Peri-interventional Outcome Study in the Elderly (POSE)

I. Baseline assessment (Visit 1)

Age ________ years [80-120]  Sex ☐M ☐F  ASA ☐I ☐II ☐III ☐IV ☐V
Height ________ cm [120-230]  Weight ________ kg [30-250]

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

Systemic Sepsis within 48 hours before intervention: ☐ No ☐SIRS ☐Sepsis ☐Septic shock

☐ 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 ☐N ☐Y ☐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: ☐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]
Patient name: ___________________________ Date of birth: dd/mm/yyyy

Risk assessment [tick all that apply]

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

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

Haemoglobin ☐ Y ☐ N value: __________ Unit: ☐ [g/dL] [5-20.0] ☐ [mmol/L] [3-14]
Haematocrit ☐ Y ☐ N value: __________ Unit: ☐ [none] [0.2-0.65] ☐ [%] [20.0-65.00]
Creatinine ☐ Y ☐ N value: __________ Unit: ☐ [mg/dL] [0.3-10.0] ☐ [µmol/L] [26-900]
Albumin ☐ Y ☐ N 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 ☐ Y ☐ N [e.g. Heparin, Warfarin, NOACs]
Antiplatelet therapy ☐ Y ☐ N [e.g. Acetylsalicylic acid, Clopidogrel]
Beta blockers ☐ Y ☐ N
ACE inhibitor or AT II-Receptor blocker ☐ Y ☐ N [e.g. Ramipril/ Candesartan]
Antidepressants ☐ Y ☐ N
Neuroleptics ☐ Y ☐ N [e.g. Haloperidol, Pipamperon, Clozapin, Risperidon, Chlorpromazin]
Benzodiazepines ☐ Y ☐ N
Z-drugs ☐ Y ☐ N [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 ☐ Y ☐ N
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
Patient name: ____________________  Date of birth:  dd/mm/yyyy

II. Intervention day (Visit 2)

Anaesthesia induction date:  __d__ - __m__ - __y__ [>=01-Apr-2017]
Anaesthesia induction time:  __:__ __:__:hh:mm

Premedication before intervention:  [] none  [ ] Clonidine  [ ] Benzodiazepine

Anaesthesia technique [tick all that apply]
- [ ] General
- [ ] Spinal
- [ ] Epidural
- [ ] Other regional
- [ ] Sedation
If general anaesthesia: Main anaesthetic for maintenance: [single best answer]
- [ ] Desflurane
- [ ] Isoflurane
- [ ] Sevoflurane
- [ ] Propofol
- [ ] other
If general anaesthesia: Main opioid for maintenance: [single best answer]
- [ ] Alfentanil
- [ ] Fentanyl
- [ ] Morphine
- [ ] Piritramide
- [ ] Remifentanil
- [ ] Sufentanil
- [ ] other

Advanced intraoperative Monitoring [tick all that apply]

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

Intervention/ Surgical procedure exact name:

Surgical category: [single best answer]

<table>
<thead>
<tr>
<th>Category</th>
<th>[e.g. TAVI]</th>
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</thead>
<tbody>
<tr>
<td>Interv. Cardiology</td>
<td>[e.g. TAVI]</td>
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<tr>
<td>Interv. Cardiomyology</td>
<td></td>
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<tr>
<td>Interv. neuroradiology</td>
<td></td>
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<tr>
<td>Multiple trauma related</td>
<td></td>
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<tr>
<td>Neuro</td>
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<tr>
<td>Ophthalmologic</td>
<td></td>
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<tr>
<td>Orthopaedic other</td>
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<tr>
<td>Orthopaedic trauma</td>
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<tr>
<td>Plastic</td>
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<tr>
<td>Renal transplant</td>
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<td>Thoracic</td>
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<tr>
<td>Transplant</td>
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<tr>
<td>Urologic major</td>
<td></td>
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<tr>
<td>Urologic minor</td>
<td></td>
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<tr>
<td>Vascular major</td>
<td></td>
</tr>
<tr>
<td>Vascular minor</td>
<td></td>
</tr>
<tr>
<td>Other surgery</td>
<td></td>
</tr>
</tbody>
</table>

Severity of surgery/intervention:
- [ ] Minor
- [ ] Intermediate
- [ ] Major

Urgency of surgery/intervention:
- [ ] Elective
- [ ] Urgent
- [ ] Emergency
Patient name: ____________________  Date of birth:  dd/mm/yyyy

Surgical wound classification
- Clean
- Clean-Contaminated
- Contaminated
- Dirty

Laparoscopic surgery  Y ☐ N  Cancer surgery  Y ☐ N
On-pump cardiac surgery  Y ☐ N

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:  _d_ _d_ _h_ _m_ _m_ _m_ _m_ _m_ _m_ _m_ _m_ _y_ _y_ _y_ _y_ [>=01-Apr-2017]
End of anaesthesia time:  _h_ _h_ _h_ _h_ _m_ _m_ _m_ _m_ _m_ [hh:mm]

* Definitions:

Severity of surgery*
- Minor  e.g. skin-lesions or small skin tumours, biopsies, draining breast abscess, brief diagnostic and therapeutic procedures like arthroscopy without intervention
- Intermediate  Primary repair of inguinal hernia, excising varicose veins in the leg, tonsillectomy or adeno-tonsillectomy, knee arthroscopy, cataract surgery, uvuloplasty, minimally invasive repair of vaginal prolapse, vaginal hysterectomy, tendon repair of hand etc.
- Major  Total abdominal hysterectomy, endoscopic resection of prostate, lumbar discectomy, thyroidectomy, total joint replacement, lung operations, colon resection, radical neck dissection etc.

Urgency of surgery/ non-surgical intervention
- Elective  Intervention that is scheduled in advance because it does not involve a medical emergency
- Urgent  Intervention required within < 48 hrs
- Emergency  Non-elective intervention performed when the patient’s life or well-being is in direct jeopardy

Surgical wound classification
- Clean  Elective, not emergency, non-traumatic, primarily closed; no acute inflammation; no break in technique; respiratory, gastrointestinal, biliary and genitourinary tracts not entered.
- Clean-contaminated  Urgent or emergency case that is otherwise clean; elective opening of respiratory, gastrointestinal, biliary or genitourinary tract with minimal spillage (e.g. appendectomy) not encountering infected urine or bile; minor technique break.
- Contaminated  Non-purulent inflammation; gross spillage from gastrointestinal tract; entry into biliary or genitourinary tract in the presence of infected bile or urine; major break in technique; penetrating trauma <4 hours old; chronic open wounds to be grafted or covered.
- Dirty  Purulent inflammation (e.g. abscess); preoperative perforation of respiratory, gastrointestinal, biliary or genitourinary tract; penetrating trauma >4 hours old.
III. Follow-up on POD 30 (Visit 3)

Date of Follow-up | d | m | y | d | m | y | d | m | y | [intervention day+30 days]

Patient status on postoperative day 30:

☐ Discharged before day 30

If yes:

☐ Other hospital
☐ Rehabilitation
☐ Nursing home
☐ Home
☐ Other, please specify

☐ In hospital death

If yes:

Was cardiopulmonary resuscitation performed ☐ Y ☐ N

☐ Still in hospital at day 30

Hospital length of stay after intervention until Follow-up | d | m | y | | | ≤ 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 | d | m | y | | | ≤ 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]
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: [dd/ mm/ yyyy]

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]

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__________________________________________