### Definitions of the German quality indicators in acute stroke care as defined by the Quality Indicator Board of the German Stroke Registers Study Group.

| Indicator                                                                 | Description                                                                 | Numerator                                                                                     | Denominator                                                                                     | Target Value (2016) |
|--------------------------------------------------------------------------|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|--------------------|
| **brain imaging**                                                        | **Early cerebral imaging (< 60 min after admission) in patients eligible for thrombolysis** | Patients with cerebral imaging (CCT/MRI) within the first hour of admission.                  | All patients within the age range 18-80 and with onset-admission $\leq$ 2 h and NIHSS of 4-25.   | 70 %               |
| **door-to-needle-time (DTNT)**                                           | **Door-to-needle-time < 60 min in patients with IVT**                         | Patients with door-to-needle time < 60 minutes.                                              | Patients with cerebral infarction and IVT.                                                  | 90 %               |
| **intravenous thrombolysis (IVT)**                                       | **Early intravenous thrombolysis (IVT) given in patients with indication for IVT** | Patients that received intravenous thrombolysis (IVT).                                      | Patients with cerebral infarction, age 18-80 and with onset-admission $\leq$ 2 h and NIHSS 4-25. Patients with intra-arterial thrombolysis are excluded. | 35 %               |
| **platelet inhibitor ≤ 48 h**                                            | **Platelet inhibitor given within 48 h in patients with IS or TIA**          | All patients that were given platelet inhibition within 48 h after onset.                   | Denominator: All patients with TIA and cerebral infarction. Patients that receive anticoagulation or where onset to admission is $>48h$ are excluded as well as those aged $<18$ and those discharged, transferred or died on the first day. | 95 %               |
| **dysphagia screening**                                                  | **Dysphagia screening**                                                      | Patients with dysphagia screening per protocol.                                             | All patients with stroke. Patients with TIA, impaired consciousness, or those where dysphagia screening was not possible or those that were discharged/ transferred or died on the day of admission are excluded. | 90 %               |
| **speech therapy**                                                       | **Early speech and language therapy for patients with dysphagia / dysphasia / dysarthria** | Patients that received treatment by speech and language therapy within the first 2 days.     | All patients with dysphagia/dysarthria/dysphagia. Patients with TIA, those unconscious and those that were discharged, transferred or died on the first day are excluded. | 90 %               |
| **physiotherapy**                                                        | **Early physio-/occupational therapy for patients with motor disability**   | Patients that received treatment by physiotherapy or occupational therapy within the first two days. | All patients with a paresis and clear functional deficit (modified Rankin Scale (mRS) $\geq$ 3 or Barthel Index $\leq$ 70 within the first 24 h after admission). Patients with TIA, those unconscious and those that were discharged, transferred or died on the first day are excluded. | 90 %               |
| **mobilisation**                                                         | **Early mobilisation of patients with severe disability**                   | Patients that were mobilized within the first two days after admission.                      | Denominator: Patients that needed help with transfer from bed to chair (Barthel Index 0-10). Patients that were discharged, transferred or died on the first day, those with TIA and those unconscious, with mechanical ventilation or with increased intracranial pressure on admission are excluded. | 90 %               |
| **atrial fibrillation screening**                                         | **Patients receiving an atrial fibrillation screening during their stay**    | Patients with an atrial fibrillation                                                         | All patients with IS or TIA. Patients with known atrial fibrillation are excluded.           | 80 %               |
Additional file 1: Definitions of the German quality indicators in acute stroke care as defined by the Quality Indicator Board of the German Stroke Registers Study Group.

| Brief description                                                                 | target value (2016) |
|----------------------------------------------------------------------------------|---------------------|
| **vascular imaging**                                                              |                     |
| Extracranial carotid artery diagnostic in patients with IS or TIA                 | 80 %                |
| Numerator: Patients with imaging of extracranial vessels (doppler sonography / duplex sonography / DSA / CT-angiography / MR-angiography). |                     |
| Denominator: All patients with TIA or cerebral infarction.                       |                     |
| **revascularisation**                                                             | 60 %                |
| Revascularisation of symptomatic carotid stenosis in patients with IS or TIA      |                     |
| Numerator: Patients where revascularization of carotid artery was initiated or recommended. |                     |
| Denominator: Patients with TIA or cerebral infarction with ipsilateral stenosis of carotid artery (70% - 99% NASCET) and with mRS 0-3. Patients with a mechanical recanalization are excluded. |                     |
| **antihypertensive drugs**                                                        | 95 %                |
| Antihypertensive drugs at discharge in patients with IS or TIA                   |                     |
| Numerator: Patients with indication for antihypertensive therapy that receive antihypertensive at discharge. |                     |
| Denominator: All patients with IS or TIA and hypertonia as co-morbidity. Patients who died are excluded. |                     |
| **statins**                                                                      | 80 %                |
| Patients receiving statin at discharge or whom a statin was recommended          |                     |
| Numerator: Patients that receive statins at discharge.                          |                     |
| Denominator: All patients with IS or TIA. Patients who died are excluded.       |                     |
| **platelet inhibitors at discharge**                                             | 95 %                |
| Platelet inhibitor given at discharge in patients with IS or TIA and no anticoagulation |                     |
| Numerator: All patients that receive platelet inhibition at discharge/transfer.  |                     |
| Denominator: All patients with TIA or cerebral infarction. Patients on anticoagulation and those who died are excluded as well as those aged <18 and those discharged, transferred or died on the first day. |                     |
| **rehabilitation**                                                               | 70 %                |
| Discharge in rehabilitation clinic                                               |                     |
| Numerator: Patients where post hospital rehabilitation was initiated.            |                     |
| Denominator: All patients without previous nursing care with mRS 2-5 at discharge. Patients that were transferred or died during the hospital stay are excluded. |                     |

Gabriel et al.: Two years’ experience of implementing a comprehensive telemedical stroke network comprising in mainly rural region: The Transregional Network for Stroke Intervention with Telemedicine (TRANSIT-Stroke)