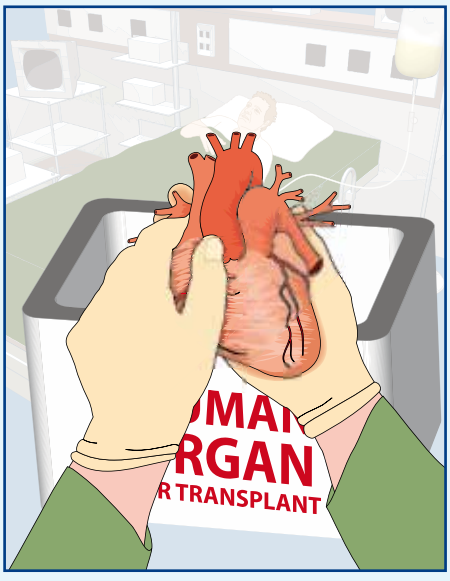
So you want to be ... a transplant surgeon



More than 3700 solid organs transplants were performed in 2010 in the UK and over 85% of renal, liver and heart transplants are functioning 1 year post surgery (Organ Donation, 2010). The positive impact of transplantation on patient survival and quality of life is unquestionable.

Multiorgan abdominal transplant surgery

Kidney transplant surgeons form the largest group of transplant surgeons in the UK, working in over 25 centres and performing more than 1300 transplants in 2010 (Organ Donation, 2010). They are responsible for vascular and peritoneal access. Some care for emergencies and common elective surgical conditions in patients with renal failure while others combine a general surgical practice or another subspecialty (liver–pancreas transplant or endocrine).

Liver transplant surgeons are responsible for all aspects of liver transplantation, either primarily or with commitment to paediatric, combined kidney and liver transplantation or hepatopancreaticobiliary surgery. Only a handful of transplant surgeons perform small bowel transplants in the UK, and Birmingham and Cambridge are the only recognized training centres.

Cardiothoracic transplantation

Heart transplantation is accepted treatment for severe, refractory heart failure caused by cardiomyopathy, coronary artery disease or congenital heart disease. Indications for lung transplantation include chronic obstructive airways disease, cystic fibrosis and idiopathic pulmonary fibrosis. The working schedule is determined by the time limits imposed by organ preservation techniques. With maximum cold ischaemic times for both organs of 6 hours, recipient surgery often begins in the early hours, is long, complex and requires attention to detail. There is a commitment to a full range of emergency thoracic and general elective surgery including implantation and monitoring of ventricular assist devices for end-stage heart failure.

Mr Shahid Farid *is Transplant Clinical Research Fellow and* **Mr Raj Prasad** *is Clinical Director Cancer and Transplant Surgery, St James University Hospital, Leeds LS9 7TF*

Correspondence to: Mr R Prasad

Training

After foundation training, candidates compete to enter core surgical training for 2 years and must pass the Membership of the Royal College of Surgeons before highly competitive national selection into higher general surgical (for abdominal organ transplantation) or cardiothoracic training.

Given the competition it is almost compulsory for transplant trainees to have undertaken some higher degree research (MD or PhD). Publication of research adds weight to application to ST3+ appointments and practising transplant surgeons in general engage significantly more in academic research than most other surgical specialities (Florence et al, 2011).

Following entry to ST3, trainees embark on 5–6 years of training following speciality-specific curriculum outlined in the intercollegiate surgical curriculum programme, before negotiating the intercollegiate Fellowship of the Royal College of Surgeons (Transplant) exit exam and achieving the certificate of completion of specialist training (CCST). Training in transplant operative techniques come relatively late in higher surgical training after firm grounding in organ procurement, general abdominal or thoracic surgery. Both abdominal and cardiothoracic transplant surgeons require a working understanding and application of transplant immunology and most will require further specialist training after CCST as fellowships either in the UK or in centres of excellence in the USA, Canada, Germany or South Korea. Owing to the relatively small pool of consultant positions it is not uncommon to spend several years in senior fellow roles.

No matter what transplant speciality is chosen, a significant amount of time is spent on the multidisciplinary management of patients, assessing donors, postoperative management in high dependency and intensive care settings, and research and teaching. Effective communication skills are vital in working with a wide variety of medical and allied specialities. Private practice is not a significant part of most transplant surgeons' lives.

The future

Transplant surgery remains a relatively small speciality in the UK, but more surgeons will be needed as a result of increasing need, efforts to increase the donor pool and working time restrictions. Nevertheless competition will remain fierce and trainees should convert ambition to demonstrable qualities by seeking early career advice and maximizing opportunities to highlight their passion. Useful websites include www.uktransplant.org.uk, www.bts.org.uk, www.carrelclub.org.uk, www.esot.org and www.nhsbt.nhs.uk BJHM

Conflict of interest: none.

Florence LS, Feng S, Foster CE et al (2011) Academic careers and lifestyle characteristics of 171 transplant surgeons in the ASTS. *Am J Trans* **11**(2): 261–71

Organ Donation (2010) Statistics. www.organdonation.nhs.uk/ukt/statistics/statistics.jsp (accessed 25 March 2011)

KEY POINTS

- Transplantation surgery requires broad surgical skills derived from general abdominal and thoracic surgery.
- Consultants are both leaders and team members of a large multidisciplinary speciality.
- Academia and research commitments are important in trainee and consultant roles.