In patients with ≥70% asymptomatic stenosis, to assess:

- The treatment differences between intensive medical management and CEA
- The treatment differences between intensive medical management and CAS

Primary endpoint: any stroke or death within 44 days of randomization or ipsilateral ischemic stroke thereafter up to 4 years.

Change in cognitive function: is it no worse in the MEDICAL cohort compared to the CEA/CAS cohorts?

Differences in major stroke.

Differences in primary outcomes affected by age, sex, severity stenosis, risk factor level, and duration of asymptomatic period.
Is the change of cognitive function from baseline to 48 months no worse among those in the MEDICAL cohort compared to the CEA/CAS cohorts? (Cognitive function may be a surrogate for TIA and/or asymptomatic brain injury).

Computer-aided telephonic assessment by team at University of Alabama.

Biobanking of carotid plaque samples after CEA, and blood, for future planned correlative studies for biomarkers.
CREST-H (Hemodynamics)

- 500 CREST-2 patients will have MR perfusion studies

Hypothesis: those with hemodynamic failure on MR perfusion studies will show cognitive improvement 1 year after revascularization compared with those without hemodynamic failure and those treated with medical therapy only.

CREST-P (Plaque)

- Plaque disruption may be influenced by biomechanical forces and morphology

CREST-P, under review by NIH, will be the first multicenter clinical trial to evaluate plaque morphological and biomechanical markers that render it vulnerable to rupture

CREST-T (Transcarotid revascularization)

- CREST-T, under review by NIH, will be the first randomized multicenter clinical trial evaluating TCAR

Specialty Guidelines will change, affecting most BUT NOT ALL patients

CEA and CAS Rates: will they go up? or will they continue to go down?

Summary and Conclusions

- CREST-2 will provide many answers but not all the answers on how to treat asymptomatic patients, more than 100,000 annually in the US and Canada and many more around the world

- The "best" treatments are being compared

- New knowledge will be gained about genetics, diagnostics, the plaque, brain blood flow, and cognition

- The winners will be our patients
Thanks to the CREST-2 PIs, Coordinators, Investigators, and PATIENTS

CREST-2

www.crest2trial.org