

## ARCTIC-I Appendix 9B – Data Collection Form

**1\* Subject ID** | c | c | c | - | h | h | h | - | p | p | p |  
 Country code - hospital code - individual patient number  
 For each centre, the country code and hospital code remain the same throughout the study.

**2\* Informed Consent (IC) required** (according to local IRB)?  
 No  Yes If yes, fill in **Date of IC** | d | d | - | m | m | m | - | 2 | 0 | y | y |  
**Who gave consent?**  Patient  Legal representative

**3\* Age** (years) | \_ | \_ | \_ | **7\* Functional status** before this stroke: **8\* Residence** before this stroke:  
**4\* Height** (cm) | \_ | \_ | \_ | **mRS** | \_ | **Explanation for mRS:**  
**5\* Weight** (kg) | \_ | \_ | \_ | **0** No symptoms  At home  
**6\* Sex**  Male  Female **1** No significant disability  Nursing home  
**2** Slight disability  Not known  
**3** Moderate disability  
**4** Moderately severe disability  
**5** Severe disability

**9\* Proven or probable SARS-CoV-2 infection** in the four weeks preceding the stroke  
 No  Yes **Tick yes if at least one of the following applies:**

- positive PCR for SARS-CoV-2
- positive anti-SARS-CoV-2 antigen test
- respiratory symptoms after contact with confirmed COVID-19 case
- respiratory symptoms and features of COVID-19 in thoracic CT

**10\* Known comorbidities**  
 Atrial fibrillation  
 Ischemic heart disease  
 Congestive heart failure  
 Prior stroke (any kind)  
 Prior TIA  
 Peripheral arterial disease  
 Prior thromboembolism  
 Diabetes mellitus  
 Hyperlipidemia  
 Hypertension  
 Dialysis  
 Smoking

**11\* Known chronic medication**  
 Vit. K antagonist  
 Non-VKA (NOAC/DOAC)  
 Acetylsalicylic acid  
 Anti ADP (Clopidogrel etc.)  
 Beta blockers  
 AT II-/ACE-/Renin-inhibitor  
 Calcium antagonists  
 Diuretics  
 Oral antidiabetics  
 Insulin  
 Statins  
 Other lipid lowering drugs

**12\* Lab data on admission**  
**INR** | \_ | . | \_ |  
**Haemoglobin** | \_ | \_ | . | \_ |  
 g/dl  
 mmol/l  
**Creatinine** | \_ | \_ | \_ | . | \_ |  
 mg/dl  
 µmol/l  
**Glucose** | \_ | \_ | \_ | . | \_ |  
 mg/dl  
 mmol/l

**13\* Onset of Stroke**  
 Known Enter date and time of onset of **new stroke symptoms** below.  
 Unknown Enter date and time patient is **last known well** below.  
**Date** | d | d | - | m | m | m | - | 2 | 0 | y | y | **Time** | h | h | : | m | m | [0-23] hrs : [0-59] min

**14\* Transfer from primary admitting hospital**  No  Yes

**15\* Admission to hospital performing the intervention** Enter date and time  
**Date** | d | d | - | m | m | m | - | 2 | 0 | y | y | **Time** | h | h | : | m | m | [0-23] hrs : [0-59] min

**16\* NIHSS** | \_ | \_ | (00–42) **17\* ASPECTS** | \_ | \_ | (00–10)  Not known  
 New stroke symptoms scored by neurologist CT score assigned by neuroradiologist

\*Asterisked items are mandatory.

**18\* Acutely occluded vessel** Tick all that apply

- Proximal (extracranial) ICA
- Distal (intracranial) ICA
- Proximal MCA (M1)
- Distal MCA (M2)
- Anterior cerebral artery (ACA)
- Vertebral artery (VA)
- Basilar artery (BA)
- Posterior cerebral artery (PCA)
- Other (specify): .....

**19\* Side of vessel occlusion**

- Right
- Left
- Not applicable (basilar artery)

**20\* Brainstem infarction on initial imaging**

- No
- Yes
- Not known

**21\* Intracranial haemorrhage on initial imaging**

- No
- Yes
- Not known

**22\* IV administration of thrombolytic**

Date | d | d | - | m | m | m | - | 2 | 0 | y | y |

- No
- Yes – If yes, Enter date and time

Time | h | h | : | m | m | [0-23] hrs : [0-59] min

**23\* Acute antihypertensive treatment**

in ambulance or hospital before the intervention

- No
- Yes
- Not known

**24\* Patient ventilated upon arrival in angio suite**

(positive pressure ventilation irrespective of airway interface)

- No
- Yes

**25\* Anaesthesia team complete & present**

when patient arrives in angio suite

- No, not requested
- No, not available
- Yes

**26\* Highest qualification in anaesth. team onsite**

- Non-physician anaesthetist
- Physician anaesthetist trainee < 2 years
- Physician anaesthetist trainee > 2 years
- Specialist (physician)

**27\* Specialty of interventionalist**

- Neuroradiology
- Neurology
- Cardiology
- Radiology
- Neurosurgery
- Other

**28\* Qualification of interventionalist**

- Trainee < 2 years
- Trainee > 2 years
- Specialist

**29\* Timing of treatment steps** (for definitions see below this table)

Event	Date	Time
<b>1 Patient takeover by anesthesia team</b>	d   d   -   m   m   m   -   2   0   y   y	h   h   :   m   m
<b>2 Beginning of anaesth./sedation/stby</b>	d   d   -   m   m   m   -   2   0   y   y	h   h   :   m   m
<b>3 Puncture for interventional access</b>	d   d   -   m   m   m   -   2   0   y   y	h   h   :   m   m
<b>4 Vessel reperfusion (or: last attempt)</b>	d   d   -   m   m   m   -   2   0   y   y	h   h   :   m   m
<b>5 End of procedure</b>	d   d   -   m   m   m   -   2   0   y   y	h   h   :   m   m
<b>6 Patient handover (to ICU/SU/PACU)</b>	d   d   -   m   m   m   -   2   0   y   y	h   h   :   m   m

- 1 When anaesthesia personnel begins to assess the patient and/or intervenes. Also applies if the anaesthesia team joins into an ongoing procedure. Pragmatically, this could be the time of the first recorded readings in the anaesthesia protocol.
- 2 First injection of an opioid, a sedative or a hypnotic or, in case of standby, the time when the decision for stand-by was taken. If the interventionalist team has administered sedatives before, then this time is recorded.
- 3 Time of first skin puncture for placement of the arterial sheath.
- 4 The time of reperfusion may be read out from the radiological findings. Reperfusion is noted when contrast agent flows again through the previously occluded vessel for the first time. Fill in time of last attempt in case of futile efforts.
- 5 The end of the procedure is assigned when the interventionalist has removed the arterial sheath, maybe deployed a sealing system and applied a pressure dressing.
- 6 When the handover was completed and the anaesthetist was ready for the next case. If the anaesthetist stays with the patient in the next unit for organisational reasons, then note the time as if he or she had handed over the patient.

\*Asterisked items are mandatory.

**30\* First measurements** (just prior to / at the beginning of anaesthesia care)

Systolic BP [mmHg]	Diastolic BP [mmHg]	Mean BP [mmHg]	Heart rate [bpm]	SpO <sub>2</sub> [%]

**31\* Primary periprocedural supportive approach** Which approach was pursued when ET began?

- General anaesthesia      Ventilation of the patient via an extra- or transglottic airway device  
 Sedation      Spontaneous breathing preserved; no extra- or transglottic airway device used  
 Standby      The patient received no opioids, sedatives or hypnotics at all  
 Option 'standby' or 'sedation' may also apply when procedure was begun before arrival of the anaesthesia team

**32\* Secondary conversion to general anaesthesia**  No  Yes If yes, enter date, time, reason

Date | d | d | - | m | m | m | - | 2 | 0 | y | y | Time | h | h | : | m | m | [0-23] hrs : [0-59] min

**Reason for conversion** (tick single most appropriate)

- Movement       Respiratory/airway       Seizure  
 Regurgitation / tracheobronchial aspiration       Other (specify ...)

**33\* Main airway device** (tick single most invasive)

- None  
 Naso-/oropharyngeal  
 Extraglottic (LMA etc.)  
 Endotracheal tube

**34\* Initial muscle relaxant** (tick one option)

- None  
 Non-depolarising  
 Depolarising

**35\* Arterial line for blood pressure measurement present?**

- No     Yes (from the beginning)     Yes (inserted later in the course of the intervention)

**36\* Opioid(s) used** (tick all that apply)

- None     Remifentanyl     Alfentanil     Fentanyl     Sufentanyl     Pethidine  
 Piritramide     Morphine     Other      (= Meperidine)

**37\* Sedative(s)/hypnotic(s) used initially** (tick all that apply)

- None     Propofol     Esketamine     Midazolam     Remimazolam  
 Thiopental     Dexmedetomidine     Etomidate     Other

**38\* Sedative(s)/hypnotic(s) used for maintenance** (tick all that apply)

- None     Propofol     Esketamine     Midazolam     Remimazolam  
 Thiopental     Dexmedetomidine     Other

**39\* Anaesthetic gases used for maintenance** (tick all that apply)

- None     Sevoflurane     Isoflurane     Desflurane     Halothane  
 Nitrous Ox.     Xenon     Other

**40\* Vasoactive or inotropic agents** (tick all that apply and write cumulative dose during intervention)

- None  
 Norepinephrine      |\_|\_|\_|\_| μg  
 Epinephrine      |\_|\_|\_|\_| μg  
 Phenylephrine      |\_|\_|\_|\_| μg  
 Ephedrine      |\_|\_|\_|\_| mg  
 Cafedrine/Theodrenaline (20:1) |\_|\_|\_| . |\_|\_| ml (of undiluted mixture)  
 Other: \_\_\_\_\_ (write name, unit, and cumulative dose)

**41\* Antihypertensives used during the procedure** (tick all that apply)

- None     Urapidil     Nimodipine     Nicardipine     Clevidipine     Other

\*Asterisked items are mandatory.

**42\* Measurements during anaesthesia care** – ‘Time elapsed’ (first column) refers to beginning of anaesthesia or sedation (i.e., first injection of sedative, hypnotic or opioid) or to the decision not to sedate the patient (stand by). Write etCO<sub>2</sub> only in case of controlled ventilation.

Time elapsed	Systolic BP [mmHg]	Diastolic BP [mmHg]	Mean BP [mmHg]	Heart rate [bpm]	SpO <sub>2</sub> [%]	etCO <sub>2</sub> [mmHg]
+2 min						
+4 min						
+6 min						
+8 min						
+10 min						
+15 min						
+20 min						
+40 min						
+60 min						
+90 min						

**43\* Temperature**

at beginning of procedure |\_\_|\_\_|\_\_| at the end of procedure |\_\_|\_\_|\_\_|  °C

°F

**44\* Richmond Agitation Sedation Scale (RASS)**

at takeover by anaesthesia team |\_\_|\_\_|

Definition of RASS stages see right

- +4 combative
- +3 very agitated
- +2 agitated
- +1 restless
- 0 alert and calm
- 1 drowsy
- 2 light sedation
- 3 moderate sedation
- 4 deep sedation
- 5 unarousable

**45\* Reperfusion as graded by mTICI** |\_\_|\_\_| (0–3) mTICI score will be assigned by (neuro-)radiologist

**46\* Final measurements** (prior to transfer from angio suite)

Systolic BP [mmHg]	Diastolic BP [mmHg]	Mean BP [mmHg]	Heart rate [bpm]	SpO <sub>2</sub> [%]

**47\* Complications during procedure** (tick all that apply)

- Access-site problems
- Vasospasm
- Dissection
- Thrombus migration
- Intracerebral haemorrhage
- Subarachnoid haemorrhage
- Airway injury
- Regurgitation/vomiting
- None
- Tracheobronchial aspiration
- Severe bronchospasm
- Allergy or angioneurotic edema
- Acute circulatory failure

**48\* Patient handover to ...** (choose single most appropriate)

- Intensive care unit
- Post-anaesthesia care unit
- Other intermediate care unit
- Stroke unit
- Regular ward
- Other hospital

**49\* Breathing**

without endotracheal tube or supraglottic airway device upon handover

No  Yes

**Next page: Follow-up 90 days (range, 80–105 d) after stroke.**

\*Asterisked items are mandatory.

**Follow-up 90 days (range, 80–105 d) after stroke. Primary endpoint: Item 53!**

**50\* Date of follow-up** | d | d | - | m | m | m | - | 2 | 0 | y | y |

**51\* Source of information for items 52 & 53**

- Patient
- Relative, friend or representative
- Primary care physician
- Patient record

**52\* Current residence**

- At home
- Nursing home
- rehab/hospital
- n/a (if dead)

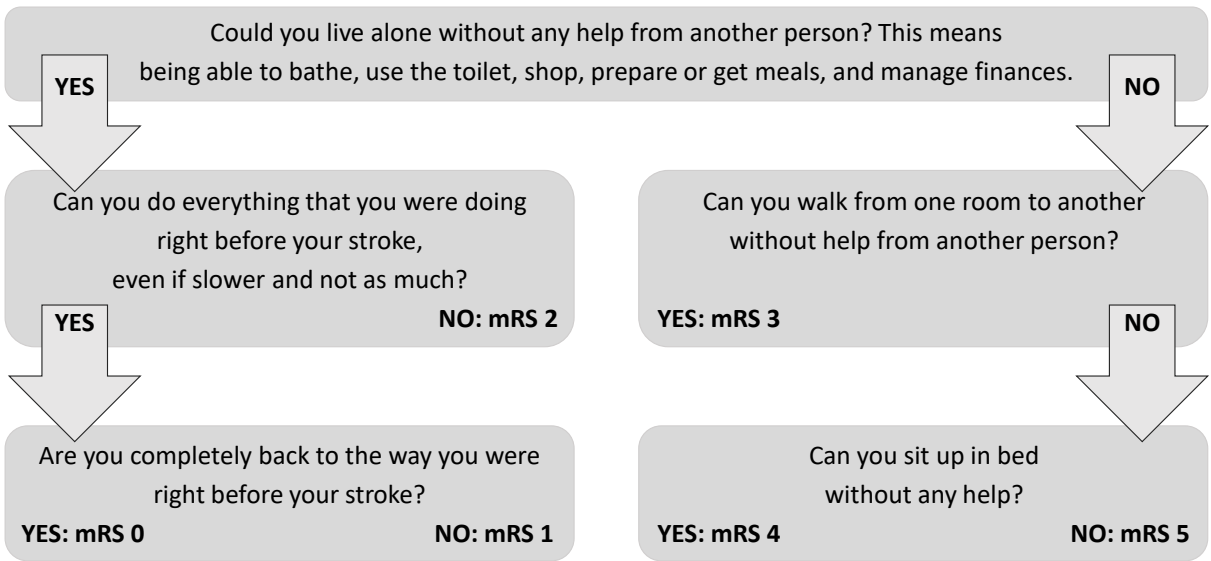
**53\* Functional status upon follow-up**

mRS | \_\_\_ | (0–6)

**Primary endpoint!**

Refer to scoring aid below.

If the patient cannot answer, the questions can be addressed to a person knowing the patient's current functional state. Go through the scheme below until you reach an mRS value. If the patient deceased, assign **mRS 6**.



**54\* Procedures and events between stroke and follow-up** (tick all that apply)

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li><input type="checkbox"/> None</li> <li><input type="checkbox"/> Re-Stroke since day 0</li> <li><input type="checkbox"/> Carotid stenting for re-stroke</li> <li><input type="checkbox"/> Carotid endarterectomy for re-stroke</li> <li><input type="checkbox"/> Intracranial bleeding</li> <li><input type="checkbox"/> Decompressive hemicraniectomy</li> <li><input type="checkbox"/> External ventricular drain</li> <li><input type="checkbox"/> Surgical groin revision</li> <li><input type="checkbox"/> Reperfusion therapy of the leg</li> <li><input type="checkbox"/> Delirium treated with new medication</li> <li><input type="checkbox"/> Percutaneous coronary intervention</li> </ul> | <ul style="list-style-type: none"> <li><input type="checkbox"/> Tracheostomy</li> <li><input type="checkbox"/> Antibiotics for Pneumonia</li> <li><input type="checkbox"/> COVID-19 (PCR +)</li> <li><input type="checkbox"/> Mild ARDS (paO<sub>2</sub>/FiO<sub>2</sub> 201–300)</li> <li><input type="checkbox"/> Moderate ARDS (paO<sub>2</sub>/FiO<sub>2</sub> 101–200)</li> <li><input type="checkbox"/> Severe ARDS (paO<sub>2</sub>/FiO<sub>2</sub> &lt; 101)</li> <li><input type="checkbox"/> Thromboembolism</li> <li><input type="checkbox"/> Gastrointestinal bleeding</li> <li><input type="checkbox"/> Transfusion of packed red cells</li> <li><input type="checkbox"/> Other (specify): .....</li> </ul> |
|---|--|

**55\* Has the patient deceased** (mRS = 6)?

No  Yes If yes, fill in **Date of death** | d | d | - | m | m | m | - | 2 | 0 | y | y |

**56\* Cause of death** (choose single most appropriate)

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li><input type="checkbox"/> Intracranial bleeding</li> <li><input type="checkbox"/> Myocardial infarction</li> <li><input type="checkbox"/> Thromboembolism</li> <li><input type="checkbox"/> Pneumonia</li> <li><input type="checkbox"/> Other cause (specify): .....</li> </ul> | <ul style="list-style-type: none"> <li><input type="checkbox"/> Malignant hemispheric infarction</li> <li><input type="checkbox"/> Acute heart failure</li> <li><input type="checkbox"/> Bleeding (other than intracranial)</li> <li><input type="checkbox"/> Other infectious complication</li> </ul> |
|---|--|

\*Asterisked items are mandatory.