Modifiers Of Endovascular Treatment Effect:
A Prespecified Patient-Level Pooled Analysis of All Available Trials

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On Behalf of the VISTA-Endovascular Collaborators

The Virtual International Stroke Trials Archive

The VISTA-Endovascular Team

Primary Objectives

- Estimate treatment effect of endovascular therapy (EVT) in acute ischemic stroke in trials of modern devices by pooling individual data
- Assess key potential effect modifiers
- Apply sequential design approach using prespecified plan

Khatri et al, Stroke, 2015
MacIsaac et al, IJOS, 2015

Patient Population

- Primary cohort
  - Trials with modern devices (≥85%)
    - Solitaire, TREVO, Penumbra Aspiration
  - Trials with ≥20 patients
  - Patients treated with IV rtPA
- Sensitivity cohorts
  - Trials with older generation devices and smaller cohorts
  - Patients not treated with IV rtPA (not available today)

Dataset for this Analysis

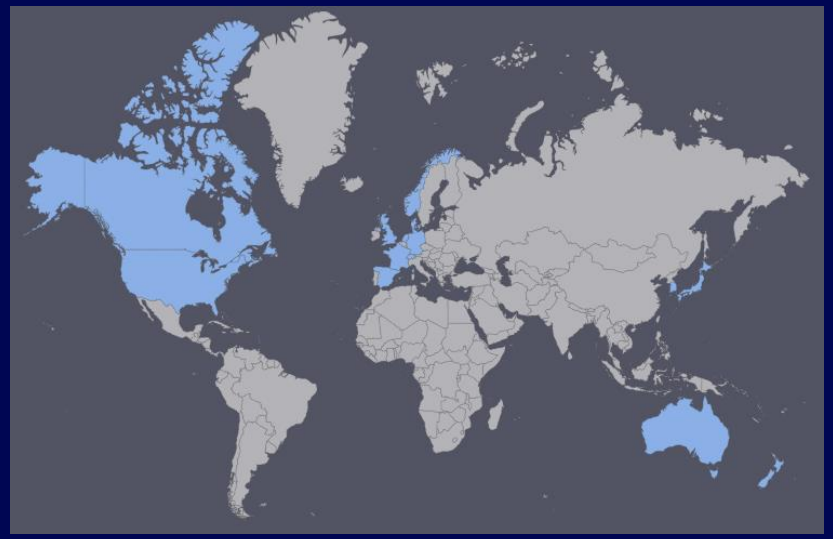
All Completed Trials Testing EVT Worldwide
Submitted to VISTA-Endovascular as of March 11, 2017

Primary Cohort*

- MR CLEAN
- ESCAPE
- EXTEND IA
- SWIFT PRIME
- REVASCAT
- THRACE
- THERAPY
- PISTE

Sensitivity Cohort Additions*

- IMS III
- MR RESCUE
- SYNTHESIS
- JAPAN RESCUE



- *In order of direction of results publicly known*

Conclusions

- Benefit of EVT is robust
  - Even after including prior negative trials
- No effect modification in primary cohort
  - Age, bNIHSS, ASPECTS
- Effect modification by bNIHSS in sensitivity cohort
  - Likely driven by non-LVO patients
- Sequential method provide an efficient and rigorous platform to address key clinical questions definitively
  - Completed trials
  - Ongoing trials (super DSMB)

Thank You

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TRIAL TEAMS AND PATIENTS:

- BASICS
- DAWN
- ESCAPE
- EXTEND-IA
- IMS III
- JAPAN-RESCUE
- MR CLEAN
- MR RESCUE
- PISTE
- POSITIVE
- RESILENT
- REVASCAT
- SWIFT-PRIME
- SYNTHESIS
- THERAPY
- THRACE
- THRILL