1. The eSTEP™ website: a good model for online surgical training?
2. The eSTEP™ website: a response
3. Cosmetic surgery: information for patients

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MD HUMZAH
S TADIPARTHI, K SHOKROLLAHI

Selected internet viewings

Welcome to the *Annals'* regular review of what's happening on the Web, what your patients are reading and what caught our eye this month.

If you wish to review web sites in your area of expertise, please E-mail your completed reviews directly to me, **Richard Gibbs**, at r.gibbs@imperial.ac.uk. Authors must NOT submit their reviews more than once.

The editors regret that they cannot enter into correspondence with authors. It may be some months before your submission is reviewed.

The eSTEP™ website: a good model for online surgical training?

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eSTEP™: http://www.rcseng.ac.uk/education/estep/home_html

BeST online: <https://www.intumed.com/>

Online learning is not a new concept and this is certainly true in surgery. With online textbooks, basic skills videos and interactive tutorials, the World Wide Web should be the surgical trainees' oyster. Yet few of these resources are comprehensive enough or of sufficient quality to be the ideal surgical training tool. Perhaps recognising this deficit, The Royal College of Surgeons of England (RCSE) launched eSTEP™ in 2001 – a comprehensive online learning resource aimed at surgical trainees. eSTEP™ complements the printed modules in the Surgeons in Training Education Programme (STEP™), a distance learning programme introduced in 1994.

STEP™ is firmly aimed at the surgical trainee working towards the MRCS examinations. A wide breadth of information is presented on the eSTEP™ website including case discussions, anatomy teaching videos, GMED Limited's 'Multimedia Course in Minor Surgery', self-test questions and discussion boards – much of what the surgical trainee is seeking online. The website is quick, convenient to access and easy-to-navigate, if a little bland. The study

modules are divided into 12 components reflecting the STEP™ printed modules – six core modules covering areas common to all branches of surgery and six system-specific modules – with each containing a variable number of case studies and multiple choice questions. The case studies are well written and are illustrated using realistic examples from every-day practise. A large compilation of clinical cases is supplemented on a weekly basis and explores the study modules in depth. Trainees are encouraged to participate in online discussion – commenting, answering questions and clarifying areas of uncertainty – facilitated by an online moderator. Thought-provoking exchanges result, promoting self-directed learning rather than the classical 'spoon-feeding' mode of knowledge acquisition. Some cases are supplemented with convenient anatomical videos – useful given the limited anatomy teaching resources available to postgraduate trainees. The minor surgery course uses images, videos and animation to prepare the surgical trainee embarking on their first minor operations list. A large bank of multiple choice and extended matching questions are of good quality and are written in a format similar to the MRCS examination making them suitable for exam preparation.

So far, eSTEP™ sounds like the answer to a surgical trainee's prayer – a high-quality learning resource aimed at supporting the trainee through their early surgical training years and their MRCS examinations – what more could a trainee ask for? If so, why are all trainees not subscribing to STEP™ so they can make use of the eSTEP™ website?

One potential reason is financial – £1370 (or £1420 via direct debit) for a 24-month subscription will seem pretty hefty to the average junior surgical trainee. Subscription is limited to one option (24 months) which some will find restrictive. Many may only wish to use certain aspects of the website, while some will complete the MRCS examinations in less than 24 months – more flexible subscription periods would certainly be attractive. It is important to bear in mind that subscription includes the 12 STEP™ printed modules, 24-months' access to the eSTEP™ website, 24-months' subscription to the *Surgery* journal, discounts on books and RCSE courses, access to a College Day which includes an introduction to eSTEP™, an overview of the Intercollegiate

MRCS examinations and an introduction to The Royal College of Surgeons of England.

Another problem is the antiquated presentation of the curriculum in core and system modules rather than the current integrated Intercollegiate MRCS. However, the trainee should not be put off as the content is up-to-date and pertinent to current practice and to the MRCS examination syllabus. A big disappointment is the lack of online tutorials. Instead, the trainee is directed to a free website already widely publicised and used. Why are tutorials not provided by eSTEP™, perhaps linked to case studies? This would afford consistency in terms of content, layout and quality of writing as well as ease of use as the trainee would be able to find all the required information on a single website. The STEP™ team is currently in the midst of updating the written modules and the electronic site and these are perhaps some of the changes they are planning.

There are few other websites which provide comparable resources for surgical trainees. The Royal College of Surgeons in Ireland's (RCSI) impressive 'Basic electronic Surgical Training' (BeST Online) represents the greatest rival. With a structured approach to the learning process, BeST Online makes similar use of case studies, discussion boards and self-test questions. It is cheaper, has flexible subscription options and a modern and exciting layout. It features 93 tutorials, 10 basic science resources, an end-of-course examination and a glossary. It makes excellent use of graphics and animations, although does not have the anatomy teaching videos or the minor surgery course. BeST Online has been made mandatory for all trainees entering RCSI Basic Surgical Training, and is available at discounted rates through the Royal College of Surgeons of Edinburgh (<<http://rcsed.intumed.com/>>) and the Royal College of Physicians and Surgeons of Glasgow (<<http://rcpsg.intumed.com/>>). Both sites present information in a manner that is relevant to day-to-day practice, while BeST Online also includes surgical theory and basic science. Undoubtedly, some trainees will prefer the option to study from the STEP™ printed modules which complement the online resources, but BeST Online represents an impressive web-based solution.

Online surgical education is expanding quickly and the surgical community now recognises the internet as an excellent forum for training and education. A new breed of trainee is emerging, equally comfortable studying at a computer or a book. The use of multimedia, interactivity with other users and regular updates are reasons that both STEP™/eSTEP™ and BeST Online will grow in popularity amongst surgical trainees.

The eSTEP™ website: a response

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As the STEP™ Tutor, I would like to thank Kaur and Harrison for their review of a component of The Royal College of Surgeons of England (RCSE) – Surgeons in Training Education Programme (STEP™), and also take this opportunity to clarify the development of this programme.

STEP™ was initially launched in 1994 as a distance learning programme for surgical trainees. This was revised in 1997 (STEP™ MRCS CsiG version) and once again in 2000 to keep up to date with the requirements of the MRCS examination. We are revising this again to reflect the new surgical training and Intercollegiate Surgical Curriculum Project (ISCP) <<http://www.iscp.ac.uk>>. The key change in the 2000 edition of STEP™ was the introduction of the eSTEP™ website; this was introduced to complement the printed version of STEP™ and provide a 'blended' learning programme. This allowed the principles expounded by the STEP™ team of W Ribbans, M Larvin and J Masih – namely that the programme would have a greater emphasis on self-directed work by trainees, there would be a larger component of interactivity with less didactic teaching and also introduce a community function for the distance learning programme.

By 2005, STEP™ had been taken up by 7500 trainees in the UK; however, it was also clear that there were going to be some major changes in training with the introduction of the Foundation years (<www.mmc.nhs.uk>) and the surgical curriculum. The STEP™ team at the RCSE have undertaken an extensive market research (Larvin M, Haine L, Kamal T. STEP™ survey: what trainees want from a distance learning programme. *Bull R Soc Surg Engl* 2006; 88: 230–1) of the trainees' requirements and also reviewed the surgical curriculum as it was being developed. Several issues have been identified:

1. The majority of trainees responded that they still wanted printed material as a resource although the material required revision in content and presentation.
2. The eSTEP™ website was also integrated closely with STEP™ hence achieving a true 'blended' learning resource. The team are also aware that technology has changed dramatically since the early eSTEP™ site was developed.

From the first item above, the survey demonstrates that trainees prefer a blended learning approach where they can learn didactic material from printed material and can take self-assessments online. Unlike BeST Online (Basic electronic Surgical Training) which is wholly online,