CRF1

PATIENT IDENTIFICATION NUMBER: _____
DATE OF SURGERY: _____

PRE-OPERATIVE

Month and year of birth
Sex [m/f]
Height [cm]
Weight [kg]
Clinical Frailty Scale (Rockwood): point 0 to 9. (Will be explained in final CRF)
Previous medical history:
- Coronary Artery Disease: Y/N
- Cerebrovascular Disease: Y/N
- Peripheral vascular disease: Y/N
- Atrial fibrillation: Y/N
- Heart failure: Y/N
- Hypertension: Y treated and controlled, Y treated but not controlled, No
- Diabetes: Takes insulin/managed without insulin/None
- Chronic liver disease: Y/N
- Chronic respiratory disease: COPD/other/None
- Chronic immunosuppression: HIV/other/none
- Chronic Kidney Disease: No/Yes/Yes and receives renal replacement therapy
- Long-term steroid use: Y/N
- Recent/current treatment for cancer (including chemotherapy, radiotherapy, surgery)

Regular medications
- ACE inhibitor: Y and took today/ Y omitted today/N
- Alpha blocker: Y and took today/ Y omitted today/N
- Angiotensin Receptor Blocker: Y and took today/ Y omitted today/N
- Beta blocker: Y and took today/ Y omitted today/N
- Calcium channel blocker: Y and took today/ Y omitted today
- Diuretic: Y and took today/ Y omitted today/N
- Regular NSAIDs: Y/N

Haemodynamics
- Measurement in the past 6 months, at least 12h prior to the operating room, at rest:
  - Systolic, Diastolic
  - Heart rate
- The reading immediately prior to induction of anaesthesia:
  - Systolic, Diastolic
  - Heart rate

Laboratory results, most recent (if known within 2 months prior to surgery) (we need to ask for units for each hospital)
- Creatinine
- Albumin
- Haemoglobin concentration

SURGERY

Reason for surgery: Infection/cancer/exploratory/fracture/bleeding/other
SORT (will be implemented in the eCRF from the sortsurgery.com website):
- Details of type of surgery
- ASA-PS (provide link to favoured definitions, to slightly reduce variability)
- Urgency
- Cancer treatment Y/N

INTRA-OPERATIVE

Start of anaesthesia: hhmm DDMMYY
Start of surgery: hhmm DDMMYY
End of surgery: hhmm DDMMYY
End of anaesthesia: hhmm DDMMYY

SURGICAL

Estimated blood loss (EBL, ml): <250ml, 251-1000ml, 1001-3000ml, >3000ml

ANAESTHETIC

Blood pressure
- Lowest recorded blood pressure: Systolic/Diastolic (MAP can be calculated)

Anaesthesia: tick all applicable
- Volatile/TIVA/sedation without securing airway/regional/spinal/CSE/epidural
- Endotracheal tube/supraglottic airway/O2 facemask or nasal cannula

Interventions:
- Arterial line: Y/N
- Central venous line: Y/N

Intra-operative vasoactive drugs

	No	Y as bolus	Y as infusion
Angiotensin II			
Atropine			
Akrinor ® (Cafedrin/Theodrenalin)			
Dobutamine			
Dopamine			
Ephedrine			
Epinephrine (Adrenaline)			
Etilefrine			
Glycopyrronnium			
Metaraminol			
Milrinone			
Nitrates			
Norepinephrine (Noradrenaline)			
Phenylephrine			
Vasopressin or terlipressin			
Other 1			

Was the patient receiving a vasopressor infusion prior to surgery starting: Y/N

Fluids and blood products received INTRA-operatively only, volume of

Crystalloid:
Colloid (starch, gelofusine, albumin):
Packed red blood cells:
Fresh frozen plasma:
Platelets:
Whole blood or autotransfusion (in ml):

POST-OPERATIVE

EARLY EVENTS

- We are interested in which vasoactive drugs were given and how they were given.
- We have split all vasoactive drugs into those that are VASOPRESSORS (in green column) and those that are not (blue).
- We only want additional information (completion of **CRF2**) if it was POSTOPERATIVE, was a VASOPRESSOR and was INFUSED.

Vasoactive drugs	
Vasopressor	Not predominantly vasopressor
Dopamine	Atropine
Epinephrine (Adrenaline)	Dobutamine
Metaraminol	Ephedrine
Norepinephrine (Noradrenaline)	Etilefrine
Phenylephrine	Glycopyrronnium
Vasopressin or Terlipressin	Nitrates
Akrinor ®	Milrinone
Angiotensin II	

We appreciate that many drugs have mixed actions

Following the end of surgery, did the patient receive any

vasopressor boluses Y/N
infusion Y/N, if Y, then did this continue for more than 1 hour after the end of surgery: Y/N
if yes then this fulfils our criteria for PVI, so please also complete **CRF2**.

LATE COMPLICATIONS = WITHIN FIRST WEEK

Organ support

Pulmonary
Ventilation: invasive mechanical ventilation / NIV / both / neither

Cardiovascular
New dysrhythmia: AF/other/none
Acute Myocardial Infarction (type 1, using WHO 4th universal definition)

Renal
Highest creatinine (within the first week) postoperatively: Value/Not available [we calculate KDIGO]
Received renal replacement therapy: Y/N (excluding chronic RRT users)

Gastrointestinal
Received parenteral nutrition: Y/N

Infection

Treated with antibiotics for a newly diagnosed infection: Y/N
If Y: skin or soft tissue / respiratory / urinary / abdominal / lines / other

Surgical

Accordion Severity Classification of Postoperative Complications (Annals 2009): 0 (none) to 4 (death)

Commented [BC1]: Detection of a rise and/or fall of cTn values with at least one value above the 99th percentile URL and with at least one of the following:
•Symptoms of acute myocardial ischaemia;
•New ischaemic ECG changes;
•Development of pathological Q waves;
•Imaging evidence of new loss of viable myocardium or new regional wall motion abnormality in a pattern consistent with an ischaemic aetiology;
•Identification of a coronary thrombus by angiography including intracoronary imaging or by autopsy.[a]

Commented [2]: 1. Mild complication
Requires only minor invasive procedures that can be done at the
bedside such as insertion of intravenous lines, urinary catheters, and
nasogastric tubes, and drainage of wound infections. Physiotherapy
and the following drugs are allowed-antiemetics, antipyretics, analgesics, diuretics, electrolytes, and physiotherapy.
2. Moderate complication
Requires pharmacologic treatment with drugs other than such allowed
for minor complications, for instance antibiotics. Blood transfusions
and total parenteral nutrition are also included.
3. Severe complication
All complications requiring endoscopic or interventional radiologic
procedures or re-operation as well as complications resulting in failure
of one or more organ systems.
4. Death

END OF EPISODE (intra-hospital follow up to 30 days)
Did the patient receive PVI that started more than 24h following surgery?: Y/N
During this admission, did the patient die: Y/N
Date of discharge, death or end of observational period: DDMMYY

CRF2: Additional information for those who received postoperative vasopressor infusion (PVI)

PLEASE DO NOT complete if:

- receiving inotropes without vasopressors
- received vasopressor only intra-operatively or for less than one hour postoperatively
- received vasopressors starting more than 24 hours postoperatively

At one hour after the completion of surgery, is the patient:

Receiving continuous infusion of neuraxial anaesthesia/analgesia i.e. epidural infusion	Y/N
Still receiving a sedative infusion	Y/N
Still has an airway in place (endotracheal tube, tracheostomy or supraglottic airway)	Y/N

1. How was it initially assessed that this patient should receive a vasopressor infusion?

Options:

1. Already receiving a vasopressor infusion and attempts to lower the infusion rate produced unacceptable hypotension
2. It was decided that the patient would no longer benefit from further attempts to increase the cardiac output through administration of IV fluids and the blood pressure was unacceptably low. This was on the basis of:
    A. clinical assessment alone (vital signs, examination, lab results)
    B. clinical assessment AND a measurement of preload responsiveness using cardiac output monitoring (or some direct surrogate of)
    C. clinical assessment AND a measurement of preload responsiveness using echocardiography
    D. clinical assessment AND a previously established maximum for IV fluid administration has been met i.e. 2L or 20ml/kg etc...
    E. other - free text
    F. unknown

Day 0 = the calendar day of the start of the operation

2. Organ failure scores

	Day 0	POD1	POD2	POD3	POD4	POD5	POD6
SOFA score							

3. Blood pressure target and levels

	Day 0	POD1	POD2	POD3	POD4	POD5	POD6
Target MAP (if known)							
Lowest recorded MAP							
Highest recorded MAP							

4. Vasoactive drug infusion details

	Day 0	POD1	POD2	POD3	POD4	POD5	POD6
Vasopressor infusion 1							
Vasopressor infusion 2							
Vasopressor infusion 3							
Vasopressor infusion 4							

For each vasopressor drug, for each day, we want the highest infused rate – for example, noradrenaline 0.5 mcg/kg/min

	Day 0	POD1	POD2	POD3	POD4	POD5	POD6
Inotrope 1							
Inotrope 2							

For each inotropic drug, for each day, we want the highest infused rate – for example, milrinone 0.3 mcg/kg/min

5. Organ support in the first 28 days

Total number of days of receipt of ventilation (invasive or NIV):
Total number of days of receipt of vasopressor infusion:
Total number of days of receipt of parenteral nutrition:
Total number of days of receipt of renal replacement therapy:

Commented [BC3]: Whole days. If received for any period of time (>1h) then to be included as a day