

## Case study: UK National Flap Registry

In August 2015, the British Association of Plastic, Reconstructive and Aesthetic Surgeons (BAPRAS) launched the UK National Flap Registry (UKNFR) designed to collect information on all major free and pedicled flap operations carried out in the UK – the first registry to collect this type of data anywhere in the world.

To date the registry has collected data on over 2,522 procedures from 127 consultants from 77 hospitals in the UK. This cross-specialty registry is also supported by the British Association of Head and Neck Oncologists (BAHNO), the British Association of Oral Maxillofacial Surgeons (BAOMS), British Society of Surgery of the Hand (BSSH) and the Association of Breast Surgery (ABS).

“When I first became a member on BAPRAS council, the political climate was concentrated on Consultant Outcomes Publications, driven by NHS England and Healthcare Quality Improvement Partnership (HQIP). Until then, 13 surgical specialties had already published their outcome data,” said Miss Anita Hazari, Consultant Plastic Surgeon at the Queen Victoria Hospital NHS Foundation Trust, East Grinstead, and Audit Lead of UKNFR. “One of the first things I realised was that we did not have a plastic surgery registry or a national audit collecting and recording outcomes. It was apparent that BAPRAS was going to be one of the last surgical specialties to publish data.”

At this time, plastic and reconstructive surgeons had no way of comparing whether their outcomes were comparable to those of their peers.

“We decided that for all sub-specialties within plastic surgery - from breast reconstruction to head and neck - the one common procedure among all plastic and reconstructive surgeons was Flap surgery. In order for the registry to be all encompassing, to be a true reflection of what was occurring at a national level, we had to capture data on all Flap surgery procedures. However, Flap surgery is not performed exclusively by plastic surgeons, so we had to approach all the other specialties that performed Flap surgery and encourage them to become part of the UKNFR project. Having decided which procedures we were going to collect data on, it was then a question of how do we create a registry? We were quite clear from the beginning that we need to employ a specialist company as the skill set and expertise to do so did not exist within BAPRAS.”

For the registry, BAPRAS had three important requirements:

- The registry needed to be built for a mobile platform, so data could be entered on a mobile telephone or tablet and not just a Desktop computer
- The platform had to be secure as it would be hosting confidential patient data; and
- To identify a company who could safely store the data with sufficient backup server facilities

“The main reason we decided to work with Dendrite was because they had a track record for producing Consultant Outcomes Publications with several other specialties, as well as helping specialties design their own registries. Our plan was for UKNFR to collect data on every anatomical area and so the registry design was quite complex as it was essentially several registries built within one larger registry. That is why working with Dendrite made a real difference, because they have the expertise and an inherent understanding of how complex these issues were, and they were able to offer advice on how the issues could be resolved.”

For example, Dendrite’s experience and expertise was particularly helpful especially when dealing with the issues around data protection and applying for section 251 from the Secretary of State.

“The application process is quite onerous and Dendrite was most helpful having jumped through all these hoops before.”

### **The registry**

Dendrite developed a registry that facilitates two methods to enter data - either via a secure NHS server data entry website on a Desktop or PC, or via a mobile platform such as a tablet. The intuitive interface is easy-to-use and it takes on average about 4-5mins to enter the data for a single case. Initially, Miss Hazari said that there is a bit of a learning curve, but over time data entry becomes easier as surgeons become more familiar with the interface.

One of the big successes of the registry has been the ‘Surgeon Dashboard’. The registry displays the surgeon’s data on a ‘dashboard’ allowing them to see their data instantly and real-time: the number of performed procedures, outcomes and complication rates, return to theatre rates, length of hospital stay etc. Miss Hazari explained that the dashboard and the information it provides is hugely beneficial during appraisal and revalidation as it produces evidence of the surgeon’s performance in the form of a real-time audit.

“Even those surgeons who were at first reluctant to enter data, have been converted due to the power of the data collected. The feedback from our members who have used their data for appraisal and/or revalidation has been fantastic. It is a powerful, personal audit tool.”

UKNFR has also brought benefits to individual hospitals and NHS Trusts, as they have been able to demonstrate the quality of service being provided to healthcare commissioners. Commissioners can see, via registry data, that they are getting value for their money.

UKNFR also reports Patient Reported Outcomes Measures (PROMs), whereby patients are contacted a set number of months after their procedure to complete an online questionnaire about their experience. These results are then electronically accumulated within the registry.

“We are not just gathering data on the hard clinical outcomes but also patient reported outcomes, assessing whether the patient perceives the procedure to be a success or not,” she added. “UKNFR is a world first. For the association and for our members it has brought us some real kudos. There has been interest from our colleagues worldwide and I have travelled to Stockholm to show them how the registry works and to discuss the issues around how to collect such complex data.”

In addition, as a professional association BAPRAS has its own journal – the Journal of Plastic, Reconstructive & Aesthetic Surgery (JPRAS). As UKNFR is an association project, BAPRAS has published papers referencing the registry, giving wider exposure to the international plastic and reconstructive surgical community.

“I would have no hesitation in recommending Dendrite. They been professional throughout the project and have continually made us aware of future challenges, such as the General Data Protection Regulation (GDPR) that will come into force in May 2018,” she concluded. “They continue to play a pro-active role in future proofing the registry, informing the association of any forthcoming problems and providing us with sensible solutions.”