3 RECOMMENDATIONS

It is clear from the NELA data presented in this report that there remain some crucial areas of care which must be improved if all patients undergoing emergency laparotomy are to receive the right care, by the right people, at the right time. In this 4th report there are six key themes which cover the standards against which NELA measures delivery of care for patients undergoing emergency laparotomy. For each theme there are associated actions allocated to specific owners; all are underpinned by the principles of quality improvement being specific, using measurable data from NELA, and are intended to be achievable tasks that are relevant and realistic to teams and patients within the defined time frame.

The six key NELA themes are:

1 improving outcomes and reducing complications
2 ensuring all patients receive an assessment of their risk of death
3 delivering care within agreed timeframes for all patients
4 enabling consultant input in the perioperative period for all high risk patients
5 effective multidisciplinary working
6 supporting quality improvement.

As in previous years, we have targeted the actions to those best placed to deliver them:

- the NELA Project Team
- Royal Colleges and other professional stakeholders
- commissioners, hospital CEO/MDs
- clinical directors and leadership teams
- NELA local leads
- multidisciplinary clinical teams
- patients, families and public.

Some actions are applicable to more than one area.

	Detailed Action and Owner	Timeframe
1 Improving outcomes and reducing complications		
Maximising the value of NELA data		
1.1	**Provider Executive Boards and Medical Directors:** review NELA annual and quarterly reports and changes in performance as a regular standing agenda item at Executive level (at least quarterly)	Commence from next Executive meeting (by January 2019 at the latest)
1.2	**Medical Directors, Clinical Directors, local NELA leads, Multidisciplinary clinical teams:** ensure NELA outcome data (mortality, length of stay, unplanned returns to theatre and critical care and mortality) and processes of care are presented and reviewed at regular multidisciplinary governance meetings. These meetings should consider current performance and change over time, identify gaps in care and areas of good care, and develop appropriate action plans	Commence from next governance meeting (by January 2019 at the latest)
1.3	**Medical Directors, Clinical Directors, local NELA leads:** collaborate to understand how local NELA data can inform and align with other hospital improvement programmes, such as *Getting it Right First Time (GIRFT)*, Surviving Sepsis, The Deteriorating Patient, National Emergency Warning Score, and hospital flow workstreams	Develop collaboration plan by January 2019, with integration of data flows by April 2019
1.4	**Medical Directors, Trust Medical Examiners, Clinical Directors:** integrate review of patient deaths into Trust Mortality reviews and the National Mortality Case Record Review programme	Commence from next governance meeting (by January 2019 at the latest)
1.5	**NELA:** collaborate with improvement initiatives, such as *Getting it Right First Time (GIRFT)*, Surviving Sepsis, The Deteriorating Patient, and the National Emergency Warning Score, to understand how NELA data can support these initiatives at national level	Immediate
1.6	**NELA:** develop report templates (such as the Excellence and Exception report), dashboards and other reporting tools to support local teams and executive boards understand their provision of care and share best practice	Immediate
Clinical pathways		
1.7	**Medical Directors, Clinical Directors, local NELA leads, Multidisciplinary clinical teams:** develop and agree pathways of care that apply from admission to discharge to ensure a consistent approach to care throughout the perioperative stay. Pathways should define timelines for delivery of care, diagnosis, referral and escalation pathways, seniority of clinicians, and expectations of team members	Pathways to be in place by April 2019 in anticipation of Best Practice Tariff
1.8	**NELA:** work with professional stakeholders and hospitals to define and share best practice on pathways of care for patients undergoing emergency laparotomy	December 2018

Clinical care		
1.9	**Multidisciplinary clinical teams**: ensure appropriate and timely discharge planning before stepping down patients to the ward and be alert to signs of deterioration once discharged to the ward. There should be clear referral pathways for early escalation to senior clinicians of patients who are deteriorating or failing to progress. Teams should regularly review the timeliness of referrals to ensure appropriate escalation occurs promptly. Teams should ensure safe ward staffing levels exist before discharge, especially out-of-hours	Pathways to be in place by April 2019 in anticipation of Best Practice Tariff
2 Ensuring all patients receive an assessment of their risks associated with surgery that is documented in the medical record, communicated to members of the multidisciplinary team, and used to inform clinical decision-making		
2.1	**Medical Directors and Clinical Directors:** develop policies that define allocation of resources (consultant delivered care and admission to critical care) according to a patient's risk	January 2019
2.2	**Clinical Directors, NELA leads, Multidisciplinary clinical teams:** develop and agree multidisciplinary pathways that ensure all patients receive a documented preoperative assessment of risk based on objective risk scoring and senior clinical judgement. This risk assessment should guide allocation of resources and subsequent delivery of care (recommendation 2.1). Where patients do not have a preoperative risk assessed and documented, they should be treated as if they are high risk patients and receive the appropriate standards of care for high risk (>5%) patients. Patients should only be treated as low risk if the multidisciplinary team agrees and documents that they can be considered low risk on the basis of clear and agreed clinical evidence	Pathways to be in place by April 2019 in anticipation of Best Practice Tariff
2.3	**Clinical Directors, local NELA leads, Multidisciplinary clinical teams:** ensure that risk assessment is based on a combination of both clinical and formal objective assessment (in particular using the NELA risk assessment tool which is more accurate than other methods for NHS patients undergoing emergency laparotomy). Risk assessment is done to facilitate the planning of care and communication and its limitations for an individual patient should always be considered. This risk assessment should be used as part of the consent process and to enable shared decision-making for high risk patients. A risk score can be easily calculated using the standalone NELA webtool and NELA risk app	January 2019
2.4	**Local NELA leads, Multidisciplinary clinical teams:** ensure that risk assessment information is communicated between all members of the multidisciplinary clinical team, including operating theatre staff, to aid joint understanding of a patient's risk and planning of care	January 2019
2.5	**Clinical Directors, College Tutors, local NELA leads:** promote the use of the NELA risk calculator (using webtool or NELA risk app) at junior doctor induction	Commence at next Junior Doctor induction
2.6	**NELA:** continue to analyse and assess the performance of the NELA risk prediction tool. Continue to promote the importance of combining clinical judgement with objective calculation of risk as part of clinical decision-making. Continue to provide NELA risk assessment tool on website and app	Ongoing

2.7	**Patients, families and public:** expect to be clearly informed of their own individual risks associated with their surgery, as part of the shared decision-making approach to consenting for surgery, unless they have expressed the wish not to discuss this	Ongoing
3 Delivering care within agreed timeframes for all patients		
Sepsis and peritonitis		
3.1	**Provider Executive Boards, Medical Directors:** ensure a Health Board/Trust-wide approach to identify patients with sepsis, that ensures antibiotics are given within 60 minutes of recognition of sepsis	January 2019
3.2	**Medical Directors, Clinical Directors, local NELA leads:** Use local NELA data to inform the hospital's Surviving Sepsis campaign	January 2019
3.3	**Clinical Directors, local NELA leads, Multidisciplinary clinical teams:** develop and agree multidisciplinary pathways for the management of sepsis and/or peritonitis to include patients who are admitted under non-surgical specialities. These should also ensure administration of antibiotics within 60 minutes of recognition of sepsis and appropriately rapid source control	Pathways to be in place by April 2019 in anticipation of Best Practice Tariff
3.4	**Clinical Directors, local NELA leads, Multidisciplinary clinical teams:** audit and review peritonitis cases to assess own performance and pathways, benchmarking performance against national recognised sepsis pathway	January 2019
3.5	**Clinical Directors, College Tutors, local NELA leads**: present emergency laparotomy pathways and their links with sepsis at new staff inductions (both senior and junior, surgeons, anaesthetists, ED, radiology, relevant allied healthcare professionals including nurses and operating department practitioners), and add as a standing item agenda for surgeon and anaesthetist MDT meetings	Pathways to be in place by April 2019 in anticipation of Best Practice Tariff
3.6	**NELA:** develop report templates to support local teams and executive boards understand their performance on treatment of sepsis	December 2018
Theatre capacity		
3.7	**Commissioners, Provider Executive Boards and Medical Directors:** review adequacy of theatre capacity based on estimation of emergency surgical caseload, and work to address any shortfall. Capacity needs to be sufficient to allow patients to receive surgery within defined timeframes. The area that needs particular attention is those requiring surgery within two hours. Improvement teams should use QI methodology such as process mapping to understand where change is required	January 2019
3.8	**Medical Directors and Clinical Directors:** develop policies that define the timeline to surgery, prioritise emergency cases according to risk and surgical urgency, and deferral of elective work if theatre space is unavailable to meet clinical urgency	Policies to be in place by April 2019 in anticipation of Best Practice Tariff
3.9	**Clinical Directors, local NELA leads, Multidisciplinary clinical teams:** develop and agree pathways to facilitate arrival of patients in theatre within appropriate timeframes, which define the roles of all team members and when they should be involved.	Pathways to be in place by April 2019 in anticipation of Best Practice Tariff

3.10	**Patients, families and public:** patients and their carers can expect care to follow a defined pathway, which should include care based on appropriate timeframes for access to decision makers, diagnostics, operating theatres and therapies. Patients and their carers may request the details of their pathway timeframes to help them advocate for the best care	April 2019
The deteriorating patient		
3.11	**Clinical Directors, local NELA leads, Multidisciplinary clinical teams:** develop and agree pathways to promptly identify deteriorating patients and subsequent referral to senior decision makers in pre- and postoperative periods. This will also include those admitted under non-surgical specialties	Pathways to be in place by April 2019 in anticipation of Best Practice Tariff
3.12	**Medical Directors, Clinical Directors, local NELA leads:** collaborate with hospital leads for The Deteriorating Patient and National Emergency Warning Score workstreams to ensure a uniform approach	January 2019
4 Enabling consultant input in the perioperative period for all high risk patients		
4.1	**Commissioners, Provider Executive Boards and Medical Directors:** Review adequacy of consultant staffing based on estimation of emergency surgical caseload and work to address any shortfall. Capacity must to be sufficient to allow high risk patients to receive care directly delivered and supervised by consultant surgeons and consultant anaesthetists	January 2019
4.2	**Clinical Directors from Surgery, Anaesthesia:** Review adequacy of job plans, rotas and staffing to ensure delivery of an uninterrupted consultant delivered service, 24 hours a day, seven days a week. There should be consultant presence for high risk patients regardless of urgency of surgery, time of day or day of week of surgery	January 2019
4.3	**Clinical Directors, local NELA leads, Multidisciplinary clinical teams:** develop and agree pathways of care for patients undergoing emergency laparotomy which are tailored to the hospital service and structure. Pathways must ensure consultants are informed, involved and lead in the care of patients undergoing emergency laparotomy throughout the care pathway. These should include escalation pathways for deteriorating patients and high risk patients such that they receive timely perioperative input into decision-making and clinical care by consultant surgeons, anaesthetists and intensivists. This should also cover the postoperative period to ensure the recognition, evaluation and management of complications which may result in unplanned return to theatre, or unplanned admission to critical care	Pathways to be in place by April 2019 in anticipation of Best Practice Tariff
4.4	**NELA:** further publicise the Excellence and Exception report which identifies up high risk patients where all standards were met, and those where standards were not met	Immediate

5 Effective Multidisciplinary Working		
Radiology		
5.1	**Commissioners, Provider Executive Boards and Medical Directors:** scope requirements to deliver a radiology service that provides a reported CT within a timeframe that does not delay surgery, has low discrepancy rates, and provides opportunity for meaningful senior discussion between the surgery and radiology. The NELA data suggests that an in-house consultant service provides the lowest discrepancy rate. Consideration should be given to developing local networked solutions for 24/7 consultant radiologist reporting to overcome high vacancy rates in the specialty as reported by the Royal College of Radiologists	April 2019
5.2	**Radiology and Surgery Clinical Directors, Chief CT Radiographer, local NELA leads, Multidisciplinary clinical teams:** develop and agree pathways to facilitate rapid access to reported CT scanning	Pathways to be in place by April 2019 in anticipation of Best Practice Tariff
5.3	**Radiology and Surgery Clinical Directors, clinicians:** ensure that all acute abdominal CT discrepancies are reviewed and discussed by surgery and radiology within their clinical governance programme. All discrepancy cases should be anonymised and referred to the Radiology Events and Learning Meetings following discussion between the relevant clinical teams. For most Trusts, this will be required for 1–2 scans per month	Commence from next governance meeting (by January 2019 at the latest)
5.4	**NELA, Royal College of Radiology:** develop report template to highlight patients with CT discrepancy that can be used to support radiology clinical governance programmes	April 2019
5.5	**NELA, Royal College of Radiology:** Collaborate to support the introduction of NELA Radiology leads in each hospital to facilitate improvements in the quality of local services including quality of data collection on discrepancy rates and accuracy of reporting of acute abdominal CT examinations	Immediate
Critical Care		
5.6	**Commissioners, Provider Executive Boards and Medical Directors:** review adequacy of critical care bed capacity, based on estimation of high risk patients and emergency surgical caseload, and work to address any shortfall. Capacity needs to be sufficient to admit all high risk patients (predicted mortality ≥5%) and minimise premature discharge from critical care	January 2019
5.7	**Clinical Directors from Surgery, Anaesthesia and Intensive Care, local NELA leads, Multidisciplinary clinical teams:** develop and agree multidisciplinary care pathways that include clear guidance for the clinical team as to when patients should be admitted to critical care	Pathways to be in place by April 2019 in anticipation of Best Practice Tariff
5.8	**Multidisciplinary clinical teams:** ensure that NELA data on admissions to critical care and unplanned admissions to critical care are reviewed at regular multidisciplinary governance meetings, and accompanied by actions plans to improve care	Commence from next governance meeting (by January 2019 at the latest)
5.9	**NELA:** work with other stakeholders to clarify wording around standards for admission to critical care	Anticipated that clarifications will be published by the end of 2018

5.10	**NELA, ICNARC:** work to analyse linked NELA-ICNARC database to better understand provision of care to patients undergoing emergency laparotomy	Themed report to be published in 2019
Elderly Care		
5.11	**Commissioners, Provider Executive Boards and Medical Directors:** scope requirements for Elderly Care input into patients undergoing emergency laparotomy, based on estimation of emergency surgical caseload, and work to address any shortfall	April 2019
5.12	**Clinical Directors from Elderly Care, Surgery, Anaesthesia, Intensive, local NELA leads, Multidisciplinary clinical teams:** develop and agree multidisciplinary care pathways that define when input from Elderly Care should be sought	Pathways to be in place by April 2019 in anticipation of Best Practice Tariff
5.13	**Local NELA leads, multidisciplinary clinical teams:** Ensure patients over the age of 70 have frailty, nutritional status, cognitive function and functional impairment assessed to inform decision-making and highlight those that may benefit from perioperative input by Elderly Care teams. Ensure these are embedded in clinical pathways	Pathways to be in place by April 2019 in anticipation of Best Practice Tariff
5.14	**Multidisciplinary clinical teams:** ensure that NELA data on input by Elderly Care teams is reviewed at regular multidisciplinary governance meetings	Commence from next governance meeting (by January 2019 at the latest)
5.15	**NELA:** share information on hospitals who perform well for Elderly Care input	December 2018
5.16	**NELA:** collaborate with the British Geriatric Society to raise awareness of emergency laparotomy in older people	April 2019
6 Supporting Quality Improvement		
6.1	**Royal Colleges, Postgraduate schools, College Tutors, ACRP panels:** ensure that participation in QI projects such as NELA are supported and recognised for progression in training	April 2019
6.2	**Executive Boards, Medical Directors, Clinical Directors:** Ensure infrastructure and links are in place for NELA leads to access help and support from hospital improvement or transformation teams to implement change. Ensure that time (study leave) for NELA leads and multidisciplinary teams is available (guided by appraisal) to attend workshops and training in QI methodology	April 2019
6.3	**NELA local leads/multidisciplinary clinical teams:** participate in regional and national quality improvement workshops, to improve understanding of QI methodology, share ideas and collaborate with other NELA teams	By 2019 as AHSN workshops are rolled out
6.4	**Clinical Directors, local NELA leads:** ensure job planned time and resources are available for NELA leads to carry out all expected duties, guided by the NELA local clinical lead job description	Immediate, for confirmation by NELA leads next job plan review
6.5	**NELA:** work with AHSNs to support collaborative regional working to improve emergency laparotomy care	Immediate
6.6	**Patients, families and public:** Join in with hospital projects to improve care pathways if possible, to ensure there is strong patient and public representation in the design and implementation of improvement initiatives	April 2019