**Peri-interventional Outcome Study in the Elderly (POSE)**

### I. Baseline assessment (Visit 1)

<table>
<thead>
<tr>
<th>Age</th>
<th>______ years [80-120]</th>
<th>Sex</th>
<th>M</th>
<th>F</th>
<th>ASA</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height</td>
<td>______ cm [120-230]</td>
<td>Weight</td>
<td>______ kg [30-250]</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

**Referring facility** [single best answer]

- [ ] Home/ Lives independent
- [ ] Other hospital
- [ ] Rehabilitation
- [ ] Nursing home
- [ ] other, if other please specify: ________________________________

**Planned kind of procedure** [single best answer]

- [ ] Inpatient intervention [patient remains in hospital for at least one night after intervention]
- [ ] Outpatient intervention [patient is discharged the day of intervention]

**Medical history** [single best answer]

**Functional status** [within 30 days before assessment]:

- [ ] Independent [patient does not require assistance from another person for activities of daily living]
- [ ] Partially dependent [The patient requires some assistance from another person]
- [ ] Totally dependent [The patient requires total assistance for all activities of daily living]

- [ ] Y [ ] N Emergency case

- [ ] Y [ ] N Current steroid use for chronic condition

- [ ] Y [ ] N Ascites within 30 days prior to intervention

- [ ] Y [ ] N Ventilator depended within 48h before intervention: [excludes CPAP for sleep apnoea]

- [ ] Y [ ] N Disseminated cancer: [includes ALL, AML, Lymphoma °IV; excludes CLL, CML, Lymphoma I-III°]

- [ ] Diabetes [ ] Y [ ] N Oral [ ] Insulin [only dietary treatment, should not be classified as ‘diabetic’ here]

- [ ] Y [ ] N Hypertension requiring medication: [<30d prior surgery]

- [ ] Y [ ] N Congestive Heart Failure: [<30d prior intervention, acute or chronic + symptoms]

- [ ] Dyspnoea: [ ] Y [ ] N with moderate exertion [ ] at rest [<30d prior surgery]

- [ ] Y [ ] N Current smoker: [<1yrs prior intervention; excluding: pipes, cigars, chewing tobacco]

- [ ] Alcohol: number of units per week _______ [1 unit = 0.25l beer, 0.1l wine, 0.02l shot]

- [ ] Y [ ] N History of severe COPD: [functional disability or chronic bronchodilator therapy or past hospitalization or FEV1 of <75%]

- [ ] Y [ ] N Dialysis [within 2 weeks prior to surgery]

- [ ] Y [ ] N Acute renal failure: [1.Increased BUN on two measurements AND two creatinine results > 3mg/dl OR 2. Surgeon or physician has documented Acute Renal Failure AND one of the following: Increased BUN on two measurements OR two Cr results > 3mg/dl]
Risk assessment [tick all that apply]

- None
- Chronic renal failure
- Ischemic heart disease
- Cardiac arrhythmia or heart blocks
- Chronic heart failure or cardiomyopathy
- Peripheral vascular disease
- Hemiplegia
- Chronic respiratory failure
- Chronic alcohol abuse
- Cancer
- Transplanted organ(s)
- Dementia
- Cerebrovascular disease
- Mild cognitive impairment
- Other cognitive complaints

Most recent (within 1 month) pre-interventional blood results [optional, only if done in the clinical routine]:

- Haemoglobin: [ ] Yes [ ] No
  - Value: __ __ __ __
  - Unit: [ ] g/dL [5-20.0] [ ] mmol/L [3-14]

- Haematocrit: [ ] Yes [ ] No
  - Value: __ __ __ __
  - Unit: [ ] % [20.0-65.00]

- Creatinine: [ ] Yes [ ] No
  - Value: __ __ __ __
  - Unit: [ ] mg/dL [0.3-10.0] [ ] µmol/L [26-900]

- Albumin: [ ] Yes [ ] No
  - Value: __ __ __ __
  - Unit: [ ] g/dL [0.5-8.0] [ ] g/L [5-80]

Chronic medication [until at least 7 days before intervention]: [tick all that apply]

- Anticoagulants: [ ] Yes [ ] No [e.g. Heparin, Warfarin, NOACs]
- Antiplatelet therapy: [ ] Yes [ ] No [e.g. Acetylsalicylic acid, Clopidogrel]
- Beta blockers: [ ] Yes [ ] No
- ACE inhibitor or AT II-Receptor blocker: [ ] Yes [ ] No [e.g. Ramipril, Candesartan]
- Antidepressants: [ ] Yes [ ] No
- Neuroleptics: [ ] Yes [ ] No [e.g. Haloperidol, Pipamperon, Clozapin, Risperidon, Chlorpromazin]
- Benzodiazepines: [ ] Yes [ ] No
- Z-drugs: [ ] Yes [ ] No [e.g. Zolpidem, Zopiclone, Zaleplon]

Frailty Assessments:

1. History of falls during the last 6 months: [ ] none [ ] 1 time [ ] >1 time

2. Unintentional weight loss of ≥4.5 kg in the last year: [ ] Yes [ ] No

3. Mini Cog: Correct number of recalled words: [ ] [0-3]
   - Clock draw points: [ ] [0 or 2]
   - Total points: [ ] [0-5]

3. Timed up and go test: [ ] [ ] [ ] [ ] seconds
   - Patient cannot perform this test at the moment: [ ]
   - Not performed: [ ]
II. Intervention day (Visit 2)

Anaesthesia induction date: 

Anaesthesia induction time: 

Premedication before intervention:  none  Clonidine  Benzodiazepine

Anaesthesia technique [tick all that apply]

<table>
<thead>
<tr>
<th>General</th>
<th>Spinal</th>
<th>Epidural</th>
<th>Other regional</th>
<th>Sedation</th>
</tr>
</thead>
</table>

If general anaesthesia: Main anaesthetic for maintenance: [single best answer]

<table>
<thead>
<tr>
<th>Desflurane</th>
<th>Isoflurane</th>
<th>Sevoflurane</th>
<th>Propofol</th>
<th>other</th>
</tr>
</thead>
</table>

If general anaesthesia: Main opioid for maintenance: [single best answer]

<table>
<thead>
<tr>
<th>Alfentanil</th>
<th>Fentanyl</th>
<th>Morphine</th>
<th>Piritramide</th>
<th>Remifentanil</th>
<th>Sufentanil</th>
<th>other</th>
</tr>
</thead>
</table>

Advanced intraoperative Monitoring [tick all that apply]

<table>
<thead>
<tr>
<th>Anaesthesia depth monitoring device [e.g. Bispectral index or EEG]</th>
<th>NIRS [Near-infrared spectroscopy]</th>
<th>Invasive RR [intra-arterial blood pressure measurement]</th>
<th>CVP [Central venous pressure]</th>
<th>TEE [Transoesophageal echocardiogram]</th>
<th>Pulmonary artery catheter</th>
<th>Cardiac output [via arterial wave form analysis]</th>
<th>other</th>
<th>not used</th>
</tr>
</thead>
</table>

Intervention/ Surgical procedure exact name:

Surgical category: [single best answer]

<table>
<thead>
<tr>
<th>Athroplasty and spine</th>
<th>Interv. Cardiology [e.g. TAVI]</th>
<th>Renal transplant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiac</td>
<td>Interv.cardiorhythmology</td>
<td>Thoracic</td>
</tr>
<tr>
<td>Ear, nose and throat (ENT)</td>
<td>Interv.neuroradiology</td>
<td>Thoracic</td>
</tr>
<tr>
<td>Endoscopic digestive</td>
<td>Multiple trauma related</td>
<td>Urologic major</td>
</tr>
<tr>
<td>Gastrointestinal major</td>
<td>Neuro</td>
<td>Urologic minor</td>
</tr>
<tr>
<td>Gastrointestinal minor</td>
<td>Ophthalmologic</td>
<td>Vascular major</td>
</tr>
<tr>
<td>Gynaecologic</td>
<td>Orthopaedic other</td>
<td>Vascular minor</td>
</tr>
<tr>
<td>Hepatic major</td>
<td>Orthopaedic trauma</td>
<td>Other surgery</td>
</tr>
<tr>
<td>Hepatic minor</td>
<td>Plastic</td>
<td></td>
</tr>
</tbody>
</table>

Severity of surgery/ intervention:

<table>
<thead>
<tr>
<th>Minor</th>
<th>Intermediate</th>
<th>Major</th>
</tr>
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</table>

Urgency of surgery/ intervention:

<table>
<thead>
<tr>
<th>Elective</th>
<th>Urgent</th>
<th>Emergency</th>
</tr>
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</table>
**Patient name:** ____________________  **Date of birth:** dd/mm/yyyy

<table>
<thead>
<tr>
<th>Surgical wound classification</th>
<th>☐ Clean</th>
<th>☐ Clean-Contaminated</th>
<th>☐ Contaminated</th>
<th>☐ Dirty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laparoscopic surgery</td>
<td>☐ Y ☐ N</td>
<td>Cancer surgery</td>
<td>☐ Y ☐ N</td>
<td></td>
</tr>
<tr>
<td>On-pump cardiac surgery</td>
<td>☐ Y ☐ N</td>
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**Immediately at the end of intervention:**

- **Extubation** ☐ Y ☐ N ☐ not applicable [e.g. patient was not intubated]
- **Admission to ICU** ☐ Y ☐ N [including intermediate care] If Yes, planned admission? ☐ Y ☐ N
- **Admission to a unit with "geriatric support"** [e.g. geriatric units, geriatric co-management models, geriatric liaison services] ☐ Y ☐ N

**Transfusion:**

- Intraoperative transfusion of packed red blood cells: ☐ Y ☐ N if yes amount: [___] [n]
- Intraoperative transfusion of fresh frozen plasma: ☐ Y ☐ N if yes amount: [___] [n]
- Intraoperative transfusion of platelets: ☐ Y ☐ N if yes amount: [___] [n]

**WHO-surgical checklist** used and completely filled in? ☐ Y ☐ N

**End of anaesthesia date:** 1_2_0_1_9_2_0_1_7 [>=01-Apr-2017]

**End of anaesthesia time:** 1_2_3_4_5_6_7_8_9_0_1_2_3_4_5 [hh:mm]

**Definitions:**

<table>
<thead>
<tr>
<th>Severity of surgery</th>
<th>Definiton</th>
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<tbody>
<tr>
<td>Minor</td>
<td>e.g. skin-lesions or small skin tumours, biopsies, draining breast abscess, brief diagnostic and therapeutic procedures like arthroscopy without intervention</td>
</tr>
<tr>
<td>Intermediate</td>
<td>Primary repair of inguinal hernia, excising varicose veins in the leg, tonsillectomy or adeno-tonsillectomy, knee arthroscopy, cataract surgery, uvuoplasty, minimally invasive repair of vaginal prolapse, vaginal hysterectomy, tendon repair of hand etc.</td>
</tr>
<tr>
<td>Major</td>
<td>Total abdominal hysterectomy, endoscopic resection of prostate, lumbar discectomy, thyroidectomy, total joint replacement, lung operations, colon resection, radical neck dissection etc.</td>
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III. Follow-up on POD 30 (Visit 3)

Date of Follow-up [dd/mm/yyyy] = [intervention day + 30 days]

Patient status on postoperative day 30:

☐ Discharged before day 30

If yes:

- Date of discharge: [dd/mm/yyyy] = [intervention day + 30 days]
- Discharge destination: [single best answer]
  - Other hospital
  - Rehabilitation
  - Nursing home
  - Home
  - Other, please specify____________________

☐ In hospital death

If yes:

- Was cardiopulmonary resuscitation performed? Y/N
- Date of death: [dd/mm/yyyy] = [intervention day + 30 days]

☐ Still in hospital at day 30

Hospital length of stay after intervention until Follow-up [≤ 31 days] [including day of intervention, excluding discharge day, in case of “still in hospital” please enter 31]

Total ICU length of stay after intervention [≤ 31 days] [Including day of ICU admission, excluding discharge day from ICU. In case of continuous ICU stay since intervention, please enter 31]

Unplanned ICU admission at any time after intervention until day 30 Y/N

Admission to a unit with "geriatric support" at any time-point until day 30 Y/N [e.g. geriatric units, geriatric co-management models, geriatric liaison services]

In hospital outcome according to the ACS NSQIP® [tick all that apply]

- None of the mentioned
- Cardiac arrest
- DVT [deep vein thrombosis]
- Myocardial infarction
- Venous thromboembolism/ blood clot [requiring therapy]
- Pneumonia
- Superficial incisional SSI [surgical site infection]
- Pulmonary embolism
- Deep incisional SSI
- Unplanned intubation
- Organ space SSI
- Ventilator >48h
- Wound disruption
- Return to the operating room
- Systemic sepsis
- Stroke
- Urinary tract infection
- Acute kidney injury [creatinine increase of >2mg/dl from preoperative value or new dialysis]
- Discharge to post-acute care [other hospital, nursing/ rehab facility]
Patient name: ________________________ Date of birth: dd/mm/yyyy

Visit at ward (if the patient is still in hospital) [If patient is already discharged=> perform the telephone Follow up]
Actual functional status:

☐ Independent [patient does not require assistance from another person for activities of daily living]
☐ Partially dependent [The patient requires some assistance from another person]
☐ Totally dependent [The patient requires total assistance for all activities of daily living]

Brief screen for cognitive impairment: Correct number of the recalled words
(Dog, Apple, House) __________ [0-3]

Additional Telephone follow-up on day 30 (only if the patient was discharged before day 30)
Patient status on day 30
☐ Alive
☐ Dead, If yes, date of death: ___/___/____ - ___/___/____
☐ Follow-up not performed/ not available

If follow up is NOT available, specify reason: [single best answer]
☐ Patient’s will
☐ Other, please specify: ________________________________

Any complications after hospital discharge: [only present if they led to hospital re-admission or death, or additionally in case of kidney injury, if it led to renal replacement therapy]
Cardiac (Cardiac arrest, myocardial infarction) ☐ Y ☐ N
Pulmonary (Pneumonia, pulmonary embolism) ☐ Y ☐ N
Stroke ☐ Y ☐ N
Acute kidney injury ☐ Y ☐ N

Actual functional status:

☐ Independent [patient does not require assistance from another person for activities of daily living]
☐ Partially dependent [The patient requires some assistance from another person]
☐ Totally dependent [The patient requires total assistance for all activities of daily living]

Brief screen for cognitive impairment: Correct number of the recalled words
(Dog, Apple, House) __________ [0-3]