

## EuPreCHO Appendix 06 - Case Report Form

EuPreCHO: European study on perioperative management and outcome following  
Preoperative Transthoracic Echocardiography in noncardiac surgery patients.

Inclusion criteria		
Elective, inhospital, intermediate or high-risk noncardiac surgery procedures AND any of the 3 following criteria	<u>Yes</u>	No
- aged ≥65 years <b>OR</b>	<u>Yes</u>	No
- ≥18 years AND ≥2 of the following: hypertension, smoking, dyslipidaemia, diabetes, or family history of cardiovascular disease (coronary artery disease, cerebral vascular disease, peripheral arterial disease, heart failure) <b>OR</b>	<u>Yes</u>	No
- ≥18 years AND known cardiovascular disease (coronary artery disease, cerebral vascular disease, peripheral arterial disease, heart failure, valvular disease)	<u>Yes</u>	No
Exclusion criteria		
- under 18 years of age	No	Yes
- day surgery (outpatient surgery)	No	Yes
- urgent/emergency surgery	No	Yes
- current ICU patient (i.e. in ICU day prior of surgery or the day of the index surgery (day 0),	<u>No</u>	Yes
- cardiac surgery within the last month prior to the index noncardiac surgery	<u>No</u>	Yes
- unwilling or unable to provide informed consent	<u>No</u>	Yes
- unable to complete the WHODAS questionnaire (literacy or language barrier)	<u>No</u>	Yes
- Previous enrollment in EuPreCHO (in case of repeated surgery).	<u>No</u>	Yes
<p><b><u>Only IF</u> the first inclusion criterion AND any of the 3 subsequent eligibility criteria are answered with YES and all exclusion criteria are answered with NO, <u>THEN</u>, is the patient eligible for recruitment</b></p>		

PATIENT BASELINE CHARACTERISTICS	
1 Study Subject ID:	<div> <div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div> <div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div> <div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div> </div> <div>Enter Study Subject ID in this format xxx-xxx-xxx 3 digit code for the country, 3 digit code for the hospital and 3 digit individual patient number</div>
2 Patients Exposed / Non-Exposed	<div> <b>Did patient receive TTE within 6 months of surgery?</b>            (or within 8 months if index surgery has been postponed)  <input type="checkbox"/> Yes-patient had TTE-Exposed    <input type="checkbox"/> No-patient did not have TTE-,non exposed         </div>
3 Written informed consent was obtained from patient	<div>           Date of informed consent (before or equal to date of surgery)  <div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div> <div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div> <div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div> </div> <div>in this format dd-Mmm-YYYY (Month in English starting with capital letter)</div>
4 Age (on day of surgery):	<div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div> <div>* under 18 is exclusion criteria</div>
5 Biological sex:	<div> <input type="checkbox"/> Male    <input type="checkbox"/> Female            in case of gender-affirming hormone therapy use the therapy-induced sex         </div>
6 Weight:	<div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div> <div>kg [40-e]</div>
7 Height:	<div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div> <div>cm [140-210]</div>
8 Preoperative functional status	<div> <input type="checkbox"/> fully independent    <input type="checkbox"/> partially dependent    <input type="checkbox"/> fully dependent         </div>
9 ASA Physical Status:	<div> <input type="checkbox"/> I    <input type="checkbox"/> II    <input type="checkbox"/> III    <input type="checkbox"/> IV    <input type="checkbox"/> V         </div>
10 Active cancer	<div> <input type="checkbox"/> Yes    <input type="checkbox"/> No            undergoing surgery for cancer OR known metastatic disease OR patient            has received active treatment for their cancer (e.g., chemotherapy, radiation or surgery) within the last 6 months         </div>
11 Family history of cardiovascular disease	<div> <input type="checkbox"/> Yes    <input type="checkbox"/> No            yes, if reported in any preoperative clinical documentation or if history provided by patient         </div>
12 History of dyslipidemia	<div> <input type="checkbox"/> Yes    <input type="checkbox"/> No            yes, if diagnosis reported in any preoperative clinical documentation or if history of correspondent treatment         </div>
13 Hypertension	<div> <input type="checkbox"/> Yes    <input type="checkbox"/> No            yes, if diagnosis reported in any preoperative clinical documentation or if history of correspondent treatment         </div>
14 Current smoker	<div> <input type="checkbox"/> Yes    <input type="checkbox"/> No            &lt; 1 yr prior intervention, excluding pipes, cigars, chewing tobacco         </div>
15 Diabetes mellitus with treatment	<div> <input type="checkbox"/> Yes    <input type="checkbox"/> No            yes, if diagnosis reported in any preoperative clinical documentation or if history of correspondent treatment             15.1 If yes, treated with  <input type="checkbox"/> Diet    <input type="checkbox"/> Classical Oral antidiabetics    <input type="checkbox"/> GLP-1 Receptor Agonist/ SGLT2 inhibitors    <input type="checkbox"/> Insulin         </div>
16 Haemoglobin Preop (closest to operation date and ≤3 months )	<div>           16.1 unit <input type="checkbox"/> g/L[60-180]               <input type="checkbox"/> g/dL[6-18]               <input type="checkbox"/> mg/mL[60-180]            16.2 value <div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div> </div>

<b>17 Preoperative hs-Troponin</b>	<p><b>17.1</b>  _ _ _ _  <b>ng/L</b> <i>Please be aware of unit</i></p> <p><b>17.2 Assay information Troponin</b>  99<sup>th</sup> percentile of local assay  _ _ _ _  <b>ng /L</b> <i>Please be aware of unit</i></p> <p><b>17.3</b> Check which applies (single choice)  <input type="checkbox"/> high-sensitivity Troponin I  <input type="checkbox"/> high-sensitivity Troponin T</p>
<b>18 Preoperative B-type Natriuretic Peptide</b>	<p><b>18.1</b>  _ _ _ _  <b>ng/L</b> <i>Please be aware of unit</i></p> <p><b>18.2 Assay information</b>  99<sup>th</sup> percentile of local assay  _ _ _ _  <b>ng /L</b> <i>Please be aware of unit</i></p> <p><b>18.3</b> Check which B-type Natriuretic Peptide applies (single choice)  <input type="checkbox"/> NTproBNP  <input type="checkbox"/> BNP</p>
<b>19 Creatinine Preop: (closest to surgery date and ≤3 months)</b>	<p><b>19.1 Unit</b> <input type="checkbox"/> μmol/L [1.0-3000.0]  <input type="checkbox"/> mg/dL [0.1-30.0]</p> <p><b>19.2 Value</b>  _ _ _ _ . _ </p>
<b>20 Renal disease</b>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No  <i>including chronic kidney disease, dialysis-dependent, hypertensive renal/heart disease with renal failure, kidney-transplantation, acute renal failure</i></p> <p><b>20.1</b> If yes ,does patient need dialysis <input type="checkbox"/> Yes <input type="checkbox"/> No</p>

CARDIOPULMONARY COMORBIDITIES		
<b>21 Chronic heart failure or cardiomyopathy</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No <i>yes, if diagnosis reported in any preoperative clinical documentation or if history of correspondent treatment</i> <b>21.1</b> If yes, history of congestive heart failure? <input type="checkbox"/> Yes <input type="checkbox"/> No	
<b>22 Intake of heart failure medication (&gt;30 days before surgery)</b>	<b>22.1</b> ACE-Inhibitors; <input type="checkbox"/> Yes <input type="checkbox"/> No Intake of heart failure medication (>30 days before surgery) <b>22.1.1</b> if yes, was it discontinued preoperatively (>24-48h)? <input type="checkbox"/> Yes <input type="checkbox"/> No <b>22.2</b> ARB; <input type="checkbox"/> Yes <input type="checkbox"/> No <b>22.2.1</b> if yes, was it discontinued preoperatively (>24-48h)? <input type="checkbox"/> Yes <input type="checkbox"/> No <b>22.3</b> Beta blockers; <input type="checkbox"/> Yes <input type="checkbox"/> No <b>22.3.1</b> if yes, was it discontinued preoperatively (>24-48h)? <input type="checkbox"/> Yes <input type="checkbox"/> No <b>22.4</b> MRA (Mineralocorticoid Receptor Antagonist); <input type="checkbox"/> Yes <input type="checkbox"/> No <b>22.4.1</b> if yes, was it discontinued preoperatively (>24-48h)? <input type="checkbox"/> Yes <input type="checkbox"/> No <b>22.5</b> SGLT-2 Inhibitors; <input type="checkbox"/> Yes <input type="checkbox"/> No <b>22.5.1</b> if yes, was it discontinued preoperatively (>24-48h)? <input type="checkbox"/> Yes <input type="checkbox"/> No <b>22.6</b> Diuretics (others than MRA) ; <input type="checkbox"/> Yes <input type="checkbox"/> No <b>22.6.1</b> if yes, was it discontinued preoperatively (>24-48h)? <input type="checkbox"/> Yes <input type="checkbox"/> No <b>22.7</b> Antihypertensive medication (others than ACE-Inhibitors and ARB) ; <input type="checkbox"/> Yes <input type="checkbox"/> No <b>22.7.1</b> if yes, was it discontinued preoperatively (>24-48h)? <input type="checkbox"/> Yes <input type="checkbox"/> No	
<b>23 History of Coronary Artery Disease</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No <i>yes, if diagnosis reported in any preoperative clinical documentation or if history of myocardial infarction, correspondent interventions or medical treatment</i>	<b>23.1</b> If yes, check all that apply: <input type="checkbox"/> previous myocardial infarction <input type="checkbox"/> previous coronary intervention <input type="checkbox"/> previous coronary artery bypass
<b>24 History of peripheral vascular disease</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No <i>yes, if diagnosis reported in any preoperative clinical documentation or if history of correspondent interventions (e.g. PTA, vascular surgery)</i>	
<b>25 History of Stroke or TIA</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No <i>yes, if diagnosis reported in any preoperative clinical documentation or if history of correspondent interventions</i>	
<b>26 History of severe valvular stenosis</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<b>26.1</b> If yes, check all that apply : <input type="checkbox"/> Mitral valve <input type="checkbox"/> Aortic valve <input type="checkbox"/> Tricuspid valve
<b>27 History of severe valvular regurgitation</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<b>27.1</b> If yes, check all that apply: <input type="checkbox"/> Mitral valve <input type="checkbox"/> Aortic valve <input type="checkbox"/> Tricuspid valve

<b>28</b>	<b>History of cardiac arrhythmia or heart blocks</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <b>28.1</b> If yes, check all that apply: <input type="checkbox"/> atrial fibrillation, atrial flutter <input type="checkbox"/> Heart blocks <input type="checkbox"/> History of cardiac arrest
<b>29</b>	<b>History of pulmonary embolism</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No <i>yes, if diagnosis reported in any preoperative clinical documentation or if history of correspondent treatment</i>
<b>30</b>	<b>Chronic obstructive pulmonary disease</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No <i>yes, if diagnosis reported in any preoperative clinical documentation or if history of correspondent treatment</i>  <b>30.1</b> If yes History of severe COPD? <input type="checkbox"/> Yes <input type="checkbox"/> No <i>Functional disability, hospitalization in the past for treatment of COPD, O2 therapy, Gold III-IV</i>
<b>31</b>	<b>History of restrictive pulmonary disease</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No <i>yes, if diagnosis reported in any preoperative clinical documentation or if history of correspondent treatment</i>
<b>32</b>	<b>History of OSAS</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No <i>yes, if diagnosis reported in any preoperative clinical documentation or if history of correspondent treatment</i>

<b>SYMPTOMS AND CLINICAL SIGNS</b>		
<b>33</b>	<b>Presence of symptoms</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <b>33.1</b> If yes, check all that apply: <input type="checkbox"/> dyspnoea <input type="checkbox"/> chest discomfort <input type="checkbox"/> orthopnea <input type="checkbox"/> history of syncope <input type="checkbox"/> history of arrhythmia
<b>34</b>	<b>Presence of clinical signs</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <b>34.1</b> If yes , check all that apply : <input type="checkbox"/> murmur <input type="checkbox"/> crackles <input type="checkbox"/> jugular vein distension <input type="checkbox"/> peripheral oedema <input type="checkbox"/> ascites <input type="checkbox"/> pleural effusion <input type="checkbox"/> arrhythmia
<b>35</b>	<b>Was ECG recorded?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <b>35.1</b> If yes, was any of the following detected? Check all that apply <input type="checkbox"/> Atrial fibrillation <input type="checkbox"/> Other non-sinus rhythms <input type="checkbox"/> RBBB <input type="checkbox"/> LBBB <input type="checkbox"/> ischemic changes (ST depression, T inversion, ST elevation) <input type="checkbox"/> non-acute/nonspecific ischemic changes(e.g. pathological Q waves, poor R wave progression, T-flattening) <input type="checkbox"/> none of the above  <b>35.2</b> If yes and patient had TTE, when was ECG recorded ? <input type="checkbox"/> Before TTE <input type="checkbox"/> After TTE <input type="checkbox"/> Not Applicable, Patient did not receive TTE

**SELF-REPORTED FUNCTIONAL CAPACITY**

**36** How many floors can you continuously climb without having to stop to rest?  
Single choice

☐ <1 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ >4

**37** Choose one activity category that best describes your usual pattern of daily physical activities, (including activities related to house and family care, transportation, occupation, exercise and wellness and leisure or recreational purposes)  
Single choice

- ☐ Inactive or little activity other than usual daily activities
- ☐ Regularly ( $\geq$  d/wk) participate in physical activities requiring low levels of exertion that result in slight increases in breathing and heart rate for at least 10 minutes at a time
- ☐ Brisk walking, jogging or running, cycling, swimming, or vigorous sports at a comfortable pace or other activities requiring similar levels of exertion for 20 to 60 minutes per week
- ☐ Brisk walking, jogging or running, cycling, swimming, or vigorous sports at a comfortable pace or other activities requiring similar levels of exertion for 1 to 3 hours per week
- ☐ Brisk walking, jogging or running, cycling, swimming, or vigorous sports at a comfortable pace or other activities requiring similar levels of exertion for over 3 hours per week.

**38 CLINICAL FRAILTY SCALE**

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9

**CLINICAL FRAILTY SCALE**

	<b>1</b>	<b>VERY FIT</b>	People who are robust, active, energetic and motivated. They tend to exercise regularly and are among the fittest for their age.
	<b>2</b>	<b>FIT</b>	People who have <b>no active disease symptoms</b> but are less fit than category 1. Often, they exercise or are very active occasionally, e.g., seasonally.
	<b>3</b>	<b>MANAGING WELL</b>	People whose <b>medical problems are well controlled</b> , even if occasionally symptomatic, but often are <b>not regularly active</b> beyond routine walking.
	<b>4</b>	<b>LIVING WITH VERY MILD FRAILTY</b>	Previously "vulnerable," this category marks early transition from complete independence. While <b>not dependent</b> on others for daily help, often <b>symptoms limit activities</b> . A common complaint is being "slowed up" and/or being tired during the day.
	<b>5</b>	<b>LIVING WITH MILD FRAILTY</b>	People who often have <b>more evident slowing</b> , and need help with <b>high order instrumental activities of daily living</b> (finances, transportation, heavy housework). Typically, mild frailty progressively impairs shopping and walking outside alone, meal preparation, medications and begins to restrict light housework.

	<b>6</b>	<b>LIVING WITH MODERATE FRAILTY</b>	People who need help with <b>all outside activities</b> and with <b>keeping house</b> . Inside, they often have problems with stairs and need <b>help with bathing</b> and might need minimal assistance (cuing, standby) with dressing.
	<b>7</b>	<b>LIVING WITH SEVERE FRAILTY</b>	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).
	<b>8</b>	<b>LIVING WITH VERY SEVERE FRAILTY</b>	Completely dependent for personal care and approaching end of life. Typically, they could not recover even from a minor illness.
	<b>9</b>	<b>TERMINALLY ILL</b>	Approaching the end of life. This category applies to people with a <b>life expectancy &lt;6 months</b> , who are <b>not otherwise living with severe frailty</b> . (Many terminally ill people can still exercise until very close to death.)

**SCORING FRILITY IN PEOPLE WITH DEMENTIA**

The degree of frailty generally 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. In **very severe dementia** they are often bedfast. Many are virtually mute.



Clinical Frailty Scale ©2005-2020 Rockwood, Version 2.0 (EN). All rights reserved. For permission: [www.geriatricmedicine.ca](http://www.geriatricmedicine.ca)  
Rockwood K et al. A global clinical measure of fitness and frailty in elderly people. CMAJ 2005;173:489-495.

**BASELINE WHODAS 2.0**

	Difficulties?	None	Mild	Moderate	Severe	Extreme or Cannot do
In the past 30 days, how much difficulty did you have in ...	39 Standing for long periods such as 30 minutes	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
	40 Taking care of your household responsibilities	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
	41 Learning a new task, for example, learning how to get to a new place	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
	42 How much of a problem did you have joining in community activities (for example festivities, religious or other activities) in the same way as everyone else can?	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
	43 How much have you been emotionally affected by your health problems?	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
	44 Concentrating on doing something for ten minutes	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
	45 Walking a long distance such as a kilometre	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
	46 Washing your whole body	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
	47 Getting dressed	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
	48 Dealing with people you do not know	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
	49 Maintaining a friendship	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
50 Your day-to-day work/school Please	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	

	complete this question only if you work (paid, non-paid, self- employed) or go to school, otherwise skip this question					
<b>PREOPERATIVE TRANSTHORACIC ECHOCARDIOGRAPHY</b>						
<b>51</b>	<b>Was preoperative transthoracic echocardiography conducted within 6 months of the surgery</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No <b>55.1 If yes</b> <b>Date:</b>  _ _  -  _ _  -  _ _ _ _				
<b>52</b>	<b>The TTE was requested ...</b>	<input type="checkbox"/> specifically due to the surgery <input type="checkbox"/> independent of the surgery				
<b>53</b>	<b>Why was TTE requested?</b>	<input type="checkbox"/> new symptoms/ signs <input type="checkbox"/> routine follow-up (prior disease)				
<b>54</b>	<b>Type of TTE</b>	<input type="checkbox"/> extensive TTE examination (cardiological TTE lab) <input type="checkbox"/> focused TTE <b>54.1 If focused TTE, when was TTE conducted?</b> <input type="checkbox"/> at the time of preoperative assessment <input type="checkbox"/> immediately preoperatively				
<b>55</b>	<b>How was the estimated Ejection Fraction (EF)?</b>	<input type="checkbox"/> EF in percentage <input type="checkbox"/> EF qualitative  <b>55.1 If EF reported in percentage, estimated EF %</b>  _ _  %  <b>55.2 If qualitative report only, check what applies (single choice):</b> <input type="checkbox"/> Normal EF <input type="checkbox"/> mildly reduced EF <input type="checkbox"/> moderately reduced EF <input type="checkbox"/> severely reduced EF				
<b>56</b>	<b>Regional wall motion abnormality</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <b>56.1 If yes, is regional wall motion abnormality new/not previously described?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No				
<b>57</b>	<b>Significant (Grade II or more) LV diastolic dysfunction with evidence of increased LV filling pressures</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No				
<b>58</b>	<b>Significant RV dysfunction</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No				
<b>59</b>	<b>Clinically relevant mitral valve stenosis</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No				
<b>60</b>	<b>Severe mitral regurgitation</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No				
<b>61</b>	<b>Severe aortic stenosis</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No				

<b>62 Severe aortic regurgitation</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>PERIOPERATIVE MANAGEMENT</b>	
<b>63 Was surgery postponed?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No If yes: <b>63.1</b> Check all that apply <input type="checkbox"/> surgery postponed for diagnostic work-up <input type="checkbox"/> surgery postponed for medical optimization-prehabilitation <input type="checkbox"/> postponed for other reasons (e.g. logistic)
<b>64 Was Surgery Cancelled?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No If yes: <b>64.1</b> <input type="checkbox"/> cancellation (based on doctor/board decision) Date  _ _  -  _ _  -  _ _  (dd/Mmm/YYYY) NOTE: even if the patient was cancelled complete CRF including follow-up 30 days after cancellation  <b>64.2</b> <input type="checkbox"/> cancellation after shared decision with patient Date  _ _  -  _ _  -  _ _  (dd/Mmm/YYYY) NOTE: even if the patient was cancelled complete CRF including follow-up 30 days after cancellation
<b>65 Discussion in preoperative multidisciplinary board</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <b>65.1</b> If yes: decision derived from board discussion (check all that apply) <input type="checkbox"/> cancellation due to medical reasons <input type="checkbox"/> surgery postponed for diagnostic work-up <input type="checkbox"/> surgery postponed for medical optimization /prehabilitation <input type="checkbox"/> none of the above (surgery and perioperative care performed as planned)  <b>65.2</b> If yes: Is discussion in multidisciplinary board local standard of care for the conducted surgery? (always done in your institution for this specific surgery) <input type="checkbox"/> Yes <input type="checkbox"/> No, not standard of care  <div style="text-align: center;"><b>65.2.1</b> If not standard of care and patient had a TTE: when was multidisciplinary board discussion ?</div> <input type="checkbox"/> Before TTE <input type="checkbox"/> After TTE <input type="checkbox"/> Not Applicable, Patient did not receive TTE
<b>66 Cardiological work-up</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <b>66.1</b> If yes check all that apply <input type="checkbox"/> cardiac MRI <div style="text-align: center;"><b>66.1.1</b> If yes and patient had TTE, when was cardiac MRI conducted ?</div> <input type="checkbox"/> Before TTE <input type="checkbox"/> After TTE <input type="checkbox"/> Not Applicable, Patient did not receive TTE  <input type="checkbox"/> cardiac CT scan <div style="text-align: center;"><b>66.1.2</b> If yes and patient had TTE, when was cardiac CTscan conducted ?</div>

	<p><input type="checkbox"/> Before TTE   <input type="checkbox"/> After TTE   <input type="checkbox"/> Not Applicable, Patient did not receive TTE</p> <p><input type="checkbox"/> stress imaging  <b>66.1.3</b> If yes and patient had TTE, when was stress imaging conducted ?  <input type="checkbox"/> Before TTE   <input type="checkbox"/> After TTE   <input type="checkbox"/> Not Applicable, Patient did not receive TTE</p> <p><input type="checkbox"/> coronary angiography  <b>66.1.4</b> If yes and patient had TTE, when was coronary angiography conducted ?  <input type="checkbox"/> Before TTE   <input type="checkbox"/> After TTE   <input type="checkbox"/> Not Applicable, Patient did not receive TTE</p> <p><input type="checkbox"/> PCI or CABG  <b>66.1.5</b> If yes and patient had TTE, when was PCI or CABG conducted ?  <input type="checkbox"/> Before TTE   <input type="checkbox"/> After TTE   <input type="checkbox"/> Not Applicable, Patient did not receive TTE</p> <p><input type="checkbox"/> valvuloplasty or TAVI  <b>66.1.6</b> If yes and patient had TTE, when was valvuloplasty or TAVI conducted ?  <input type="checkbox"/> Before TTE   <input type="checkbox"/> After TTE   <input type="checkbox"/> Not Applicable, Patient did not receive TTE</p>
<b>67 Changes in medication</b>	<p><input type="checkbox"/> Yes   <input type="checkbox"/> No   if no medication was given from the beginning and no new medication introduced, please answer No</p> <p><b>67.1</b> If yes, existing drug or introduction of new drug</p> <p><input type="checkbox"/> adaptation of dosage of existing drug</p> <p><input type="checkbox"/> introduction of new drug class</p> <p><b>67.1.1</b> If new drug, check all that apply</p> <p><input type="checkbox"/> Aspirin</p> <p><input type="checkbox"/> ADP-inhibitors e.g. but not limited to clopidogrel, prasugrel, ticagrelor, ticlodipin,</p> <p><b>Cangrelor</b></p> <p><input type="checkbox"/> Vit K-antagonists</p> <p><input type="checkbox"/> LMWH</p> <p><input type="checkbox"/> NOACs e.g. but not limited to rivoroxaban, apixaban, dabigatran, edoxaban</p> <p><input type="checkbox"/> B-Blockers</p> <p><input type="checkbox"/> Inhibitors of renin angiotensin system (ACE-inhibitors, ADII Antagonists, Renin inhibitors, Angiotensin receptor neprilysin inhibitors)</p> <p><input type="checkbox"/> Calcium channel-blockers</p> <p><input type="checkbox"/> Statins</p> <p><input type="checkbox"/> Diuretics</p> <p><input type="checkbox"/> Mineralocorticoid/aldosterone receptor antagonists, e.g. but not limited to spironolactone, eplerenone- finorenone</p> <p><input type="checkbox"/> PDE-Inhibitors (e.g. but not limited to Avanafil, Sildenafil, Tadalafil, Vardenafil) or Endothelin-Inhibitors (e.g. Bosentan, Macitentan, Darusentan, Ambrisentan)</p> <p><input type="checkbox"/> SGLT-2 inhibitors (e.g. but not limited to : canagliflozin, dapagliflozin, empagliflozin ertugliflozin)</p> <p><input type="checkbox"/> GLP-1 receptor agonists ( e.g. but not limited to liraglutide, semaglutide, tirzepatide, exenatide, lixisenatide, albiglutide, dulaglutide, exenatide)</p>
<b>68 Planned ICU/IMC admission or planned extended PACU stay</b>	<p><input type="checkbox"/> Yes   <input type="checkbox"/> No</p> <p><b>68.1</b> If yes: Is ICU/IMC admission/ extended PACU stay standard of care for the conducted surgery?  <i>(always done in your institution for this specific surgery)</i></p> <p><input type="checkbox"/> Yes   <input type="checkbox"/> No</p>
<b>69 Systematic perioperative Troponin screening</b>	<p><input type="checkbox"/> Yes   <input type="checkbox"/> No</p>

	<b>69.1</b> If yes: Is systematic perioperative Troponin screening standard of care for the conducted surgery? <i>(always done in your institution for this specific surgery)</i> <input type="checkbox"/> Yes <input type="checkbox"/> No
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INTRAOPERATIVE DATA		
<b>70</b> Date of surgery	Date  _ _  -  _ _  -  _ _ _ _  (dd/Mmm/YYYY)	
<b>71</b> Type of surgery	<input type="checkbox"/> Moderate risk <input type="checkbox"/> High risk	
<b>72</b> Intrathoracic, intra-abdominal, or suprainguinal vascular surgery?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<b>73</b> Surgery site (as per NSQIP MICA)	<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <input type="checkbox"/> Anorectal  <input type="checkbox"/> Aortic  <input type="checkbox"/> Bariatric  <input type="checkbox"/> Brain  <input type="checkbox"/> Breast  <input type="checkbox"/> ENT (not thyroid/parathyroid)  <input type="checkbox"/> Foregut/Hepatopancreatobiliary  <input type="checkbox"/> Gallbladder, appendix, adrenal and spleen  <input type="checkbox"/> Hernia (ventral, inguinal, femoral)  <input type="checkbox"/> Intestinal           </div> <div style="width: 48%;"> <input type="checkbox"/> Neck (thyroid/parathyroid)  <input type="checkbox"/> Obstetric/Gynaecologic  <input type="checkbox"/> Orthopaedic and non-vascular extremity  <input type="checkbox"/> Other abdominal  <input type="checkbox"/> Peripheral vascular  <input type="checkbox"/> Skin  <input type="checkbox"/> Spine  <input type="checkbox"/> Non-oesophageal thoracic  <input type="checkbox"/> Vein  <input type="checkbox"/> Urology           </div> </div>	
<b>74</b> Anaesthesia technique	<input type="checkbox"/> General <input type="checkbox"/> General combined with regional <input type="checkbox"/> neuraxial <input type="checkbox"/> peripheral <input type="checkbox"/> Regional-peripheral <input type="checkbox"/> Regional-neuraxial <input type="checkbox"/> Regional-combined peripheral and neuraxial	
<b>75</b> Invasive blood pressure measurement	<input type="checkbox"/> Yes <input type="checkbox"/> No	<b>75.1</b> If yes: Is invasive blood pressure measurement local standard of care for the conducted surgery? <i>(always done in your institution for this specific surgery)</i> <input type="checkbox"/> Yes <input type="checkbox"/> No
<b>76</b> Central venous line	<input type="checkbox"/> Yes <input type="checkbox"/> No	<b>76.1</b> If yes: Is central venous line local standard of care for the conducted surgery? <i>(always done in your institution for this specific surgery)</i> <input type="checkbox"/> Yes <input type="checkbox"/> No
<b>77</b> Pulmonary arterial catheter	<input type="checkbox"/> Yes <input type="checkbox"/> No	<b>77.1</b> If yes: Is pulmonary arterial catheter local standard of care for the conducted surgery? <i>(always done in your institution for this specific surgery)</i> <input type="checkbox"/> Yes <input type="checkbox"/> No
<b>78</b> Intraoperative TransEsophageal Echocardiogram - TEE	<input type="checkbox"/> Yes <input type="checkbox"/> No	<b>78.1</b> If yes: Is intraoperative TEE local standard of care for the conducted surgery? <i>(always done in your institution for this specific surgery)</i> <input type="checkbox"/> Yes <input type="checkbox"/> No
<b>79</b> Pulse contour cardiac output using any device for cardiac output estimation	<input type="checkbox"/> Yes <input type="checkbox"/> No	<b>79.1</b> If yes: are devices for cardiac output estimation local standard of care for the conducted surgery? <i>(always done in your institution for this specific surgery)</i> <input type="checkbox"/> Yes <input type="checkbox"/> No

<b>80 Goal-directed haemodynamic management as per locally implemented protocol</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<b>80.1</b> If yes: Is goal-directed haemodynamic management standard of care for the conducted surgery? <i>(always done in your institution for this specific surgery)</i> <input type="checkbox"/> Yes <input type="checkbox"/> No
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### INHOSPITAL POSTOPERATIVE EVOLUTION

<b>81 ICU Admission?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<b>81.1</b> If Yes, First ICU admission	<input type="checkbox"/> <b>Planned</b> , i.e. decision of ICU admission prior to anesthesia induction <input type="checkbox"/> <b>Unexpected</b> , i.e. decision of ICU admission during/after anaesthesia induction or during hospital stay	
<b>81.2</b> Length of first stay in ICU (days)	_ _ _	
<b>81.3</b> Was patient readmitted to ICU (second stay or more in ICU) ?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<b>81.3.1</b> If yes: Total Length of <b>additional</b> stay in ICU (days)  _ _ _  <i>if several readmissions please report the cumulative length of stay in ICU</i>

<b>82 Grade of most severe complication in hospital</b> <i>according to Clavien-Dindo class (single choice)</i>  <input type="checkbox"/> None <input type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> IIIa <input type="checkbox"/> IIIb <input type="checkbox"/> IVa <input type="checkbox"/> IVb <input type="checkbox"/> V  <p><b>GRADE I:</b> Any deviation from the normal postoperative course without the need for pharmacological treatment or surgical, endoscopic and radiological interventions (Allowed therapeutic regimens are: drugs as antiemetics, antipyretics, analgetics, diuretics and electrolytes and physiotherapy. This grade also includes wound infections opened at the bedside)</p> <p><b>GRADE II:</b> Requiring pharmacological treatment with drugs other than such allowed for grade I complications. Blood transfusions and total parenteral nutrition are also included.</p> <p><b>GRADE III:</b> Requiring surgical, endoscopic or radiological intervention.</p> <p style="margin-left: 20px;">- <b>IIIa:</b> Intervention not under general anaesthesia</p> <p style="margin-left: 20px;">- <b>IIIb:</b> Intervention under general anaesthesia</p> <p><b>GRADE IV:</b> Life-threatening complication (including CNS complications) * requiring IC/ICU-management</p> <p style="margin-left: 20px;">- <b>IVa:</b> single organ dysfunction (including dialysis)</p> <p style="margin-left: 20px;">- <b>IVb:</b> multiorgan dysfunction</p> <p><b>GRADE V:</b> Death of a patient</p> <p><b>82.1</b> If any, organ system of most severe complication</p> <p>Organ system affected by the complication with the highest Clavien-Dindo class, if several with the same class check all that apply</p> <div style="margin-left: 20px;"> <input type="checkbox"/> Cardiovascular  <input type="checkbox"/> Respiratory  <input type="checkbox"/> Neurological  <input type="checkbox"/> Gastrointestinal  <input type="checkbox"/> Renal  <input type="checkbox"/> Surgical site infection  <input type="checkbox"/> Other  <input type="checkbox"/> Not Applicable / no complication for this patient       </div>	
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<b>83 Date of Hospital Discharge</b>	<input type="checkbox"/> Patient still in hospital at 30-day follow up <input type="checkbox"/> Patient has been discharged (or died in hospital)  <b>83.1</b> If discharged , date of discharge :
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	_ _  -  _ _  -  _ _ _ _  (dd/Mmm/YYYY) [>=Date of surgery] <i>if patient died, date of hospital discharge = date of death</i>
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30-DAY OUTCOMES	
<b>84 When was follow-up performed?</b>	_ _  -  _ _  -  _ _ _ _  (dd/Mmm/YYYY) [>=30 days Date of surgery]
<b>85 Did the patient die?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <b>85.1</b> If yes, did patient die from cardiac death? <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Please refer to appendix 2 for cardiac death definition)</i>  <b>85.2</b> If patient died, please enter date of death  _ _  -  _ _  -  _ _ _ _  (dd/Mmm/YYYY)  <b>85.3</b> If exact date unknown, confirm that death occurred within 30 days of surgery <div style="text-align: right;"> <input type="checkbox"/> Confirmed  <input type="checkbox"/> Not confirmed         </div>
<b>86 Did the patient suffer a Myocardial Infarction?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <b>86.1</b> If yes, please enter date of MI  _ _  -  _ _  -  _ _ _ _  (dd/Mmm/YYYY) <b>86.2</b> If exact date unknown, confirm that MI occurred within 30 days of surgery <div style="text-align: right;"> <input type="checkbox"/> Confirmed  <input type="checkbox"/> Not confirmed         </div>
<b>87 Did the patient suffer a non-fatal cardiac arrest?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <b>87.1</b> If yes, please enter date of non-fatal cardiac arrest  _ _  -  _ _  -  _ _ _ _  (dd/Mmm/YYYY) <b>87.2</b> If exact date unknown, confirm that non-fatal cardiac arrest occurred within 30 days of surgery <div style="text-align: right;"> <input type="checkbox"/> Confirmed  <input type="checkbox"/> Not confirmed         </div>
<b>88 Did the patient suffer an acute heart failure or decompensation of chronic heart failure?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <b>88.1</b> If yes, date of acute heart failure or decompensation of chronic heart failure  _ _  -  _ _  -  _ _ _ _  (dd/Mmm/YYYY) <b>88.2</b> If exact date unknown, confirm that acute heart failure or decompensation of chronic heart failure occurred within 30 days of surgery <div style="text-align: right;"> <input type="checkbox"/> Confirmed  <input type="checkbox"/> Not confirmed         </div>
<b>89 Was the patient submitted to coronary revascularisation</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No  <b>89.1</b> If yes, date of coronary revascularisation  _ _  -  _ _  -  _ _ _ _  (dd/Mmm/YYYY)  <b>89.2</b> If exact date unknown, confirm that coronary revascularisation occurred within 30 days of surgery <div style="text-align: right;"> <input type="checkbox"/> Confirmed  <input type="checkbox"/> Not confirmed         </div>

<b>90 Did patient suffer any repeated event?</b> (check all that apply)	<input type="checkbox"/> No <input type="checkbox"/> Myocardial Infarction <input type="checkbox"/> Non-fatal cardiac arrest <input type="checkbox"/> Acute heart failure or decompensation of chronic heart failure <input type="checkbox"/> Coronary revascularisation
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<b>30-DAY WHODAS 2.0</b>						
<b>91 Was 30-Day WHODAS Completed</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No, patient died					
	<b>Difficulties?</b>	<b>None</b>	<b>Mild</b>	<b>Moderate</b>	<b>Severe</b>	<b>Extreme or Cannot do</b>
<b>In the past 30 days, how much difficulty did you have in ...</b>	<b>92 Standing for long periods such as 30 minutes</b>	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
	<b>93 Taking care of your household responsibilities</b>	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
	<b>94 Learning a new task, for example, learning how to get to a new place</b>	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
	<b>95 How much of a problem did you have joining in community activities (for example festivities, religious or other activities) in the same way as everyone else can?</b>	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
	<b>96 How much have you been emotionally affected by your health problems?</b>	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
	<b>97 Concentrating on doing something for ten minutes</b>	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
	<b>98 Walking a long distance such as a kilometre</b>	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
	<b>99 Washing your whole body</b>	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
	<b>100 Getting dressed</b>	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
	<b>101 Dealing with people you do not know</b>	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
	<b>102 Maintaining a friendship</b>	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
<b>103 Your day-to-day work/school</b> please complete this question only if you work (paid, non-paid, self- employed) or go to school, otherwise skip this question	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	

<b>DAYS ALIVE AND OUT OF HOSPITAL AT 30 DAYS</b>
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**104 Was the patient admitted to an acute medical care facility after discharge from the initial institution?**

(Please note also early inter-institutional transfer should be reported as admission)

☐ Yes ☐ No

104.1 If yes, length of stay in health care facility (days) |\_\_|\_\_|

104.2 If yes, was readmission for cardiovascular reason? ☐ Yes ☐ No

104.3 Was the patient readmitted more than once? (Please note also early inter-institutional transfer should be reported as admission)

☐ Yes ☐ No

104.3.1 If yes : how many additional times? |\_\_|\_\_|

104.3.2 If yes: cumulative length of stay in health care facility(ies) (days) |\_\_|\_\_|

104.3.3 If yes, was any readmission for cardiovascular reason? ☐ Yes ☐ No