Image Based Endoascular Therapy: CT vs. MRI

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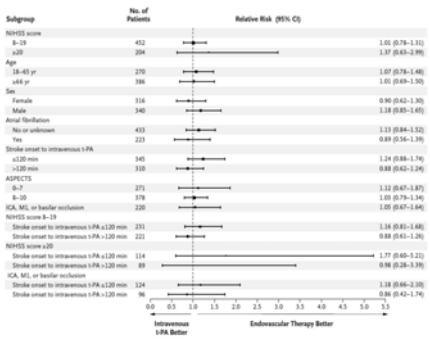
Endovascular Therapy after Intravenous t-PA versus t-PA Alone for Stroke
IMS 3

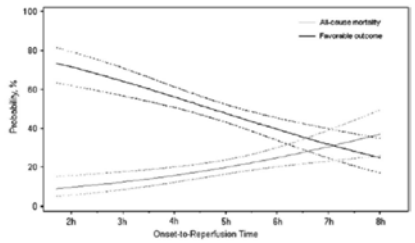
Endovascular Treatment for Acute Ischemic Stroke
SYNTHESIS

A Trial of Imaging Selection and Endovascular Treatment for Ischemic Stroke
MR RESCUE



IMS 3

Impact of Onset-to-Reperfusion Time on Stroke Mortality



→ Rec> Onset to Stentretieval (First Recanalization) <180 minutes !

Circulation. 2013;127:1980-1985

Lessons learned from IMS-3, SYNTHESIS

- High Futile Recanalization
  - **Selection**
- Delayed Door To Recanalization Time
  - **-Brief Procedure**

Solution

- SWIFT PRIME
  - MR Based, Focus on DWI-PWI Mismatch
  - Reduce Futile Recanalization
- ESCAPE Trials
  - CT Based, Focus on FAST TRACT
  - Reduce Door to Recanalization Time

CT Based Protocol

- Trianage Nurse
- Brain CTA (multiphase): Collateral Grade/ASPECT Score
- Neurologist, N/E, Em-Lab, Consent
- ±rTPA
- Stent Retrieval

(Direct Recanalization before TFCA)

ESCAPE

- ClinicalTrials.gov Identifier:NCT01778335
- Estimated Enrollment: 250
- Study Start Date: Jan 2013
- Estimated Study Completion Date: Dec 2014
- Primary Outcome Measures: 90-day mRS(0-2) or NIHSS (0-2)
- Time Window
  - Unclear:Last normal Time< 12hr
  - Clear onset: >4.5hr or CIx
- Procedure Time : Rec
  - <120mins Door to Recanalization,
  - <60mins CTA-Pucture,
  - <90m CTA-Recanalization