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[Presentation 002]: Early Targeted C1q Inhibition With Tanruprubart Improves Functional Recovery in Guillain-Barré Syndrome: Results From a Phase 3 Study

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Tanruprubart (ANX005) is investigational and has not been approved for any indication in any jurisdiction.
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Henk-André Kroon is employed by and owns equity in Annexon Biosciences.

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Disclosures

Henk-André Kroon: Employee and shareholder of Annexon Biosciences

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Jose Navarro: Consultancy/advisory role with Annexon Biosciences

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Glenn Morrison: Employee and shareholder of Annexon Biosciences at the time of the study

Erik Pulkstenis: Employee and shareholder of Annexon Biosciences

Quazi Deen Mohammad: Consultancy/advisory role with Annexon Biosciences

Introduction

GBS is a rare, rapidly progressive, life-threatening neuromuscular emergency that can affect anyone at any time, and often results in prolonged disability[1,2]

Early diagnosis and treatment are critical in GBS[1,2]

- Complement-mediated nerve inflammation and injury progress rapidly during the acute phase[1,2]
- C1q activation initiates this cascade[3]
- The extent of neuroinflammation and nerve damage in early disease is a major factor in determining long- term outcomes[1,2]

Tanruprubart

(ANX005)

- Monoclonal antibody[3]
- Binds and rapidly inhibits C1q[3]
- Demonstrated early improvement in muscle strength and disability in patients with GBS[4]
- An acceptable safety profile and well tolerated[4]

Aim

To determine whether C1q inhibition mediated by tanruprubart improves functional recovery in GBS, and whether any effects are amplified with earlier treatment or in patients with limited axonal damage

1. Leonhard SE, et al. *Nat Rev Dis Primers.* 2024;10:97. 2. Willison HJ, et al. *Lancet*. 2016;388:717–27. 3. Lansita JA, et al. *Int J Toxicol.* 2017;36:449–62.
4. Mohammad QD, et al. *J Peripher Nerv Syst*. Mar 2025;30:e70009.
C1q, complement component 1q; GBS, Guillain-Barré syndrome.

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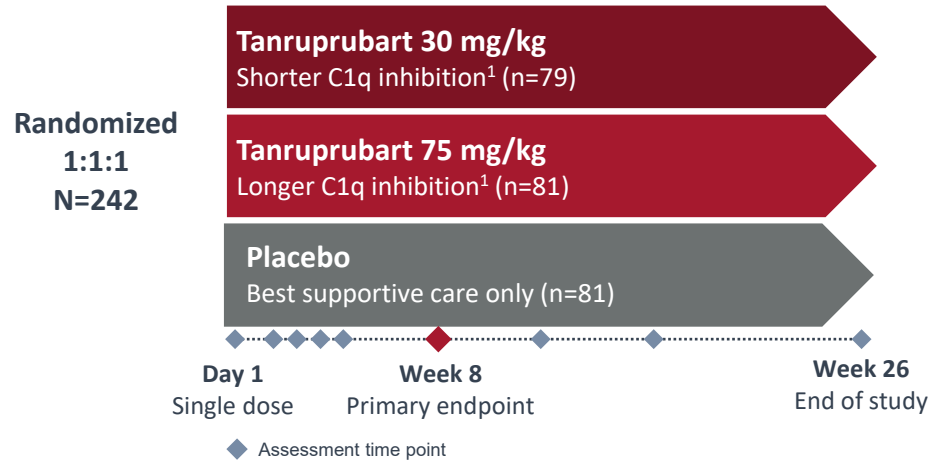
Methods

GBS-02 (NCT04701164) was a Phase 3, double-blind, placebo-controlled study that evaluated 242 patients with GBS. Patients were randomized to a single IV infusion of tanruprubart (30 or 75 mg/kg) or placebo

GBS-02: Phase 3 study in adults with GBS

Key inclusion criteria:

- Aged ≥16 years
- GBS-DS 3, 4, or 5
- ≤10 days from onset of weakness
- No access to PE/IVIG



Primary endpoint:

- GBS-DS at Week 8

Safety outcomes:

- Tanruprubart was well tolerated
- Most adverse events were mild to moderate in severity, due to GBS and not considered related to study drug

Treatment effects on GBS-DS at Week 8 were evaluated by time from onset of weakness to dosing and by baseline NfL, a biomarker of axonal damage

Mohammad QD, et al. *J Peripher Nerv Syst*. Mar 2025;30:e70009.

C1q, complement component 1q; GBS, Guillain-Barré syndrome; GBS-DS, GBS-disability score; IV, intravenous; IVIG, intravenous immunoglobulin; NfL neurofilament light; PE, plasma exchange.

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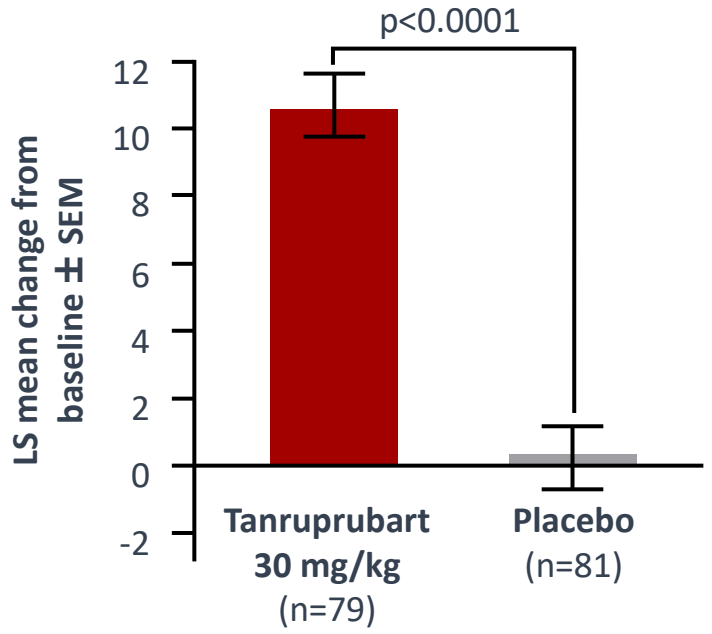
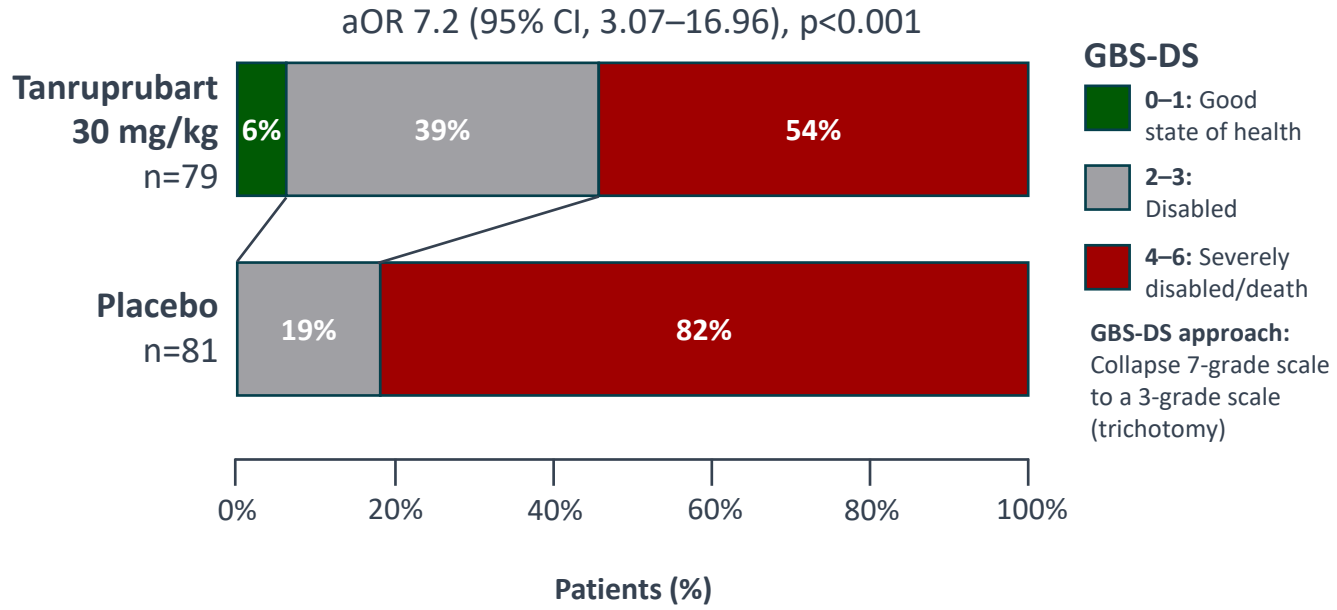
Results: Tanruprubart 30 mg/kg provided rapid improvement at Week 1 vs placebo

MRC sum score at Week 1



GBS-DS at Week 1



At Week 1, tanruprubart 30 mg/kg–treated participants had a >10-point improvement in MRC sum score

At Week 1, tanruprubart 30 mg/kg–treated participants had 7.2-fold higher odds of being in a better state of health vs placebo

aOR, adjusted odds ratio; CI, confidence interval; GBS-DS, Guillain-Barré syndrome–disability score; LS, least squares; MRC, Medical Research Council; SEM, standard error of the mean.

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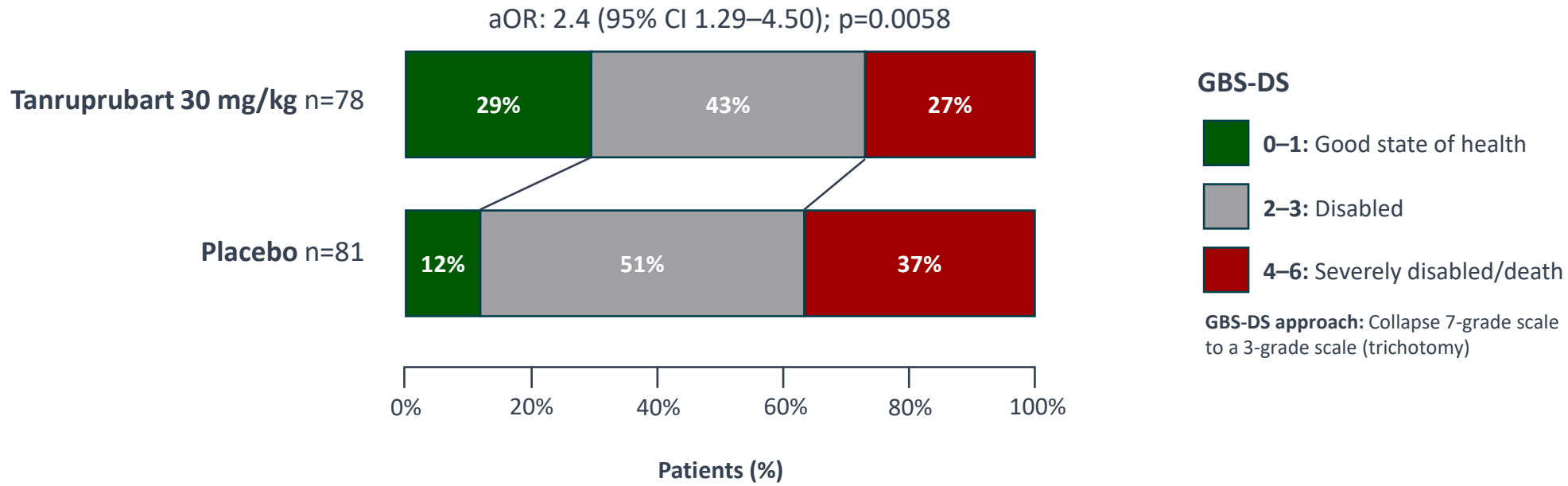
Results: Rapid improvements at Week 1 with Tanruprubart 30 mg/kg translated into meeting the primary endpoint at Week 8

Primary endpoint: GBS-DS at Week 8



Overall, tanruprubart 30 mg/kg treatment showed an aOR for GBS-DS improvement at Week 8 of 2.4 vs placebo (95% CI 1.29–4.50; p=0.0058)

aOR, adjusted odds ratio; CI, confidence interval; GBS-DS, Guillain-Barré syndrome–disability score.

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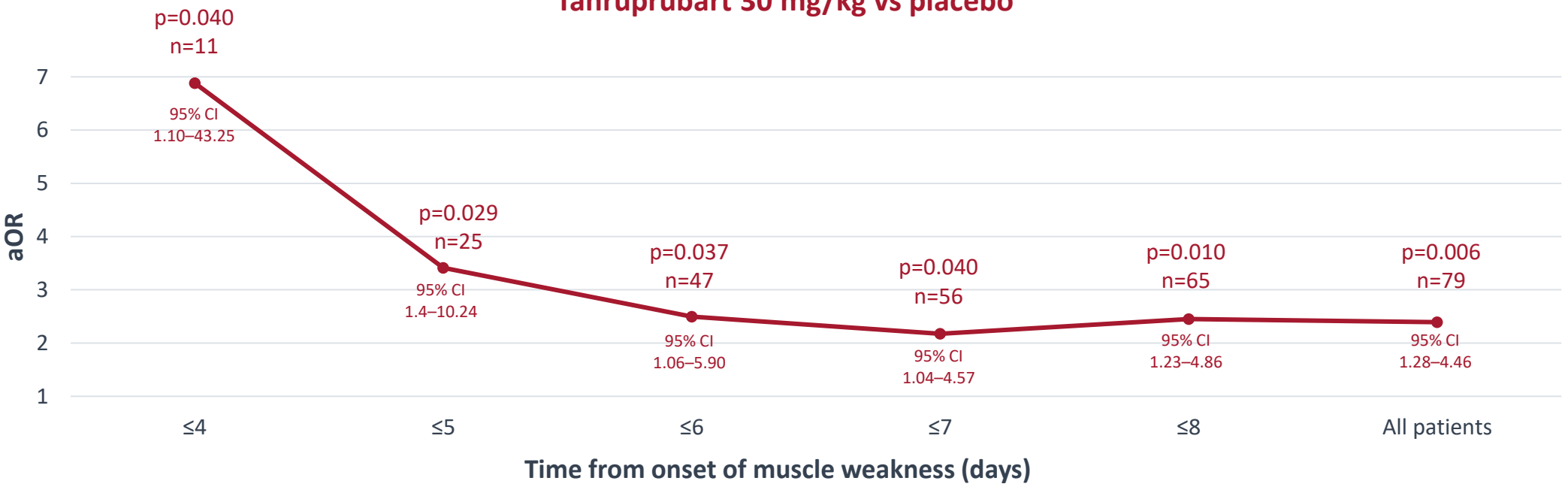
Results: Earlier treatment (from weakness onset) was associated with better Week 8 GBS-DS

GBS-DS* at Week 8 by time from onset of weakness to dosing

Tanruprubart 30 mg/kg vs placebo



The benefit from tanruprubart was greater when treatment was started earlier from the onset of weakness vs later (tanruprubart 30 mg/kg vs placebo)

*Proportional odds model.
aOR, adjusted odds ratio; CI, confidence interval; GBS-DS, Guillain-Barré syndrome–disability score.

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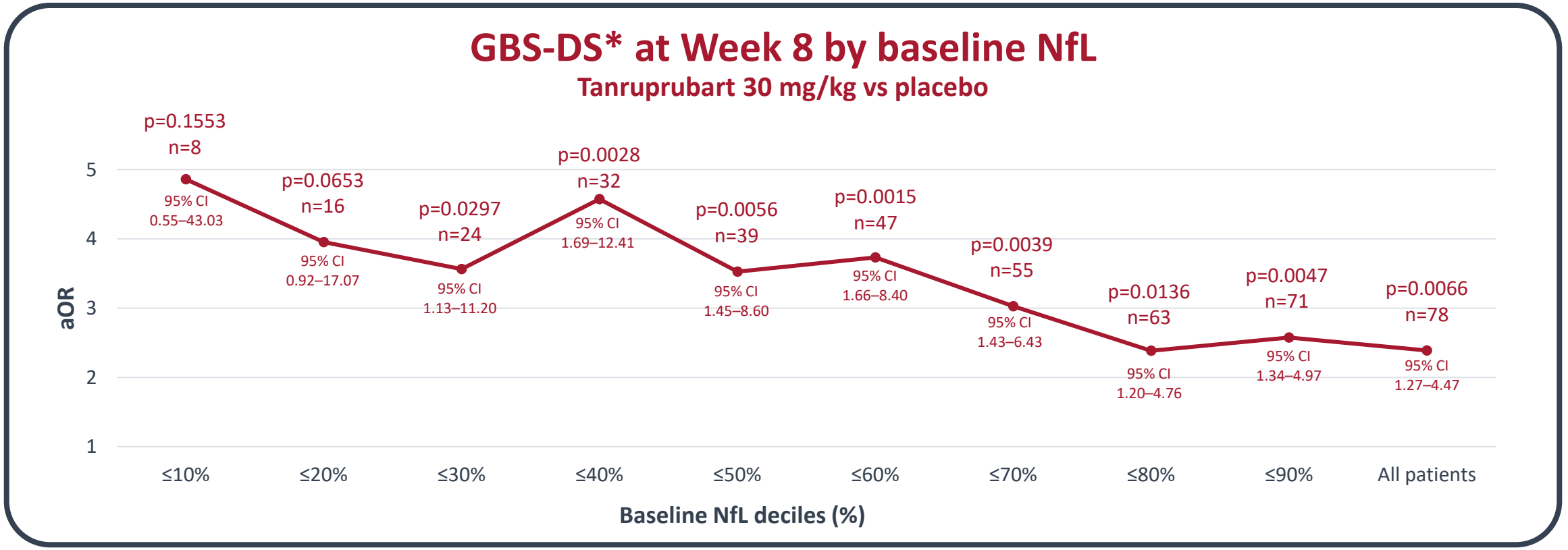
Results: Lower baseline NfL (less axonal injury) was associated with better Week 8 GBS-DS



Benefit was greater for patients with lower baseline serum NfL (<115 pg/mL vs ≥115 pg/mL) (tanruprubart 30 mg/kg vs placebo; ≤40% percentile; aOR 4.57, 95% CI 1.69–12.41; p=0.0028)

*Proportional odds model.
aOR, adjusted odds ratio; CI, confidence interval; GBS-DS, Guillain-Barré syndrome–disability score; NfL neurofilament light.

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Conclusions

Participants who received tanruprubart 30 mg/kg rapidly achieved improvement by Week 1 and met the primary endpoint of GBS-DS at Week 8

Patients diagnosed and treated early in the disease course or with limited axonal damage (low baseline NfL), achieved greater functional improvement (GBS-DS)

Classical complement drives GBS—rapid diagnosis enables early treatment with C1q inhibition and better outcomes

C1q, complement component 1q; GBS, Guillain-Barré syndrome; GBS-DS, GBS-disability score; NfL neurofilament light.

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Thank you

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