



## Stroke Classification and Outcome Measures

### 1. Oxford Community Stroke Project Classification

#### Lacunar (LACS)

- Pure motor hemiparesis
- Pure hemisensory loss
- Ataxic hemiparesis
- Hemisensorimotor loss-combination of weakness and sensory loss in all of the face and arm, arm and leg, or face arm and leg

#### Posterior Circulation syndromes (POCS)

- Ipsilateral cranial nerve palsy c contralateral motor  $\pm$  sensory deficit
- Bilateral motor  $\pm$  sensory deficit
- Disorder of conjugate eye movement
- Cerebellar disorder without ipsilateral long-tract deficit
- Isolated hemianopia or cortical blindness

#### Total Anterior Circulation Syndromes (TACS)

- Combination of all of following:
  - Hemiparesis, with/without a sensory deficit involving at least two of face/arm/leg
  - Homonymous visual field defect
  - Higher cerebral dysfunction

#### Partial Anterior Circulation Syndromes (PACS)

Any of

- Any two of preceding three components of TACS
- OR Motor/sensory deficit restricted to one body area or part of one body area(face/upper limb/lower limb)
- OR predominantly proprioceptive deficit in one limb
- OR isolated higher cortical dysfunction eg dysphasia

TACS and PACS more likely to be related to cardioembolism or large vessel atheroma, Lacunar events to small vessel disease. Recovery better and independence more likely with LACS and worst with TACS.

### 2. 'TOAST' (Trial of Org 10172 in Acute Stroke Treatment) Criteria

Defines stroke on likely aetiology from clinical features and data from investigations (CT/ECG/ECHO/Doppler/ lab results) into 5 categories. Can be helpful with regard to predicting infarct size, underlying risk factors and prognosis.

#### 'Probable' or 'Possible'

- Small Vessel Occlusion (Lacune) SVO
- Cardioembolic(CARD): High/Low Risk
- Large Artery Atherosclerosis (LAA)

(embolus/thrombosis)

- Stroke of other determined aetiology
- Stroke of Undetermined Aetiology (SUE)

Infarct size tend to be larger with LAA smaller with SVO. Again functional independence greater with LAC ( 60% +) versus CARD/LAA (35% +) at discharge.

#### Measures of Stroke severity, function and outcome:

Useful clinically in audit, when comparing casemix between countries and units and in treatment trials. For overview of scales in stroke see:

<http://64.37.123.165/trials/scales/index.htm>

#### Common severity scales

- Glasgow coma Scale (used routinely in our patients)
- National Institute Health Stroke Scale (NIHSS) – used routinely in our patients
- Scandinavian Stroke Scale
- European Stroke Scale

#### Common functional and outcome scales

- Berg Balance Scale
- Modified Rankin Scale
- Barthel Index Activities of Daily Living (see AgePage 2)
- Glasgow outcome Scale
- Health survey SF-36
- Functional Independence Measurement (FIM)