



Perioperative Quality
Improvement Programme

PATIENT ID

Case Report Form

Version Control

Version	Date	Changes
2.0	06/03/19	Changes made to dataset. Some question numbers may have changed. New or modified questions highlighted. Question on smoking cessation removed (formerly Q2.31).

Enclosed are the questions for clinicians or researchers to complete for each patient participating in this study. Question numbers may not increment sequentially as some questions may not be applicable to your hospital. You may modify this cover page to include your hospital logo and contact details. We have provided a Standard Operating Procedures (SOP) document to assist in the correct completion of this form. Please ensure that the answers are transferred to the online web-tool as soon as possible and store the booklet in the secure PQIP file at your hospital.

Item	Question	Response
Patient demographics		
1.1	Patient ID number (local):	
1.2	Surname:	
1.3	First name:	
1.4	Date of birth:	___ / ___ / _____ (DD/MM/YYYY)
1.5	Gender:	<input type="checkbox"/> Male <input type="checkbox"/> Female
Address details		
1.6	Post code:	_____
1.7	Usual residence:	<input type="checkbox"/> Own home <input type="checkbox"/> Care home
Surgical admission		
1.8	Date of hospital admission:	___ / ___ / _____ (DD/MM/YYYY)
1.9	Date of surgery:	___ / ___ / _____ (DD/MM/YYYY)
ID numbers		
1.11-1.12	NHS / CHI number:	(10 digits)
1.13	Height:	(cm)
1.14	Weight:	(kg)
Patient follow-up		
1.20	Patient's preferred method of contact: This should be indicated on the completed consent form.	<input type="checkbox"/> E-mail: _____ <input type="checkbox"/> Telephone: _____ <input type="checkbox"/> No preference – provide both
1.20	Would patient like to receive e-mail updates from the PQIP study team?	<input type="checkbox"/> Yes <input type="checkbox"/> No
1.21	Enrolment in other studies:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not known <input type="checkbox"/> ERAS+ <input type="checkbox"/> Scottish Head & Neck <input type="checkbox"/> PRISM <input type="checkbox"/> OPTIMISE II <input type="checkbox"/> BALANCED <input type="checkbox"/> Prevention-HARP2 <input type="checkbox"/> GSK Oesophagectomy study <input type="checkbox"/> PREPARE-ABC <input type="checkbox"/> Other: _____

Item	Question	Response
Pre-operative data		
2.1	Surgical specialty:	<input type="checkbox"/> Abdominal – Hepatobiliary <input type="checkbox"/> Abdominal – Lower GI <input type="checkbox"/> Abdominal – Other <input type="checkbox"/> Abdominal – Upper GI <input type="checkbox"/> Burns & Plastics <input type="checkbox"/> Gynaecology <input type="checkbox"/> Head & Neck <input type="checkbox"/> Orthopaedics <input type="checkbox"/> Spinal <input type="checkbox"/> Thoracics <input type="checkbox"/> Urology <input type="checkbox"/> Vascular
2.2a	Planned operation: Check eligibility with Procedure List on PQIP web site.	
2.2b	Planned mode of procedure: Select all that apply.	<input type="checkbox"/> Open <input type="checkbox"/> Laparoscopic <input type="checkbox"/> Robotic <input type="checkbox"/> Thoracoscopic
2.2c	Is this surgery part of a multistage procedure?	<input type="checkbox"/> No <input type="checkbox"/> Yes If yes, what was the date of the final stage? ___ / ___ / ____ (DD/MM/YYYY)
2.3	Urgency of surgery:	<input type="checkbox"/> Elective <input type="checkbox"/> Expedited <input type="checkbox"/> Urgent <input type="checkbox"/> Immediate
2.4	Cancer surgery:	<input type="checkbox"/> Yes <input type="checkbox"/> No
2.5	Enhanced recovery pathway:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not known

Item	Question	Response
2.6	Pre-operative assessment (before hospital admission):	<input type="checkbox"/> None <input type="checkbox"/> Electronic self-assessment <input type="checkbox"/> Telephone assessment with nurse <input type="checkbox"/> Telephone assessment with doctor <input type="checkbox"/> Face to face: nurse-led <input type="checkbox"/> Face to face: surgeon-led <input type="checkbox"/> Face to face: anaesthetist-led <input type="checkbox"/> Other: _____
2.7	Sodium:	(mmol/L) <input type="checkbox"/> Not measured
2.8	Potassium	(mmol/L) <input type="checkbox"/> Not measured
2.9	Urea:	(mmol/L) <input type="checkbox"/> Not measured
2.10	Creatinine:	(μ mol/L) <input type="checkbox"/> Not measured
2.12	Albumin:	(g/L) <input type="checkbox"/> Not measured
2.13	White cell count:	($\times 10^9$ /L) <input type="checkbox"/> Not measured
2.14	Haemoglobin:	(g/dL) <input type="checkbox"/> Not measured
2.15	Pulse rate:	(bpm)
2.16	Systolic BP:	(mmHg)
2.17	Glasgow Coma Scale: See SOP for details.	(total, out of 15)
2.18	Oxygen saturation:	(%)
2.19	Option which best describes the ECG findings:	<input type="checkbox"/> No abnormalities <input type="checkbox"/> AF rate 60-90 <input type="checkbox"/> AF rate >90/any other abnormal rhythm/paced rhythm/ >5VE/min/ Q, ST or T wave abnormalities <input type="checkbox"/> Not done
2.20	Option which best describes the cardiac history/findings:	<input type="checkbox"/> No failure <input type="checkbox"/> Diuretic, digoxin, antianginal or antihypertensive <input type="checkbox"/> Peripheral oedema, warfarin therapy or borderline cardiomegaly <input type="checkbox"/> Raised jugular venous pressure or cardiomegaly
2.21	NYHA heart failure classification: See SOP for details.	<input type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV

Item	Question	Response
2.22	Option which best describes the respiratory history/findings:	<input type="checkbox"/> No dyspnoea <input type="checkbox"/> Dyspnoea on exertion or CXR: mild COPD <input type="checkbox"/> Dyspnoea limiting exertion to <1 flight or CXR: moderate COPD <input type="checkbox"/> Dyspnoea at rest/rate > 30 at rest or CXR: fibrosis or consolidation
2.23	Respiratory infection in the last month:	<input type="checkbox"/> Yes <input type="checkbox"/> No
2.24	Cerebrovascular disease:	<input type="checkbox"/> No <input type="checkbox"/> Yes – no hemiplegia <input type="checkbox"/> Yes – with hemiplegia
2.25	Current cancer diagnosis or in remission for <5 years:	<input type="checkbox"/> No <input type="checkbox"/> Yes - solid tumour; local only <input type="checkbox"/> Yes – solid tumour; metastatic disease (including lymph node) <input type="checkbox"/> Yes - Lymphoma <input type="checkbox"/> Yes – Leukaemia
2.26	Dementia:	<input type="checkbox"/> Yes <input type="checkbox"/> No
2.27	Diabetes:	<input type="checkbox"/> No <input type="checkbox"/> Type 1 <input type="checkbox"/> Type 2 (on insulin) <input type="checkbox"/> Type 2 (Diet controlled only) <input type="checkbox"/> Type 2 (Non-insulin glucose lowering medication)
2.28	HbA1c:	(%) <input type="checkbox"/> Not measured Conversion calculator on PQIP web site.
2.29	Liver disease	<input type="checkbox"/> No <input type="checkbox"/> Yes – cirrhosis or Hep B/C WITHOUT portal hypertension <input type="checkbox"/> Yes – cirrhosis or Hep B/C WITH portal hypertension
If yes, please specify:		
2.29a	Liver disease type:	<input type="checkbox"/> Hep B <input type="checkbox"/> Hep C <input type="checkbox"/> Alcohol-related <input type="checkbox"/> Non-alcoholic steatosis
2.29b	Child-Pugh Grade:	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> Don't know

Item	Question	Response
2.30	ASA grade: See SOP for details.	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
2.31	Was preoperative CPET performed?	<input type="checkbox"/> No <input type="checkbox"/> Yes
If yes:		
2.31a	VO ₂ Peak Indexed:	(ml/kg/min)
2.31b	Anaerobic Threshold (AT) Indexed:	(ml/kg/min)
2.31c	VE/VCO ₂ at AT:	
2.31d	Max work rate:	(Watt)
2.31e	Max heart rate:	(bpm)
2.31f	Max oxygen pulse:	(ml/beat)
2.31g	FEV ₁ /FVC:	(%)
2.32	Smoking history:	<input type="checkbox"/> Never smoked <input type="checkbox"/> Ex-smoker > 6 months <input type="checkbox"/> Ex-smoker <6 months <input type="checkbox"/> Current smoker <input type="checkbox"/> Unknown
2.33	Current alcohol consumption:	<input type="checkbox"/> No alcohol <input type="checkbox"/> 0-2 AU/day <input type="checkbox"/> 3-4 AU/day <input type="checkbox"/> >5 AU/day <input type="checkbox"/> Not known
2.34	Documented assessment of perioperative risk:	<input type="checkbox"/> Yes – Qualitative (e.g. low / medium / high) <input type="checkbox"/> Yes – Quantitative (e.g. percentage risk of death / complications) <input type="checkbox"/> Both <input type="checkbox"/> No
2.35	Planned postoperative destination:	<input type="checkbox"/> Ward care <input type="checkbox"/> Level 1 care <input type="checkbox"/> Level 2 care <input type="checkbox"/> Level 3 care

Item	Question	Response
Surgical admission		
2.36	Received bowel preparation:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not applicable
2.37	Preoperative carbohydrates given on day of surgery:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not known
Anaemia treatment		
2.43	Anaemia treatment in the last 3 months prior to surgery:	<input type="checkbox"/> None <input type="checkbox"/> Oral Iron <input type="checkbox"/> Blood transfusion <input type="checkbox"/> Folic acid <input type="checkbox"/> Intravenous Iron <input type="checkbox"/> EPO <input type="checkbox"/> B12
Frailty score		
2.44	Rockwood Clinical Frailty Score: See SOP for details.	<input type="checkbox"/> Very fit (1) <input type="checkbox"/> Managing Well (3) <input type="checkbox"/> Mildly Frail (5) <input type="checkbox"/> Severely Frail (7) <input type="checkbox"/> Terminally Ill (9) <input type="checkbox"/> Well (2) <input type="checkbox"/> Vulnerable (4) <input type="checkbox"/> Moderately Frail (6) <input type="checkbox"/> Very Severely Frail (8) <input type="checkbox"/> Not done
Operative data		
3.1	Grade of most senior surgeon physically present in the operating theatre for this procedure:	<input type="checkbox"/> Consultant (post-CCT or CESR) <input type="checkbox"/> Foundation year doctor <input type="checkbox"/> Nurse specialist <input type="checkbox"/> Physician Assistant / Associate <input type="checkbox"/> SAS doctor <input type="checkbox"/> Trainee or Trust grade CT1-2 or equivalent <input type="checkbox"/> Trainee or Trust grade ST3-7 or equivalent <input type="checkbox"/> Other: _____
3.2	Grade of most senior anaesthetist physically present in the operating theatre for this procedure:	<input type="checkbox"/> Consultant (post-CCT or CESR) <input type="checkbox"/> Foundation year doctor <input type="checkbox"/> Nurse specialist <input type="checkbox"/> Physician Assistant / Associate <input type="checkbox"/> SAS doctor <input type="checkbox"/> Trainee or Trust grade CT1-2 or equivalent <input type="checkbox"/> Trainee or Trust grade ST3-7 or equivalent <input type="checkbox"/> Other: _____

Item	Question	Response
3.3	Compliance with induction antibiotic protocol:	<input type="checkbox"/> Yes (Within 60min of skin incision) <input type="checkbox"/> No
3.4	Select which anaesthetic techniques were utilised: Select all that apply.	<input type="checkbox"/> General <input type="checkbox"/> Spinal <input type="checkbox"/> Epidural <input type="checkbox"/> Combined spinal and epidural <input type="checkbox"/> Regional block (incl. paravertebral and TAP blocks) <input type="checkbox"/> Local anaesthetic infiltration <input type="checkbox"/> Intravenous analgesia
3.4i	If GA:	<input type="checkbox"/> Inhalational – Desflurane <input type="checkbox"/> Inhalational – Isoflurane <input type="checkbox"/> Inhalational – Sevoflurane <input type="checkbox"/> Inhalational – Other: _____ <input type="checkbox"/> Inhalational – Nitrous oxide <input type="checkbox"/> IV Propofol infusion <input type="checkbox"/> IV remifentanil infusion
3.5	Select intra-operative monitoring (in addition to standard AAGBI monitoring):	<input type="checkbox"/> Central venous catheter <input type="checkbox"/> Arterial line <input type="checkbox"/> Cardiac output monitor <input type="checkbox"/> Depth of anaesthesia <input type="checkbox"/> Temperature probe <input type="checkbox"/> Peripheral nerve stimulator <input type="checkbox"/> None <input type="checkbox"/> Urinary catheter
3.6	Warming devices:	<input type="checkbox"/> No warming device <input type="checkbox"/> IV fluid warmer <input type="checkbox"/> Forced-air warming device <input type="checkbox"/> Underbody resistive heating <input type="checkbox"/> Missing data <input type="checkbox"/> Other: _____
Operative findings		
3.7	Including this procedure, number of operations the patient has had in the past 30 days:	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> >2

Item	Question	Response
3.8	Actual procedure was same as planned procedure:	<input type="checkbox"/> Yes <input type="checkbox"/> No
If not:		
3.9a-b	Actual surgical specialty and operation:	
3.9c	Actual mode of surgery:	<input type="checkbox"/> Open <input type="checkbox"/> Laparoscopic / laparoscopically-assisted <input type="checkbox"/> Robotic-assisted <input type="checkbox"/> Thoracoscopic
3.10a	Actual procedure (secondary):	
3.10b	Sub-group:	
3.10c	Description:	
3.11	Surgical incision:	<input type="checkbox"/> Thoracic <input type="checkbox"/> Upper abdominal <input type="checkbox"/> Lower abdominal <input type="checkbox"/> Other / Laparoscopic / Thoracoscopic
3.12	Blood loss:	<input type="checkbox"/> ≤100ml <input type="checkbox"/> 101-500ml <input type="checkbox"/> 501-1000ml <input type="checkbox"/> ≥1001ml – please give actual amount: _____ (ml) <input type="checkbox"/> Missing data
3.13	Intra-abdominal / intra-thoracic findings:	<input type="checkbox"/> Not applicable <input type="checkbox"/> None <input type="checkbox"/> Serous fluid <input type="checkbox"/> Localised pus <input type="checkbox"/> Free bowel content / pus / blood <input type="checkbox"/> Missing data
3.14	Duration of surgery and anaesthesia:	<input type="checkbox"/> <2 hours <input type="checkbox"/> 2-3 hours <input type="checkbox"/> >3 hours
3.15	Received tranexamic acid intraoperatively:	<input type="checkbox"/> Yes <input type="checkbox"/> No

Item	Question	Response
Postoperative destination		
3.16	Actual postoperative destination:	<input type="checkbox"/> Ward care <input type="checkbox"/> Level 1 care <input type="checkbox"/> Level 2 care <input type="checkbox"/> Level 3 care
3.17	If different from planned care destination, why?	<input type="checkbox"/> Not applicable – patient transferred to planned care destination <input type="checkbox"/> No higher level care bed available <input type="checkbox"/> No lower level care bed available <input type="checkbox"/> Operation lower risk than expected <input type="checkbox"/> Operation palliative (unexpected) <input type="checkbox"/> Other / further information: _____
Postoperative destination		
If the patient is transferred directly to a higher-level care facility postoperatively then the “recovery period” should be regarded as the immediate three hours postoperatively.		
4.1	First core temperature on arrival from theatres $\geq 36^{\circ}\text{C}$:	<input type="checkbox"/> Yes <input type="checkbox"/> No
4.2	Abdominal drain present on arrival from theatres:	<input type="checkbox"/> Yes <input type="checkbox"/> No
4.3	Nasogastric tube present on arrival from theatres:	<input type="checkbox"/> Yes <input type="checkbox"/> No
4.4	Highest pain score during recovery stay:	<input type="checkbox"/> None <input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> Unable to ascertain – Sedated <input type="checkbox"/> Unable to ascertain – Other: _____
Postoperative visit on day 2 or day 3		
Answer these questions with regard to the patient's status on post-operative day 1 (within 24 hours from completion of surgery). These assess achievement of the enhanced recovery objectives of the CHEERS-DREAM campaign.		
5.1	Maintenance IV fluids discontinued within 24hr of surgery ending:	<input type="checkbox"/> Yes <input type="checkbox"/> No

Item	Question	Response
5.2	Started drinking (free fluids) within 24hr of surgery ending:	<input type="checkbox"/> Yes <input type="checkbox"/> No
5.3	Started eating (at least soft diet) within 24hr of surgery ending:	<input type="checkbox"/> Yes <input type="checkbox"/> No If no, did patient receive supplementary nutrition within 24hr of surgery ending? <input type="checkbox"/> Yes <input type="checkbox"/> No
5.3i	What type of supplementary nutrition?	<input type="checkbox"/> Enteral <input type="checkbox"/> Parenteral (TPN) <input type="checkbox"/> Other
5.4	Mobilising from bed to chair with max assistance of one person within 24hr of surgery ending:	<input type="checkbox"/> Yes <input type="checkbox"/> No
Day 7 postoperatively		
6.1	Patient still in hospital:	<input type="checkbox"/> Yes <input type="checkbox"/> No
If yes, answer all of the following questions. If no, proceed to answer Q6.18.		
6.2	If yes, Current location:	<input type="checkbox"/> Ward care <input type="checkbox"/> Level 1 care <input type="checkbox"/> Level 2 care <input type="checkbox"/> Level 3 care <input type="checkbox"/> Level 2/3 care
Post-Operative Morbidity Survey (See SOP for advice on completion)		
6.3	Pulmonary	<input type="checkbox"/> New requirement for O ₂ therapy <input type="checkbox"/> New requirement for respiratory support <input type="checkbox"/> None of the above
6.4	Infection	<input type="checkbox"/> Currently on IV antibiotics <input type="checkbox"/> Temperature >38°C in past 24hr <input type="checkbox"/> None of the above
6.5	Gastrointestinal	<input type="checkbox"/> Unable to tolerate enteral diet (oral / tube feed) <input type="checkbox"/> Nausea, vomiting or abdominal distension in past 24hr <input type="checkbox"/> None of the above
6.6	Renal	<input type="checkbox"/> Oliguria (<500ml/24hr) in past 24hr <input type="checkbox"/> In past 24hr, serum creatinine >30% of pre-op level <input type="checkbox"/> In past 24hr, urethral catheter in-situ (not present pre-op) <input type="checkbox"/> None of the above

Item	Question	Response
6.7	Cardiovascular	<input type="checkbox"/> Hypotension in past 24hr requiring >200ml fluid bolus / pharmacological therapy <input type="checkbox"/> New myocardial infarction / ischaemia in past 24hr <input type="checkbox"/> Thrombotic event requiring anticoagulation in past 24hr <input type="checkbox"/> Arrhythmia in past 24hr <input type="checkbox"/> Cardiogenic pulmonary oedema in past 24hr <input type="checkbox"/> None of the above
6.8	Neurological	<input type="checkbox"/> New neurological deficit in past 24hr <input type="checkbox"/> Delirium / confusion in past 24hr <input type="checkbox"/> Sedative-induced coma in past 24hr <input type="checkbox"/> Non-sedative associated coma in past 24hr <input type="checkbox"/> None of the above
6.9	Wound	<input type="checkbox"/> Wound dehiscence requiring surgical exploration in past 24hr <input type="checkbox"/> Drainage of pus from operative wound, wound ooze or swab taken in past 24hr <input type="checkbox"/> None of the above
6.10	Haematological	<input type="checkbox"/> Red cell transfusion in past 24hr <input type="checkbox"/> Fresh frozen plasma / cryoprecipitate / platelets in past 24hr <input type="checkbox"/> None of the above
6.11	Surgical pain in past 24hr significant enough to require:	<input type="checkbox"/> Parenteral opioids <input type="checkbox"/> Regional anaesthesia <input type="checkbox"/> None of the above
6.12	In past 24hr patient has returned to baseline level of mobility:	<input type="checkbox"/> Yes <input type="checkbox"/> No
6.13	Reason(s) why still requiring hospital admission:	<input type="checkbox"/> Medical / nursing care <input type="checkbox"/> Mobility issue <input type="checkbox"/> Awaiting social package to be set up <input type="checkbox"/> Awaiting occupational therapy review <input type="checkbox"/> Organisational failure (e.g. transport not booked) <input type="checkbox"/> None of the above
6.18a	Was creatinine value recorded after surgery (up to 7 days post-operatively)?	<input type="checkbox"/> Yes <input type="checkbox"/> Patient has chronic renal failure with renal replacement therapy (RRT) <input type="checkbox"/> Not recorded

Item	Question	Response
6.18a	If yes, what is the highest creatinine value recorded within 7 days after surgery?	_____ (µmol/L)
6.18b	Required new renal replacement therapy (RRT) in last 7 days:	<input type="checkbox"/> No <input type="checkbox"/> Yes (exclude patients on chronic RRT)
Death, discharge or withdrawal		
7.1	Discharge destination	<input type="checkbox"/> Own home <input type="checkbox"/> Care home <input type="checkbox"/> Died <input type="checkbox"/> Withdrawn from study <input type="checkbox"/> Rehabilitation facility <input type="checkbox"/> Other hospital
7.1a-c	Date of discharge / death / withdrawal:	___ / ___ / ____ (DD/MM/YYYY)
7.1ai	On discharge from hospital, has patient been prescribed an opioid (including tramadol)?	<input type="checkbox"/> On opioids preoperatively and has been discharged with an opioid prescription <input type="checkbox"/> On opioids preoperatively and has been discharged without an opioid prescription <input type="checkbox"/> No opioid prescription (previously opioid naïve) <input type="checkbox"/> New opioid prescription (previously opioid naïve)
Clavien-Dindo grade of complication		
7.2	Grade level of complications experienced by the patient: The treatments allowed for Grade I include: analgesic, antipyretic, antiemetic, and antidiarrheal drugs or drugs required for lower urinary tract infection. Grade II includes TPN, blood transfusion and any other drugs not included in Grade I. If the patient experienced multiple complications, please list each grade experienced.	<input type="checkbox"/> None <input type="checkbox"/> I – Any deviation from the normal postoperative course without the need for pharmacological treatment or surgical, endoscopic or radiological interventions. <input type="checkbox"/> II – Requiring pharmacological treatment with drugs other than those allowed for Grade I complications. Blood transfusions and Total Parenteral Nutrition (TPN) also included. III – Requiring surgical, endoscopic or radiological intervention: <input type="checkbox"/> IIIA – Intervention not under general anaesthesia. <input type="checkbox"/> IIIB – Intervention under general anaesthesia. IV – Life threatening complications (including CNS complications) requiring critical care management: <input type="checkbox"/> IVA – Single organ dysfunction (including dialysis). <input type="checkbox"/> IVB – Multi-organ dysfunction. <input type="checkbox"/> V – Death.

Item	Question	Response
If Grade II or above:		
7.2a	Was patient treated for a suspected postoperative infection?	<input type="checkbox"/> None <input type="checkbox"/> Surgical site infection <input type="checkbox"/> Chest <input type="checkbox"/> Urine / renal tract <input type="checkbox"/> Neurological <input type="checkbox"/> Empirical – patient unwell with suspected infection, but source unclear
7.2b	Other complications:	<input type="checkbox"/> None <input type="checkbox"/> Cardiovascular <input type="checkbox"/> Respiratory <input type="checkbox"/> Venous thromboembolism <input type="checkbox"/> Gastrointestinal <input type="checkbox"/> Stroke <input type="checkbox"/> Delirium