<table>
<thead>
<tr>
<th>Agent &amp; Dose</th>
<th>Indications Must meet all criteria</th>
<th>Contraindications (italic = relative)</th>
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<tbody>
<tr>
<td><strong>Stroke</strong></td>
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| **Alteplase** | 0.9mg/kg (max 90mg) | • Clinical signs and symptoms of definite acute stroke  
  • Clear time of onset <4.5 hours ago  
  • Haemorrhage excluded by CT head  
  • NIH Stroke Score severity 4-25 | Stroke related  
  • Rapidly improving symptoms  
  • Ischaemia of >1/3 MCA territory  
  • Symptoms suggestive of SAH (even if CT normal)  
  • Seizure at start of stroke  
  Neurological  
  • History of intracranial bleed, aneurysm, neoplasm  
  • Spinal or cranial surgery/injury  
  • Ischaemic stroke <3 months  
  • Prior stroke and diabetes  
  Bleeding tendency  
  • Significant bleeding disorder  
  • Therapeutic anticoagulation: LMWH, NOACs (<12h), warfarin (INR >1.6)  
  • Iron deficiency anaemia or thrombocytopenia (plt <100)  
  • Advanced liver disease |
|             | 10% of dose over 2 mins then rest over 1 hour |                                      |
| **Myocardial infarction** | **Tenecteplase** | 0.5mg/kg IV bolus | • STEMI with ST-elevation in two contiguous ECG leads (>1mm in limb leads or >2mm in chest leads) or new LBBB  
  • Symptom onset <12 hours  
  • PCI not available <90 minutes | Neurological  
  • History of intracranial bleed, aneurysm, neoplasm  
  • Spinal or cranial surgery/injury  
  • Ischaemic stroke <6 months  
  • TIA <6 months  
  Bleeding tendency  
  • Significant bleeding disorder  
  • Therapeutic oral anticoagulation (INR >1.4 if warfarin)  
  • Advanced liver disease |
|             |                                   |                                      |
| **Pulmonary embolism** | **Alteplase** | 1.5mg/kg (max 100mg) | • Massive PE i.e. any of:  
  - SBP <90 for >15 mins  
  - Requiring inotropic support  
  - Pulselessness  
  - Persistent profound bradycardia (<40 bpm with signs or symptoms of shock)  
  If PE not confirmed and cardiac arrest imminent, thrombolysis may be initiated on clinical grounds if echo/CTPA not immediately available | Neurological  
  • History of intracranial bleed, aneurysm, neoplasm  
  • Spinal or cranial surgery/injury  
  • Ischaemic stroke <3 months  
  • Prior stroke and diabetes  
  Bleeding tendency  
  • Significant bleeding disorder  
  • Therapeutic anticoagulation: LMWH, NOACs (<12h), warfarin (INR >1.6)  
  • Iron deficiency anaemia or thrombocytopenia (plt <100)  
  • Advanced liver disease  
  Trauma  
  • Pregnancy or <1 week post-partum  
  • Traumatic resuscitation  
  • Significant head injury <3 months  
  • Major surgery/major trauma/minor head injury <3 weeks  
  • Surgery/trauma <2 weeks  
  • Recent non-compressible venous or arterial puncture sites  
  Medical problems  
  • SBP >180 or DBP >110  
  • Active internal bleeding  
  • Aortic dissection  
  • Bacterial endocarditis/pericarditis  
  • Acute pancreatitis  
  • GI bleed <1 month  
  • Active peptic ulcer <6 months |
|             | 10mg over 2 mins then rest over 2 hours |                                      |
|             | Cardiac arrest dose = 50mg IV bolus |                                      |

**RISKS OF THROMBOLYSIS:** minor bruising/bleeding (40%); major bleeding e.g. GI bleed (5%); intracerebral haemorrhage (1%); early mortality (5%) but similar overall mortality at 3-6 months to if not thrombolysed. **NOTE:** risk increases with age >80 years.  
**BENEFIT IN STROKE:** 1/3 gain benefit, 1/3 makes no difference; 1/3 experience complication (usually minor)