

Table 2B: Recommended Laboratory Investigations for Patients with Acute Stroke or Transient Ischemic Attack

Note: This list presents the recommended initial laboratory tests for patients with stroke and TIA. Patient presentation, clinical judgment, and local stroke protocols should be considered in selecting appropriate laboratory investigations and the timing of completion.

Initial Recommended Laboratory Investigations for Patients with Stroke and TIA		
Complete Blood Count (CBC)	International Normalized Ratio (INR)	Partial Thromboplastin Time (PTT)
Random Glucose	Electrolytes	Creatinine with estimated glomerular filtration rate (eGFR)
Follow-up Blood work: to be completed as soon as possible after initial bloodwork	Glucose: Either a fasting plasma glucose or hemoglobin A1C, or 75 mg oral glucose tolerance test	Lipid profile (Fasting optional and decision should be based on individual patient factors)
	ALT	Troponin (based on clinical indications)

Additional Laboratory Investigations for Consideration in Specific Circumstances

Note: All patients are individual and some may require additional investigations to fully understand their clinical situation. The investigations noted below may not be indicated in many stroke patients and should be considered in selected stroke patients based on clinical presentation and medical history.

Optional Laboratory Investigations		
Calcium, Magnesium, Phosphate	If female less than 50 years of age, consider pregnancy test	Blood cultures x 3 (per individual institutional protocol)
Blood and/or urine drug screen	HIV, syphilis serology	
Coagulopathy Screen – For consideration in selected patients <i>only if clinically indicated</i> <i>Recommend consultation with a specialist in thrombosis to evaluate for hypercoagulable state</i>		
Anticardiolipin (Antiphospholipid) antibody, Beta 2 glycoprotein-1, Lupus anticoagulant	Sickle cell screen	Homocysteine (fasting serum level)
Special considerations especially in young adults and children with stroke in absence of identified etiology <i>(Note there is not a strong evidence base for these investigations, and they should be considered only in selected stroke patients based on clinical presentation and medical history)</i>		
Consider LP for CSF analysis (cell count and differential, protein, glucose, bacterial and viral cultures; possibly cytology/flow cytometry if CNS lymphoma is a consideration)	Brain biopsy (if vasculitis of the central nervous system or angiocentric lymphoma is a consideration)	
Cerebral digital subtraction angiography	Further genetic tests if indicated – CADASIL, Fabry's, MELAS	