contraceptive pill, participation in sports and the chances of a genetic predisposition. Information is presented in a frank, yet reassuring, manner using simple terminology and explaining medical jargon along the way. Although aimed at lay people, there is a slant towards new therapies and research. The site is mostly in text format, and the information is package in discrete packages which can be frustrating to navigate. There is an extensive links section in the FAQ page, though not all links are available.****

<http://digestive.niddk.nih.gov/ddiseases/pubs/crohns/index.htm>

US-based site, aimed solely at patients. A very dry site with only one schematic (a line-diagram of the gastrointestinal tract). Clear language, with avoidance of jargon, but only superficial information in the most part that is covered with more detail and style on other sites. External links only to other US-based Crohn's information sites. Although appearing high up in the search engine hits, other sites are far more educational, clear, accessible and relevant to the patient.*

www.nacc.org.uk

The website of the National Association of Colitis and Crohn's, a British charitable association with membership open to patients and their families, health professionals, drug representatives, hospital representatives and anyone else who wants to help fund-raise. An unbelievably broad scope, packed with information and details of fund-raising activities. Provides a community attitude for Crohn's sufferers, with online forums and details of local groups for support and discussion. Written by Crohn's patients, it appears to be aimed at informing and empowering younger sufferers (15–29 years) – one of the discussion groups is entitled 'Tackling the Medics'. The site provides monthly updates on the latest research, and practical advice on daily living, diets, and dealing with benefits agencies. The information packs sent on joining are available in English, Gujarati, Hindi, Punjabi and Urdu. The site is also a pressure group, co-ordinating campaigns to improve the quality of life of Crohn's patients.*****

Surgeon orientated

<http://www.guideline.gov/summary/>

Part of an American site for medical professionals dedicated to providing best-practice guidelines in a number of diseases, including Crohn's. The site gives pathways for diagnosis and treatment of the disease, dividing the disease into mild, moderate, severe and fulminant categories for both. However, there is no referencing to evidence throughout the guidelines and only two bibliographic sources given, both from 2001. The guidelines have only been updated once when, in 2005, new advice from the US FDA was given regarding a pharmacological agent. Overall, an informative site offering a framework for Crohn's management, but it suffers from a lack of direct evidence-base and up-to-date material.**

<http://www.surgical-tutor.org.uk/default-home.htm>

Well pitched to the non-Crohn's specialist surgeon, trainee or student with ordered bullet-point sequences of information. Good comparison of ulcerative colitis and Crohn's, with relevant papers cited and a reasonable bibliography at the end, although tending towards older review papers rather than up-to-date research or reviews. Clear information on diagnostic grading of the disease, and extra-intestinal manifestations. Excellent use of images, encompassing histology, gross specimens, radiology and schematics of operative interventions. An ideal first point of call for both first-time learning or as an *aide memoire*.****

<http://www.medscape.com/viewprogram/5211>

Part of a Medscape, password-controlled (free to register) website with a March 2006 section entitled 'Advances in the Treatment of Crohn's Disease: From Research to Clinical Practice'. A set of three lectures from current researchers in inflammatory bowel disease, specifically focusing on Crohn's. An easily accessible route to boost the surgeon's knowledge of the science behind the condition at all levels, and how basic principles are being manipulated into new therapies. Written in simple, non-technical language with liberal use of slides and diagrams to illustrate points. An excellent way to keep updated on present thoughts in terms of therapy websites. The site has a search tool for accessing previous updates on Crohn's, including the efficacy and use of TNF antagonists now, future therapies, treatment algorithms and trials to assess risk factors for IBD. Certainly, the most academic site readily available on the subject.*****

Robotic surgery

VINCENT CY TANG¹, N CHARLES STACEY²

¹Renal Unit, St Helier Hospital, Carshalton, Surrey, UK

²Department of Plastic Surgery, Queen Victoria Hospital, East Grinstead, West Sussex, UK

CORRESPONDENCE TO

Vincent CY Tang, Clinical Fellow in Renal Transplant Surgery, Renal Transplant Surgery Office, Renal Unit, St Helier Hospital, Wrythe Lane, Carshalton, Surrey SM5 1AA, UK
E: vincetang@hotmail.com

Robotic surgery is the use of a mechanical device to assist surgery in place of a human-being or in a human-like way. Despite being in its infancy, robotic surgery is set to revolutionise surgery. Today's technology is focused on developing 'robot-assisted-surgery' but, gradually, robots are becoming more sophisticated and diverse. It is, therefore, important for today's surgeons to have some understanding of the uses and science underlying this technology. Here, we have reviewed some general websites but also some specific examples of surgical robots. As much of the research and development is done in the commercial

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***MAY BE USEFUL **LOOK IF YOU'VE GOT NOTHING TO DO
*BEST AVOIDED

SELECTED INTERNET VIEWINGS

sector, some of the best robotics websites are those produced by the robot manufacturers.

Brown University – Division of Biology and Medicine

http://biomed.brown.edu/Courses/BI108/BI108_2005_Groups/04/index.html

This website provides an excellent overview of robotic surgery, including the history and development of the technology. There are detailed insights into the subjects including a good explanation of different types of robotic systems and their applications. It also compares the pros and cons of conventional versus robotic surgery. The information is all backed up by scientific evidence with references. There is a video link, which last 13 minutes and shows an operation using robotic surgery. Xvid software is required to watch the video, and there is a link to download this software. In general, it is a good site as an introduction to robotic surgery, but it is aimed at medical professionals rather than the general public.***

University of Southern California – Robotic Surgery Institute

<http://www.cts.usc.edu/roboticsurgery.html>

A website produced by University of Southern California. The selection of videos varies from dedicated clips for patients and physicians to specific cardiothoracic operations using the da Vinci™ system. All videos are professionally made, and easy to download and play as MPEG files. There are also some simple explanations about the da Vinci™ system and its benefits. However, these are limited to cardiothoracic surgery.***

InTouch Technologies, Inc.– RP6 Robot

<http://www.intouch-health.com/ith/index.html>

This is an example of robotics used in the general surgical management of patients rather than in theatre. 'Remote Presence is the ability to project oneself to another location (without leaving one's current location) and to move, see, hear and talk as though one were actually there.' This technology has been highly featured in recent press, even in the American hospital drama series ER, where clinicians are using robots to do ward rounds. This InTouch Technologies, Inc. website is the manufacturer of the RP6 (Remote Presence 6) robot. It gives a basic explanation of the RP6 system and its potential use in medicine. There are some interesting links to the press releases and even a short clip of its debut in 'ER'. However, this website is let down by the lack of information on the underlying technology. There is a technology page, but it is currently under construction.**

Intuitive Surgical® – da Vinci™ system

<http://www.intuitivesurgical.com>

Intuitive Surgical® is the only manufacturer of a complete, robot-assisted, minimally invasive, surgical system widely considered the forefront of robotic surgery. A well-organised website, with pages targeting different readers. Without going into depth, the product pages show the various components of the systems. As expected, the site readily highlights the positive factors of the 'da Vinci™ systems' and neglects the less positive factors, e.g. cost and lack of haptic feedback. There are a number of short videos that show the system in use and interviews by surgeons endorsing the product. The website also has pages aimed at hospital managers, showing the 'broad economic impact' of the system. For more detail, the physician resource pages, show the use of da Vinci™ in the various specialties, with details and references on individual procedures. Finally, there is a patient resource section, which gives a concise overview aimed at the layman who may be considering a procedure.***

The Acrobot Company Ltd

<http://www.acrobot.co.uk>

The Acrobot active constraint system allows the surgeon to align knee prostheses with more accuracy (less degrees of error) than conventional operations. The website, although easy to navigate, makes it very difficult to work out how this robot actually works or in what way it assists surgery. There are no intra-operative diagrams or videos to aid the imagination. Unlike other product sites, this company is even reluctant to high-light the advantages and bonuses of their robotic assistance. There is, however, a brief overview of the software and hardware used in the system, and a comprehensive list of the related publications.*

Armstrong Healthcare Ltd

<http://www.armstrong-healthcare.com>

Although a website designed to sell the Armstrong robotic systems, this provides an excellent insight into how robotics can assist surgery. The two robotic products are very different and show two aspects of robotic surgery. The systems are clearly explained, high-lighting their features and benefits and showing their various applications. There are no intra-operative images but there is a brief 10-s video of the EndoAssist robot. An excellent FAQ page but, of course, it only shows the benefits of the system. The surgical speciality pages allow specialists to see how these products may be used in their particular field. The R&D page is worth reading but it gives a generally biased view of 'the future of robots in surgery' and suggests that 'the future' lies with the technology that Armstrong is developing. A nice touch is the patient page, giving patients some insight into how robot-assisted surgery may affect them.***