DEFUSE 3 study (Jan 24th 2018)

- Multicenter, randomized, trial, conducted at 38 U.S. centers.
- Endovascular thrombectomy resulted in better functional outcomes than standard medical therapy alone among patients who:
  - presented 6 to 16 hours after they were last known to be well,
  - had proximal MCA or ICA occlusion,
  - had salvageable ischemic brain tissue.
DEFUSE 3 study (Jan 24th 2018)

• Salvageable ischemic brain tissue is defined as CT or MR perfusion mismatch as follows:
  - ischemia "core" volume < 70 ml
  - mismatch ratio > 1.8
  - mismatch volume 15 ml or larger
Case ID – 30513437

- 02/10/18
- 62 year old M with history of HTN
- Left sided weakness since he woke up
- Stroke code called
Initial Head CT and CTA showed complete occlusion of the right ICA and MCA.
CBF < 30% volume: 6 ml

Mismatch volume: 269 ml
Mismatch ratio: 45.8

Tmax > 6.0s volume: 275 ml
Post IR Thrombectomy MRI and MRA
Companion Case – 30217676

- 02/09/18
- 56 year old M
- Left sided weakness
- Stroke code called
Initial Head CT and CTA showed complete occlusion of the right ICA and MCA.
CBF < 30% volume: 155 ml  

Mismatch volume: 295 ml  
Mismatch ratio: 2.9  

Tmax > 6.0s volume: 450 ml
Eligibility criteria for embolectomy from DEFUSE 3 study

1) age 18-85; NIHSS of 6 or greater
2) 6-16 hours out from onset or awoke w/ symptoms
3) ICA or MCA-M1 occlusion (with or without tandem lesions) on CTA or MRA
4) CT or MR perfusion mismatch as follows:
   - ischemia "core" volume < 70 ml
   - mismatch ratio > 1.8
   - mismatch volume 15 ml or larger (calculated by RAPID based on Tmax >6 sec and CBF< 30%)
References