

CRITICAL REVIEW FORM: THERAPY I**Citation:**

1. Tissue Plasminogen Activator for Acute Ischemic Stroke, *N Engl J Med* 1995; 333:1581-1587.
2. Hacke W, Kaste M, Fieschi C, et al; Randomised double-blind placebo-controlled trial of thrombolytic therapy with intravenous alteplase in acute ischaemic stroke (ECASSII), *Lancet* 1998; 352:1245-1251.
3. Clark WM; Wissman S, Albers GW, et al; Recombinant Tissue – Type Plasminogen Activator (Alteplase) for Ischemic Stroke 3 to 5 Hours after Symptom Onset – The ATLANTIS Study: A Randomized Controlled Trial, *JAMA* 1999; 282: 2019-2026.
4. Hacke W, Kaste M, Bluhmki E, et al; Thrombolysis with Alteplase 3 to 4.5 Hours after Acute Ischemic Stroke, *NEJM* 2008; 359:1317-1329.

Guide		Comments
I	Are the results valid	
A	Did experimental and control groups begin the study with a similar prognosis?	
1	Were patients randomized?	
2	Was randomization concealed?	
3	Were patients analyzed in the groups to which they were randomized?	
4	Were patients in the treatment and control groups similar with respect to known prognostic factors?	
B	Did experimental and control groups retain a similar prognosis after the study started?	
1	Were 5 important groups(patients, caregivers, collectors of outcome data, adjudicators of outcome, data analysts) aware of group allocation?	
2	Aside from the experimental intervention, were groups treated equally?	
3	Was follow-up complete?	

II	What are the results?	
1	How large was the treatment effect?	
2	How precise was the treatment effect?	
III	How can I apply the results to my patient care?	
1	Were the study patients similar to my patient?	
2	Were all patient-important outcomes considered?	
3	Are the likely benefits worth the potential harms and costs?	

ECASS III Exclusion Criteria

- Age < 18 or > 80 years
- Onset of stroke > 4.5 hours before drug administration or symptom onset unknown
- Stroke symptoms present < 30 minutes or significantly improving before treatment
- Intracranial hemorrhage
- Severe stroke as defined by NIHSS > 25 or imaging (CT or MRI) displaying > 1/3 of middle cerebral artery territory involved
- Seizure at the onset of stroke
- Stroke or serious head trauma within the previous 3-months
- Combination of previous stroke and diabetes mellitus
- Heparin within the preceding 48 hours with PTT above normal limit
- Platelet count < 100,000 mm³
- Systolic blood pressure > 185 mm Hg or diastolic > 110 mm Hg or aggressive treatment (intravenous medication) to reduce blood pressure to these limits
- Glucose < 50 mg/dL or > 400 mg/dL
- Symptoms suggestive of subarachnoid hemorrhage even if CT normal
- Oral anticoagulation therapy
- Major surgery or severe trauma within 3-months
- Other major disorders with an increased risk of bleeding