3 RECOMMENDATIONS

Using the Audit's findings to improve care

Process measures

Process measures are sensitive indicators of performance, and serve to highlight where specific actions are required to bring about improvements in care. Many hospitals currently meet standards of care for 60–70% of patients and are close to achieving a 'Green' rating. Clinicians, hospital managers and commissioners should examine their results. They should determine why standards are met for some of their patients, but not others, and seek to achieve more consistent delivery of high-quality care. They should monitor measures over time to assess the impact of any changes.

Mortality and other outcomes

Clinicians, hospital managers and commissioners also need to examine their hospital's 30-day mortality and length of stay figures. The variation between hospitals in these measures suggests that there is room for improvement in many hospitals, especially where standards of care are not being reliably met. Whilst no hospitals were statistical 'outliers' for 30-day postoperative mortality, several had figures approaching a level that causes concern ('alert' status) – Commissioners, Chief Executives Medical and Clinical Directors, and Multidisciplinary Teams of such hospitals should make particular efforts to address any shortfalls in standards of care (Chapter 17.1).

The following 12 recommendations are aimed at addressing the key themes identified in this NELA Patient Report. Specific recommendations are highlighted in the relevant chapters.

Improvements since last year have predominantly been seen in areas involving a change in individual clinicians' and teams' behaviour. This needs to continue, but a more sustained effort is required to bring about the organisational change necessary to prioritise emergency care.

Commissioners

1 Commissioners should review the Audit results for hospitals from which they commission services, to assure themselves of the quality of care provided to patients undergoing emergency laparotomy. Where hospitals fall short of standards, or where mortality is of concern, **commissioners should ensure that there is adequate commissioning of**:

- **Multidisciplinary input** across the whole of the patient pathway (Chapters 8, 9, 13, 15 and 16).
- **Capacity to deliver consultant-delivered care** and other services, such as **CT scanning** and reporting regardless of the time of the day or the day of the week (Chapters 8, 9 and 13).
- **Theatre capacity** to prevent delays for patients requiring emergency bowel surgery. Some hospitals may require the capacity for emergency and elective care to continue in parallel (Chapter 12).
- **Critical care capacity** to match high-risk caseload, such that all high-risk emergency laparotomy patients can be cared for on a critical care unit after surgery (Chapter 15).
- **Elderly Medicine services** to provide input for older patients (Chapter 16).

Providers (Chief Executives and Medical Directors)

In order to deliver high-quality care to high-risk emergency patients that meets standards, attention should be directed at organisational change in the following areas:

2 Patients undergoing emergency bowel surgery require **consultant involvement in their care** 24 hours per day, seven days per week. Rotas, job plans and staffing levels for surgeons and anaesthetists should reflect this. The workload may require an increase in the number of consultants available for emergency work. In some hospitals, this may require separation of elective and emergency care so that both services can continue in parallel without competing for resources. Delivery of high-quality care can be facilitated by reconfiguring services to locate acute surgical patients within a single area. (Chapters 8 and 13).

3 Policies should be developed and implemented which use **individual risk assessment to guide allocation of resources** (e.g. critical care) appropriate to the patient's needs (Chapters 10, 15 and 17). This can also help with capacity planning by defining a hospital's expected caseload and resource requirements.

4 Provision of **emergency theatre capacity** needs to be sufficient to enable patients to receive emergency surgical treatment without undue delay, and may require capacity to allow emergency and elective care to continue in parallel. Where capacity is limited, prioritisation of time-sensitive emergency surgery can be facilitated by policies to defer elective activity (Chapters 11 and 12).

5 National standards for **postoperative critical care admission** should be adhered to. This may require an increase in critical care capacity so that emergency and elective care can continue in parallel (Chapter 15).

6 Data collected from NELA has the potential to inform NHS trust boards of many different aspects of emergency care provision. Local NELA Leads and perioperative teams must have **adequate time and resources to support accurate data collection, review adverse patient outcomes**, and to feed this back to clinical teams and hospital management including NHS trust boards. Such resources include **access to individuals with audit and quality improvement skills** throughout the NHS trust, allocated (job-planned) time to support data collection and analysis, and protected time for presentation of data in departmental meetings. Effort should be invested in ensuring clinical coding is accurate (Chapters 5, 17 and 18).

Clinical Directors and Multidisciplinary Teams

Patients undergoing emergency bowel surgery will receive care from a variety of clinical specialties, including the emergency department or acute admissions unit, radiology, surgery, anaesthesia, operating theatres, critical care and elderly care. These recommendations apply across these areas, as in many cases the need for change is not confined to a single area or specialty.

7 In order to reduce variation in care and minimise delays, hospitals should implement appropriate pathways for the care of emergency General Surgical patients, starting at the time of admission to hospital or referral by another team. Where pathways of care do already exist, Multidisciplinary Teams (MDT) should examine these in the light of audit data to determine their effectiveness, and identify why standards are still not met. Care pathways should ensure patients are admitted under the most appropriate specialty, aid communication within the MDT, prioritise emergency resources, and aim to ensure that all processes of care are provided for each patient. Standardised pathways of care also facilitate audit and thereby highlight key areas for improvement. **Pathways should cover the following areas**:

- Referral of patients for General Surgical review if they have been admitted under non-surgical specialties.
- Identification of patients with signs of sepsis and prompt prescription and administration of antibiotics.
- Identification and escalation of care of patients who would benefit from the opinion of a consultant surgeon before the next scheduled ward round.
- Rapid request, conduct, and reporting of CT scans.
- Routine documented assessment of the risk of complications and death from surgery.
- Presence of consultant surgeon and consultant anaesthetist for high-risk patients with a predicted mortality ≥5%.
- Admission to critical care for patients with a predicted mortality >10%.
- Identification of patients who would benefit from input from Elderly Medicine specialists in their perioperative care.

8 **Multidisciplinary Teams should hold regular joint meetings** to continuously review essential processes of care (for instance, using the NELA Quality Improvement Dashboard) and review perioperative morbidity (including unplanned returns to theatre and admissions to critical care) and mortality following emergency laparotomy. This should include formal collaboration with hospital mortality review panels in order to bring about greater understanding of where improvement is needed (Chapters 17 and 18).

9 **Continuous quality improvement informed by local data** should involve monitoring the impact of pathway and process changes with time-series data (run charts). The NELA web tool provides automated dashboards that can be used for this purpose. Multidisciplinary Teams should ensure that they include members with a good understanding of quality improvement principles, such as the Model for Improvement and good data feedback practices (Chapter 18).

NELA Leads

We are grateful to NELA participants for increasing case ascertainment and ensuring that data completeness was generally good. However, at some hospitals, data entry for many cases was started but not completed. In addition, fields relating to the timing of key points in the patient pathway (e.g. time of consultant surgeon review, decision to operate) were poorly completed by many hospitals (Chapter 5). Collection and feedback of high-quality data is vital to bring about improvements in care.

10 NELA Leads should review their local data to **ensure case-submission and data completeness**. Where data collection and entry is a problem, NELA Leads, supported by NHS trust resources, should work with clinical teams to improve this, to facilitate future audit and quality improvement (Chapter 5).

11 NELA Leads should actively promote **completion of P-POSSUM data fields** to ensure that risk estimation is accurate and avoid falsely elevated risk-adjusted hospital mortality rates (Chapter 5). This is in addition to the finding that standards of care were better met where risk assessment had been carried out.

Professional Stakeholder Organisations

12 Professional stakeholders, such as Royal Colleges and Specialist Societies, should collaborate to:

- Improve clarity and remove ambiguity in the wording of standards of care. This would be particularly welcome for standards for admission to critical care (Chapter 15).
- Bring together standards in a single, unified document.
- Highlight the issues to their members to ensure appropriate engagement.