NATIONAL EMERGENCY LAPAROTOMY AUDIT (NELA) PROTOCOL

NELA Website: www.nela.org.uk

Online Web Tool: https://data.nela.org.uk

NELA Helpdesk: info@nela.org.uk

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ABOUT THE AUDIT

Background

The National Emergency Laparotomy Audit (NELA) is part of the National Clinical Audit and Patient Outcomes Programme (NCAPOP), overseen by the Healthcare Quality Improvement Partnership (HQIP). NCAPOP is a closely linked set of centrally-funded national clinical audit projects that collect data on compliance with evidence based standards, and provide local trusts with benchmarked reports on the compliance and performance. They also measure and report patient outcomes.

NELA was one of the top two (of eleven) national clinical audits prioritised for immediate funding, in response to HQIP's call for new national audit topic proposals in 2011. It was commissioned following evidence of a high incidence of death, and a wide variation in the provision of care and mortality, for patients undergoing emergency laparotomy in hospitals across England and Wales.

The aim of the audit is to enable the improvement of the quality of care for patients undergoing emergency laparotomy through the provision of high quality comparative data from all providers of emergency laparotomy.
The contract for the provision of the NELA was awarded to the Royal College of Anaesthetists (RCoA) in June 2012. The Clinical Effectiveness Unit of the Royal College of Surgeons of England and the Intensive Care National Audit & Research Centre are our partners and will provide important methodological and technical input.

Overview

The NELA is currently funded for 3 years with the potential of a further 2 year extension. In Year 1 an Organisational Audit was performed, with individual patient data collection in Years 2 and 3. All patients over the age of 18 years, having a general surgical emergency laparotomy in all NHS hospitals in England and Wales are enrolled on a prospective basis. Non-NHS hospitals and hospitals in Scotland, Northern Ireland and the Republic of Ireland are also be welcome to contribute to NELA, subject to appropriate funding, as the current HQIP funding only extends to coverage of England and Wales.

NELA will look at structure, process and risk-adjusted outcome measures for the quality of care received by patients undergoing emergency laparotomy. NELA will compare against standards of care such as those detailed in recent NCEPOD reports, and the Department of Health/Royal College of Surgeons of England's "Higher Risk General Surgical Patient (2011)" The aim of the audit is to generate data that drives Quality Improvement (QI). QI will be facilitated through dissemination of collected data as well as workshops and seminars to drive specific QI projects alongside data collection.

NELA data will be linked to other sources of routine data including Critical Care Data (Intensive Care National Audit and Research Centre (ICNARC) case mix programme), Bowel Cancer Data (National Bowel Cancer Audit/Upper Gastrointestinal Cancer Audit) and Hospital Episode Statistics (mortality data).
NELA will be delivered by a central Project Team from the National Institute of Academic Anaesthesia's Health Services Research Centre based at the RCoA. Formal oversight will be provided by a Project Board consisting of key stakeholders. Scientific input will be provided by a Clinical Reference Group consisting of representatives from all relevant clinical professional and speciality stakeholders (including patient groups).

AUDIT STRUCTURE

Clinical Reference Group (CRG)

The CRG is made up of relevant clinical professionals and speciality stakeholders and has direct input into the design and conduct of the audit. Senior representative(s) from the CRG sit on the Project Board as Senior User(s).

The CRG consists of representatives from partner organisations as well as other stakeholders including patients. The CRG acts in an advisory capacity to the Project Team, providing speciality specific advice, and lay advice as appropriate. The CRG reviews the audit design regularly and also reviews drafts of any reports and recommendations issued.

The CRG comprises representatives from:
- Age Anaesthesia Association (AAA)
- Association for Perioperative Practice (AfPP)
- Association of Anaesthetists of Great Britain and Ireland (AAGBI)
- Association of Surgeons of Great Britain and Ireland (ASGBI)
- British Geriatric Society (BGS)
- Faculty of Intensive Care Medicine (FICM)
- Intensive Care Audit and Research Centre (ICNARC)
- Intensive Care Society (ICS)
- NHS Emergency Laparotomy Network
- Patient representatives from Anaesthesia, Surgery and the elderly
- Quality Observatories
- Royal College of Anaesthetists (RCoA)
- Royal College of Nursing (RCN)
- Royal College of Radiologists (RCR)
- Royal College of Surgeons (RCS)
- Trust Management representative

NELA Project Board

The Project Board members are the decision makers and responsible for the commitment of resources to the project, such as personnel, funding and equipment.

The Project Board oversees strategic direction and is responsible for monitoring all aspects of delivery of the project by the Project Team and sub-contractors, and is accountable to the stakeholder organisations. The Project Board meets 6-monthly and receives direct reports on the delivery of the project from members of the Project Team leaders (Chair, Clinical Lead and Methodologist) as well as minutes from the Clinical Reference Group.

Responsibilities:
- Approval of Project and Stage plans
- Authorisation of any deviation from agreed plans (exceptions in terms of time/cost/quality)
- Authorisation of the start of the next stage of the project

- Assurance that the project remains on course to deliver products of the required quality to meet the Business Case defined in the Project Initiation Document (PID)
- Approval of any changes to obligations documented in the PID and contract

Roles:

- Project Executive (person funding the project) - The Executive is ultimately accountable for the project, supported by the Senior User and Senior Supplier (HQIP).
- Senior Supplier (responsible for providing the goods or services) - The Senior Supplier will be ultimately accountable for delivery of the project. (RCoA).
- Senior User (responsible for defining what is required from the project) - The Senior User commits user resources to the project and can sometimes be represented by more than one individual. For the sake of effectiveness the role should not be split between too many people. The Clinical Lead will fulfil this role.

Current Project Board members:

Chair:	Dr William Harrop-Griffiths
Executive (HQIP):	Dr Yvonne Silove
	Mr Daniel Devitt
Senior Supplier (RCoA):	Dr Liam Brennan
Senior User(s): Patient Representative:	Ms Lauren Osborne
ASGBI:	Miss Gillian Tierney
ICNARC Trustee:	Ms Lucy Lloyd-Scott
Project Team Chair:	Professor Mike Grocott
Project Team Clinical Lead:	Dr Dave Murray
RCS/Project Team Methodologist:	Dr David Cromwell

NELA Project Team

The NELA Project Team is responsible for the ongoing delivery of the Project.

Roles:

- Project Chair - Overall responsibility for delivery of the project.
- Clinical Lead - Responsible for liaison with the Clinical Reference Group members, liaison with NHS emergency laparotomy network, providing clinical advice during analysis, dissemination of audit results and working on quality improvement initiatives.
- Project Manager - Responsible for day to day management of the project.

Current Project Team members:

Chair:	Professor Mike Grocott
Clinical Lead:	Dr Dave Murray
Clinical Advisor:	Mr Iain Anderson
Methodologist:	Dr David Cromwell
Quality Improvement Lead:	Dr Carol Peden
UCLH/UCL CBRC	Dr Ramani Moonesinghe

IT/Database Manager	Mr Martin Cripps
Statistician (RCS-CEU)	Ms Kate Walker
Statistician (RCS-CEU)	Ms Angela Kuryba
Research Fellow	Dr Matt Oliver
Surgical Research Fellow	Dr Emma Barrow
Director of Education and Research (RCoA)	Ms Sharon Drake
Project Administrator	Mr Jose Lourtie
Research Team Administrator	Mr Dimitri Papadimitriou

NELA REPORTING

Key Dates

- June - Sept 2013: Complete organisational audit
- Dec 2013: 1st year of data collection process for patient audit commences
- May 2014: 1st Report published (organisational audit)
- Dec 2014: 2nd year of data collection for patient audit commences
- July 2015: 2nd Report Published (1st patient audit)
- Subsequent reports and data collection subject to extension of contract funding

Organisational Report

On the 14th of May 2014 the Project Team published the first NELA Organisational Report. With 190 of the 191 sites participating in the audit submitting organisational data the report focused on the structure in place to deal with Emergency General Surgical admissions and how many of the standards outlined in the audit's Process Outcome Measures are being met. The full report as well the Executive Summary can be found under the Reports page on the NELA website, here http://www.nela.org.uk/reports.

Prior to the publication of the report the Executive Summary was sent to the Chief Executives of the trusts taking part in the audit, with the full report being mailed to them shortly after its release. The Organisational Report was also sent to all members of the Project Board and CRG, as well as the heads of the organisations that each member represents.

Patient Report

Year 1 of the NELA Patient Audit began on the 7th of January 2014 and ended on the final day of November 2014, with Year 2 commencing the very next day on the 1st of December. The first year of the Patient Audit saw over 20,500 patient cases entered with 100% of the 191 of the participating hospitals contributing patient data. Hospitals were given until the 27th of January 2015 to lock their Year 1 cases with the Project Team performing the final patient data export the following day.

The Project Team are currently in the process of analysing the Year 1 patient data and writing the first NELA Patient Report. Once the report has been finalised and approved by the Project Board, CRG and HQIP it will be published in July 2015. Just like during the Organisational Audit copies of the Patient Report will be sent to participating trusts' Chief Executives shortly before the report's publication.

In addition to the Chief Executives a copy of the Patient Report will also be sent out to HQIP, members of the Project Team, Project Board and the Clinical Reference Group, as well as the heads of the organisations that each member represents. Members of the Project Team will be attending various national and local conferences and events in the months following the publication of the report at which copies of the full report and the Executive Summary will be available to the event delegates. Finally the report will also be published on the audit website where it will be available to all NELA participants and members of the public.

DATA COLLECTION AND ANALYSIS/METHODOLOGY

Online Web Tool

The patient data collection for the audit takes place on the NELA online web tool (https://data.nela.org.uk). Each NELA participant looking to take part in the audit at a local level is given a login for the web tool by their hospital's Local Administrator for the audit. Once granted access to the web tool a user can view the cases submitted to the audit for the hospital and contribute by adding patient information once it becomes available. If required users can also be granted Administrator privileges which allows users to export their hospital's patient data. Once exported the data can be analysed for any Quality Improvement initiatives or data analysis projects the hospital is planning to undertake.

Due to the fact that patient indefinable information (such as patient name, DOB, NHS number, etc.) is visible on the web tool a new user requires a trust or NHS email address in order to be registered. Additionally, the web tool has been designed so as to not allow members of the Project Team access to sensitive information when logged in, with all patient identifiable data having been anonymised.

Data Analysis/Methodology

The NELA Project Team is made up of methodologists, statisticians, Quality Improvement specialists and clinical fellows who will be analysing the patient data for the first report. The data will be analysed alongside the surgical and anaesthetic standards currently in place so as to see how many of them are being met and in what percentage of participating sites. Patient data from Year 1 of the audit will be reported on both on a national and local level, allowing participants to examine their hospitals' results while also seeing how they compare to the audit-wide average formed by the rest of their fellow participants.

The Project Team will also be linking Year 1 data with figures from the Office of National Statistics (ONS) and Hospital Episode Statistics (HES). By doing so they will be able to examine how many patients who underwent emergency laparotomy and were included in the audit we readmitted to hospital at a later date and how many of the patient died within 30 or 60 days of their initial procedure. In addition NELA data will be linked to other sources of routine data including Critical Care Data (Intensive Care National Audit and Research Centre (ICNARC) case mix programme) and Bowel Cancer Data (National Bowel Cancer Audit/Upper Gastro-intestinal Cancer Audit).

AUDIT AIMS/QUALITY IMPROVEMENT

NELA Objectives

The specific objectives of the NELA Project Team for the audit are:

- To enable secondary care providers to improve the delivery of care to patients undergoing emergency laparotomy using information produced by the audit.
- To provide comparative information on the organisation of care by providers of Emergency Laparotomy.
- To provide comparative information on patient outcomes following surgery for Emergency Laparotomy.
- To facilitate the development of effective change (quality improvement) initiatives and thereby spread examples of best practice and help local providers make the best possible use of audit results.
- To explore the potential for Patient Reported Outcome Measures to be included in the Programme if and when appropriate tools/collections become available.

Quality Improvement

Despite it being call the National Emergency Laparotomy Audit the Project Team is eager for NELA to be viewed less as an annual tome audit and more of an ongoing Quality Improvement project. Crucial to this being possible is engagement locally from participating sites by constantly reviewing and analysing their hospital's results and looking to improve the quality of patient care. Local NELA leads have therefore been strongly encouraged to take advantage of the web tool's Export function and transfer their patient results onto an excel spreadsheet. From there the results can much more easily be analysed and the effectiveness of Quality Improvement measures assessed.

In addition to the Export function the Project Team is also in the process of developing a QI 'dashboard' for the NELA online web tool. The dashboard will feed back patient information to users in real time allowing them to examine the demographics of patients undergoing emergency laparotomy at their site while also look at how often key surgical QI targets are being met.

Organisational Audit Action Plan

In October 2014 the Project Team published the Organisational Audit Action Plan, a form which provides a plan to assist sites in ensuring they are meeting the recommendations laid out in the NELA Organisational Report and if not, what actions need to be taken to achieve these aims. The Action Plan can be found under the Documents page on the NELA website, here http://www.nela.org.uk/NELADocs#pt.

Sharing Good Practice

During the same month the Project Team also reached out to participating sites to enquire as to what Quality Improvement initiatives had been implemented locally at the hospital, such as carrying out Morbidity and Mortality (M&M) reviews and implementing CQUIN targets. One of the questions the Project Team asked was whether an integrated care pathway relating to patients undergoing emergency laparotomy was in use.

While most sites indicated that they did not currently have an integrated pathway in place, a number of hospitals did have a relevant pathway in use and were willing to share the pathway with the audit. The Project Team collated the

various pathways sent in and published them on the NELA website, thus giving sites without an integrated pathway in place an idea of what other sites had found to be an effective tool and a platform for then going onto developing their own. The list of pathways can be found on our Pathways Examples page, here http://www.nela.org.uk/Pathway-Examples#pt.

Enhanced Peri-Operative Care for High-Risk Patients (EPOCH) Trial

The EPOCH trial, which began in March 2015, is a multi-centre, stepped wedge cluster randomised trial being conducted in over 90 NHS hospitals in England, Wales and Scotland over an 85 week period. Hospitals are grouped into fifteen clusters of approximately six on a geographical basis. The trial intervention is comprised of two components, an integrated care pathway for emergency laparotomy patients and a quality improvement package to support effective implementation of the integrated care pathway into clinical practice. The primary outcomes measure for the trial is all cause mortality at 90 days following surgery.

While not directly part of the audit, NELA and EPOCH operate side-by-side with many hospitals taking part in both. NELA also acts as the data collection side of the trial, with EPOCH using the patient data collected by sites locally for NELA to conduct their work. For more information on the EPOCH trial please visit their website, here http://www.epochtrial.org.

INFORMATION FOR PATIENTS

While NELA does not require a patient's consent to be included in the audit, it is important to the Project Team that patients are aware of their inclusion in NELA and that it works closely with patient liaison groups. For this reason a patient representative is present on both the Project Board and the Clinical Reference Group and the audit's website features a page designed to educate patients on what NELA is and how the audit is being conducted, http://www.nela.org.uk/Patient-Information#pt.

The NELA Project Team has put together the following form to address any queries patients taking part in the audit may have:

What is an Emergency Laparotomy?
An emergency laparotomy is a major operation where the surgeon has to cut open the abdomen (stomach area). It is called "emergency" because it must be done very soon or even immediately and cannot wait until a later date. It might be carried out for several reasons including internal bleeding, perforation (burst), obstruction (a blockage) or infection. In many cases it might be the only option available in order for the patient to get better.

What is NELA?
NELA stands for National Emergency Laparotomy Audit. A clinical audit like NELA is where an independent body assesses the quality of care in hospitals by looking at how it treats the patients and the outcomes of those patients. NELA is a national clinical audit, so that means it is being carried out in over 190 hospitals in England and Wales. NELA will look at the quality of care received by patients undergoing emergency laparotomy.

Why are we carrying out the NELA at this hospital?
We want to improve the care that patients undergoing emergency surgery receive. To do this we will collect important information on how well your hospital is providing care to you. We will then give hospitals all the valuable information we have obtained. This will highlight areas of their service where they are doing well, and areas in which they can improve. It will also allow hospitals to compare themselves with others all around the country. All hospitals in England and Wales that carry out emergency laparotomy are expected to participate in this audit.

What information is collected?
We will be collecting information about the care you received whilst you were in hospital. This will include information about the investigations and treatment you received, how long it took for different parts of your treatment to be given, and whether you went to a critical care bed after your surgery. Full details of what is being collected can be found the NELA website - www.nela.org.uk.

What confidential information is collected?
The confidential information we are collecting is your name, date of birth, NHS number (everyone in the country has a unique number), postcode and sex. This will allow us to match our information with other sources of information that can give us a fuller picture of how well you recovered.

What happens to the confidential information?
We will be collecting this information through a very secure website. Only the hospitals participating, the doctors and nurses working on the NELA in the hospital and the NELA project team will have access to the website. The confidential information will be coded when it is transferred and your information is stored safely in accordance with

NHS recommendations and standards. None of your personal information will be made public. Some of your non-personal information will be shared for the purposes of research. You cannot be identified from this information.

Why haven't I been asked for permission to use my information?
Because some patients are very sick before and after they have had an emergency laparotomy, it would be very hard to ask all patients for their consent. It is important that we get information from all patients, not just those that are well enough to give consent. That's how we can provide an accurate overview of quality. It can be a distressing time for patients and their families, and asking them about this project at this time would not be their most important priority.

What if I do not want to have my confidential information included?
Please email info@nela.org.uk and put "Patient request to opt-out" in the subject line. We will then contact the hospital to make sure that they do not enter your details into the audit. If they have already entered your details, we will ask for them to be removed.
Alternatively, please notify a member of your local care team that you wish to opt out. We will then ensure that your details are not entered in the audit. If they have already been entered, we will ask for them to be removed.

HOSPITALS PARTICIPATING IN NELA

All participating hospitals have an Anaesthetic, Surgical and Clinical Lead. Each site also has a NELA Local Administrator who is in charge of running the audit at a hospital level by making sure that all qualifying procedures are entered onto the online web tool and that the data is completed and locked in a timely fashion. Any of the three Leads can act as the Local Administrator, or alternatively the role can be filled by a separate member of a hospital's clinical or audit teams.

All relevant members of a hospital's staff can get involved in NELA and be issued with a username so as to access the online web tool and be part of the patient data collection and entry process. While the Local Administrator is in charge of making sure that NELA is carried out locally, it should be a number of hospital staff members who are contributing to the audit, thus insuring that it's being run effectively and efficiently.

Addenbrookes Hospital	Aintree University Hospital	Airedale General Hospital
Alexandra Hospital	Arrowe Park Hospital	Barnet Hospital
Barnsley Hospital	Basildon University Hospital	Basingstoke & North Hampshire Hospital
Bedford Hospital	Birmingham Heartlands Hospital	Blackpool Victoria Hospital
Bradford Royal Infirmary	Bristol Royal Infirmary	Bronglais General Hospital
Broomfield Hospital	Calderdale Royal Hospital	Castle Hill Hospital
Charing Cross	Chelsea and Westminster Hospital	Cheltenham Hospital
Chesterfield Royal Hospital	Churchill Hospital	City Campus - Nottingham
City General Hospital - Stoke	City Hospital Birmingham	Colchester General Hospital
Conquest Hospital	Countess of Chester Hospital	Croydon University Hospital
Cumberland Infirmary	Darent Valley Hospital	Darlington Memorial Hospital
Derriford Hospital	Dewsbury and District Hospital	Diana Princess of Wales Hospital
Doncaster Royal Infirmary	Dorset County Hospital	Ealing Hospital
East Surrey Hospital	Freeman Hospital	Frenchay Hospital
Friarage Hospital	Frimley Park Hospital	Furness General Hospital
George Eliot Hospital	Glan Clwyd District General Hospital	Glangwili General Hospital
Gloucestershire Royal Hospital	Good Hope Hospital	Harefield Hospital
Harrogate District Hospital	Hereford County Hospital	Hillingdon Hospital
Hinchingbrooke Hospital	Homerton Hospital	Huddersfield Royal Infirmary
Hull Royal Infirmary	Ipswich Hospital	James Paget University Hospital
John Radcliffe Hospital	Kent and Canterbury Hospital	Kettering General Hospital
King George Hospital	King's College Hospital	Kings Mill Hospital
Kingston Hospital	Leeds General Infirmary	Leicester General Hospital
Leicester Royal Infirmary	Leighton Hospital	Lincoln County Hospital
Lister Hospital	Liverpool Heart and Chest Hospital	Luton & Dunstable Hospital
Macclesfield District General Hospital	Maidstone Hospital	Manchester Royal Infirmary
Medway Maritime Hospital	Milton Keynes Hospital	Morriston Hospital
Musgrove Park Hospital	Nevill Hall Hospital	New Cross Hospital
Newham University Hospital	Norfolk and Norwich University Hospital	North Devon District Hospital
North Manchester General Hospital	North Middlesex University Hospital	North Tyneside General Hospital
Northampton General Hospital	Northern General Hospital – Sheffield	Northwick Park/St Marks Hospital
Papworth Hospital	Peterborough City Hospital	Pilgrim Hospital
Pinderfields Hospital	Poole Hospital	Prince Charles Hospital
Princess Alexandra Hospital	Princess of Wales Hospital	Princess Royal University Hospital
Queen Alexandra Hospital	Queen Elizabeth Hospital Birmingham	Queen Elizabeth Hospital Gateshead
Queen Elizabeth Hospital Woolwich	Queen Elizabeth The Queen Mother Hosp	Queen's Hospital - Burton

Queen's Hospital – Romford	Queens Medical Centre – Nottingham	Rotherham Hospital
Royal Albert Edward Infirmary	Royal Berkshire Hospital	Royal Blackburn Hospital
Royal Bolton Hospital	Royal Brompton Hospital	Royal Cornwall Hospital
Royal Derby Hospital	Royal Devon & Exeter Hospital	Royal Free Hospital
Royal Glamorgan	Royal Gwent Hospital	Royal Hampshire County Hospital
Royal Lancaster Infirmary	Royal Liverpool University Hospital	Royal Marsden Hospital
Royal Preston Hospital	Royal Shrewsbury Hospital	Royal Surrey County Hospital
Royal Sussex County Hospital	Royal United Hospital	Royal Victoria Infirmary
Russells Hall Hospital	Salford Royal Hospital	Salisbury District Hospital
Sandwell General Hospital	Scarborough Hospital	Scunthorpe General Hospital
South Tyneside District Hospital	Southampton General Hospital	Southend University Hospital
Southmead Hospital	Southport District General Hospital	St George's Hospital
St Helier Hospital	St James's University Hospital	St Mary's Hospital - Isle of Wight
St Mary's Hospital - London	St Peter's Hospital	St Richards Hospital
St Thomas' Hospital	Stafford Hospital	Stepping Hill Hospital
Stoke Mandeville Hospital	Sunderland Royal Hospital	Tameside General Hospital
The Christie	The Great Western Hospital	The James Cook University Hospital
The Princess Royal Hospital	The Queen Elizabeth Hospital - King's Lynn	The Royal Bournemouth Hospital
The Royal London Hospital	The Royal Oldham Hospital	The Walton Centre
Torbay District General Hospital	Tunbridge Wells Hospital	University College Hospital
University Hospital Coventry	University Hospital Lewisham	University Hospital Llandough
University Hospital North Durham	University Hospital of North Tees	University Hospital of Wales
Walsall Manor Hospital	Wansbeck General Hospital	Warrington Hospital
Warwick Hospital	Watford General Hospital	West Middlesex University Hospital
West Suffolk Hospital	Weston General Hospital	Wexham Park Hospital
Whipps Cross University Hospital	Whiston Hospital	Whittington Hospital
William Harvey Hospital	Withybush General Hospital	Worcestershire Royal Hospital
Worthing Hospital	Wrexham Maelor Hospital	Wythenshawe Hospital
Yeovil District Hospital	York Hospital	Ysbyty Gwynedd Hospital