Perioperative Quality Improvement Programme

PATIENT ID

Case Report Form

Version Control

Version	Date	Changes
2.3	12/08/20	New questions: 2.14b; 2.44; 7.3; 7.4. Option of video call added to 2.6. Option of packed red blood cells transfusion added to 3.13.
2.2	17/02/20	N0 and M0 options added to 2.4a.
2.1	11/02/20	Changes made to dataset. Some question numbers may have changed. New/altered questions: 1.8; 2.4a; 2.4b; 2.34; 2.35; 3.2; 3.13; 6.18; 6.19; 7.2. Questions removed: 3.1; 3.2.
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/YYY)
1.5	Gender:	☐ Male ☐ Female
Address details		
1.6	Post code:	__ __ __ __ __ __ __ __
1.7	Usual residence:	☐ Own home ☐ Care home
1.8	Date of consent:	__ __ / __ __ / __ __ __ __ (DD/MM/YYY)
Surgical admission		
1.9	Date of hospital admission:	__ __ / __ __ / __ __ __ __ (DD/MM/YYY)
1.10	Date of surgery:	__ __ / __ __ / __ __ __ __ (DD/MM/YYY)
ID numbers		
1.12-1.13	NHS / CHI / H&C number:	(10 digits)
1.14	Height:	(cm)
1.15	Weight:	(kg)
Patient follow-up		
1.21	Patient's preferred method of contact: This should be indicated on the completed consent form.	☐ E-mail: _____ ☐ Telephone: _____ ☐ No preference – provide both
1.21	Would patient like to receive e-mail updates from the PQIP study team?	☐ Yes ☐ No
1.22	Enrolment in other studies:	☐ Yes ☐ No ☐ Not known ☐ ERAS+ ☐ PRISM ☐ OPTIMISE II ☐ GSK Oesophagectomy study ☐ Prevention-HARP2 ☐ PREPARE-ABC ☐ Other: _____

Item	Question	Response
Pre-operative data		
2.1	Surgical specialty:	☐ Abdominal – Hepatobiliary ☐ Abdominal – Lower GI ☐ Abdominal – Other ☐ Abdominal – Upper GI ☐ Burns & Plastics ☐ Gynaecology ☐ Head & Neck ☐ Orthopaedics ☐ Spinal ☐ Thoracics ☐ Urology ☐ Vascular
2.2a	Planned operation: Check eligibility with Procedure List on PQIP web site.	
2.2b	Planned mode of procedure: Select all that apply.	☐ Open ☐ Laparoscopic ☐ Robotic ☐ Thoracoscopic
2.2c	Is this surgery part of a multistage procedure?	☐ No ☐ Yes If yes, what was the date of the final stage? __ __ / __ __ / __ __ __ __ (DD/MM/YYY)
2.3	Urgency of surgery:	☐ Elective ☐ Expedited ☐ Urgent ☐ Immediate
2.4	Cancer surgery:	☐ Yes If yes, answer Q2.4a-b ☐ No If no, proceed to Q2.5
2.4a	Preoperative TNM staging	i. T: ☐ 1 ☐ 2 ☐ 3 ☐ 4a ☐ 4b ☐ Not known i. N: ☐ 0 ☐ 1 ☐ 2a ☐ 2b ☐ 2c ☐ 3 ☐ Not known i. M: ☐ 0 ☐ 1 ☐ Not known
2.4b	Neoadjuvant chemotherapy	☐ Yes ☐ No ☐ Not known
2.5	Enhanced recovery:	☐ Yes ☐ No ☐ Not known

Item	Question	Response
2.6	Pre-operative assessment (before hospital admission):	☐ None ☐ Electronic ☐ Telephone / Video ☐ Face to face: nurse or anaesthetist led ☐ Face to face: surgeon-led ☐ Other: _____
2.7	Sodium:	(mmol/L) ☐ Not measured
2.8	Potassium	(mmol/L) ☐ Not measured
2.9	Urea:	(mmol/L) ☐ Not measured
2.10	Creatinine:	(µmol/L) ☐ Not measured
2.12	Albumin:	(g/L) ☐ Not measured
2.13	White cell count:	($x10^9$/L) ☐ Not measured
2.14	Haemoglobin:	(g/dL) ☐ Not measured
2.14b	Ferritin:	(micrograms/L) ☐ 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:	☐ No abnormalities ☐ AF rate 60-90 ☐ AF rate >90/any other abnormal rhythm/paced rhythm/ >5VE/min/ Q, ST or T wave abnormalities ☐ Not done
2.20	Option which best describes the cardiac history/findings:	☐ No failure ☐ Diuretic, digoxin, antianginal or antihypertensive ☐ Peripheral oedema, warfarin therapy or borderline cardiomegaly ☐ Raised jugular venous pressure or cardiomegaly
2.21	NYHA heart failure classification: See SOP for details.	☐ I ☐ II ☐ III ☐ IV

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

Item	Question	Response
2.30	ASA grade: See SOP for details.	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
2.31	Was preoperative CPET performed?	☐ No ☐ 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:	☐ Never smoked ☐ Ex-smoker > 6 months ☐ Ex-smoker <6 months ☐ Current smoker ☐ Unknown
2.33	Current alcohol consumption:	☐ No alcohol ☐ 0-2 AU/day ☐ 3-4 AU/day ☐ >5 AU/day ☐ Not known
2.34	Documented individualised assessment of perioperative risk:	☐ Yes – Qualitative (e.g. low / medium / high) ☐ Yes – Quantitative (e.g. percentage risk of death / complications) ☐ Both ☐ No
2.35	Planned postoperative destination:	☐ Ward care ☐ Level 1 care ☐ Enhanced care ☐ Level 2 care ☐ Level 3 care

Item	Question	Response
Surgical admission		
2.36	Received bowel preparation:	☐ Yes ☐ No ☐ Not applicable i. If yes, please specify: ☐ Mechanical ☐ Antibiotic ☐ Antibiotic and mechanical
2.37	Preoperative carbohydrates given on day of surgery:	☐ Yes ☐ No ☐ Not known
Anaemia treatment		
2.42	Anaemia treatment in the last 3 months prior to surgery:	☐ None ☐ Intravenous Iron ☐ Oral Iron ☐ EPO ☐ B12 ☐ Folic acid ☐ Blood transfusion of packed red blood cells
Frailty score		
2.43	Rockwood Clinical Frailty Score: See SOP for details.	☐ Very fit (1) ☐ Well (2) ☐ Managing Well (3) ☐ Vulnerable (4) ☐ Mildly Frail (5) ☐ Moderately Frail (6) ☐ Severely Frail (7) ☐ Very Severely Frail (8) ☐ Terminally Ill (9) ☐ Not done
COVID-19		
2.44	Has the patient had suspected or confirmed COVID-19 infection before this hospital admission? See SOP for details.	☐ No – confirmed ☐ No – presumed ☐ Yes ☐ Suspected
If yes/suspected:		
2.44a	Please state or estimate the date of symptom onset:	__ __ / __ __ / __ __ __ __ (DD/MM/YYY)
If yes:		
2.44b	What level of treatment did the patient have?	☐ Home care only ☐ Hospitalised – O_2 only ☐ Hospitalised – CPAP/NIN/HFNO ☐ Hospitalised – mechanical ventilation

Item	Question	Response
Operative data		
3.1	Compliance with induction antibiotic protocol:	☐ Yes (within 60min of skin incision) ☐ No
3.2	Select which anaesthetic techniques were utilised: Select all that apply.	☐ General Anaesthesia ☐ Spinal ☐ Epidural ☐ Combined spinal and epidural ☐ Single shot regional block(s) [including paravertebral & TAP] ☐ Wound catheter infiltration (to continue post-op) ☐ Local anaesthetic infiltration to wound ☐ Oral gabapentinoids ☐ IV paracetamol ☐ IV NSAID ☐ IV opioids ☐ IV ketamine ☐ IV dexmedetomidine ☐ IV lignocaine ☐ Intravenous analgesia
3.2i	If GA:	☐ Inhalational – Desflurane ☐ Inhalational – Isoflurane ☐ Inhalational – Sevoflurane ☐ Inhalational – Other: _____ ☐ Inhalational – Nitrous oxide ☐ IV Propofol infusion ☐ IV remifentanil infusion
3.3	Select intra-operative monitoring (in addition to standard AAGBI monitoring):	☐ Central venous catheter ☐ Arterial line ☐ Cardiac output monitor ☐ Depth of anaesthesia ☐ Temperature probe ☐ Peripheral nerve stimulator ☐ None ☐ Urinary catheter
3.4	Warming devices:	☐ No warming device ☐ IV fluid warmer ☐ Forced-air warming device ☐ Underbody resistive heating ☐ Missing data ☐ Other: _____

Item	Question	Response
Operative findings		
3.5	Including this procedure, number of operations the patient has had in the past 30 days:	☐ 1 ☐ 2 ☐ >2
3.6	Actual procedure was same as planned procedure:	☐ Yes ☐ No
If no:		
3.7a-b	Actual surgical specialty and operation:	
3.7c	Actual mode of surgery:	
3.8a	Actual procedure (secondary):	
3.8b	Sub-group:	
3.8c	Description:	
3.9	Surgical incision:	☐ Thoracic ☐ Upper abdominal ☐ Lower abdominal ☐ Other / Laparoscopic / Thoracoscopic
3.10	Blood loss:	☐ ≤100ml ☐ 101-500ml ☐ 501-1000ml ☐ ≥1001ml – please give actual amount: _____ (ml) ☐ Missing data
3.11	Intra-abdominal / intra-thoracic findings:	☐ Not applicable ☐ None ☐ Serous fluid ☐ Localised pus ☐ Free bowel content / pus / blood ☐ Missing data
3.12	Duration of surgery and anaesthesia:	☐ <2 hours ☐ 2-3 hours ☐ >3 hours
3.13	Did the patient receive any of the following treatments during anaesthesia and surgery?	i. Tranexamic acid: ☐ Yes ☐ No ii. Bolus vasopressor / inotrope: ☐ Yes ☐ No iii. Infusion of vasopressor / inotrope (for any duration): ☐ Yes ☐ No iv. Transfusion of packed red blood cells: ☐ Yes ☐ No

Item	Question	Response
Postoperative destination		
3.14	Actual postoperative destination:	☐ Ward care ☐ Level 1 care ☐ Enhanced care ☐ Level 2 care ☐ Level 3 care
3.15	If different from planned care destination, why?	☐ Not applicable – patient transferred to planned care destination ☐ No higher level care bed available ☐ No lower level care bed available ☐ Operation lower risk than expected ☐ Operation higher risk than expected ☐ Operation palliative (unexpected) ☐ Other / further information: _____
Recovery care		
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 ≥36°C:	☐ Yes ☐ No
4.2	Abdominal drain present on arrival from theatres:	☐ Yes ☐ No
4.3	Nasogastric tube present on arrival from theatres:	☐ Yes ☐ No
4.4	Highest pain score during recovery stay:	☐ None ☐ Mild ☐ Moderate ☐ Severe ☐ Unable to ascertain – Sedated ☐ Unable to ascertain – Other: _____

Item	Question	Response
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:	☐ Yes ☐ No
5.2	Started drinking (free fluids) within 24hr of surgery ending:	☐ Yes ☐ No
5.3	Started eating (at least soft diet) within 24hr of surgery ending:	☐ Yes ☐ No If no, did patient receive supplementary nutrition within 24hr of surgery ending? ☐ Yes ☐ No
5.3i	What type of supplementary nutrition?	☐ Enteral ☐ Parenteral (TPN) ☐ Other
5.4	Mobilising from bed to chair with max assistance of one person within 24hr of surgery ending:	☐ Yes ☐ No
Day 7 postoperatively		
6.1	Patient still in hospital:	☐ Yes ☐ No
If yes, answer all of the following questions. If no, proceed to answer Q6.18.		
6.2	If yes, Current location:	☐ Ward care ☐ Level 1 care ☐ Enhanced care ☐ Level 2 care ☐ Level 3 care ☐ Level 2/3 care
Post-Operative Morbidity Survey		(See SOP for advice on completion)
6.3	Pulmonary	☐ New requirement for O_2 therapy ☐ New requirement for respiratory support ☐ None of the above
6.4	Infection	☐ Currently on IV antibiotics ☐ Temperature >38°C in past 24hr ☐ None of the above
6.5	Gastrointestinal	☐ Unable to tolerate enteral diet (oral / tube feed) ☐ Nausea, vomiting or abdominal distension in past 24hr ☐ None of the above

Item	Question	Response
6.6	Renal	☐ Oliguria (<500ml/24hr) in past 24hr ☐ In past 24hr, serum creatinine >30% of pre-op level ☐ In past 24hr, urethral catheter in-situ (not present pre-op) ☐ None of the above
6.7	Cardiovascular	☐ Hypotension in past 24hr requiring >200ml fluid bolus / pharmacological therapy ☐ New myocardial infarction / ischaemia in past 24hr ☐ Thrombotic event requiring anticoagulation in past 24hr ☐ Arrhythmia in past 24hr ☐ Cardiogenic pulmonary oedema in past 24hr ☐ None of the above
6.8	Neurological	☐ New neurological deficit in past 24hr ☐ Delirium / confusion in past 24hr ☐ Sedative-induced coma in past 24hr ☐ Non-sedative associated coma in past 24hr ☐ None of the above
6.9	Wound	☐ Wound dehiscence requiring surgical exploration in past 24hr ☐ Drainage of pus from operative wound, wound ooze or swab taken in past 24hr ☐ None of the above
6.10	Haematological	☐ Red cell transfusion in past 24hr ☐ Fresh frozen plasma / cryoprecipitate / platelets in past 24hr ☐ None of the above
6.11	Surgical pain in past 24hr significant enough to require:	☐ Parenteral opioids ☐ Regional anaesthesia ☐ None of the above
6.12	In past 24hr patient has returned to baseline level of mobility:	☐ Yes ☐ No
6.13	Reason(s) why still requiring hospital admission:	☐ Medical / nursing care ☐ Mobility issue ☐ Awaiting social package to be set up ☐ Awaiting occupational therapy review ☐ Organisational failure (e.g. transport not booked) ☐ None of the above

Item	Question	Response
6.18a	Was creatinine value recorded after surgery (up to 7 days post-operatively)?	☐ Yes ☐ Patient has chronic renal failure with renal replacement therapy (RRT) ☐ Not recorded
6.18i	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:	☐ No ☐ Yes (exclude patients on chronic RRT)
6.19	For Oesophagectomies only: Was a Gastrografin (or similar) swallow undertaken?	☐ Yes If yes, what date? __ __ / __ __ / __ __ __ __ (DD/MM/YYY) ☐ No
Death, discharge or withdrawal		
7.1	Discharge destination:	☐ Own home ☐ Care home ☐ Died ☐ Withdrawn from study ☐ Rehabilitation facility ☐ Other hospital
7.1a-c	Date of discharge / death / withdrawal:	__ __ / __ __ / __ __ __ __ (DD/MM/YYY)
7.1ai	On discharge from hospital, has patient been prescribed an opioid (including tramadol)?	☐ On opioids preoperatively and has been discharged with an opioid prescription ☐ On opioids preoperatively and has been discharged without an opioid prescription ☐ No opioid prescription (previously opioid naïve) ☐ New opioid prescription (previously opioid naïve)

Item	Question	Response
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.	☐ None ☐ I – Any deviation from the normal postoperative course without the need for pharmacological treatment or surgical, endoscopic or radiological interventions. ☐ 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: ☐ IIIA – Intervention not under general anaesthesia. ☐ IIIB – Intervention under general anaesthesia. IV – Life threatening complications (including CNS complications) requiring critical care management: ☐ IVA – Single organ dysfunction (including dialysis). ☐ IVB – Multi-organ dysfunction. ☐ V – Death.
If Grade II or above:		
7.2a	Was patient treated for a suspected postoperative infection?	☐ None ☐ Surgical site infection ☐ Chest ☐ Urine / renal tract ☐ Neurological ☐ Empirical – patient unwell with suspected infection, but source unclear
7.2b	Other complications:	☐ None ☐ Cardiovascular ☐ Respiratory - please specify: ☐ Mild ☐ Moderate ☐ Severe ☐ Venous thromboembolism ☐ Gastrointestinal ☐ Stroke ☐ Delirium ☐ Renal replacement therapy

Item	Question	Response
COVID-19 status		
7.3	Please indicate the patient's SARS-CoV-2 / COVID-19 infection status for this admission. Choose one option only.	☐ Confirmed Covid positive at time of surgery ☐ Suspected Covid positive at time of surgery ☐ Covid positive during hospitalisation; indeterminate timing of infection ☐ Nosocomial infection ☐ Covid negative ☐ Covid status unknown ☐ Unable to answer
Post-operative blood transfusion		
7.4	Did the patient receive any transfusions of packed red blood cells postoperatively?	☐ Yes ☐ No