## Background

- About 20% of strokes are detected upon awakening. Historically, these patients were excluded from treatment with IV lytic due to being "out of the window" from last seen normal.
- Radiographic studies of patients with wake-up strokes support the onset is likely shortly upon awakening.
- A randomized controlled study demonstrated efficacy of IV lytic (alteplase) in improving the odds of an independent outcome when selected by MRI of the brain, performed within 4.5 hours of symptom detection. The number needed to treat was nine. The symptomatic hemorrhage rate was only 2.4%.
- Since 2019, our AHA/ASA Guidelines for the Emergency Management of Acute Ischemic Stroke issued a Class 11a, level of evidence B recommendation for IV alteplase (0.9mg/kg, maximum dose 90mg) within 4.5 hours of symptom detection for patients who have MRI confirmation of DWI lesion less than one-third of the MCA territory and no visible signal change on FLAIR. This applies to patients who are found with stroke symptoms whose last seen normal is more than 4.5 hours prior.



- If your center does not have CT perfusion imaging and the patient has LVO, emergently transfer to a thrombectomy center.
- If your center does not have emergent MRI capability and the patient does not have LVO, emergently transfer to closest hospital with MRI capability, if feasible within 4.5 hours of symptom detection.