Perioperative Quality Improvement Programme

Standard Operating Procedures

Version Control

Version	Date	Changes
2.0	06/03/19	Changes made to dataset. Some question numbers may have changed. Question numbers may not increment sequentially as some questions may not be applicable to your hospital. New or modified questions highlighted. Question on smoking cessation removed (formerly Q2.31).

Introduction

The Perioperative Quality Improvement Programme (PQIP) was set up in 2016 by the Health Services Research Centre at the Royal College of Anaesthetists. It is an NIHR portfolio adopted research study supported by UCL (the sponsor), and the Royal College of Anaesthetists, UCL NIHR Surgical Outcomes Research Centre and Health Foundation (funders).

Our aim is to improve the outcomes of patients undergoing major non-cardiac surgery. PQIP measures complications, risk-adjusted mortality and patient reported outcomes on a random sample of five cases per week so we can try to reduce complication rates, improve patient experience and quality of life after surgery.

We have constructed a dataset that we would like you to complete for each patient participating in this study. As there can be many interpretations of questions, we have provided this document, a standard operating procedure (SOP) for the PQIP dataset, to provide guidance on correct completion of the form.

Please note that this SOP refers only to the questions that are to be completed by the clinicians or researchers and not by patients themselves.

As you complete the questions in the web-tool, the menu bar will change colour to highlight your progress: blue for empty or unsaved sections; red for sections with errors; orange for incomplete sections requiring further data entry; green for fully completed sections.

If you have any questions please contact the PQIP team at pqip@rcoa.ac.uk

Thank you for your support.

Patient demographics	
1.1	Enter the patient's **local hospital ID number**.
1.2	Enter the patient's **surname**.
1.3	Enter the patient's **first name** as registered on the hospital system.
1.4	Enter the patient's **date of birth** in the format 'DD/MM/YYYY'.
1.5	Select the patient's current **gender**.
Address details	
1.6	Enter the patient's **current postcode** – enter the outward code (1st part) in the first box and the inward code (2nd part) in the second box.
1.7	Select **one** of the two options that best describes the patient's usual residence: • **Own home** – private residence either owned or rented. This would include sheltered accommodation. • **Care home** – residential or nursing home where assisted living is provided.
Surgical admission	
1.8	Enter the patient's **date of admission** to hospital for this procedure in the format 'DD/MM/YYYY'.
1.9	Enter the patient's **date of surgery** in the format 'DD/MM/YYYY'.
ID numbers	
1.11-1.12	For **Scottish hospitals**, enter the patient's **CHI (Community Health Index) number**. For hospitals in the rest of the UK, enter the patient's **NHS (National Health Service) number**. Both numbers contain 10 digits.
1.13	Enter the patient's **height** in centimetres (cm).
1.14	Enter the patient's **weight** in kilograms (kg).
1.15-1.17	The patient's **body surface area (BSA)**, **body mass index (BMI)** and **ideal body weight (IBW)** will be automatically calculated by the web-tool.
Linked data	
1.18-1.19	Linked data on mortality and unplanned hospital re-admission will be automatically filled in by the webtool as these data become available.
Patient follow-up	
1.20	Indicate how the patient would prefer to be **contacted in 6 and 12 months'** time to complete the follow-up questionnaires. This should be indicated on the completed consent form. Patients can also opt in or out to receive e-mail updates from the PQIP study team, approximately once per year. If the patient has chosen to be contacted by e-mail, the webtool will automatically record if reminders have been sent to the patient.
1.21	Indicate if the patient is enrolled in any other studies. If yes, please note the study.

Pre-operative data	
Several of these questions form part of the P-POSSUM risk-scoring tool, which assigns increasing weight as you descend the tick box options or as a numeric value changes. Some questions have pre-defined wording and criteria that cannot be adjusted. Where this occurs, we have provided further explanation below in an attempt to remove any ambiguity.	
2.1-2.2a	Select the **surgical specialty** and **planned procedure** from the lists provided. The **eligible** specialties and procedures are listed on the Procedure List available from the PQIP web site. The magnitude of surgery will be automatically generated from the choices made in questions 2.1–2.2. Surgical magnitude is determined using the AXA-PPP schedule of procedures and is the same as that used in the Surgical Outcome Risk Tool (SORT) (www.sortsurgery.com).
2.2b	Select the mode(s) of surgery that apply to this operation: open; laparoscopic; robotic; thoracoscopic.
2.2c	Indicate if this surgery is part of a **planned multistage procedure**. If so, enter the date of the **final stage** in the format 'DD/MM/YYY'. This may result in the record not being locked until the final stage has occurred. This will allow us to contact the patient to complete their questionnaires at 6 and 12 months after the final procedure. We would suggest that you record the first stage procedure within the PQIP webtool.
2.3	PQIP is currently only collecting data on patients having planned surgery. Choose from the following: • **Expedited** – Patient requiring early treatment where the condition is not an immediate threat to life, limb or organ survival. Normally within days of decision to operate. This might include urgent cancer surgery for example. • **Elective** – Intervention planned or booked in advance of routine admission to hospital. Timing to suit patient, hospital and staff.
2.4	Indicate if the indication for surgery is a cancer diagnosis.
2.5	Indicate if the patient is on an **enhanced recovery pathway**. This includes any protocolised pathway aimed at improving patient outcome and reducing length of stay.
2.6	Select one or more options from the list that best describe the form of **preoperative assessment** undertaken **prior to hospital admission**. Options include no pre-admission preoperative assessment; electronic self-assessment; telephone assessment with either a nurse or a doctor; face-to-face assessment in clinic by a pre-assessment nurse, anaesthetist or surgeon (common in Cardiothoracic Surgery). Free text available if 'other' chosen. For the purposes of PQIP, assessment on the morning of surgery or an admission clerking would **not** be considered pre-admission pre-operative assessment.
2.7	Enter the patient's most recent serum **sodium** prior to surgery in mmol/L.
2.8	Enter the patient's most recent serum **potassium** prior to surgery in mmol/L (to one decimal place).

2.9	Enter the patient's most recent serum **urea** prior to surgery in mmol/L (to one decimal place).
2.10	Enter the patient's most recent serum **creatinine** prior to surgery in µmol/L.
2.12	Enter the patient's most recent serum **albumin** prior to surgery in g/L.
2.13	Enter the patient's most recent **white cell count** prior to surgery in $x10^9$/L (to one decimal place).
2.14	Enter the patient's most recent **haemoglobin** prior to surgery in g/dL (to one decimal place).
2.15	Enter the patient's **pulse rate** in beats per minute (bpm).
2.16	Enter the patient's **systolic blood pressure** in mmHg.
2.17	Enter the patient's **Glasgow Coma Scale** total, ranging from 3–15 (**see p13**). PQIP is recruiting patients who can provide informed consent so we anticipate patients will have a GCS of 15.
2.18	Enter the patient's **oxygen saturations (%)** measured in the supine position and after resting for one minute. If the patient is on supplemental oxygen, please remove for 10 minutes and then measure oxygen saturations at rest.
2.19	Select **one** option that best describes the patient's **pre-operative ECG**.
2.20	Select **one** option that best describes the patient's current **cardiac history/findings**. This question enquires about the presence and severity of **cardiac failure**. The answers can be based on patient history, examination or chest x-ray findings. The criteria in the second and third tick boxes apply only if the patient is being treated for cardiac failure. Anti-anginals for ischaemic heart disease or antihypertensives without a diagnosis of cardiac failure would not be scored here. Cardiac failure is not always clearly documented and if there is ambiguity, it may require a review of documented examination findings and echocardiogram reports.
2.21	Select **one** option that best describes the patient's current **heart failure status** according to the **New York Heart Association (NYHA)** Functional Classification: • **I - No limitation of physical activity.** Ordinary physical activity does not cause undue fatigue, palpitation, dyspnoea. • **II - Slight limitation of physical activity.** Comfortable at rest. Ordinary physical activity results in fatigue, palpitation, dyspnoea. • **III - Marked limitation of physical activity.** Comfortable at rest. Less than ordinary activity causes fatigue, palpitation, or dyspnoea. • **IV - Unable to carry on any physical activity without discomfort**. Symptoms of heart failure at rest. If any physical activity is undertaken, discomfort increases. Whereas the P-POSSUM (2.20) uses the presence of medications and clinical signs (oedema, cardiomegaly), the NYHA Functional Classification is a tool for scoring severity of cardiac failure based on **clinical symptoms** and the degree to which a patient is **limited during physical exertion**.
2.22	Select one option that best describes the patient's **current respiratory history/findings.**

2.23	Select if the patient has had an acute upper or lower **respiratory tract infection** in the month prior to surgery.
2.24	Select one option provided as to the patient's history of **cerebrovascular disease**: • **No** • **Yes – without hemiplegia**: history of TIA or stroke with no or minor sequelae • **Yes – with hemiplegia**: stroke with hemiplegia
2.25	Select one or more of the **cancer diagnosis** options that are current or have been in remission for less than five years: • **No** • **Yes – solid tumour: local only** (exclude if > 5 years from diagnosis) • **Yes – solid tumour**: metastatic disease (including lymph node) • **Yes – Lymphoma** (NHL, Hodgkin's, Waldenström, multiple myeloma) • **Yes – Leukaemia** (acute or chronic)
2.26	Select if the patient has a diagnosis of **chronic cognitive deficit** or **dementia**.
2.27	Select if the patient has **diabetes mellitus**. If on oral medication and insulin, enter as on insulin. End organ damage includes retinopathy, neuropathy and nephropathy. If the patient is type 2 diabetic please select the option of how the diabetes is controlled.
2.28	If it was measured, enter the patient's most recent **HbA1c** prior to surgery as a **%** (to one decimal place) if they are being treated for diabetes mellitus. A conversion calculator from mmol/mol or mmol/L can be accessed through the web tool.
2.29	Select **one** of the options if the patient has **liver disease**. Cirrhosis can either be diagnosed radiologically, histologically or grossly. • **No** • **Yes** – cirrhosis or Hep B/C **WITHOUT portal hypertension** • **Yes** – cirrhosis or Hep B/C **WITH portal hypertension** If yes, indicate the type of liver disease (Hep B, Hep C, Alcohol-related, Non-alcoholic steatosis) and the severity of liver disease as grade by the Child-Pugh score (A-C; **see p13**). Select **unknown** if not all of the data is available to allow you to calculate this score.
2.30	Grade the patient's risk according to the American Society of Anesthesiologists physical status (ASA-PS) classification (**see p14**).
2.31	If the patient had preoperative **cardiopulmonary exercise testing**, enter the required results if available. • VO_2 Peak Indexed (ml/kg/min) • Anaerobic Threshold (AT) Indexed (ml/kg/min) • VE/VCO_2 at AT • Max work rate (Watt) • Max heart rate (bpm) • Max oxygen pulse (ml/beat) • FEV_1/FVC (%)

2.32	Select **one** option that best describes the patient's **smoking history**. Smoking includes all forms of inhaled tobacco (but not electronic cigarettes or other nicotine delivery systems, e.g. chewing gum).
2.33	Select **one** option that best describes the patient's **current daily alcohol consumption**. One alcohol unit equals 10ml or 8g of pure alcohol which equals one 25ml single measure of whiskey (ABV 40%), or a third of a pint of beer (ABV 5-6%), or half a standard (175ml) glass of red wine (ABV12%).
2.34	Select the type of **perioperative risk assessment**, if any, that was recorded in the notes or consent form. This should convey risk of mortality or morbidity arising from the surgery, **individualised** to the patient. This does not include population risks of anaesthesia-related procedures. All forms of risk stratification accepted: Qualitative (e.g. low / medium / high); Qualitative (e.g. percentage risk of death or complications, e.g. using P-POSSUM/SORT).
2.35	Select the patient's **planned post-operative destination**. • **Level 0 (ward)** – Patients whose needs can be met through normal ward care in an acute hospital. • **Level 1** – Patients at risk of their condition deteriorating, or those recently relocated from higher levels of care, whose needs can be met on an acute ward with additional advice and support from the critical care team. • **Level 2** – Patients requiring more detailed observation or intervention including support for a single failing organ system or post-operative care and those 'stepping down' from higher levels of care. When basic respiratory and basic cardiovascular support are provided at the same time during the same critical care spell, and no other organ support is required, the care is considered to be level 2 care. • **Level 3** – Patients requiring advanced respiratory support alone or basic respiratory support together with support of at least two organ systems. This level includes all complex patients requiring support for multi-organ failure. Basic respiratory and basic cardiovascular care do not count as two organs if they occur simultaneously, but will count as level 3 if another organ is supported at the same time.
Surgical admission	
2.36	Select if the patient received oral mechanical **bowel preparation**.
2.37	Select if the patient received a clear **carbohydrate drink** approximately 2 hours prior to surgery.
Anaemia treatment	
2.43	Indicate which **anaemia treatment** the patient received in the **last 3 months** prior to surgery. Multiple options can be selected.
Frailty score	
2.44	Complete the **Rockwood Clinical Frailty Score** to determine the patient's degree of frailty (**see p15**).

Operative data	
3.1	Select the grade of the most **senior surgeon** that was physically **present** in the operating theatre.
3.2	Select the grade of the most **senior anaesthetist** that was physically **present** in the operating theatre.
3.3	Select if **appropriate prophylactic antibiotics** were given within 60 minutes of skin incision. "Appropriate antibiotic prophylaxis" is compliance with local protocols. If no antibiotics are required according to local protocols and none were given, this constitutes appropriate antibiotic prophylaxis.
3.4	Select the **type(s) of anaesthesia** that the patient received and the **form(s) of intraoperative analgesia** they received (i.e. intravenous analgesia, local infiltration, regional block or neuroaxial block). If the patient receive a general anaesthetic, indicate the **type(s) of inhalational or intravenous agent** used.
3.5	Select any **additional intraoperative monitoring** that the patient had in addition to the standard AAGBI monitoring for all operations. Standard AAGBI monitoring includes pulse oximeter, non-invasive blood pressure, electrocardiograph, airway pressure and airway gases (oxygen, carbon dioxide, anaesthetic agent). Cardiac output monitoring includes any device that was inserted or used to assess the fluid responsiveness of the patient during the surgical procedure. It includes Oesophageal Doppler, Pleth Variability Index (PVI), echocardiogram, arterial pulse contour analysis, pulmonary artery catheter, partial non-rebreathing systems, thoracic bio impedance, endotracheal cardiac output monitor.
3.6	Indicate the type(s) of **intraoperative warming device**, if any, used for this patient. Multiple options can be selected.
Operative findings	
3.7	Including the present procedure, indicate the **number of operations** the patient has had in the previous **30 days**.
3.8-3.10	Select if the **actual procedure** was the same as the overall planned procedure. If different, select the actual procedure performed from the lists available, including the **actual mode of surgery** (3.9c). More than one mode may be selected if the mode change intraoperatively (e.g. change from laparoscopic to open approach). Refer to the answers in sections 2.1–2.2. Also select any **secondary procedure** that was performed.
3.11	Indicate which **surgical incision** was performed. If more than one incision, **choose the higher-ranking incision**: Thoracic > upper abdominal > lower abdominal > other/laparoscopic/thoracoscopic.
3.12	Select the range of estimated total **blood loss** for the procedure. **If greater than 1000ml indicate the actual amount** in ml.
3.13	In cases where the abdominal or thoracic cavities were entered, select the option that best describes the **intra-abdominal or intra-thoracic findings**.

3.14	Select the **length of time** that the patient was under general anaesthesia for the procedure.
3.15	Indicate if the patient received **tranexamic acid** intraoperatively.
Postoperative destination	
3.16	Select the patient's **actual postoperative destination**.
3.17	If the actual destination is **different** from that planned (see answer to question 2.35) please indicate the **reason why**. Choose from the options listed or type in the free text box.
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	Select yes if the **first core temperature** taken in recovery is greater than or equal to 36°C.
4.2	Select yes if an **abdominal drain** is present on arrival from theatre.
4.3	Select yes if a **nasogastric tube** is present on arrival from theatre.
4.4	Select the patient's **highest recorded pain** score during their stay in recovery. We would suggest converting numerical pain scales as follows: **0-3 scale:** 0 = None 1 = Mild 2 = Moderate 3 = Severe **0-10 scale:** 0 = None 1-3 = Mild 4-6 = Moderate 7-10 = Severe
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	Select yes if **IV maintenance fluids** were **discontinued** within 24 hours of surgery ending.
5.2	Select yes if the patient was tolerating **free fluids** within 24 hours after completion of surgery. No minimum volume currently specified. See web tool for links to recent guidelines.
5.3	Select yes if the patient **restarted oral diet** (at least soft diet e.g. yoghurt, porridge, fruit) within 24 hours of completion of surgery and tolerated it. This does not have to

	be full normal diet. If no, indicate if the patient received **supplementary nutrition** within 24hr of surgery ending. If they did receive supplementary nutrition, indicate the **type.**
5.4	Select yes if the patient **mobilised from bed to chair** with maximum assistance of one person within 24 hours of completion of surgery.
Day 7 postoperatively	
6.1-6.2	Select yes if the patient is **currently in hospital** on day 7. If yes, select the patient's **current location** from the options listed. Select 'Level 2/3 care' for a combined critical care unit. If the patient is no longer in hospital, proceed to answer Q6.18.
Post-Operative Morbidity	
The following questions form the Post-Operative Morbidity Survey (POMS), an 18-item survey addressing nine domains of postoperative morbidity. In answering them, you should consider the patient's status on **day 7 post-operatively**.	
6.3	**Pulmonary** – select all options that apply. If the patient has been receiving long-term oxygen therapy and has recovered back to their original level of oxygen requirement prior to surgery, please select **None of the above**. If the patient is receiving any advanced respiratory (including non-invasive ventilation or high flow nasal cannula) support that was not present before surgery, please select **New requirement for ventilator**.
6.4	**Infection** – select all options that apply. • Select if the patient is on **IV antibiotics** – this does not include oral antibiotics. • Select if the patient has had a **temperature of 38°C** or greater during the 24 hours preceding the time point at which the day 7 data is being collected.
6.5	**Gastrointestinal** – Select all options that apply. • Select **Unable to tolerate enteral nutrition** if: receiving TPN; nil by mouth; clear fluids only; free fluids only; soft diet only; NG tube on free drainage or high NG aspirates; NG fed but not tolerating full prescribed amount and therefore needs to remain in hospital. • Select **Nausea, vomiting or abdominal distention** if the patient is unable to return to their previous normal diet for the above reasons, this includes paralytic ileus and patients who are requiring anti-emetics.
6.6	**Renal** – Select all options that apply. • Select **Oliguria** if the urine output was **less than 500ml** during the 24 hours preceding the time point at which the day 7 data is being collected. Do not select this option if the urine output is greater than or equal to 500ml in the preceding 24 hours, if the urine output is not recorded or the fluid balance is inexact. • Select **Creatinine 30% greater than pre-operative level** if the serum creatinine during the 24 hours preceding the time-point at which the day 7 data is being collected is 30% greater than the pre-operative value. This should not be selected if less than 30% increase or if not measured in the preceding 24 hours. Use the pre-operative creatinine value closest to the date of surgery as the baseline value.

	• Select **Urinary catheter in-situ** if the patient has a urethral or supra-pubic catheter in-situ that was not present prior to surgery.
6.7	**Cardiovascular** – Select all options that apply. • Select **Hypotension** if, during the 24 hours preceding the time point at which the day 7 data is being collected, the patient has required >200ml of fluid resuscitation or has required a mini-jet or infusion of adrenaline or noradrenaline. This does not include GTN infusion for pulmonary oedema. • Select **New myocardial infarction or ischaemia** if, during the 24 hours preceding the time point at which the day 7 data is being collected, the patient has had a serum troponin sample taken, an ECG, echocardiogram, thrombolysis, a stent, PCI or if they require GTN spray or infusion for chest pain or ischaemic changes. This does not include routine post-operative ECGs. • Select **Thrombotic event requiring anticoagulation** if, at present or during the 24 hours preceding the time point at which the day 7 data is being collected, the patient required warfarin, heparin, treatment-dose low molecular weight heparin, or other anticoagulation. This does not include prophylactic anticoagulation, return to treatment dose anticoagulation if the patient was on anticoagulation prior to hospital admission, clopidogrel or aspirin. • Select **Arrhythmias** if, during the 24 hours preceding the time point at which the day 7 data is being collected, the ECG shows any dysrhythmia or if the patient had a non-routine ECG (unless this is for diagnosis of MI in which case "New myocardial infarction or ischemia" should be selected). • Select **Cardiogenic pulmonary oedema** if at present or during the 24 hrs preceding the time point at which the day 7 data is being collected, the patient has been started on GTN or furosemide for pulmonary oedema.
6.8	**Neurological** – Select all options that apply. • Select **New neurological deficit** if, at present or during the 24 hours preceding the time point at which the day 7 data is being collected, the patient has a new focal neurological deficit that was not present pre-operatively. • Select **Delirium or confusion** if, at present or during the 24 hours preceding the time point at which the day 7 data is being collected, the patient's family or nursing staff report the patient's behaviour is not normal (new confusion or delirium that was not present pre-operatively, or if the patient has pre-existing confusion or delirium that is worse compared to their preoperative state). • Select **Sedative-induced coma** if the patient is in a sedative-induced coma.
6.9	**Wound** – Select all options that apply. Select if the patient has required surgical exploration of a dehisced surgical wound, drainage of pus from the operation wound, oozing from the surgical wound, if a swab is sent to a laboratory or if a VAC drain is in situ.

6.10	**Haematological** – Select all options that apply. • Select **Red cell transfusion** if the patient has received a red blood cell transfusion during the 24 hours preceding the time point at which the day 7 data is being collected. • Select **Fresh frozen plasma/cryoprecipitate/platelets** if any were given at any point during the 24 hours preceding the time point at which the day 7 data is being collected.
6.11	**Pain** – Select all options that apply. Select if the patient has received parenteral opioids or regional anaesthesia during the 24 hours preceding the time point at which the day 7 data is being collected. This includes PCA, epidural, IV or IM pain relief. This does not include oral analgesia or using transdermal patches.
6.12	Select yes if the patient has returned to their **baseline level of mobility** during the 24 hours preceding the time point at which the day 7 data is being collected.
6.13	Select all the reasons that explain why the patient **still requires admission on day 7** post-operatively.
6.18a	If the patient does not have chronic renal failure with renal replacement therapy (RRT), record the **highest creatinine value** (µmol/L) recorded in the first 7 days post-operatively.
6.18b	**Excluding patients on long-term renal replacement therapy** (RRT) preoperatively. Select yes if the patient received **new renal replacement therapy** in the first 7 days post-operatively.
Death, discharge or withdrawal	
7.1	Select the **discharge destination** or if patient has died prior to discharge or withdrawal from study.
7.1a-c	Enter the **date of discharge, death or withdrawal** as applicable in the format 'DD/MM/YYYY'.
7.1ai	Select the option that best describes the patient's **opioid status on discharge**. For this question, we consider Tramadol to be an opioid.
Clavien-Dindo grade of complication	
7.2	Select the **grade of complication** experienced by the patient during their primary admission for surgery. If the patient experienced multiple complications, please list each relevant level of complication. If the patient experienced multiple complications, please **list each grade experienced**. • 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.
7.2a	**If Grade II or above**, indicate whether the patient was treated for a **suspected postoperative infection**.
7.2b	**If Grade II or above**, select from the list any **complications experienced**.

Glasgow Coma Scale

Eye opening		Best verbal response		Best motor response	
Spontaneous	4	Orientated	5	Obeys commands	6
To sound	3	Confused	4	Localises pain	5
To pressure	2	Words	3	Normal flexion to pain	4
None	1	Sounds	2	Abnormal flexion to pain	3
		None	1	Extension to pain	2
				None	1

Child-Pugh score

Parameter	Numerical Score		
	1	2	3
Ascites	None	Slight	Moderate to severe
Encephalopathy	None	Slight to moderate	Moderate to severe
Bilirubin (µmol/L)	<34	34-50	>50
Albumin (g/L)	>35	28-35	<28
Prothrombin time (prolonged over control) *or* INR	<4 sec <1.7	4-6 sec 1.7-2.30	>6 sec >2.30
Child-Pugh Class A = 5-6 points; Child-Pugh Class B = 7-9 points; Child-Pugh Class C = 10-15 points.			

ASA-PS Score

ASA grade	Definition	Further explanation
ASA I	A normal healthy patient	Healthy, non-smoking, no or minimal alcohol use
ASA II	A patient with mild systemic disease	Mild diseases only without substantive functional limitations. Examples include (but not limited to): current smoker, social alcohol drinker, pregnancy, obesity (30 < BMI < 40), well-controlled DM/HTN, mild lung disease
ASA III	A patient with severe systemic disease	Substantive functional limitations: one or more moderate to severe diseases. Examples include (but not limited to): poorly controlled DM or HTN, COPD, morbid obesity (BMI ≥40), active hepatitis, alcohol dependence or abuse, implanted pacemaker, moderate reduction of ejection fraction, ESRD undergoing regularly scheduled dialysis, premature infant PCA < 60 weeks, history (>3 months) of MI, CVA, TIA, or CAD/stents.
ASA IV	A patient with severe systemic disease that is a constant threat to life	Examples include (but not limited to): recent (< 3 months) MI, CVA, TIA, or CAD/stents, ongoing cardiac ischemia or severe valve dysfunction, severe reduction of ejection fraction, sepsis, DIC, ARD or ESRD not undergoing regularly scheduled dialysis
ASA V	A moribund patient who is not expected to survive without the operation	Examples include (but not limited to): ruptured abdominal/thoracic aneurysm, massive trauma, intracranial bleed with mass effect, ischemic bowel in the face of significant cardiac pathology or multiple organ/system dysfunction
ASA VI	A declared brain-dead patient whose organs are being removed for donor purposes	

Clinical Frailty Scale*

1 **Very Fit** – People who are robust, active, energetic and motivated. These people commonly exercise regularly. They are among the fittest for their age.

2 **Well** – People who have **no active disease symptoms** but are less fit than category 1. Often, they exercise or are very **active occasionally**, e.g. seasonally.

3 **Managing Well** – People whose **medical problems are well controlled,** but are **not regularly active** beyond routine walking.

4 **Vulnerable** – While **not dependent** on others for daily help, often **symptoms limit activities.** A common complaint is being "slowed up", and/or being tired during the day.

5 **Mildly Frail** – These people often have **more evident slowing,** and need help in **high order IADLs** (finances, transportation, heavy housework, medications). Typically, mild frailty progressively impairs shopping and walking outside alone, meal preparation and housework.

6 **Moderately Frail** – People need help with **all outside activities** and with **keeping house**. Inside, they often have problems with stairs and need **help with bathing** and might need minimal assistance (cuing, standby) with dressing.

7 **Severely Frail** – **Completely dependent for personal care**, from whatever cause (physical or cognitive). Even so, they seem stable and not at high risk of dying (within ~ 6 months).

8 **Very Severely Frail** – Completely dependent, approaching the end of life. Typically, they could not recover even from a minor illness.

9. **Terminally Ill** - Approaching the end of life. This category applies to people with **a life expectancy <6 months**, who are **not otherwise evidently frail.**

Scoring frailty in people with dementia

The degree of frailty corresponds to the degree of dementia. Common **symptoms in mild dementia** include forgetting the details of a recent event, though still remembering the event itself, repeating the same question/story and social withdrawal.

In **moderate dementia**, recent memory is very impaired, even though they seemingly can remember their past life events well. They can do personal care with prompting.

In **severe dementia**, they cannot do personal care without help.

* 1. Canadian Study on Health & Aging, Revised 2008.
2. K. Rockwood et al. A global clinical measure of fitness and frailty in elderly people. CMAJ 2005;173:489-495.

DALHOUSIE UNIVERSITY *Inspiring Minds*

PQIP Perioperative Quality Improvement Programme