Pfizer - CIFFREO

A Phase 3 Study to Evaluate the Safety and Efficacy of PF-06939926 for the Treatment of Duchenne Muscular Dystrophy

Hub Summary

This study is a phase 3 trial testing the safety and efficacy of Pfizer's gene therapy construct, PF-06939926. It is delivered using an adeno-associated virus, AAV, and carries a shortened version of the dystrophin gene (mini-dystrophin). The treatment will be given by an intravenous infusion.

Two-thirds of the participants will receive the treatment. One-third will be randomly allocated to the placebo arm, but will be able to receive the treatment in the second year, so long as it remains safe to do so.

Please note that patients will need to be on daily steroids for 3 months before screening, to be eligible. They will also be able to be recruited to the trial up until their 8th birthday. For more information about the recruitment process for gene therapy trials, please click here.

EU Clinical Trial Register number: 2019-002921-31

Study Number: NCT04281485

Description by Pfizer Inc

The study will assess the efficacy of PF-06939926 gene therapy on ambulatory function while also monitoring its safety. Approximately 99 boys with DMD will be enrolled and randomly assigned to one of two groups: approximately two thirds will be in Cohort 1 and receive gene therapy at the start of the study; approximately one third will be in Cohort 2 and receive placebo at the start of the study and receive gene therapy after one year, as long as it remains safe to do so. The treatment (PF-06939926 gene therapy or placebo) will be given as an intravenous infusion lasting up to 2 hours. Participants in the study will remain in a hospital setting where they will be monitored for at least seven days following the infusion.

The study includes boys who are at least 4 years old and less than 8 years old (including 7 year olds up until their 8th birthday). All boys will need to be on a daily dose of glucocorticoids (prednisone, prednisolone, or deflazacort) for at least 3 months prior to enrolling and to stay on daily glucocorticoids for the first 2 years of the study. All boys will need to be negative for neutralizing antibodies against AAV9, as measured by the test done for the study as part of screening.

The primary outcome of the study will be assessed at 52 weeks. All participants will be followed in the study for 5 years after treatment with gene therapy.

The study medication, all medical tests associated with the study, and the visits to the study sites are free of charge. Participants will also be supported for travel costs associated with study visits.

Primary Outcome Measures

- Change from Baseline in North Star Ambulatory Assessment (NSAA) [Time Frame: Week 52]

  The NSAA is a 17-item test that measures gross motor function in children with Duchenne.

Secondary Outcome Measures

- Change from Baseline in mini-dystrophin expression level in muscle [Time Frame: Week 52]
  Mini-dystrophin expression level from a muscle biopsy will be assessed by liquid chromatography mass spectrometry (LC-MS).
- Change from Baseline in distribution of mini-dystrophin expression in the muscle [Time Frame: Week 52]
  Mini-dystrophin distribution from a muscle biopsy will be assessed by immunofluorescence.
- Change from Baseline in serum creatine kinase (CK) [Time Frame: Week 52]
  Changes in the circulating levels of CK.
- Number of skills gained based on the individual items of the NSAA. [Time Frame: Week 52]
  To count the skills that each child gained, based on the individual items of the NSAA.
- Number of skills improved or maintained based on the individual items of the NSAA [Time Frame: Week 52]
  To count the skills that each child improved or maintained, based on the individual items of the NSAA.
- Change from Baseline in the 10-meter run/walk test velocity [Time Frame: Week 52]
  Velocity is calculated based on the time that it takes to complete the 10-meter run/walk test.
- Change from Baseline in the rise from floor velocity [Time Frame: Week 52]
  Velocity is calculated based on the time that it takes to the rise from floor.

Trial Status
Fully recruited

UK Locations
London - GOSH, Fully recruited, Alder Hey, Fully recruited, Newcastle, Fully recruited

Trial Sponsor
Pfizer Inc

Phase
3

Length Of Participation
5-6 years

Recruitment Target
99

Ambulatory
Ambulant

Therapeutic Category
Gene Therapy

Age
4-7

Mutation Specific
Non-mutation specific therapies, Some mutations are excluded (see exclusion criteria).

Muscle Biopsy
Muscle Biopsy Required

MRI
Yes

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- Change from Baseline in the Modified Pediatric Outcomes Data Collection Instrument (PODCI): Transfer and Basic Mobility Core Scale [Time Frame: Week 52]
  The PODCI contains a list of questions to assess how each caregiver/child evaluates the child´s ability to to walk, stand, and perform activities of daily living.
- Change from Baseline in the Modified Pediatric Outcomes Data Collection Instrucment (PODCI): Sports and Physical Functioning Core Scale [Time Frame: Week 52]
  The PODCI contains a list of questions to assess how each caregiver/child evaluates the child´s ability to perform recreational activities.

Can I take part?

Inclusion Criteria

- ✔ Confirmed diagnosis of Duchenne muscular dystrophy by prior genetic testing
- ✔ Receiving a stable daily dose (at least 0.5 mg/kg/day prednisone or prednisolone, or at least 0.75 mg/kg/day deflazacort) for at least 3 months prior to Screening
- ✔ Ambulatory, as assessed by protocol-specified criteria

Exclusion Criteria

- ✖ Positive test performed by Pfizer for neutralizing antibodies to AAV9
- ✖ Any treatment designed to increase dystrophin expression within 6 months prior to screening (e.g., Translarna™, EXONDYS 51™, VYONDYS 53™)
- ✖ Any prior treatment with gene therapy
- ✖ Any non-healed injury that may impact functional testing (eg NSAA)
- ✖ Abnormality in specified laboratory tests, including blood counts, liver and kidney function
- ✖ Any of the following genetic abnormalities in the dystrophin gene:
  - ✖ Any mutation (exon deletion, exon duplication, insertion, or point mutation) affecting any exon between exon 9 and exon 13, inclusive; OR
  - ✖ A deletion that affects both exon 29 and exon 30;OR
  - ✖ A deletion that affects any exons between 56-71, inclusive.

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

Duchenne UK