Sarepta 53

Phase I/II Study of SRP-4053 in DMD Patients

Hub Summary

This study is designed to assess the safety, tolerability, efficacy and pharmacokinetics of Sarepta's exon skipping drug SRP-4053. SRP-4053 is designed to treat patients with DMD with deletions amenable to exon 53 skipping.

Study Number: NCT02310906

Description by Sarepta Therapeutics, Inc.

This is a first-in-human, multiple-dose 2-part study to assess the safety, tolerability, efficacy, and pharmacokinetics of SRP-4053 in Duchenne muscular dystrophy (DMD) patients with deletions amenable to exon 53 skipping.

Part 1: Randomized, placebo-controlled dose-titration to assess safety, tolerability and pharmacokinetics of 4 dose levels of SRP-4053 in genotypically-confirmed DMD patients with deletions amenable to exon 53 skipping.

Part 2: Open-label evaluation of SRP-4053 in patients from Part 1, along with newly enrolled DMD patients with deletions amenable to exon 53 skipping, compared to untreated control DMD patients with deletions not amenable to exon 53 skipping.

Safety, including adverse event monitoring and routine laboratory assessments, will be followed on an ongoing basis for all patients.

Clinical efficacy, including functional tests such as the six-minute walk test (6MWT), will be assessed at regularly scheduled study visits. Patients in the treated groups will undergo one baseline and one follow-up muscle biopsy. Patients in the untreated control group will not undergo biopsies and will follow an abbreviated schedule of study assessments.

Primary Outcome Measures

- Incidence of Adverse Events [Time Frame: approximately 12 weeks (Part 1)]
- Incidence of clinical laboratory abnormalities (hematology, chemistry, coagulation, urinalysis) [Time Frame: approximately 12 weeks (Part 1)]
- Incidence of abnormalities in vital signs and physical examinations [Time Frame: approximately 12 weeks (Part 1)]
- Incidence of abnormalities on ECGs and ECHOs [Time Frame: approximately 12 weeks (Part 1)]
- Change in 6-Minute Walk Test (6MWT) from baseline [Time Frame: Baseline to Week 144 (Part 2)]
- Dystrophin protein levels determined by western blot [Time Frame: Baseline to Week 48 (Part 2)]

Secondary Outcome Measures

- Pharmacokinetic parameters [Time Frame: Approximately 12 weeks (Part 1)]
- Pulmonary function tests [Time Frame: Baseline to Week 144 (Part 2)]
- Maximum expiratory pressure (MEP)%, maximum inspiratory pressure (MIP)%
- Percentage of dystrophin-positive fibers determined by IHC [Time Frame: Baseline to Week 48 (Part 2)]
- Exon 53 skipping [Time Frame: Baseline to Week 48 (Part 2)]

Other Outcome Measures

(Partial List)

- Incidence of Adverse Events [Time Frame: 144 - 148 weeks (Part 2)]
- Incidence of clinical laboratory abnormalities (haematology, chemistry, coagulation, urinalysis) [Time Frame: 144 - 168 weeks (Part 2)]
- Incidence of abnormalities in vital signs and physical examinations [Time Frame: 144 - 168 weeks (Part 2)]

Trial Status
Trial complete

UK Locations
London - GOSH, Trial complete/terminated, Newcastle, Trial complete/terminated

Trial Sponsor
Sarepta Therapeutics, Inc.

Age
6-15

Mutation Specific
Mutation specific therapies, Amenable to exon 53 skipping

Muscle Biopsy
Muscle Biopsy Required

MRI
Yes

Phase
1/2

Recruitment Target
39

Ambulatory
Ambulant

Therapeutic Category
Exon skipping

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- Incidence of abnormalities on ECGs and ECHOs [Time Frame: 144 - 168 weeks (Part 2)]
- Immunogenicity [Time Frame: 144 - 168 weeks (Part 2)]

Can I take part?

Inclusion Criteria

- Diagnosed with DMD, genotypically confirmed.
- Intact right and left biceps muscles or an alternative upper arm muscle group.
- Stable pulmonary and cardiac function.
- Minimum performance on 6MWT, North Star Ambulatory Assessment, and rise (Gowers) test as specified in the study protocol.
- On a stable dose of corticosteroids for at least 6 months.

Exclusion Criteria

- Previous treatment with the experimental agents BMN-195 (SMT C1100) or PRO053.
- Current or previous treatment with any other experimental treatments within 12 weeks prior to study entry.
- Major surgery within the last 3 months.
- Presence of other clinically significant illness.
- Major change in physical therapy regime within the last 3 months.
- Other inclusion and exclusion criteria may apply.

For contact details and to find out more, please refer to dmdhub.org.

Duchenne UK