If you see a potential study candidate, please contact the study staff immediately. Patients who have an acute ischemic stroke (AIS) with large hemispheric infarction (LHI) may qualify for this study. **Study drug treatment infusion should be initiated ASAP but no later than 10 hours after time of symptom onset (if known), or last known normal (if time to symptom onset is unknown), including wake-up stroke (refer to inclusion #8 in the protocol).**

CHARM Clinical Research Study:

Factsheet for Treating Physicians

Background

We are actively recruiting patients for a clinical research study called CHARM. The CHARM study, sponsored by Biogen, will assess the safety and potential effectiveness of intravenous (IV) BIIB093 (also known as glibenclamide or glyburide) in patients with severe cerebral edema following a large hemispheric infarction (LHI). Approximately 200 to 250 sites in about 20 to 25 countries are expected to participate in the study.

Rationale

Currently, there is no approved treatment to prevent or reduce edema secondary to LHI, leaving an unmet medical need for a life-saving intervention that would meaningfully reduce mortality and morbidity in patients who have had a LHI. The study investigational drug, BIIB093, targets the SUR1-TRPM4 channel, a mechanism involved in development of edema. We believe that by blocking the SUR1-TRPM4 channel, IV BIIB093 may reduce the formation of brain edema and the resulting secondary damage in patients who have had a LHI. In two previous studies (one for acute ischemic stroke and one for LHI specifically), IV BIIB093 was well-tolerated and was associated with a potential reduction in mortality, accompanied by evidence of reduced brain edema and improved functional outcomes.

Design

Approximately 768 subjects (although this number may increase) who have severe cerebral edema following a LHI will be randomized 1:1 to receive IV BIIB093 (8.6 mg total dose) or placebo as a 3-stage continuous infusion over 72 hours, followed by efficacy and safety assessments. The study includes two parts: Part 1 is comprised of the baseline visit, study drug infusion, and efficacy and safety period through Day 90 (primary endpoint); Part 2 is a follow-up period from Day 91 through Month 12 (end of study).

Monitoring

After leaving the hospital, participants will have four follow-up visits or phone calls with the study team for continued monitoring over the course of a year. Study assessments include imaging studies, blood tests, and other tests and questionnaires to help monitor the health and well-being of each participant and evaluate the safety and potential effectiveness of IV BIIB093.

Eligibility

To participate in the CHARM study, patients must meet the following key eligibility criteria (other criteria also apply):

- 18 to 85 years of age with a clinical diagnosis of acute ischemic stroke in the middle cerebral artery (MCA) territory
  Note: Older age cap has been reached, only subjects ≤70 years can be enrolled.
- Large hemispheric infarction (LHI) defined as lesion volume of 80 to 300 cm^3 on MRI (DWI) or CTP, or an ASPECTS score of 1 to 5 with involvement of at least 2 defined cortical regions
- Screening NIHSS ≥ 10
- Study drug treatment infusion within 10 hours after time of symptom onset (if known) or the last time known normal (if time to symptom onset is unknown), including wake-up stroke (refer to inclusion #8 in the protocol)
- For subjects who receive thrombectomy, inclusion into the study must be based on post-thrombectomy MRI-DWI
- Not likely to have supportive care withdrawn in the first day
- No commitment to decompressive craniectomy (DC) prior to enrollment
- No evidence of concurrent infarction in the contralateral hemisphere, sufficiently serious so as to affect functional outcome
- No brain hemorrhage (other than small petechial/punctate)
- No clinical evidence of brain herniation

Contact the study team, if you have any patients who may be eligible and suitable for participation in the CHARM study, or if you would like more information. Study informational brochures are also available for you and your patients.

Please contact the study team:

CHARM

BIIB093 is an investigational drug that is not approved by any health authority and its safety and effectiveness have not been established.