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EDITORIAL

The UK National Flap Registry (UKNFR): A National Database for all pedicled and free flaps in the UK[☆]



KEYWORDS

Flap outcomes;
Flap registry;
Free flap reconstruction;
PROMs

Summary The UK National Flap Registry (UKNFR) is a cross-speciality National Clinical Audit with participation by the British Association of Plastic Reconstructive and Aesthetic Surgeons (BAPRAS), British Association of Head and Neck Oncologists (BAHNO), British Association of Oral and Maxillofacial Surgeons (BAOMS) and Association of Breast Surgery (ABS). The aim of UKNFR is to collect information about all major pedicled and free flap operations carried out in the UK and through that, assess the quality of care we provide for patients. This audit will allow appropriate comparison of clinical performance with national standards and provide useful data on changing trends. Participation in audit is integral to appraisal and revalidation in the UK.

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Introduction

In adult cardiac surgery in the UK, surgeon specific mortality data (SSMD) has been in the public domain since 2005. Since 2013, the Health Quality Improvement Partnership (HQIP <http://www.hqip.org.uk>) has been responsible for the delivery of Consultant Outcomes Publication (COP) for NHS England. Initially covering 10 surgical National Clinical Audits, COP has expanded to include 12 specialities in 2014 (adult cardiac surgery, bariatric, colorectal, head & neck, lung cancer, neurosurgery, orthopaedic surgery, thyroid & endocrine, upper gastrointestinal surgery, urological surgery, vascular surgery and interventional cardiology).

The UK National Flap Registry (UKNFR) is the first of its kind in the world and has been created out of the need to document flap reconstructions performed in the UK. Though it may result in COP, this will only apply to England; however, participation in this national clinical audit has been welcomed by surgeons in Scotland, Wales and Northern Ireland.

UKNFR has grown from collaboration between the British Association of Plastic Reconstructive and Aesthetic Surgeons (funded and maintained by BAPRAS), British Association of Head and Neck Oncologists (BAHNO), British Association of Oral and Maxillofacial Surgeons (BAOMS) and Association of Breast Surgery (ABS). It is supported by Prof Danny Keenan, Medical Director of HQIP and a practicing cardiac surgeon.

Though UKNFR is for surgeons in the UK, similar registries in other countries will allow comparison of flap reconstructions outcomes at an international level and provide useful data on changing trends. If you wish to set up

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such an initiative in your country, I would be happy to provide guidance and share the learning curve.

Aim

The aim is to collect information on all free and major pedicled flap reconstructions for the Head & Neck, Breast, Upper & Lower Limb, Perineum and Trunk carried out in the UK and through this, assess the quality of care we provide for patients. Patient Reported Outcome Measures (PROMs) are also being collected for Breast and Lower Limb Reconstructions, with time-triggered questionnaires being sent directly to the patient via an automated text/email app and collated centrally, removing the human interface.

Patient confidentiality will be maintained

The registry requires the entry of patient confidential information. To that effect, an application has been made to the Health Research Authority for patients in England and Wales under section 251. A similar application is being made to the NHS Scottish Caldicott Guardian Forum. Until these are granted, written consent must be taken from each patient. For collation at a national level, all personal information is *anonymised* so that patients cannot be identified.

PROMs

For Breast surgery, three BreastQ Reconstructive modules: satisfaction with outcome, satisfaction with information and satisfaction with breast, will be sent directly to the patient at 6 and 12 months. The decision to use 3 modules was to ensure that the number of questions is short, which increases compliance from patients, and still have valid outcomes. Pre-operative/baseline BreastQ questionnaire is currently not in place as this requires a separate electronic setup and the first time a patient is placed in the registry is on the day of the operation, usually whilst writing the operation note. For Lower Limb reconstruction, the modified Enneking score is sent to the patient at 9 months. An effort has been made to keep UKNFR use simple as much as possible for surgeons so that it becomes an integral part of their record keeping.

Publication of outcomes

Individual surgeons will be able to use the data for *appraisal* and *revalidation* as required by the General Medical Council (GMC: <http://www.gmc-uk.org/doctors/revalidation>). UKNFR will allow appropriate comparison of clinical performance with national and regional peers.

Outcomes, including PROMs, are high on the NHS agenda. Revalidation, robust appraisal and increasing credentialing will make such data essential for an individual surgeon as well as for the hospital providing a reconstructive service, and UKNFR will be a powerful resource to deliver this data.

Register at <http://uknfr.e-dendrite.com>

Useful information & tips

Please read prior to using UKNFR.

Starting to use UKNFR

1. You can access the system using the login details which will be sent to you individually by Dendrite Clinical Systems.
2. If you are testing within your hospital and are on the NHS-N3 network you should use NHS-N3 link for logging in (it is faster & more secure), if testing from the internet outside the hospital then use the second link.
3. Once logged in use the 'enter clinical data' button to access patient details and enter new patients, search for old ones, filter by dataset etc.
4. The drop-down list of consultants (for joint operating) may not be up to date. However, it does 'learn' the names of the people you might frequently select and put them at the top of the list.

Documents button in main menu

The documents on UKNFR which you can download anytime as PDF are:

1. Patient information leaflet
2. Patient consent form
3. Terms of conditions/User policy
4. Privacy policy

You would have accepted the Terms of Conditions (User policy) and privacy policy when you first registered. You will have to accept these again when an amendment or newer version is uploaded.

Speed of data entry

There is a learning curve speed to entering the data, and all user testers found the first few flaps data entry to take longer than 15–20 min. Once you have loaded a dozen cases or more then hopefully the system will become much more familiar and eventually just a background/automatic task that will only take you a few minutes.

Please persevere.

N3/IE7,8 in NHS hospitals

The software is written in html-5 standard which means it can be truly multi-browser and will work on Safari, Google Chrome, Firefox... and Internet Explorer (but only the html-5 versions – IE10, IE11 and IE12). If you are unable to access UKNFR correctly via NHS N3 network in your hospital, it is possibly as a result of Internet Explorer version 7 or 8 which is an "old" NHS standard still being used in your Trust. This will not allow the software to function 100% correctly on your screens. Unfortunately, the only way to rectify the NHS N3 connection in your hospital is to ask the IT department in your hospitals to provide an html-5 browser

on the PCs where you need to enter data – they will usually be happy to provide Chrome.

Alternatively, access on iPad is secure, quick and UKNFR is completely tablet – device compatible.

TSL encryption

Data transfer can be either N3 network or from personal iPads/tablet devices. UKNFR has a “secure” server with TLS, which offers encrypted data traffic between the sever and the “client” computers. In simple terms, this means that anyone listening in will hear ‘white noise’.

<http://uknfr.e-dendrite.com/> is termed as a “short form url” and when you select it, it will automatically redirect to one of the secure https servers: <https://cl2.n3-dendrite.com/csp/bapras/frontpages/index.html> which takes you to the Welcome Page of the live registry. The https server ensures that any traffic to/from the server encrypts the data.

Section 251 and consent

We have applied for section 251 approval with the Health Research Authority (HRA). This is a somewhat slow process, but once approved, means that you will not have to ask for consent from patients to enter personal confidential information into UKNFR, such as name, date of birth.

Until then ***please ensure you have consent from the patient***. Consent forms and patient information sheets are in the documents section. Alternatively, you can add consent in your hospital operation consent form. Section 251 approval only applies to England and Wales, so all other countries will still have to get specific consent from patient to enter data.

For BreastQ and Enneking Score for PROMS for breast and lower limb outcomes, you will still need consent from the patient to enter mobile number and email address, as the HRA does not generally give section 251 approval for such sensitive personal information.

Formatted operation note

A free text box is present in the operation section for additional operation notes, allowing a surgeon to preview a formatted operation note and print it.

Timeline tab

You will find this tab very useful, especially, when you go back into a patient record, as it gives a snap-shot of what has been performed on the patient, including re-operations. All incomplete data (as shown by Amber background colour for that patient record in the list), in the Timeline will have the incomplete fields highlighted by a yellow triangle. When you click on it, it will take you straight to that field to complete. The patient record list uses a ‘traffic-light’ system: an amber background colour indicates incomplete data, green is complete data and red, which is a rare event, will indicate that a patient has died peri-operatively.

An amber background colour will persist until mandatory fields are complete, some of which you cannot complete at the initial operation entry such as: re-operation, flap survival, etc. If you have performed two or more flaps, to two or more recipient sites, the Timeline will ask you to pair these up. This is just for confirmation of the recipient - donor flap combinations.

Bipedicled, stacked, supercharged or turbocharged flaps

For bi-pedicled/supercharged/turbocharged, after you have entered an anastomosis for artery and vein, please just add another artery/vein.

There is no separate provision for bi-pedicled/supercharged/turbocharged/extra veins such as cephalic-when one breaks the flap unit down, it is after all a further anastomosis. Please bear in mind that the flap registry is not just for one anatomical area, but covers all pedicled and free flaps.

Discharge page

Length of post op stay is in the registry-as soon as you put in date of discharge, it automatically calculates ‘length of post-op stay’. You will find this and other fields on the discharge page. If you click on the operation in the list of patients you have inputted, the discharge page is in the drop down menu in top right hand corner.

On the discharge page: data fields include postop chemo, postop radiotherapy, ITU admission (unplanned/planned), date of discharge, and unplanned re-admission to hospital.

Data record deletion

UKNFR can be configured to allow users to delete data, if required.

It is rare, however, for entire records to be removed under normal use. The risk of inadvertent removal of data, which takes a single click of a button with one-step confirmation, is irreversible. As it is easy to do by mistake, and cannot be remedied by “undo”, the system is configured so that deletion of data is performed by Dendrite Support Team: the user calls the Support Team on the Dendrite Helpdesk number (0208 949 8999) & the staff can ensure that the deletion actioned as requested.

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Anita Hazari, M.B.B.S, M.D, F.R.C.S(Plast) , Consultant
Plastic Surgeon & UKNFR Audit Lead,*
Peter Walton, M.A, M.B BChir, M.B.A, F.R.C.P , CEO Dendrite
Clinical Systems Ltd,
*The British Association of Plastic Reconstructive and
Aesthetic Surgeons (BAPRAS), The Royal College of
Surgeons of England. 35-43 Lincoln's Inn Fields, London,
WC2A 3PE, UK*

*Corresponding author. Queen Victoria Hospital NHS Trust,
Holtye Road, East Grinstead, RH19 3DZ, UK. Tel.: +441342
410210.

E-mail addresses: anita.hazari@nhs.net (A. Hazari),
peter.walton@e-dendrite.com (P. Walton)

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