Duke | MARGOLIS CENTER for Health Policy

Endpoint Considerations to Facilitate Drug Development for Niemann-Pick Type C (NPC)

Virtual Public Workshop
January 24-25, 2022

Draft Agenda

Virtual Day 1: Introduction and Overview of Endpoints for Niemann-Pick Type C (NPC) Clinical Trials

January 24, 2022
12:00 p.m. – 3:30 p.m. ET

Background and Meeting Objectives

Niemann-Pick Type C (NPC) is a rare genetic disease that results in progressive neurological symptoms and organ dysfunction. NPC is caused by mutations in either the *NPC1* or *NPC2* genes, resulting in impaired intracellular transport of cholesterol and other lipids. Individuals with NPC have significant unmet treatment needs. Currently, there are no approved therapies in the United States for treatment of NPC. In order to advance NPC drug development, it is important that stakeholders work together and identify strategies to support ongoing and future NPC clinical trials. In this workshop, participants will discuss clinical endpoints relevant to NPC clinical trials and innovative strategies to support therapeutic development for patients with NPC.

In this workshop, participants will:

- Review endpoint considerations in NPC and consider challenges and opportunities to support product development;
- Consider functional assessments that could serve as clinical endpoints in NPC clinical trials; and
- Discuss innovative strategies to support product development, such as digital technology and biomarkers.

12:00 pm **Welcome and Overview**

12:05 pm **Opening Remarks from FDA**

12:15 pm **Session 1: Challenges and Opportunities with the NPC Clinical Severity Scale (NPCCSS)**

Objective: Given the heterogenous nature of NPC, there are significant challenges in endpoint design and selection for NPC clinical trials. The NPC Clinical Severity Scale (NPCCSS) has commonly been used in clinical studies and natural history studies in NPC. In this session, participants will review the NPCCSS and consider its strengths and limitations. In addition, participants will identify and propose strategies to address limitations of the NPCCSS, such as potential modifications, and consider strategies to leverage existing datasets to evaluate its validity.

Duke | MARGOLIS CENTER *for* Health Policy

1:15 pm **Session 2: Functional Measures for Swallowing**

Objective: Given the impact of NPC on swallowing, it is important to assess swallowing in clinical trials of potential therapeutics for NPC. In this session, participants will review potential swallowing assessment tools and consider their strengths and limitations as clinical trial endpoints.

2:15 pm **Break**

2:30 pm **Session 3: Functional Measures for Ambulation, Speech, and Fine Motor**

Objective: NPC can impact ambulation, speech, and fine motor abilities. In this session, participants will review potential ambulation, speech, and fine motor assessment tools and consider their strengths and limitations as clinical trial endpoints.

3:25 pm **Closing Remarks**

3:30 p.m. **Adjournment**

Workshop speaker information to follow

Duke | MARGOLIS CENTER for Health Policy

Endpoint Considerations to Facilitate Drug Development for Niemann-Pick Type C (NPC)

Virtual Public Workshop
January 24-25, 2022

Draft Agenda

Virtual Day 2: Potential Innovative Endpoints and Strategies to Support NPC Product Development

January 25, 2022
12:00 p.m. – 3:30 p.m. ET

12:00 pm **Welcome and Overview of Day Two**

12:05 pm **Opening Remarks from FDA**

12:15 pm **Session 4: Exploring Digital Health Technology to Measure Functional Endpoints**

Objective: Digital health technologies offer potential opportunities for drug development as they allow physiological or patient-reported data to be efficiently collected from patients directly, and potentially more frequently, while lowering the burden of in-person clinical study visits. More frequent, or even continuous, data collection may better reflect disease course than less frequent snapshots in time. However, digital health technologies are also associated with potential challenges, such as the ability to make reliable measurements and validating novel measurements as clinically relevant endpoints. In this session, participants will discuss examples of digital health technologies and consider opportunities and challenges with their use to measure clinical endpoints.

1:15 **Session 5: Future Biomarker Considerations in NPC**
Objective: Due to the widely variable clinical presentation of NPC, there may be value in the use of biomarkers that can serve as measures of disease severity. In this session, panelists will discuss how novel and emerging biomarkers for NPC may be useful for tracking disease progression and supporting therapeutic development.

2:15 **Break**

2:30 **Session 6: Closing Panel and Forward Looking**
Objective: Collaboration is critical for facilitating NPC treatment development. In this session, participants will discuss next steps for continued collaboration and advancement of NPC endpoints as well as broader considerations for NPC clinical trials moving forward, including clinical trial design and patient participation in trials, with the overall goal being the development of safe and effective treatments for NPC.

Duke | MARGOLIS CENTER *for* Health Policy

3:25 p.m. **Closing Remarks**

3:30 p.m. **Adjournment**

Workshop speaker information to follow