The London Deanery General Surgical Skills Programme at Imperial College London

Background

The London Deanery General Surgical Skills Programme has become part of the standard London general surgical registrars’ training. Trainees in clinical practice attend for half a day every month. There are currently 100 trainees at ST3 and ST4 levels, and 75 trainees at levels ST5 and ST6.

The integration of structured laboratory training with surgical training allows skills acquisition within an environment that does not compromise patient safety, or raise difficulties about risk management. This approach will improve patient safety and meet public expectations on medical care.

Aims of the programme

- To provide distributed laboratory training that matches the training stage in clinical practice and is tailored to the individual trainee’s needs and abilities.
- To achieve a set of defined surgical competencies with exit criteria based on competence and educational objectives, rather than simply a ‘time-served’ criterion.
**Programme structure**

The skills laboratory environment will add to on-the-job training, as it allows experienced consultants the time to detail the intricacies of the various procedures with the trainees, as well as allowing them the opportunity to question the consultants. This can be achieved without any risk to patient safety, which could otherwise be compromised during clinical practice.

Trainees will be expected to attend no fewer than 70 per cent of allotted sessions, and this will be highlighted at their ARCP/RITAs. Trainees will have to organise the required dates away from their hospitals, so that no conflicts with clinical commitments arise.

The structure of the sessions will generally involve a brief discussion from the consultant trainer, followed by simulation of the procedure. Emphasis is heavily placed upon the practical side of this skills training.

**Programme content**

**Trainees attached to a General/Junior post will be expected to perform:**

- Small bowel anastomosis – Using porcine bowel and hand-sewn technique.
- Stoma formation – Using porcine bowel and skin
- Vascular anastomosis – Latex artery models that allow for end-to-end, longitudinal and transverse anastomoses
- Inguinal hernia repair – Using a new model which offers more realistic anatomical landmarks as well as dissection of the spermatic cord and mesh placement/fixation.
- Laparoscopic appendicectomy – Using a synthetic model made by Limbs and Things.
- Laparoscopic cholecystectomy – Using a porcine tissue model. This model allows for division, mobilisation and ligation of the vessels and use of diathermy to remove the gall bladder.
- Laparoscopic suturing – Using box-trainers to allow practice of stitching and knot tying techniques on a range of substrates including both tissue and synthetic skin pads
- Gastrojejunostomy and surgical management of emergency upper gastrointestinal procedures - using hand-sewn technique on porcine stomach and small bowel, on a bench-top model.

**Trainees attached to an ST5/ST6 Breast post:**

A new Programme is under development. Procedures to be taught include:

- Imaging and Needle Biopsy
- Aesthetic Assessment and Re-modelling
- Sentinel Node Biopsy
- Breast Imaging – Interpretation Skills
- Surgical approach to women with high breast cancer risk
- Nipple Reconstruction
Trainees attached to an ST5/ST6 Colorectal post will be expected to perform:

- Laparoscopic suturing
- Anal anastomosis – This uses synthetic bowel on bench-top simulators, and allows training with the Eisenhammer retractor.
- Pouch formation – Porcine bowel is used to create a pouch on the bench-top.
- Stapled large bowel anastomosis – Porcine large bowel used in conjunction with GIa staplers and the CEEA circular stapler, on the bench-top pelvic simulators.
- Laparoscopic incisional hernia
- Rectopexy – Recently enhanced synthetic model
- Hemi-colectomy – New synthetic model
- Stoma formation revisited - Focus on problems of siting and parastomal hernias

Trainees attached to an ST5/ST6 Upper GI or HPB post will be expected to perform:

- Oesophageal anastomosis – This uses a jig to simulate depth and the awkward angles involved in this procedure. Parachute technique can also be used.
- Laparoscopic suturing.
- Laparoscopic gastrojejunalostomy – focusing on stapling technique and continuous stitching.
- Laparoscopic fundoplication/Heller’s myotomy – This model allows manoeuvring of the fundus around the oesophagus via manipulation through the crus.
- Management of emergency gastrointestinal procedures.
- Choledocho/cystojejunalostomy – using porcine tissue
- Bariatric procedures
- Common bile duct exploration
- Pancreato-gastrostomy with closure of pancreatic remnant

Trainees attached to an ST5/ST6 Vascular post will be expected to perform:

- Vascular anastomosis – Latex artery models that allow for end-to-end, longitudinal and transverse anastomoses.
- Endovenous procedures – all day workshop
- Carotid endarterectomy - Removal of a plaque from a synthetic filled carotid artery and subsequent arterial repair.
- Endovascular aneurism repair – all day workshop
- Femoro-peroneal anastomosis – synthetic model that allows practice of these open techniques.
- Femoral popliteal bypass – synthetic
- Laparoscopic suturing
- Thyroidectomy.
The pilot study concluded that skills training is of greatest benefit where it can soon be applied to clinical practice. For this reason, surgical registrars will attend sessions that complement their training post at that time.

Programme Director
Professor George Hanna
Professor of Surgical Sciences and Consultant Surgeon
Department of Surgery, Imperial College London

Management Board
Professor Nigel Standfield - Head of Postgraduate School of Surgery, London Deanery
Professor Timothy Allen-Mersh – Training Programme Director, North West London
Ms Fiona Myint – Training Programme Director, North East/North Central London
Mr Peter Leopold – Training Programme Director, South West London
Mr Mike Saunders – Training Programme Director, South East London

Location
Skills sessions will be held at the Clinical Skills laboratory which is based at:

St. Mary’s Hospital,
2nd Floor, Paterson Centre,
South Wharf Road,
Paddington,
London W2 1BL

St. Mary’s Campus map: [http://www3.imperial.ac.uk/campusinfo/stmarys](http://www3.imperial.ac.uk/campusinfo/stmarys)

For further information please contact:

Ms Megan Roy on 020 3312 2249 / m.roy@imperial.ac.uk

Mr Stephen Marchington on 020 3312 6443 / s.marchington@imperial.ac.uk

or visit the Programme website [http://imperial.ac.uk/medicine/LDSkillsProgramme](http://imperial.ac.uk/medicine/LDSkillsProgramme).