
STROKE UNIT APPLICATION FORM

The following application form will have to be filled in during the application process. Please read the application form carefully in order to prepare for your application.

Please find below the definitions and explanations of the European Certification Application Form. If you have further questions, do not hesitate to contact us (eso-certification@eso-stroke.org). You will also find an overview of all necessary documents (in English), which have to be uploaded during the application process.

Definition:

Stroke Unit:

A dedicated geographically clearly defined area or ward in a hospital, where stroke patients are admitted and cared for by a multi-professional team (medical, nursing, and therapy staff) who have specialist knowledge of cerebral function, training and skills in stroke care with well-defined individual tasks, regular interaction with other disciplines, and stroke leadership. This team co-ordinates care through regular (weekly), multidisciplinary meetings.

Stroke Centre:

A hospital infrastructure and related processes of care that provide the full pathway of stroke unit care. A stroke centre is the co-ordinating body of the entire chain of care. This covers pre-hospital care, ongoing rehabilitation and secondary prevention, and access to neurosurgical and vascular intervention. A stroke unit is the most important component of a stroke centre. An ESO Stroke Centre provides stroke unit services for the population of its own catchment area and serves as a referral centre for peripheral hospitals with ESO stroke units in case their patients need services which are not available locally.

Explanation of Evaluation:

Questions highlighted in yellow are must criteria that must be fulfilled. If you cannot fulfil any of them, we highly recommend you not to start the online certification process before you have all required documents ready and services available.

The quality criteria's are evaluated by points.

There are two different principles:

1. The must criteria (highlighted in yellow) have to be either fulfilled (3 points) or are not fulfilled (0 points); some further criteria are fulfilled (3 points) or not (0 points). This is shown as 0/3 in the column "Points".
2. Additional criteria will be graded as follows:
 - 0 Points = not existing/fulfilled
 - 1 Point = minimally existing
 - 2 Points = existing/fulfilled to at least 50%
 - 3 Points = completely fulfilled

This is shown as 0/1/2/3 in the column "Points" below.

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Table 1 Stroke Unit application form

A) Lead

Warrants independent decisions for rational stroke care

Number	Question	Points	Documents/Texts
A1	Medical care is led and provided by a stroke neurologist or a neurology experienced senior stroke physician	0/3	Organigram 1 st Scheme of the organisation of the hospital showing how the stroke centre is imbedded 2 nd scheme showing how the stroke centre works → Examples
A2	The leading stroke neurologist or stroke physician is actively involved in stroke unit service coordination, development and audit	0/3	CV of the leading stroke neurologist or the senior stroke physician and the deputy
A3	Acute evaluation of patients and disposition of SU-beds is held by the attending junior stroke physician or the stroke neurologist/ senior stroke physician	0/1/2/3	SOP, describing process how SU-beds are allocated and who manages it
A4	A stroke neurologist or a neurology-experienced stroke physician leads an outpatient clinic dedicated to stroke patients In case of a missing outpatient clinic, specify the follow-up of stroke care	0/1/2/3	CV of the medical leader of the outpatient clinic Name and written agreement(s) with the leaders of follow-up of stroke care.

SOP: standard operating procedure, a document approved by the hospital authorities with names, official function and signatures from two different persons

B) Personnel

Fulfils the requirement for: Coordinated multi-professional stroke unit care (care in a discrete area in the hospital, staffed by a specialist stroke multi-professional team with regular multi-professional meetings for planning care)

Number	Question	Points	Documents/Texts
B1	A stroke physician (at least a junior) is present at the institution around the clock 24/7. A stroke neurologist is available around the clock 24/7	0/3	Official and authorized Work plan and CV's of all stroke staff including FTE
B2	A neurosonologist is available during regular working hours)	0/1/2/3	Description of what is provided at what working hours during the whole week
B3	A radiology technician is present at the hospital around the clock, 24/7. A radiologist is present during official working hours and available 24/7. Neuroradiological or neurointerventional assistance by immediate dialogue (tele-stroke) is available 24/7 at the nearest stroke centre	0/3	CV of the leading radiologist and technician. Staff plan including radiology technicians. Signed agreement of collaboration by neuro-radiologists / neuro-interventionalists at the stroke centre

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B4	Cardiology expertise and internist expertise are available 24/7 or assistance by immediate dialogue is available 24/7 at the nearest stroke centre.	0/3	Staff plan with names of available specialists of cardiology and colleagues with specifications of internal medicine expertise that are available 24/7
B5	A specialist for neurorehabilitation is collaborating with the team	0/1/2/3	CV of specialist for neurorehabilitation
B6	Patients are cared by dedicated stroke trained nursing staff	0/3	Training schedules for nurses, CV of the head-nurse of the SU, number of nursing personnel given in FTE, and calculated number of nurse per bed/24hrs
B7	Stroke trained physiotherapists (PTs) are part of the stroke team	0/3	1. Description of stroke training of PTs 2. Names of PTs, FTE for SU-patients 3. Number of PTs per bed
B8	Stroke trained occupational therapists (OTs) are part of the stroke team. In case of missing occupational therapists, specify who is when doing diagnostic testing of cognitive deficits.	0/1/2/3	1. Names of OTs, FTE for SC-patients 2. Number of OTs per bed If located outside the hospital, signed agreement and staff plan of OT expertise
B9	Stroke trained speech, language and swallowing therapists (SLTs) are part of the stroke team	0/3	1. Names of PTs, FTE for SU-patients 2. Number of PTs per bed
B10	Support by social worker (SW) is available at the institution	0/1/2/3	1. Description of how the SWs are integrated, 2. Names of SWs, FTE for SU-patients 3. Number of SWs per bed If located outside the hospital, signed agreement and staff plan of SW expertise
B11	Patients get access to neuropsychologists. Specify who is when and where doing testing of cognitive function for stroke victims that are still following their professional careers / other similar challenges	0/1/2/3	1. Description of how neuropsychologists are integrated, 2. Names of neuropsychologists, FTE for SU-patients 3. Number of neuropsychological assessments for stroke patients the previous year. If located outside the hospital, signed agreement

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Training schedules, description of stroke training and integrations may be given in the local language.

FTE: full time equivalents, including all staff on rotation

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C) General Infrastructure

Dedicated stroke ward care means that acute stroke patients (including stroke-mimics) are treated in a geographically defined area of the hospital admitting exclusively stroke and TIA patients and not patients with other disorders.

Number	Question	Points	Documents
C1	Stroke patient care in a discrete area in the hospital, staffed by a specialist stroke multi-professional team with regular multi-professional meetings for planning care. For this purpose the Stroke Unit dispose of an geographically defined stroke ward admitting stroke and TIA patients	0/3	SOP: Situation (geography) plan of Stroke Unit facilities - Give a photo of the monitoring unit/beds
C2	The stroke unit is located in an institution that runs an emergency department (according to international standards, such as trauma level I or higher)	0/3	Description of emergency department area or online link (local language sufficient)
C3	The stroke unit is located in an institution that runs an intensive care unit	0/3	Provide information or online link
C4	The stroke unit runs an outpatient clinic for stroke and TIA patients In case of a missing outpatient clinic at your hospital, specify the follow-up of stroke care	0/1/2/3	Staff plan of outpatient clinic SOP, describing organised stroke care after discharge from own hospital

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D) Investigations

Specialised personnel and methods

Number	Question	Points	Documents
D1	Emergency Computed tomography or magnetic resonance tomography are available 24/7 including imaging of cervical/intracranial vessels, access within 30 minutes for candidates of acute interventional therapy	0/3	Staff list, working plan, location plan in hospital - Access within 30 Min. provided
D2	Digital subtraction angiography is available either in the own Stroke unit or within a nearby stroke centre	0/3	SOP and contract with nearby stroke centre
D3	Swallowing assessment is warranted 24/7, following a written procedure	0/3	SOP
D4	Neurosonology assessment is available within 24 hours	0/3	SOP
D5	Investigations for establishing the aetiopathogenic diagnosis are available at the institution (Holter-monitoring at least for 24 hours, TTE, TEE, laboratory analysis, EEG)	0/3	SOP Diagnostics

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E) Interventions and Monitoring

Standard operating procedure for diagnosis and therapy

Number	Question	Points	Documents
E1	The stroke team establishes and follows written standard operating procedures (stroke pathways, SOP or written protocols, which should be revised regularly) for diagnosis, nursing, rehabilitation, prevention, follow-up, management of critical incidents. There is a concept for paediatric stroke, which defines and enables treatment/ management 24/7 in collaboration with a at the nearest stroke centre or a paediatric competence centre).	0/1/2/3	SOPs
E2	There are conceptual written protocols in relation to the EMS, ER, and referring institutions. The concepts are revised regularly	0/1/2/3	SOPs
E3	There are conceptual written protocols for all needs of rehabilitation	0/1/2/3	SOP
E4	The stroke team establishes and works after a defined concept for swallowing disorders	0/1/2/3	SOP
E5	IV-thrombolysis is available 24/7. Time from EMR arrival to thrombolysis (e.g. Door to needle time, complication rate) is assessed and documented.	0/3	SOP Results of Door to needle time and complication rate for the last year before application.
E6	Neurosurgical and neurointerventional procedures are available 24/7 in collaboration with nearest stroke centre	0/3	SOP
E7	Revascularisation of the carotid artery with thrombendarterectomy or stenting is available in collaboration with a nearby stroke centre 24/7	0/1/2/3	SOP
E8	The infrastructure of the stroke unit allows continuous monitoring of ECG, breathing, blood pressure, pulsoxymetry, and monitoring of glucose and temperature	0/3	SOP

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F) Teaching, Meetings, and Research

Professional interactions, Networking

Number	Question	Points	Documents/Texts
F1	Runs multidisciplinary group meetings at least once a week and documents in the chart that the case was discussed by the multi-professional team	0/1/2/3	Schedules, organisational plan (description of teaching, meetings and research)
F2	Organises ongoing teaching courses and professional education for all of the stroke team is warranted and documented	0/1/2/3	Provide a teaching plan (schedule, activities) for the previous year and current year
F3	Patients and their families should be regularly updated about treatment and prognosis	0/1/2/3	Description of procedures

G) Numbers and quality indicators

Statistics

Number	Question	Points	Documents
G1	The stroke unit has a stroke data base for quality control	0/1/2/3	Annual report or online link or screen shot
G2	Minimal overall number of dedicated beds for stroke patients	0/1/2/3	Provide your number <i>Minimum: 6</i>
G3	Minimal number of beds with automated monitoring	0/1/2/3	Provide your number <i>Minimum: 4</i>
G4	Minimal number of patients with acute stroke treated per year	0/3	Official and authorised hospital statistics by annual report or database or online link <i>Minimum: 200</i>
G5	Numbers of acute treatment (IV-thrombolysis, door to needle time, type and rate of complications and number of referrals to acute intra-arterial interventions per year	0/1/2/3	Official and authorised hospital statistics by annual report or database with online link <i>Minimum IV-thrombolysis: 20</i> <i>Number of referrals for endovascular treatment</i>
G6	Documentation of age, sex, admission stroke severity case fatality, of discharge NIHSS, discharge mRS	0/1/2/3	Official and authorized hospital statistics by annual report or database with online link
G7	Documentation of quality of stroke care: % documented swallowing test, early mobilisation, and prevention of DVT	0/1/2/3	Provide your numbers
G8	Access to local stroke support organisation	0/1/2/3	Description, online link
G9	Number of the relevant diagnostics (Number of TTE/TOE., Numbers of Neurovascular Ultrasound, Number of brain CT/MRI and CTA/MRA)	0/1/2/3	Official and authorised hospital statistics by annual report or database with online link

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