

Patient name: \_\_\_\_\_

Date of birth: dd /mm /yyyy

## 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]

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**Risk assessment** [tick all that apply]

- |  |   |
|--|---|
| <input type="checkbox"/> None                                    | <input type="checkbox"/> Chronic renal failure              |
| <input type="checkbox"/> Ischemic heart disease                  | <input type="checkbox"/> Cardiac arrhythmia or heart blocks |
| <input type="checkbox"/> Chronic heart failure or cardiomyopathy | <input type="checkbox"/> Peripheral vascular disease        |
| <input type="checkbox"/> Hemiplegia                              | <input type="checkbox"/> COPD                               |
| <input type="checkbox"/> Chronic respiratory failure             | <input type="checkbox"/> Chronic alcohol abuse              |
| <input type="checkbox"/> Cancer                                  | <input type="checkbox"/> Transplanted organ(s)              |
| <input type="checkbox"/> Dementia                                | <input type="checkbox"/> Cerebrovascular disease            |
| <input type="checkbox"/> Mild cognitive impairment               | <input type="checkbox"/> 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:**

- History of falls during the last 6 months:  none  1 time  >1 time
- Unintentional weight loss of ≥4.5 kg in the last year Y N
- Mini Cog: Correct number of recalled words [ ] [0-3]  
 Clock draw points [ ] [0 or 2]  
 Total points [ ] [0-5]
- Timed up and go test [ ][ ][ ] seconds  Patient cannot perform this test at the moment  
 Not performed

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## II. Intervention day (Visit 2)

Anaesthesia induction date: |\_d\_|\_|d\_|-|\_m\_|\_|m\_|\_|m\_| - |\_2\_|\_|0\_|\_|y\_|\_|y\_| [ $\geq$ 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]

<input type="checkbox"/> Anaesthesia depth monitoring device [e.g. Bispectral index or EEG]	<input type="checkbox"/> NIRS [Near-infrared spectroscopy]	<input type="checkbox"/> Invasive RR [intra-arterial blood pressure measurement]	<input type="checkbox"/> CVP [Central venous pressure]
<input type="checkbox"/> TEE [Transoesophageal echocardiogram]	<input type="checkbox"/> Pulmonary artery catheter	<input type="checkbox"/> Cardiac output [via arterial wave form analysis]	<input type="checkbox"/> other

Intervention/ Surgical procedure exact name:

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Surgical category: [single best answer]

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> Athroplasty and spine      | <input type="checkbox"/> Interv. Cardiology [e.g. TAVI] | <input type="checkbox"/> Renal transplant |
| <input type="checkbox"/> Cardiac                    | <input type="checkbox"/> Interv. cardiorhythmology      | <input type="checkbox"/> Thoracic         |
| <input type="checkbox"/> Ear, nose and throat (ENT) | <input type="checkbox"/> Interv. neuroradiology         | <input type="checkbox"/> Transplant       |
| <input type="checkbox"/> Endoscopic digestive       | <input type="checkbox"/> Multiple trauma related        | <input type="checkbox"/> Urologic major   |
| <input type="checkbox"/> Gastrointestinal major     | <input type="checkbox"/> Neuro                          | <input type="checkbox"/> Urologic minor   |
| <input type="checkbox"/> Gastrointestinal minor     | <input type="checkbox"/> Ophthalmologic                 | <input type="checkbox"/> Vascular major   |
| <input type="checkbox"/> Gynaecologic               | <input type="checkbox"/> Orthopaedic other              | <input type="checkbox"/> Vascular minor   |
| <input type="checkbox"/> Hepatic major              | <input type="checkbox"/> Orthopaedic trauma             | <input type="checkbox"/> Other surgery    |
| <input type="checkbox"/> Hepatic minor              | <input type="checkbox"/> Plastic                        |   |

Severity of surgery/ intervention	<input type="checkbox"/> Minor	<input type="checkbox"/> Intermediate	<input type="checkbox"/> Major
Urgency of surgery/ intervention	<input type="checkbox"/> Elective	<input type="checkbox"/> Urgent	<input type="checkbox"/> Emergency

Data entry staff use only  
POSE patient Identifier:

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Surgical wound classification	<input type="checkbox"/> Clean	<input type="checkbox"/> Clean-Contaminated	<input type="checkbox"/> Contaminated	<input type="checkbox"/> Dirty
Laparoscopic surgery	<input type="checkbox"/> Y <input type="checkbox"/> N	Cancer surgery	<input type="checkbox"/> Y <input type="checkbox"/> N	
On-pump cardiac surgery	<input type="checkbox"/> Y <input type="checkbox"/> N			

**Immediately at the end of intervention:**

Extubation	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> not applicable [e.g. patient was not intubated]
Admission to ICU	<input type="checkbox"/> Y <input type="checkbox"/> N [including intermediate care]	If Yes, planned admission? <input type="checkbox"/> Y <input type="checkbox"/> N
Admission to a unit with "geriatric support" [e.g. geriatric units, geriatric co-management models, geriatric liaison services]		<input type="checkbox"/> Y <input type="checkbox"/> 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: |\_|\_|\_|\_|-|\_|\_|\_|\_| - |\_|\_|\_0\_|\_|\_|\_| [>=01-Apr-2017]

End of anaesthesia time: |\_|\_|\_|\_|:|\_|\_|\_|\_| [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.

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**III. Follow-up on POD 30 (Visit 3)**

Date of Follow-up |\_d\_|\_|d\_|-|\_m\_|\_|m\_|\_|m\_| - |\_2\_|\_|0\_|\_|y\_|\_|y\_| [=intervention day+30 days]

**Patient status on postoperative day 30:**

**Discharged before day 30**      **If yes:**

Date of discharge: |\_d\_|\_|d\_| - |\_m\_|\_|m\_|\_|m\_| - |\_2\_|\_|0\_|\_|y\_|\_|y\_|

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: |\_d\_|\_|d\_| - |\_m\_|\_|m\_|\_|m\_| - |\_2\_|\_|0\_|\_|y\_|\_|y\_|

**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]

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

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**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:**      |\_d\_|\_|d\_| - |\_m\_|\_|m\_|\_|m\_| - |\_2\_|\_|0\_|\_|y\_|\_|y\_|
- 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]