
Arterial Ischaemic Stroke: Clinical Checklist

This clinical checklist is not intended to be comprehensive; it is intended to supplement the conventional history and examination process by prompting the user to ask about or look for clinical factors which are potentially relevant to a child presenting with acute AIS. The aspects of the neurological examination which have been specifically highlighted are partly derived from items used in adult stroke severity scales but are not intended to replace more comprehensive clinical evaluation. If it is not possible to assess any of these parameters it is important to record this and the reasons for this (e.g. child was uncooperative or test was developmentally inappropriate)

History

- Time of onset of symptoms
- Prior events e.g. TIA
- Seizures
- Prior trauma to the head or neck
- Chickenpox? If so, when?
- History of recent infection
- Head or neck pain?
- Past medical history (incl. history of thrombosis)
- Family history (incl. thrombosis, miscarriage)
- Medication (& recreational drugs)
- Development

Examination

- Blood pressure
- Peripheral pulses (check for radio-femoral delay)
- Oxygen saturation
- Temperature
- Neurocutaneous signs
- Cardiovascular examination
- Conscious level (use modified Glasgow Coma Scale)

Neurological examination to include evaluation for:

- Cranial nerve function including:
 - Eye movements (?gaze palsy)
 - Visual fields
 - Facial palsy
 - ?Horner's syndrome
 - Motor deficit (if present specify location and severity using MRC scale)
 - Ataxia (if present specify location e.g. truncal or limb)
 - Sensory dysfunction (if present specify location)
 - Communication (including expressive and receptive language and articulation)
 - Swallowing
 - Neglect (if present specify location)
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Investigations

Imaging

- Brain MRI*
- MRA circle of Willis*
- MRA neck *
- *These are all included when you request an acute "stroke protocol" MRI at GOSH
- Transthoracic echocardiogram

Blood tests

- Full blood count
- Urea& electrolytes, liver function tests
- ESR
- CRP
- Haemoglobin electrophoresis if black or Mediterranean ethnicity
- Clotting profile
- Thrombophilia screen (*at GOSH this will include protein C, protein S, antithrombin, plasminogen, DRVVT, Exner, APC resistance ratio, FVL {only done if APCr is abnormal} tMTHFR and PT20210 gene mutations*)
- Anticardiolipin antibodies
- Plasma amino acids
- Total plasma homocysteine
- Plasma lactate
- Ammonia
- Cholesterol and triglycerides (random)
- Plasma urate
- Transferrin electrophoresis
- Lp(a) (*please request on downtime form as lipoprotein (a), not available on PIMS, min. 1ml clotted blood*)
- Alpha galactosidase A (to exclude Fabry disease)
- Serum globotriaosylceramide (to exclude Fabry disease)
- Serology: mycoplasma, VZV, borellia

Urine

- Organic acids
- Urinary globotriaosylceramide (to exclude Fabry disease)

CSF

Lumbar puncture is not routinely indicated and the need for this should be reviewed on a case-by-case basis. If a lumbar puncture is undertaken it is helpful to request CSF VZV PCR and antibodies and CSF lactate.
