov/pubmed/21313033. Accessed October 9, 2018.



Figure 1: Photograph of George Young Feggetter.



Figure 2: General view of the 69th British General Hospital, Alexandria. Image, Australian War Memorial, https://www.awm.gov.au. Image in the public domain.

George Feggetter began his journey to Algiers under the command of General Eisenhower.<sup>1</sup> Having performed an appendicectomy en route, Feggetter landed in Bougie where he and his colleagues were able to deliver only first aid as the Axis planes had sunk many of the transporters containing their surgical equipment. They took over a French civilian hospital, much to the chagrin of the French surgeon and nurses who had sworn not to help the British. Using the old surgical equipment available Feggetter set about operating on the myriad of trauma patients now under his care following heavy Axis bombing.<sup>1</sup>

The French soon added their help too; compassion for the wounded presumably trumping their politics. A typical working day at this point would mean relentless operating between 7am and 10pm with sporadic ward rounds between cases.<sup>1</sup> Eventually the 69th British General Hospital was re-supplied and formed into an efficient tented hospital. (Fig. 2) Soon Feggetter's diary begins to record some urological procedures, cystoscopies and ureteric stone manipulations; his urological skills were being utilised in between general and trauma surgery.<sup>1</sup>

In 1943, he was assigned to the Field Surgical Unit of the 1st Army, which was designed to be mobile and function close to the



Figure 3: Photograph of Dennis Smith Poole-Wilson.

battlefield. The casualties included some brought in by Lt. Vladimir Peniakoff (1897 – 1951); commander of the famous 'Popski's Private Army', a British Special Forces Unit who were attacking Rommel's fuel supplies. Drawing on his experiences, Feggetter published a paper in the Lancet outlining his management of war wounds and use of proflavine-sulphathiozole powder to prevent post-operative infection.<sup>1</sup> His urological knowledge came into play as he encouraged the men to drink plenty of bland fluids to prevent sulphonamide crystaluria in the hot climate.

In March 1944 Feggetter was posted to 33rd British General Hospital in Syracuse, Sicily and was subsequently posted to Naples where, aside from managing stone disease, his urological training was once again of significant value in performing nephrectomies for tuberculosis. Venereal disease was also a florid problem amongst the troops, and Feggetter was required to perform circumcision or dorsal slit operations for syphilis patients who were otherwise being treated with intravenous arsenic preparations.<sup>1</sup> The hospital treated wounded German and Italian prisoners of war as well as Allied casualties. Feggetter recalled that the Allied capture of Rome in June 1944 was greeted with cheers from Italian patients, sparking significant animosity from their German counterparts.<sup>1</sup> The majority of his war-time surgery was dominated by trauma, although his skills as a Urologist bore fruit as a significant increase in stone disease in the hot climate meant his cystoscopy and retrograde studies coupled with his ability to manipulate ureteric stones were of significant value.<sup>1</sup>

Denis Smith Poole-Wilson (1904 - 1998) (Fig. 3) was born in Dublin in 1904, and trained at Trinity College there. He was House Surgeon to J.B. MacAlpine (1882 - 1960) in Manchester in the 1930's. Here he learned his cystoscopic skill from MacAlpine who formed the first genitourinary department at the Salford Hospital. Poole-Wilson himself became surgeon to the Salford Hospital in 1934 also specialising in urology. Already in the army reserves, he was mobilised at the beginning of the war. With the rank of Lt Colonel he was in charge of the surgical division of the 72nd British General Hospital going to North Africa and Italy. A series of letters from Denis Poole-Wilson to his wife Monique sent during the war give some idea of his time there.<sup>11</sup>

In April 1944 the 72nd Hospital was transferred from North Africa to Cancello, near Naples. Poole-Wilson describes a tented hospital overlooking the smoking volcano of Vesuvius. He was particularly interested in trauma of the lower urinary tract and although this was a condition easily diagnosed and treated in its early stages by suprapubic diversion, he recognised the importance of specialist urological care for definitive treatment. According to Poole-Wilson it was through Brigadier Harold Clifford Edwards (1899 – 1989), Consultant Surgeon to the Central Mediterranean Force, that a Genitourinary Centre was established in Naples and then in Rome. Poole-Wilson was asked by Edwards to set up this centre and also to draw up suggestions for the treatment of urethral injuries.<sup>12</sup> This 100-bed unit became colloquially known as 'Poole's

<sup>11.</sup> Poole-Wilson DS. Letter to Mrs M Poole Wilson dated 05/04/1944. 1944.

**<sup>12.</sup>** Poole-Wilson DS. Missile injuries of the urethra. Br J Surg. 1949;36(144):364-376. doi:10.1002/bjs.18003614407.



Figure 4: Photograph of James Gow.



Figure 5: Leica cystoscopic camera with a reflex box, 1938, Leitz Company, Wetzlar. From Reuter, M. A., et al. (1999). *History of Endoscopy: An Illustrated Documentation*. Stuttgart, Max Nitze Museum.



Figure 6: Schematic of a Swift-Joly cystoscope. This was the type of instrument used by urologists for endoscopy before the Second World War

Piss Palace' where he provided excellent care for open bladder and urethral injuries as well as the heavy workload of stone disease.<sup>2</sup>

Poole-Wilson presented his work on urethral injuries as a Hunterian Lecture to the Royal College of Surgeons of England after the war<sup>12</sup> and to the Royal Society of Medicine.<sup>13</sup> In the latter he describes the cases of 81 men treated for urethral rupture.<sup>13</sup> At the same meeting Geoffrey Parker (1902 – 1973) a surgeon who had also worked in Africa and Italy stated that out of his series of 94 laparotomies for trauma, 36 involved the urinary system.<sup>14</sup>

James 'Jim' Gow (1917 – 2001) (Fig. 4) was born, raised and trained in Liverpool. When war broke out he was qualified but was not yet a surgical specialist. He served throughout the war in the RAMC also in North Africa.<sup>3</sup> In the aftermath of the battle of El Alamein, Gow spotted a cystoscope with a Leitz (or Leica) camera attachment left behind by a German surgical Unit. Gow, a keen photographer, recognising its high quality, took it as spoils of war.<sup>15</sup> (Fig. 5) It was only after the war that Gow became a urologist back in Liverpool and that his German Cystoscopic camera became relevant to the future of urology.

Victor Wilkinson Dix (1899 – 1992) trained at The London Hospital Medical College and subsequently worked for George Neligan (1885 – 1956) at The London and with Frank Kidd (1878 – 1934) in private practice; both were British urological pioneers who laid the foundations of urology at The London Hospital. Like Feggetter he had visited von Lichtenberg in Berlin to study early X-ray techniques in urology and he subsequently became adept at localising urinary tract stones by stereoradiography.

Improving on Von Lichtenberg's pyeloplasty technique, he also became skilled at open renal surgery. Dix, who had flown with

<sup>13.</sup> Poole-Wilson DS. Injuries of the Urethra. Proc R Soc Med. 1947;40(13):798-804. http://www.ncbi.nlm.nih. gov/pubmed/19993672. Accessed October 9, 2018.

Parker GE. Some Observations on a Personal Series of Battle Casualties Involving the Genito-Urinary System [Abridged]. Proc R Soc Med. 1947;40(13):804-807. http://www.ncbi.nlm.nih.gov/pubmed/19993673. Accessed October 9, 2018.

Le Fanu J. The rise and fall of modern medicine. London: Little Brown. November 1999. doi:10.1136/ BMJ.319.7219.1276.

the Royal Flying Corps in the First World War, joined the RAMC in the second and served in Africa, Egypt and the Far East. While serving in north Africa he saw large numbers of dehydrated young troops develop ureteric calculi and developed a technique of open ureterolithotomy to remove these that, according to his successor John Blandy, was unrivalled for accuracy, speed, and simplicity.<sup>16,17</sup>

## Post-war accomplishments

After the war, George Feggetter resumed his career in surgery in Newcastle. He remained a general surgeon but always with an interest in urology. He was a founding member of the British Association of Urological Surgeons in 1945 and his son, Jeremy followed in his father's footsteps also becoming a noted urologist.<sup>8</sup>

Denis Poole-Wilson returned to Manchester where he shared his wartime experiences of genitourinary trauma and accumulated a wealth of experience of urothelial malignancy while working at Salford as well as the Christie Hospital and Radium Institute.<sup>2</sup> He demonstrated a causative link between bladder cancer and the dye workers of Manchester, gaining them compensation for their industrial injury. Also a founder member of BAUS, he was its president  $1965 - 1967.^{18}$ 

Geoffrey Edward Parker, only briefly mentioned above, returned to surgical practice in London and continued to maintain a lifelong interest in urology. Interestingly, after serving in North Africa and Italy and training in parachute jumping, unarmed combat and the use of small arms, he was parachuted into the Jura mountains of France and worked as a surgeon for the Maquis resistance fighters. He was awarded the Distinguished Service Order and the Croix de Guerre with Palm and Gold Star and made a Commandeur de la Légion d'Honneur.<sup>19</sup>

<sup>16.</sup> Blandy J. Obituary. Mr Victor Dix. Br J Urol. 1992;70:464.

Blandy J. Obituary, V.W. Dix. BMJ. 1992;305(Index 1992 Dec):3-28. doi:10.1136/bmj.305.Index\_1992\_ Dec.3.

Mitchell J. Obituary, Denis Smith Poole-Wilson. Biritish Medical Journal. https://www.jstor.org/stable/ i25179694. Published 1998. Accessed October 9, 2018.

**<sup>19.</sup>** England RC of S of. Parker, Geoffrey Edward - Biographical entry - Plarr's Lives of the Fellows Online. https://livesonline.rcseng.ac.uk/biogs/E006009b.htm. Accessed October 9, 2018.

In 1957, James Gow, now a consultant urologist in Liverpool, approached Harold Hopkins with his Leitz cystoscopic camera bemoaning his poor quality pictures of bladder tumours. With a £3000 grant from the Medical Research Council, Hopkins worked with Gow to deconstruct existing endoscopes, identifying the causative problem; poor light transmission.<sup>20</sup> Hopkins exchanged the series of air spaces and glass lenses for continuous glass rods, as well as applying a reflective coating so that more light would pass directly through the rods.<sup>20</sup> The Rod Lens cystoscope was introduced at the SIU in Munich in 1967 changing the face of endourology forever.<sup>20</sup> Cruel irony resulted in Gow succumbing to bladder cancer in 2001.<sup>20</sup>

Victor Dix became Professor of Surgery at The London Hospital from 1947 – 1964. His main interest was urology and established a purpose-built urology outpatients department. He was succeeded by John Blandy who became London's first Professor of Urology.

# Conclusion

It is clear that surgery in WWII was for the general surgeon who was capable of managing any trauma as well common surgical ailments. Cystoscopy (Fig. 6) was a specialist skill that could only be provided by Urologists. It proved to be of huge importance for a high-risk group of stone-forming patients in this desert war. Feggetter and Poole-Wilson were already skilled in endoscopy and Victor Dix brought his formidable skill in radiological diagnosis and open stone surgery. Gow's interest photography meant that, for different reasons, it was serendipitous that all these men were posted in the same historically significant military operation.

## **Correspondence to:**

Peter Grice peter.grice@nhs.net

**<sup>20.</sup>** Goddard JC. A Series of Fortunate Events: Harold Hopkins. J Clin Urol. 2018;11(1\_suppl):4-8. doi:10.1177/2051415818775309.