Reflection paper

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Clerkship period: 4 weeks
14th July to 25th July 2025 - Anesthesiology
28th July to 8th August 2025 - Plastic and Reconstructive Surgery

One of the objectives of our elective was to observe the Japanese healthcare system, with particular attention to how the structure of the systems and resources used differed from those in the UK. This would expand on our understanding of the delivery of care in different contexts. Furthermore, we set out to compare medical education systems in Japan and the UK, noting the similarities and differences.

Given our interest in anaesthetics and plastic surgery, we used this elective as an opportunity to explore both specialties in greater depth. Our aim was to assess whether we were more inclined towards one specialty or whether there were elements of both that we found appealing or less suited to our personal strengths and aspirations. We also aimed to improve our clinical knowledge by observing a wide range of cases and engaging in structured discussions with supervisors.

The clinical component of our elective consisted of a four-week placement at Nagoya University Hospital, divided into two weeks on anaesthetics and two weeks in plastic surgery. Both rotations were based in the surgical unit, and we were supervised by professors. Nagoya University Hospital operates under Japan's universal healthcare system, where patients contribute to the cost of treatment depending on income, but most expenses are government subsidised.

Our daily clinical work was observation based. In anaesthetics, we were primarily exposed to the preparation and induction of patients prior to surgery, and to the weaning and extubation of patients postoperatively. We also observed multiple surgeries in part, moving between theatres to maximise exposure to varied cases. In contrast, the plastic surgery placement required us to follow individual operations from beginning to end, except when cases extended beyond the standard working day. In those instances, we were excused in the evening and subsequently debriefed the following day.

During the anaesthetics rotation, we observed a wide spectrum of adult and paediatric cases. A particularly challenging example involved a three-month-old infant undergoing a Kasai procedure for biliary atresia. Cannulation of this patient was extremely difficult, requiring ultrasound guidance and repeated attempts. This case emphasised the importance of perseverance, teamwork, and effective communication in overcoming unexpected challenges. Another interesting experience was observing cardiothoracic procedures under the guidance of our anaesthetic supervisor, who specialised in cardiac anaesthesia. We witnessed both open and robotic heart surgeries, including the use of transoesophageal echocardiography. This provided us with a new learning opportunity, as we were able to correlate echocardiographic findings with anatomy and clinical management.

During the plastic surgery rotation, we were also able to observe a variety of different cases. We observed a tongue reconstruction, following resection due to tongue cancer, using an anterolateral thigh flap. This opportunity provided valuable revision of both head and neck, and limb anatomy. Another noteworthy case was a microtia surgery, in which a malformed ear was reconstructed using rib cartilage harvested from the patient. Observing the delicate sculpting of the cartilage into the form of an ear illustrated the artistry required within surgical practice and reinforced our appreciation for the manual dexterity required in plastic surgery.

The elective offered a breadth of learning opportunities, both through structured teaching and through our own initiative. Our anaesthetic supervisor provided detailed explanations of complex concepts such as echocardiographic views, which enabled us to strengthen our understanding of cardiology and the anatomy of the heart. We also supplemented our observations with independent reading and research. For example, when we noticed a bifid P wave on a patient's ECG, we hypothesised left atrial enlargement secondary to mitral stenosis, which was later confirmed by our supervisor. This exercise served as an effective form of case-based learning, consolidating our theoretical knowledge with practical application.

While on our plastic surgery rotation, we were able to observe very effective teamwork within the operating theatre. During the tongue reconstruction, parallel teams worked simultaneously on the tongue excision and flap harvesting, demonstrating the importance of coordination and communication. The microtia reconstruction

deepened our understanding of cartilage structure and limitations, particularly when we questioned the feasibility of robotic assistance and learned why the material properties of cartilage necessitate manual sculpting.

Overall, these experiences enhanced both our anatomical knowledge and our appreciation of surgical artistry, reinforcing the idea that medicine is a discipline where both science and craftsmanship are needed. The elective fully met and, in some ways, exceeded our original aims and objectives. It provided exposure to two competitive specialties, highlighted differences in healthcare delivery and medical education, and allowed us to improve the quality of our academic research.

In Japan, anaesthetists exclusively practise anaesthesia, whereas in the UK, the ACCS anaesthetics training pathway provides broader exposure to acute medicine, intensive care, and emergency medicine. While we enjoyed the anaesthetics placement, we found aspects of it somewhat repetitive in isolation, and we realised that the breadth of ACCS training in the UK was particularly appealing to us. This insight will help us make more informed decisions about our careers in the future.

Our prior exposure to plastic surgery in the UK had been minimal, as it only included a brief period in our second year. This elective gave us a much broader appreciation of the specialty, highlighting its diversity and the range of skills required. We particularly valued the creativity and artistry involved in the field, which greatly enhanced our interest in pursuing it further. Observing the microtia reconstruction illustrated the unique value of human skill in medicine. Despite the rapid advances in medical technology, certain procedures demand a level of craftsmanship that cannot currently be automated or replicated by machines. This experience provided us with an appreciation of the blend of science, artistry, and manual precision involved in plastic surgery.

In terms of how the healthcare systems differed between the UK and Japan, we mainly observed that Japanese hospitals benefited from access to more advanced technologies and medications with higher costs, reflecting higher budgets compared to some NHS institutions. This showed the impact of financial constraints on patient care in the UK and gave us a better understanding of the challenges faced by the NHS.

Our elective experience was extremely rewarding. The clinical component provided us with new insights into two potential career paths, broadened our understanding of healthcare systems, and strengthened our clinical knowledge. These experiences have contributed significantly to our personal and professional development and will play a crucial role in shaping our future medical careers.