

Urinary Diversion

PAST, PRESENT AND FUTURE



Mr Philip Powell FRCS

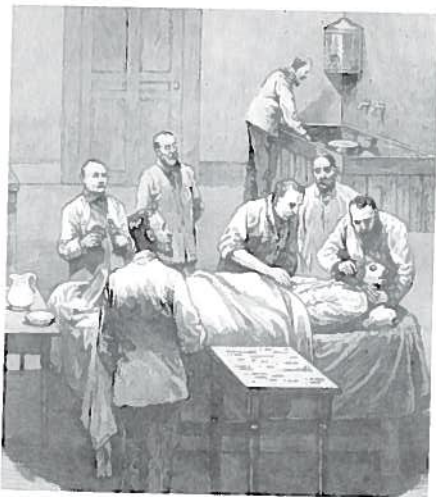
On Thursday 21 October 2010 our National President, Mr Philip Powell FRCS, visited the Surrey Branch to speak on the future of the Urostomy Association. The meeting was held at the Chipstead Football Club and very well supported thanks to the extended invitations from David Tomkinson, the Surrey Branch Chairman. The theme of the talk was the changes that have occurred in surgical techniques since Mr Powell was appointed as a Consultant Urologist at the Freeman Hospital, Newcastle in 1985.



PAST As a child of the NHS, he began by stating that the indications for a urinary diversion have changed little during the course of the past 50 years and included bladder cancer requiring cystectomy, neurogenic bladder conditions affecting kidney function, radiation injury to the bladder and intractable incontinence. The numbers of patients undergoing urinary diversion for neurogenic bladder dysfunction has however decreased during this time because of the reduced incidence of myelodysplasia and the introduction of intermittent self catheterisation.

Today, bladder cancer requiring cystectomy (removal of the bladder) is the most frequent indication for a urinary diversion. The first complete radical cystectomy was performed on January 13, 1887 in Cologne, Germany, but the surgery was unsuccessful because of the lack of an adequate method of urinary diversion and the patient died 14 days after surgery due to uraemia and hydronephrosis, but the surgeon had proved the technical feasibility of this operation.

By 1923 the commonest form of urinary diversion was ureterosigmoidostomy but the operation of cystectomy at that time carried a 59% mortality rate and even by 1939, only 250 cystectomies had been reported. The incontinent urinary diversion, also known as the Bricker's loop, ileal loop, or ileal conduit, was developed in the 1950s and rapidly became the gold standard diversion. It is still the most prevalent procedure, primarily because it is relatively uncomplicated, and is also the urinary diversion procedure most urologists have been trained to perform. Although the majority work reasonably well, the ileal conduit is far from the perfect solution because of the high incidence of ureter and stoma strictures and urinary reflux to the kidneys. These strictures frequently impair, or even block, urine flow, and may require surgical revision. Additionally, the incidence of ascending bacteria and urinary reflux remains substantial and results in repeat kidney infections and progressive kidney deterioration in up to 30% of the cases.



Surgery in the Victorian era

PAST PRESENT & FUTURE



All members are invited to celebrate our **40th anniversary** at a location in the South of England on a Saturday in September.

The event will include:

- Speakers on robotic surgery and research
- Workshops
- Question and answer sessions
- Presentations
- Fashion Show
- Exhibition of products/services
- Dinner and dancing
- Entertainment
- Time for socialising

Full details to be announced in the Summer Journal 2011



UROSTOMY ASSOCIATION 40th BIRTHDAY

Some 40 years you've been around,
The advice you give is always sound.
From post-op help to bags that leak,
You spur us on when we are weak.

Your Magazine is a joy to read
And caters greatly for all our needs,
From products new to Members letters,
Without a doubt there is none better

So thank you, team, for forty years,
Urostomates rise and give three cheers,
The Lily flower will now unfold
And may the "Ruby" turn to "Gold".

Jacky Rayner

Yorkshire & Humberside

Ode to the UA by Jacky Rayner, Yorkshire and Humberside branch

UROSTOMY
ASSOCIATION UA

journal



Summer Journal information to contributors and advertisers

Copy deadline 1 June

Advertising copy deadline date 12 June

Inserts required at printers not before 19 June,
but no later than 26 June

Journal posted out to members mid July

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PRESENT

During the course of the past 20 years, however, we have seen the introduction of alternatives to ileal conduit urinary diversion and these include the continent urinary diversions and the development of orthotopic diversions. Despite these advances, however, in 2010 the ileal conduit diversion still remains the commonest form of urinary diversion performed after a cystectomy, as it is a safe and reliable operation, has a low complication rate and a high patient satisfaction level.

The later types of urinary diversion are associated with a much longer operative time, sometimes lasting six hours, and a higher incidence of complications and re-operation rates. There is no doubt, however, that the newer forms of diversion are very popular, especially with younger patients, but the patient's general condition and other medical problems need to be taken into account when making a decision regarding a particular form of surgery. There is clear evidence that the age of patients undergoing cystectomy is slowly increasing as the average age of the general population rises and as one gets older, other medical problems develop which may influence the preferred treatment.

A surgical operating team at work



FUTURE

New developments in surgical techniques, particularly the introduction of laparoscopic and robotic surgery will further reduce the morbidity and complications related to urinary diversion surgery. Although there are significant cost implications related to the development of these new surgical techniques, it is certain that they will offer huge advantages to patients undergoing urinary diversion and in the future allow surgeons to undertake more complex procedures in the older patient who has additional medical problems.

For a surgeon trained in conventional techniques laparoscopic procedures can be very taxing and difficult. A simple task like tying sutures suddenly becomes very demanding when performed via a television screen. Try fixing a bow-tie in a mirror to understand the problems. One's fingers are always moving in the wrong direction.

Robot-assisted surgery was developed to overcome the limitations of minimally invasive surgery. Instead of directly moving the instruments the surgeon uses a computer console to manipulate the instruments attached to multiple robot arms. The computer translates the surgeon's movements, which are then carried out on the patient by the robot. Other features of the robotic system include, for example, an integrated tremor filter and the ability for scaling of movements (changing of the ratio between the extent of movements at the master console to the internal movements of the instruments attached to the robot). The console is located in the same operating room as the patient, but is physically separated from the operative workspace. Since the surgeon does not need to be in the immediate location of the patient while the operation is being performed, it is possible for specialists to perform remote surgery on patients.

ADVANTAGES

- Significantly less pain
- Less blood loss
- Less occurrence of major complications
- Shorter hospital stay
- Quicker recovery of bowel function

With the cost of the robot at £1 million and disposable surgical material costs of £1,500 per operation, the cost of the procedure is much higher. Numerous feasibility studies have been done to determine whether it is really worth a hospital's while to purchase such a system and opinions differ dramatically. Surgeons report that, although the manufacturers of the systems provide training on this new technology, the learning phase is intensive and surgeons must operate on twelve to eighteen patients before they feel comfortable with the system. During the training phase, minimally invasive operations can take up to twice as long as traditional surgery, which ties up operating room and surgical staff time and keeps patients under anaesthesia longer. ■



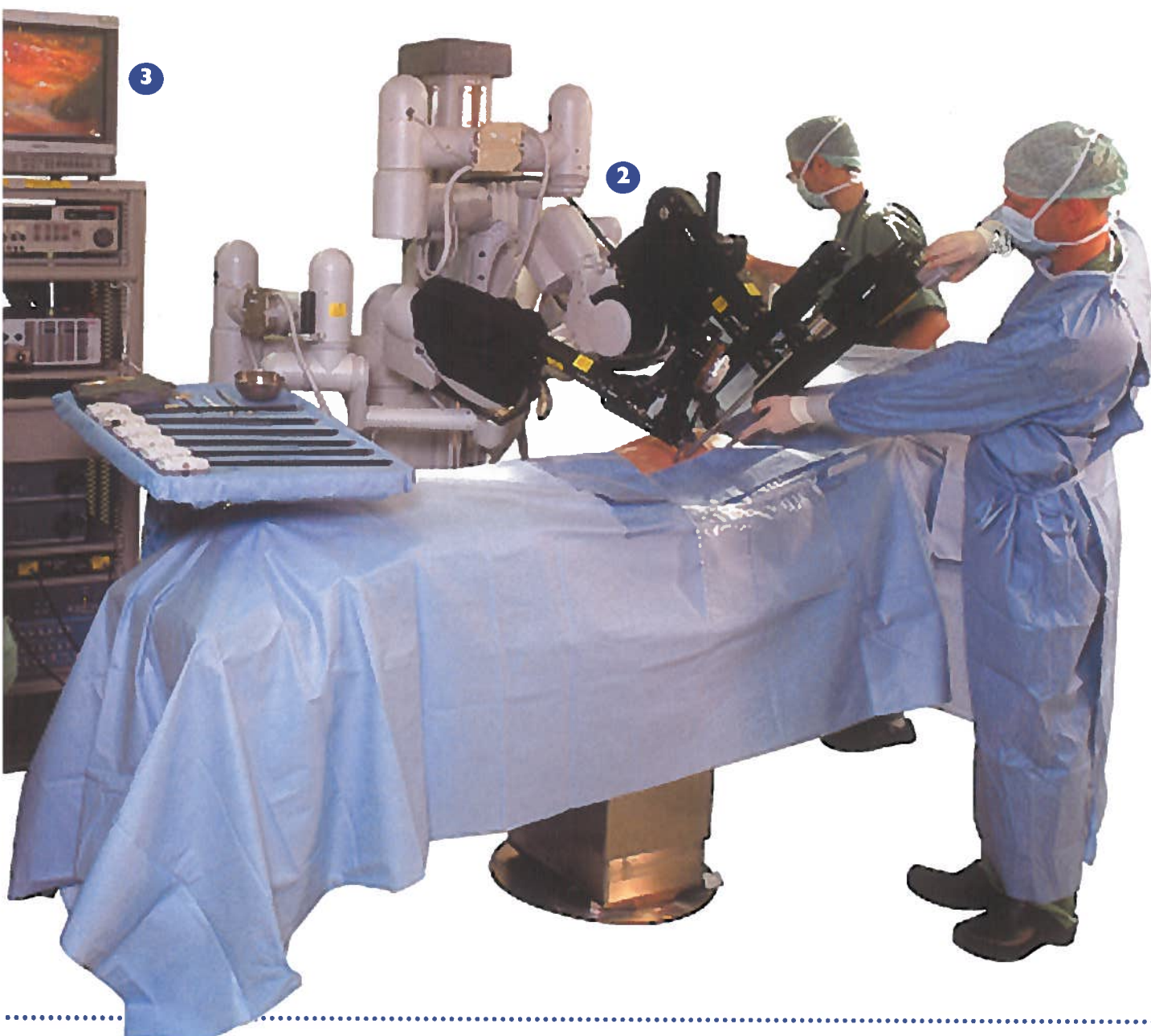
The da Vinci Surgical System





The da Vinci Surgical System comprises three components:

① a surgeon's console ② patient-side robotic cart with four arms manipulated by the surgeon (one to control the camera and three to manipulate instruments), and ③ a high-definition 3D vision system. Articulating surgical instruments are mounted on the robotic arms which are introduced into the body through cannulas. The device senses the surgeon's hand movements and translates them electronically into scaled-down micro-movements to manipulate the tiny proprietary instruments. It also detects and filters out any tremors in the surgeon's hand movements, so that they are not duplicated robotically. The camera used in the system provides a true stereoscopic picture transmitted to a surgeon's console.



40th Anniversary

2011 marks the 40th Anniversary of the founding of this Association of ours. National Fundraising Officer, **Don Haines** wants to make it a memorable one as far as our fundraising is concerned, and here are two major initiatives for 2011.



The Blackwater Quilters

We regret to announce that Dora Roberts died on 18 January 2011

Win this quilt!

UA 2011 Raffle

This UA 2011 raffle has as its first prize a beautiful hand-made quilt donated by Essex member Dora Roberts and her wonderful Blackwater Quilters. Goodness knows how many painstaking hours of stitching have gone into this lovely work, so I hope that you will reward the ladies by selling as many tickets as possible. Two books of five tickets have been posted to all members and further books are available from the National Secretary.

Please do not worry if you are not comfortable with the idea of a raffle – we will understand if you do not wish to take part. If this is the case, we would appreciate it if you would return your unsold tickets to the National Secretary.