NELA Patient Audit Dataset

Version Control

Version	Date	Changes
2.0	24/11/2014	Changes made to dataset for 2nd year.
2.1.1	02/04/2015	Still in hospital at 60 days answer option added to question 7.7
2.1.2	02/07/2015	Wording edited for question 2.9
3.1	01/12/2015	Changes made to dataset for 3rd year.
3.1.1	21/03/2016	Q1.9 wording edited
4.1	01/12/2016	Changes made to dataset for 4th year.
4.1.1	21/12/2016	Question 1.10b modified to include hospital transfers
5.1	01/12/17	Changes made to dataset for 5th year.
6.1	01/12/18	Changes made to dataset for 6th year. This form is to be used for admissions from 1st December 2018; Changed Q2.12 Removed Q2.12a, 2.12b Q5.2 additional indication; Hiatus Hernia/para-oesophageal hernia Q5.3a,b,c addition to procedures; Repair of para-oesophageal hernia Removal of gastric band Q7.3 text of question edited Q7.9 text of question edited for clarification

This is the NELA proforma. All data entry will be carried out through an online data collection web tool. The web tool will be accessible via pc, tablets and mobiles

This audit is a continuous prospective audit with real time data collection. It is expected that clinical teams enter the data real time rather than retrospectively.

On the NELA Webtool by default Quality Improvement (QI) questions are enabled. If you do not wish to collect data for one or more QI questions, the questions can be disabled. This is done on the NELA webtool.

For queries, please contact info@nela.org.uk
Web tool for data entry: https://data.nela.org.uk/

This form is for information purposes only.

1.	Demographics and Admission	
1.1	NHS Number	
1.2	Pseudo-anonymisation	Computer generated
1.3	Local patient id/hospital number	
1.4	Date of birth	
	Age on arrival	*Age will automatically be calculated on web tool*
1.5	Sex	○Male / ○Female
1.6	Forename	
1.7	Surname	
1.8	Postcode	
1.9	Date and time the patient first arrived at the hospital/Emergency department	
1.10	What was the nature of this admission?	○Elective / ○Non-elective
1.10b	If non-elective, what was the initial route of admission/assessment?	○ Assessed initially in Emergency Department ○ Assessed initially in "front of house" acute surgical assessment unit ○ Direct referral to ward by GP ○ Direct admission from Clinic ○ Hospital Transfer
1.11	Which specialty was this patient first admitted under? ***Do not** use "other" if the patient spent a period of observation under Emergency Medicine*	○ General surgery ○ General medicine ○ Gastroenterology ○ Elderly Care ○ Other
1.12	Residence before this hospital admission	○ Own home/sheltered housing ○ Residential care ○Nursing care ○ Unknown
1.13a	Is this patient known to have a Learning Disability?	○Yes ○No ○ Unknown
1.13b	Is this patient known to have an Autistic Spectrum Disorder?	○Yes ○No ○ Unknown

2	Pre-op **If the patient is returning to theatre as an emergency following previous elective surgery, all answers should relate to the emergency laparotomy, not the previous elective surgery.**	
2.1	Date and time first seen by consultant surgeon following admission with acute abdomen. If under care of a non-surgical specialty, this should be the time 1st seen after referral to general surgeons.	Date _____(DD/MM/YYYY) ○ Date not known Time_____ (HH:MM) ○ Time not known ○ Not Seen
2.2	Date and time that the decision was made to operate *If this is unavailable please enter date and time that this patient was first booked for theatre for emergency laparotomy*	Date _____(DD/MM/YYYY) ○ Date not known Time_____ (HH:MM) ○ Time not known

2.3	Consultant responsible for surgical care at the time the decision was made to operate (this may be different to the operating consultant)	
2.4	Was there consultant surgeon input into the decision to operate? *can refer to situations where eg decision is made on consultant ward round pending CT results, which then confirms need for surgery #refers to situations where consultant has not seen patient but has been discussed with consultant	○ Yes, consultant reviewed patient at time of decision * ○ Yes, following discussion with junior team member # ○ Decision made by junior team member **without** consultant input ○ Unknown
2.5	No Longer Required	
2.6	No Longer Required	
2.7	Was an abdominal CT scan performed in the pre-operative period as part of the diagnostic work-up?	○ Yes ○ No ○ Unknown
2.7a	If performed, how was this CT reported pre-operatively? *(If CT is reported by a registrar and validated by a consultant **before** surgery, select "in-house consultant". If **not validated** by consultant before surgery, select "registrar")*	○ In-house consultant ○ In-house Registrar ○ Outsourced service ○ Not reported pre-operatively ○ Unknown
2.7b	Was there a preoperative discussion between the radiologist and the requesting team about the CT findings?	○ Yes ○ No ○ Unknown
2.7c	Was there a discrepancy between the CT report and surgical findings that altered or delayed either the diagnosis or surgical management?	○ Yes ○ No ○ Unknown
2.8a	Consultant Anaesthetist involvement in planning perioperative care. *This can include preoperative assessment, discussion about decisions for & risk/benefits of surgery, or need for critical care*	○ Yes – seen by consultant anaesthetist in person ○ Yes – discussion between consultant anaesthetist & other team member (of any specialty) ○ No consultant anaesthetist input before surgery ○ Unknown
2.8b	Intensive care involvement in planning perioperative care. *This can include preoperative assessment, discussion about decisions for & risk/benefits of surgery, or need for critical care*	○ Yes – seen by consultant intensivist in person ○ Yes – discussion between consultant intensivist & other team member (of any specialty) ○ Seen by or discussion with junior ITU team member only ○ No intensive care input before surgery ○ Unknown
2.9	No Longer required	
2.10	What was the date and time of the first dose of antibiotics following presentation to hospital? *(only relevant for non-elective admissions)*	○ In theatre, or Date _____(DD/MM/YYYY) ○ Date not known Time_____ (HH:MM) ○ Time not known ○ Not Administered

2.11a	Was sepsis, with a NEWS >=5 or >=3 in any one variable or another diagnosis requiring urgent antibiotics e.g. peritonitis / perforation, suspected on admission?	○Yes ○No ○Unknown
2.11b	Was sepsis, with a NEWS >=5 or >=3 in any one variable and/or another diagnosis requiring urgent antibiotics e.g. peritonitis / perforation, suspected at the time the decision for surgery was made?	○Yes ○No ○Unknown
2.12a	No Longer required	
2.12b	No Longer required	
2.12	Using the Clinical Frailty Score (see help box), what was the patients pre-admission frailty status assessed as being?	○ (1-3) - not frail ○ 4 - vulnerable ○ 5 - mildly frail ○ 6 - moderately frail ○ 7 - severely frail - completely dependent for personal care ○ 8 - very severely frail ○ 9 - Terminally ill

3	**Pre-op Risk stratification**	
3.1	Prior to surgery, what was the risk of death for the patient that was entered into medical record? *For info, wording of relevant standard "An assessment of mortality risk should be made explicit to the patient and recorded clearly on the consent form and in the medical record."*	○ Lower (<5%) ○ High (5-10%) ○ Highest (>10%) ○ Not documented
3.2	If documented, how was this assessment of risk made? (Please select all that apply)	□ Risk prediction tool (e.g. P-POSSUM) □ Clinical Judgement □ Surgical APGAR □ Physiological criteria □ Other e.g. hospital policy
3.3	What was the **ASA** score?	○ 1: No systemic disease ○ 2: Mild systemic disease ○ 3: Severe systemic disease, not life-threatening ○ 4: Severe, life-threatening ○ 5: Moribund patient
3.4	What was the most recent pre-operative value for serum Creatinine (micromol/l)	☐ ○ Not performed
3.5	What was the most recent pre-operative value for blood lactate – may be arterial or venous (mmol/l)	☐ ○ Not performed
3.5i	What was the most recent pre-operative value for CRP (mg/l)?	☐ ○ Not performed
3.5ii	What was the most recent pre-operative value for albumin (g/l)?	☐ ○ Not performed
	P-POSSUM calculation	
	For questions 3.6 to 3.22 please enter values closest to time of booking for theatre in order to calculate P-POSSUM. Answers should reflect chronic *and* acute pathophysiology.	

3.6	Serum Sodium concentration (mmol/l)	
3.7	Serum Potassium concentration (mmol/l)	
3.8	Serum Urea concentration (mmol/l)	
3.9	Serum Haemoglobin concentration (g/dl)	
3.10	Serum White cell count (x10∧9 / l)	
3.11	Pulse rate(bpm)	
3.12	Systolic blood pressure (mmHg)	
3.13	Glasgow coma scale	
3.14	Select an option that best describes this patient's **ECG**	○ No abnormalities ○ AF rate 60-90 ○ AF rate >90/ any other abnormal rhythm/paced rhythm/ >5VE/min/ Q, ST or T wave abnormalities
3.15	Select an option that best describes this patient's **cardiac signs** and chest xray appearance	○ No failure ○ Diuretic, digoxin, antianginal or antihypertensive therapy ○ Peripheral oedema, warfarin Therapy or CXR: borderline cardiomegaly ○ Raised jugular venous pressure or CXR: cardiomegaly
3.16	Select an option that best describes this patient's **respiratory history** and chest xray appearance	○ No dyspnoea ○ Dyspnoea on exertion or CXR: mild COAD ○ Dyspnoea limiting exertion to < 1 Flight or CXR: moderate COAD ○ Dyspnoea at rest/rate > 30 at rest or CXR: fibrosis or consolidation
3.16a	No Longer Required	
	Online web tool will automatically calculate Physiology severity score	
3.17	Select the **operative severity** of the intended surgical intervention (see help box for examples)	○ Major ○ Major+
3.18	Including this operation, how many operations has the patient had in the 30 day period prior to this procedure?	○ 1 ○ 2 ○ >2
3.19	Based on your clinical experience of the intended surgery, please estimate the likely ***intra*operative blood loss** (ml)	○ <100 ○101-500 ○ 501-999 ○ >=1000
3.20	Please select a value that best describes the likely degree of **peritoneal soiling**	○ None ○ Serous fluid ○ Localised pus ○ Free bowel content, pus or blood
3.21	What severity of malignancy is anticipated to be present?	○ None ○ Primary only ○ Nodal metastases ○ Distant metastases
3.22	Please select **urgency** of surgical intervention	○ 3. Expedited (>18 hours)

	(see help notes for additional information, including equivalent Possum categories)	○ 2B. Urgent (6-18 hours) ○ 2A. Urgent (2-6 hours) ○ 1. Immediate (<2 hours)
	Online web tool will automatically calculate Operative severity score	
3.23	Pre-op P-POSSUM predicted **mortality** ***CAUTION: P-POSSUM can over predict mortality (up to two-fold) at risk levels above 15%. See 3.26 for NELA risk model estimate.***	Calculated ☐
3.24	Pre-op POSSUM predicted **morbidity**	Calculated ☐
3.25	Not all P-POSSUM investigations available	○
3.26	Estimated mortality using NELA risk adjustment model *(Figure only provided if all data available)*	Calculated ☐

4	**Intra-op**	
4.1	Date and time of entry in to operating theatre/anaesthetic room (not theatre suite)	Date _____(DD/MM/YYYY) Time_____ (HH:MM) ☐ Time not known
4.2	Senior surgeon grade *(this can include surgeon supervising in theatre but not necessarily scrubbed)*	○ Consultant ○ Post-CCT fellow ○ SAS grade ○ Research Fellow / Clinical Fellow ○ Specialty trainee ○ Other
4.2a	Consultant present/supervising: Name/GMC/specialty of operating or supervising consultant *(If consultant not present, enter name of supervising consultant)*	(Please select consultant - Online) ☐
4.3	Senior anaesthetist present in theatre	○ Consultant ○ Post-CCT fellow ○ SAS grade ○ Research Fellow / Clinical Fellow ○ Specialty trainee ○ Other
4.3a	Consultant present (or supervising) : Name/GMC of anaesthetist *(If consultant not present, enter name of supervising consultant)*	(Please select consultant - Online) ☐
4.4	How did you provide goal directed fluid therapy?	○ Not provided ○ Dynamic index e.g. Stroke volume, PPV, SVV ○ Static index e.g. CVP ○ Other, eg bioimpedence

5	Procedure	
5.1	Is this the first surgical procedure of this admission?	○ Yes- First surgical procedure after admission ○ No - Surgery for complication of previous elective general surgical procedure within the same admission ○ No – Previous 'non-abdominal/non-general surgical' procedure within same admission (eg previous hip replacement) ○ Unknown
5.2	What is the indication for surgery? *(Please select all that apply)*	○ Peritonitis ○ Perforation ○ Abdominal abscess ○ Anastomotic leak ○ Intestinal fistula ○ Phlegmon ○ Pneumoperitoneum ○ Necrosis ○ Sepsis ○ Small bowel obstruction ○ Large bowel obstruction ○ Volvulus ○ Internal hernia ○ Pseudo-obstruction ○ Intussusception ○ Incarcerated hernia ○ Obstructing incisional hernia ○ Haemorrhage ○ Hiatus Hernia/para-oesophageal hernia ○ Ischaemia ○ Colitis ○ Abdominal wound dehiscence ○ Abdominal compartment syndrome ○ Acidosis ○ Iatrogenic injury ○ Foreign body ○ Planned relook

5.3.a	Main procedure	○ Peptic ulcer – suture or repair of perforation ○ Peptic ulcer – oversew of bleed ○ Gastrectomy: partial or total ○ Gastric surgery - other ○ Small bowel resection ○ Resection of Meckel's diverticulum ○ Repair of para-oesophageal hernia ○ Removal of gastric band ○ Colectomy: left (including sigmoid colectomy and anterior resection) ○ Colectomy: right (including ileocaecal resection) ○ Colectomy: subtotal or panproctocolectomy ○ Hartmann's procedure ○ Colorectal resection - other ○ Abdominal wall closure following dehiscience ○ Abdominal wall reconstruction ○ Adhesiolysis ○ Reduction of volvulus ○ Enterotomy ○ Stricturoplasty ○ Drainage of abscess/collection ○ Evacuation of haematoma ○ Debridement ○ Exploratory/relook laparotomy only ○ Haemostasis ○ Intestinal bypass ○ Laparostomy formation ○ Repair of intestinal perforation ○ Repair or revision of anastomosis ○ Repair of intestinal fistula ○ Resection of other intra-abdominal tumour(s) ○ Defunctioning stoma via midline laparotomy ○ Revision of stoma via midline laparotomy ○ Large incisional hernia repair with bowel resection ○ Large incisional hernia repair with division of adhesions ○ Washout only ○ Removal of foreign body ○ Not amenable to surgery
5.3.b	Second procedure (at same laparotomy)	○ Peptic ulcer – suture or repair of perforation ○ Peptic ulcer – oversew of bleed ○ Gastrectomy: partial or total ○ Gastric surgery - other ○ Small bowel resection ○ Resection of Meckel's diverticulum ○ Colectomy: left (including sigmoid colectomy and anterior resection) ○ Colectomy: right (including ileocaecal resection) ○ Colectomy: subtotal or panproctocolectomy ○ Hartmann's procedure ○ Colorectal resection – other ○ Splenectomy ○ Abdominal wall closure following dehiscience ○ Abdominal wall reconstruction ○ Abdominal hernia repair ○ Adhesiolysis
5.3.c	Third procedure (at same laparotomy)	

		○ Reduction of volvulus ○ Enterotomy ○ Stricturoplasty ○ Drainage of abscess/collection ○ Evacuation of haematoma ○ Debridement ○ Haemostasis ○ Intestinal bypass ○ Laparostomy formation ○ Repair of intestinal perforation ○ Repair or revision of anastomosis ○ Repair of intestinal fistula ○ Resection of other intra-abdominal tumour(s) ○ Defunctioning stoma via midline laparotomy ○ Revision of stoma via midline laparotomy ○ Large incisional hernia repair with bowel resection ○ Large incisional hernia repair with division of adhesions ○ Removal of foreign body
5.4	Procedure approach	○ Open ○ Laparoscopic ○ Laparoscopic assisted ○ Laparoscopic converted to open
5.5	Operative findings: *(Please select all that apply)* *If unsure whether this patient is eligible for NELA please refer to help box*	○ Abscess ○ Anastomotic leak ○ Perforation – peptic ulcer ○ Perforation – small bowel/colonic ○ Diverticulitis ○ Intestinal fistula ○ Adhesions ○ Incarcerated hernia ○ Volvulus ○ Internal hernia ○ Intussusception ○ Stricture ○ Pseudo-obstruction ○ Gallstone ileus ○ Meckel's diverticulum ○ Malignancy – localised ○ Malignancy – disseminated ○ Colorectal cancer ○ Gastric cancer ○ Haemorrhage – peptic ulcer ○ Haemorrhage – intestinal ○ Haemorrhage – postoperative ○ Ulcerative colitis ○ Other colitis ○ Crohn's disease ○ Abdominal compartment syndrome ○ Intestinal ischaemia ○ Necrotising fasciitis ○ Foreign body ○ Stoma complications ○ Abdominal wound dehiscence

		○ Normal intra-abdominal findings
5.6	Please describe the peritoneal contamination present *(select all that apply)*	○ None or reactive serous fluid only ○ Free gas from perforation +/- minimal contamination ○ Pus ○ Bile ○ Gastro-duodenal contents ○ Small bowel contents ○ Faeculent fluid ○ Faeces ○ Blood/haematoma
5.7	Please indicate if the contamination was;	○ Localised to a single quadrant of the abdomen ○ More extensive / generalised

6	**Post-op Risk stratification**	
6.1	At the end of surgery, what risk of death was the patient documented as having?	○ Lower (<5%) ○ High (5-10%) ○ Highest (>10%) ○ Not documented
6.2	How was this assessment of risk made? (Please select all that apply)	□ Risk prediction tool (e.g. P-POSSUM) □ Clinical Judgement □ Surgical APGAR score □ Physiologicial criteria □ Other, e.g. hospital policy
6.3	Blood lactate – may be arterial or venous (mmol/l)	☐ □ Not performed
	Post-operative P-POSSUM calculation Q 6.4 – 6.14 No Longer Required	
	Physiology severity score:	
6.15	What was the operative severity? (see help box for examples)	○ Major ○ Major+
6.16	Including this operation, how many operations has the patient had in the 30 day period prior to this procedure?	○ 1 ○ 2 ○ >2
6.17	Please select this patient's measured/estimated intraoperative blood loss (ml)	○ <100 ○ 101-500 ○ 501-1000 ○ >1000
6.18	Please select the option that best describes this patient's degree of peritoneal soiling	○ None ○ Serous fluid ○ Local pus ○ Free bowel content, pus or blood
6.19	What was the level of malignancy based on surgical findings	○ None ○ Primary only ○ Nodal metastases ○ Distant metastases
6.20	What was the NCEPOD urgency? *(see help notes for additional information, including equivalent Possum categories)*	○ 3. Expedited (>18 hours) ○ 2B. Urgent (6-18 hours) ○ 2A. Urgent (2-6 hours) ○ 1. Immediate (<2 hours)

	Online web tool will automatically calculate Operative severity score	
6.21	Post-op P-POSSUM predicted **mortality**:	Calculated ☐
6.22	Post-op POSSUM predicted **morbidity**:	Calculated ☐
6.23	Not all P-POSSUM investigations available	○
6.24	Where did the patient go for continued post-operative care following surgery?	○ Ward ○ Critical Care *(includes Level 2 HDU or Level 3 ICU)* ○ Other enhanced care area (eg PACU) ○ Died prior to discharge from theatre complex
6.24a	At the end of surgery, was the decision made to place the patient on an end of life pathway?	○ Yes ○ No
6.25	No Longer Required	
6.26	Estimated mortality using NELA risk adjustment model *(Figure only provided if all data available)*	Calculated ☐

7	**Post-op – Some fields will need to be completed on discharge or death**	
7.1	Total length of post-operative critical care stay (rounded up to whole days). *Includes both ICU and HDU stay -see help box for additional information. Do not include LOS in PACU/other enhanced recovery area*	☐ Number required
7.2	No Longer Required	
7.3	For patients aged 65 or older, was the patient assessed by a specialist from Elderly Medicine in any part of the perioperative period? *(Can include physician or nurse specialist)*	○ Yes ○ No ○ Unknown
7.4	Within this admission, did the patient have an **unplanned or planned** return to theatre in the post-operative period following their initial emergency laparotomy?	○ Yes; unplanned return ○ Yes; planned return ○ Yes; unplanned AND planned return ○ No ○ Unknown
7.4a	What was the main indication for the **unplanned** return to theatre? *(Select most significant reason)*	○ Anastomotic leak ○ Abscess ○ Bleeding or Haematoma ○ Decompression of abdominal compartment syndrome ○ Bowel obstruction ○ Abdominal wall dehiscence ○ Accidental damage to bowel or other organ ○ Stoma viability or retraction ○ Ischaemia/non-viable bowel ○ Sepsis/inadequate source control ○ Deteriorating patient ○ Missed pathology at first laparotomy ○Other ○Unknown

7.4b	What was the main indication for the **planned** return to theatre? *(Select most significant)*	○ Removal of packs / ensure haemostasis / washout ○ Closure of laparostomy ○ Removal of bogota bag / formation of formal laparostomy with mesh / vac dressing insertion ○ Definitive procedure following "damage control surgery" +/- stoma formation, +/- restoration of intestinal continuity ○ Assess viability of GI tract, +/- stoma formation, +/- restoration of intestinal continuity ○ Other ○ Unknown
7.5	Did the patient have an unplanned move **from the ward** to a higher level of care within 7 days of surgery? (do not include moves from HDU to ITU, or escalation from other enhanced area/PACU)	○ Yes ○ No ○ Unknown
7.6	No Longer Required	
7.7	Status at discharge	○ Dead ○ Alive ○ Still in hospital at 60 days
7.8	Date discharged from hospital	(DD/MM/YYYY) Date required
7.9	Discharge destination; (*please do not mark 'own home' if patient will be returning back to the same residential or nursing home they resided in before admission.)*	○ Own home/sheltered housing ○ Residential care ○ Nursing care ○ Hospital transfer for medical reasons ○ Rehab/step down unit ○ unknown