National Emergency Laparotomy Audit

Help Box Text

Version Control

Version	Date
1.1	06/12/13
1.2	13/12/13
1.3	20/12/13
1.4	20/01/14
1.5	30/01/14
1.6	13/03/14
1.7	07/04/14
1.8	01/12/14
1.9	05/05/15
1.10	02/07/15
1.11	28/01/16
1.12	21/03/16

1.	Demographics and Admission	Help Box Text
1.1	NHS Number	
1.2	Pseudo-anonymisation	
1.3	Local patient id/hospital number	
1.4	Date of birth	
1.4	Age on arrival	
1.5	Sex	
1.6	Forename	
1.7	Surname	
1.8	Postcode	
1.9	Date and time the patient first arrived at the hospital/A&E.	Arrival date/time is when patient 1st presented to hospital/A&E. If a GP out of hours centre is based at the hospital A&E, then use time care was transferred from GP to the hospital. I.e. Arrival date/time is intended to reflect the time at which the patient's care became the responsibility of the hospital.
1.10	What was the nature of this admission?	

2	Pre-op	Help Box Text
2.1	Date and time first seen by consultant surgeon following admission/referral	For acute general surgical admissions, please detail the first consultant surgical review following admission. For inpatients referred to the surgical team by different specialities, please detail the first consultant surgical review following referral. For patients having emergency surgery as a complication of elective surgery, please use the time that the decision was made that they needed surgery for 2.1 & 2.2. In reality, Qu 2.1 will be redundant for these patients as they will be highlighted by the fact that they were originally an elective admission (Qu1.10), and complication of previous surgery within the same admission (Qu 5.1).
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*	If the time is unknown for "decision made", but date and time known for "booking", please provide full details of the latter. If only date is known for both fields, please provide date for "decision made".
2.2i	Which date and time is recorded?	
2.3	Consultant responsible for surgical care at the time the patient was booked for surgery (this may be different to the operating consultant)	If a consultant is being entered for the first time, please tick on the 'Consultant not on list' box and manually enter the name and GMC number. Once these have been entered, the consultant will appear on the drop down list in call cases going forward.
2.4	What was the grade of the most senior person making the decision to operate?	The clinician making the decision to operate may be different from that in 2.3
2.5	Did this clinician personally review the patient at the time of this decision?	Please indicate yes only if the clinician in 2.4 reviewed the patient IN PERSON. Do not answer "yes" if the decision was verbally made over the phone
2.6	NO LONGER REQUIRED	NO LONGER REQUIRED

2.7	Was an abdominal CT scan performed in the pre-operative period as part of the diagnostic work-up?	
2.8	If performed, was this CT reported pre-operatively by a consultant radiologist?	Do not include CTs reported after the patient has gone for surgery. “Reporting” can be verbal or written.
2.9	Date and time first seen by consultant anaesthetist prior to surgery	If the patient was only seen by a trainee anaesthetist prior to surgery, then you will need to select "not seen". If the consultant first saw the patient in the anaesthetic room then you will also need to select "not seen"
2.10	What was the date and time of the first dose of antibiotics following admission?	If the patient was not originally admitted under surgery, please use date and time of antibiotic administration following referral to surgery. If the surgery is a complication of an elective procedure within the same admission, use date/time of 1st dose since the elective procedure. This question is intended to capture information about antibiotics for infection related to the surgical procedure, so antibiotics administered for other purposes (e.g. UTI) do not need to be included.

3	**Pre-op Risk stratification**	**Help Box Text**
3.1	What risk of death was the patient documented as having?	If both percentage predicted mortality AND risk category are documented, please select the highest risk option
3.2	If documented, how was this assessment of risk made? (Please select all that apply)	Formal assessments of risk; this includes risk stratification tools (such as ASA) and prediction models (such as APACHE and POSSUM systems). Clinical judgement; refers to the categorisation or estimation of risk, based on clinical acumen and experience. Physiological criteria; either use of physiological variables in isolation (eg lactate) or incorporated into tools such as the early warning score (i.e. not incorporated into a risk stratification tool or prediction model as above)
3.3	What was the **ASA** score?	
3.4	What was the pre-operative Serum Creatinine micromol/l	Please enter values closest to time of booking for theatre
3.5	What was the pre-operative Blood lactate – may be arterial or venous (mmol/l)	Please enter values closest to time of booking for theatre. Only one decimal point required.
	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)	Units must be in g/l. If results are presented as g/dl in your institution, the value should be multiplied by 10 to convert to g/l.
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**	If no investigation have been performed AND there is no clinical detail available, please select "no abnormality"
3.15	Select an option that best describes this patient's **cardiac signs** and chest xray appearance	If CXR findings are worse than clinical findings, (or vice versa) please use worst score. If no investigation have been performed AND there is no clinical detail available, please select "no abnormality"
3.16	Select an option that best describes this patient's **respiratory history** and chest xray appearance	If CXR findings are worse than clinical findings, (or vice versa) please use worst score. If no investigation have been performed AND there is no clinical detail available, please select "no abnormality"
3.16a	Patient was ventilated prior to emergency laparotomy *Online web tool will automatically calculate Physiology severity score*	This is intended to identify those patients who are intubated and ventilated prior to laparotomy, e.g. ITU patients
3.17	Select the **operative severity** of the intended surgical intervention (see help box for examples)	**Major+:** All colonic resections (excluding colostomy alone) All gastrectomy (but not repair perforated or bleeding ulcer) Small bowel tumour resection Re-operations for ongoing sepsis or bleeding Laparostomy Intestinal bypass **Major** All other procedures including: Stoma formation Small bowel resection Division adhesions Repair perforated or bleeding ulcer
3.18	Including this operation, how many operations has the patient had in the 30 day period prior to this procedure?	Do not "unbundle" procedures. Examples of single procedure: • Hartmann's procedure (this should not be "unbundled" as 2 procedures -sigmoid colectomy and end colostomy). • Colonic resection with washout of a localised abscess would also be 1 procedure. Examples of 2 procedures: • Primary colonic anastomosis with a defunctioning ileostomy. • Colonic resection and extensive division of adhesions. • Colonic resection and small bowel repair. Example of >2 procedures:

		Hartmann's procedure **with** resection of small bowel **with** insertion of tube gastrostomy
3.19	Based on your clinical experience of the intended surgery, please estimate the likely ***intra*operative blood loss** (ml)	Based on your clinical experience, please do your best to estimate the likely volume of intraoperative blood loss.
3.20	Please select a value that best describes the likely degree of **peritoneal soiling**	Based on available radiological imaging and your clinical experience, please do your best to estimate the likely degree of peritoneal soiling.
3.21	What severity of malignancy is anticipated to be present?	Based on available radiological imaging and your clinical experience, please do your best to estimate the extent of intra-abdominal malignancy.
3.22	What was global impression of the urgency of surgery at the time of booking the case? *(see help notes for additional information, including equivalent Possum categories)*	Based on your clinical experience this should be the maximum time that a patient could reasonably wait for surgery. These classifications are based on NCEPOD and Surviving Sepsis. The equivalent POSSUM categories are also shown. Examples: **POSSUM: Emergency (resuscitation of > 2h possible)** 3. Expedited (>18 hours): No SIRS or sepsis e.g. developing large bowel obstruction 2B. Urgent (6-18 hours): Sepsis e.g. localised abscess or obstructed hernia 2A. Urgent (2-6 hours): Severe sepsis e.g. intestinal perforation **POSSUM: Emergency (immediate surgery <2h needed)** 1. Immediate (<2 hours): Life threatening haemorrhage and septic shock e.g. profuse GI bleed or pan-intestinal ischaemia
3.23	Pre-op P-POSSUM predicted **mortality**	This value will be calculated automatically
3.24	Pre-op POSSUM predicted **morbidity**	This value will be calculated automatically
3.25	Not all P-POSSUM investigations available	Please select if any of the above investigations are unavailable. This will allow you to save the form with missing data

4	**Intra-op**	**Help Box Text**
4.1	Date and time of entry in to operating theatre/anaesthetic room (not theatre suite)	Please enter the date/time at which the patient enters the anaesthetic room OR operating theatre (for patients anaesthetisted in theatre), whichever comes first.
4.2	Senior surgeon grade	
4.2a	If consultant: Name/GMC of operating consultant	If a surgeon is being entered for the first time, please tick on the 'Consultant not on list' box and manually enter the name and GMC number. Once these have been entered, the surgeon will appear on the drop down list in call cases going forward. GMC number will not be used in clinician level outcomes analysis. Please see http://nela.org.uk/article.php?article=961 for NELA statement on this matter.
4.3	Senior anaesthetist grade	
4.3a	If consultant: Name/GMC of anaesthetist	If an anaesthetist is being entered for the first time, please tick on the 'Consultant not on list' box and manually enter the name and GMC number. Once these have been entered, the anaesthetist will appear on the drop down list in call cases going forward.

		GMC number will not be used in clinician level outcomes analysis. Please see http://nela.org.uk/article.php?article=961 for NELA statement on this matter.
4.4	How did you provide goal directed fluid therapy?	Please select cardiac output monitor if equipment specific to this purpose is used (including, but not limited to equipment utilising pulse-contour analysis/ oesophageal doppler or dilution method) Please select 'other' if fluid administration is guided by parameters such as CVP or using other equipment including TOE or TTE

5	**Procedure**	**Help Box Text**
5.1	Is this the first surgical procedure of this admission, or a Complication of previous surgery within the same admission?	
5.2	What is the indication for surgery? (Please select all that apply)	
5.3.a	Main procedure	Please note that, in accordance with NELA inclusion criteria, primary and additional procedure options vary Please see inclusion/exclusion criteria under the "support" tab on this data collection website. They can also be downloaded from http://www.nela.org.uk/NELA_Docs
5.3.b	Second procedure (at same laparotomy)	
5.3.c	Third procedure (at same laparotomy)	
5.3.d	Fourth procedure (at same laparotomy)	
5.4	Procedure approach	
5.5	Operative findings: (Please select all that apply) If unsure whether this patient is eligible for NELA please refer to help box	
5.6	Please describe the peritoneal contamination present (select all that apply)	
5.7	Please indicate if the contamination was;	

6	**Post-op Risk stratification**	**Help Box Text**
6.1	Was the patient classified as high risk at the end of surgery?	
6.2	How was this assessment of risk made? (Please select all that apply)	Formal assessments of risk; this includes risk stratification tools (such as ASA) and prediction models (such as APACHE and POSSUM systems). Clinical judgement; refers to the categorisation or estimation of risk, based on clinical acumen and experience. Physiological criteria; either use of physiological variables in isolation or incorporated into tools such as the early warning score (i.e. not incorporated into a risk stratification tool or prediction model as above)

6.3	Blood lactate – may be arterial or venous (mmol/l)	Or within 30 minutes of the end of surgery.
	End-operative P-POSSUM calculation Please enter values closest to the end of surgery if available, otherwise pre-op figures will be used where appropriate (can be from ABGs or lab investigations). Answers should reflect chronic ***and*** acute pathophysiology.	
6.4	Serum Sodium concentration (mmol/l)	If new values are available, these should be from within 30 mins prior to the end of surgery, NOT recovery.
6.5	Serum Potassium (mmol/l)	If new values are available, these should be from within 30 mins prior to the end of surgery, NOT recovery.
6.6	Serum Urea (mmol/l)	If new values are available, these should be from within 30 mins prior to the end of surgery, NOT recovery.
6.7	Haemoglobin concentration in g/dl	If new values are available, these should be from within 30 mins prior to the end of surgery, NOT recovery. Units must be in g/l. If results are presented as g/dl in your institution, the value should be multiplied by 10 to convert to g/l.
6.8	White cell count (x10∧9/l)	If new values are available, these should be from within 30 mins prior to the end of surgery, NOT recovery.
6.9	Pulse rate (bpm)	If new values are available, these should be from within 30 mins prior to the end of surgery, NOT recovery.
6.10	Systolic BP (mmHg)	If new values are available, these should be from within 30 mins prior to the end of surgery, NOT recovery.
6.11	Glasgow coma score	These values will be taken from pre-op if available. They do not refer to recovery.
6.12	Describe ECG findings	If no investigation have been performed AND there is no clinical detail available, please select "no abnormality" These values will be taken from pre-op if available. They do not refer to recovery.
6.13	Describe Cardiac history / CXR appearance	If CXR findings are worse than clinical findings, (or vice versa) please use worst score. If no investigation have been performed AND there is no clinical detail available, please select "no abnormality" These values will be taken from pre-op if available. They do not refer to recovery.
6.14	Describe Respiratory history / CXR appearance Physiology severity score:	If CXR findings are worse than clinical findings, (or vice versa) please use worst score. If no investigation have been performed AND there is no clinical detail available, please select "no abnormality" These values will be taken from pre-op if available. They do not refer to recovery.
6.15	What was the operative severity? (see help box for examples)	**Major+:** All colonic resections (excluding colostomy alone) All gastrectomy (but not repair perforated or bleeding ulcer) Small bowel tumour resection Re-operations for ongoing sepsis or bleeding Laparostomy Intestinal bypass

		Major All other procedures including: Stoma formation Small bowel resection Division adhesions Repair perforated or bleeding ulcer
6.16	Including this operation, how many operations has the patient had in the 30 day period prior to this procedure?	Do not "unbundle" procedures. Examples of single procedure: • Hartmann's procedure (this should not be "unbundled" as 2 procedures -sigmoid colectomy and end colostomy). • Colonic resection with washout of a localised abscess would also be 1 procedure. Examples of 2 procedures: • Primary colonic anastomosis with a defunctioning ileostomy. • Colonic resection and extensive division of adhesions. • Colonic resection and small bowel repair. Example of >2 procedures: • Hartmann's procedure **with** resection of small bowel **with** insertion of tube gastrostomy
6.17	Please select this patient's measured intraoperative blood loss (ml)	If measured blood loss is unavailable, please estimate.
6.18	Please select the option that best describes this patient's degree of peritoneal soiling	
6.19	What was the level of malignancy based on surgical findings	
6.20	What was actual urgency of surgery at the time the procedure was performed? *(see help box for additional information, including equivalent Possum categories)*	Based on your clinical experience this should be the maximum time that a patient could reasonably wait for surgery. These classifications are based on NCEPOD and Surviving Sepsis. The equivalent POSSUM categories are also shown. Examples: **POSSUM: Emergency (resuscitation of > 2h possible)** 3. Expedited (>18 hours): No SIRS or sepsis e.g. developing large bowel obstruction 2B. Urgent (6-18 hours): Sepsis e.g. localised abscess or obstructed hernia 2A. Urgent (2-6 hours): Severe sepsis e.g. intestinal perforation **POSSUM: Emergency (immediate surgery <2h needed)** 1. Immediate (<2 hours): Life threatening haemorrhage and septic shock e.g. profuse GI bleed or pan-intestinal ischaemia
6.21	Post-op P-POSSUM predicted **mortality**:	This value will be calculated automatically
6.22	Post-op POSSUM predicted **morbidity**:	This value will be calculated automatically
6.23	Not all P-POSSUM investigations available	Please select if any of the above investigations are unavailable. This will allow you to save the

		form with missing data
6.24	Where did the patient go for continued post-operative care following surgery?	This does not include recovery. If patient went to 'Level 1 – Surgical Observation Unit' please choose the 'ward' option.
6.24a	At the end of surgery, was the decision made to place the patient on an end of life pathway?	This is intended to identify those patients whose pathology, at the time of surgery, was such that only supportive treatment was warranted.
6.25	Is the patient on a vasopressor/ inotrope?	This refers to infusion only, not bolus administration

7	**Post-op**	**Help Box Text**
7.1	Total length of post-operative ITU stay (days) *see help box for additional information'*	Each day, or part day, counts as 1 day. Hence: a. Admitted and discharged on same day = 1 day. b. Admitted on Monday, discharged on Tues = 2 days c. Admitted on Monday, discharged on Wed = 3 days. Values should reflect actual discharge, rather than when medically fit for discharge. Combined ITU/HDUs should be treated as if they were separate units. Hence, admitted as ITU patient Monday stepped down to HDU Tuesday, then discharged Wednesday =2 days ITU and 2 days HDU.
7.2	Total length of post-operative HDU stay (days) *see help box for additional information*	Each day, or part day, counts as 1 day. Hence: a. Admitted and discharged on same day = 1 day. b. Admitted on Monday, discharged on Tues = 2 days c. Admitted on Monday, discharged on Wed = 3 days. Values should reflect actual discharge, rather than when medically fit for discharge. Combined ITU/HDUs should be treated as if they were separate units. Hence, admitted as ITU patient Monday stepped down to HDU Tuesday, then discharged Wednesday =2 days ITU and 2 days HDU.
7.3	Was the patient assessed by a specialist from Elderly Medicine in the post-operative period?	
7.4	Within this admission, did the patient return to theatre in the post-operative period following their initial emergency laparotomy?	
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)	This refers to within 7 days of their emergency laparotomy, not any prior surgery.
7.6	Histology	Histology is intended to be following pathology report.
7.7	Status at discharge	'Still in hospital at 60 days' option to be used when approaching an audit deadline by which all incomplete cases need to be locked
7.8	Date discharged from hospital	Date of discharge, NOT date fit for discharge.