Post-Hoc Analysis of Fenfluramine for Lennox-Gastaut Syndrome by Baseline Frequency Quartiles of Seizures Associated With a Fall

Introduction

- In Lennox-Gastaut syndrome (LGS), various factors contribute to severity of disease, including but not limited to high seizure frequency¹
- Seizures associated with a fall increase the risk of injury and may lead to increased healthcare related costs and decreased quality of life¹
- Thus, frequency of seizures associated with a fall may be used as a surrogate marker of disease severity
- Fenfluramine (FFA) exerts its antiseizure activity through a serotonergic and positive sigma-1 receptor modulation mechanism²⁻⁵ and is currently approved for the management of seizures associated with LGS in the US for patients ≥ 2 years old,⁶ and as add-on treatment for patients ≥ 2 years old with seizures associated with LGS in the EU, UK, Japan, and Israel⁷⁻¹⁰
- In a randomized-controlled trial (RCT, NCT03355209), compared with placebo, FFA provided a significantly greater reduction in seizures associated with a fall, as well as generalized tonic-clonic seizures (GTCS)¹¹

Objective

• In this post-hoc analysis of the FFA RCT in patients with LGS, baseline frequency of seizures associated with a fall was used as a surrogate marker of disease severity to evaluate efficacy and safety of FFA across a spectrum of patients who participated in that study

Methods

- In the FFA LGS RCT, patients were randomized to FFA 0.2 mg/kg/day or FFA 0.7 mg/kg/day (maximum = 26 mg/day) or placebo¹¹
 - After a 2-week titration period, patients were maintained on their randomized dose for an additional 12 weeks
- Various outcomes and endpoints were described by guartiles of baseline frequency of seizures associated with a fall (quartile 1 [Q1], quartile 2 [Q2], quartile 3 [Q3], and quartile 4 [Q4]), including:
 - Baseline characteristics
 - Median change from baseline in frequency of seizures associated with a fall
 - Ratings of clinically meaningful improvement ("Much Improved" or "Very Much Improved") on Clinical Global Impression-Improvement (CGI-I) scale by investigator and caregiver at last visit, and
 - Incidence of treatment-emergent adverse events (TEAEs) occurring in $\geq 10\%$ of patients grouped by quartiles
- In the FFA LGS RCT, Epilepsy Study Consortium (ESC)-confirmed seizures associated with a fall included the following types: generalized tonic-clonic (GTC), secondarily GTC (focal to bilateral tonic-clonic), tonic, or atonic¹¹
- Quartiles of baseline frequency of GTCS (Q1-Q4) were also used to describe median change from baseline in frequency of GTCS
 - Note, for this post-hoc analysis, these were included as part of the ESC-confirmed seizures associated with a fall and reported alone as a separate outcome
- Descriptive statistics were used

Results

Analyses by quartiles of seizures associated with a fall (N=263)

Quartiles (Q) are described in Figure 1

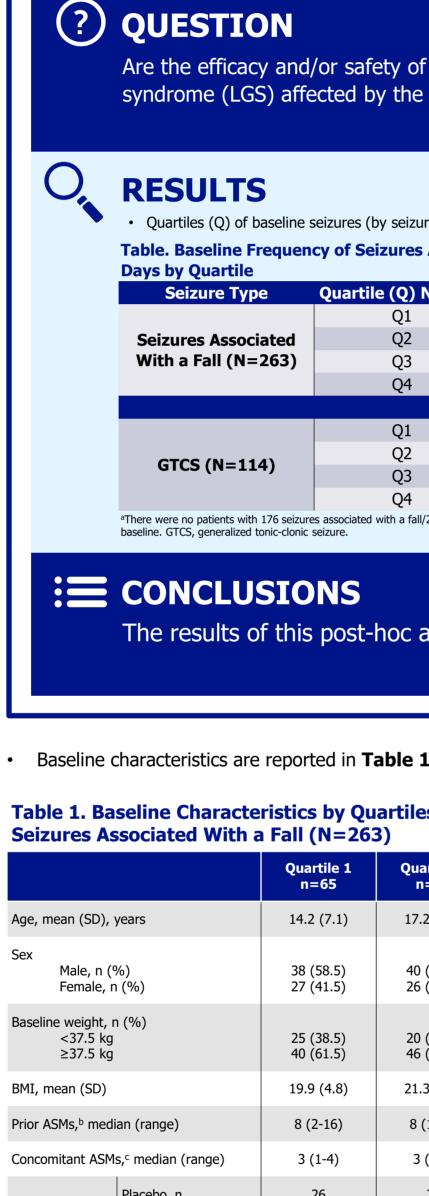
Figure 1. Quartiles (Q) of Baseline Seizures Associated With a Fall per 28 days (N=263)

Q1 (n=65):	Q2 (n=66):	Q3 (n=66):	Q4 (n=66):
2-34	35-76	77-175ª	177-2943ª
 Placebo, n=26 FFA 0.2 mg/kg/day,	 Placebo, n=26 FFA 0.2 mg/kg/day,	 Placebo, n=14 FFA 0.2 mg/kg/day,	 Placebo, n=21 FFA 0.2 mg/kg/day,
n=21 FFA 0.7 mg/kg/day,	n=20 FFA 0.7 mg/kg/day,	n=25 FFA 0.7 mg/kg/day,	n=23 FFA 0.7 mg/kg/day,
n=18	n=20	n=27	n=22

^aNote there were no patients with 176 seizures associated with a fall/28 days at baseline FFA, fenfluramine.



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nconneant Asins, median (range)			
equency of eizures ssociated With Fall	Placebo, n		
	Median (range)		
	FFA 0.2 mg/kg/day, n		
	Median (range)		
	FFA 0.7 mg/kg/day, n		
	Median (range)		

Sex

^aBMI in 65 patients. ^bPrior ASMs are defined as any ASM with a start date prior Concomitant ASMs are defined as any ASM with start or s ASMs, anti-seizure medications; BMI, body mass index; FFA, fenfluramine; SD, standard deviation

- associated with a fall
- mg/kg/day compared with placebo

Overview

Are the efficacy and/or safety of fenfluramine (FFA) in patients with Lennox-Gastaut syndrome (LGS) affected by the disease severity at patient's pre-FFA baseline?



Quartiles (Q) of baseline seizures (by seizure type) per 28 days are displayed in the **Table** Table. Baseline Frequency of Seizures Associated With a Fall and GTCS per 28

9	Quartile (Q) Number	n	Range per 28 Days
	Q1	65	2-34
ated	Q2	66	35-76
263)	Q3	66	77-175 ^a
	Q4	66	177-2943ª
	Q1	28	1-7
	Q2	29	7.3-15
•)	Q3	28	15.5-30 ^b
	Q4	29	32-198 ^b
176 seizures associated with a fall/28 days at baseline. ^b There were no patients with 31 GTCS/28 days at			patients with 31 GTCS/28 days at

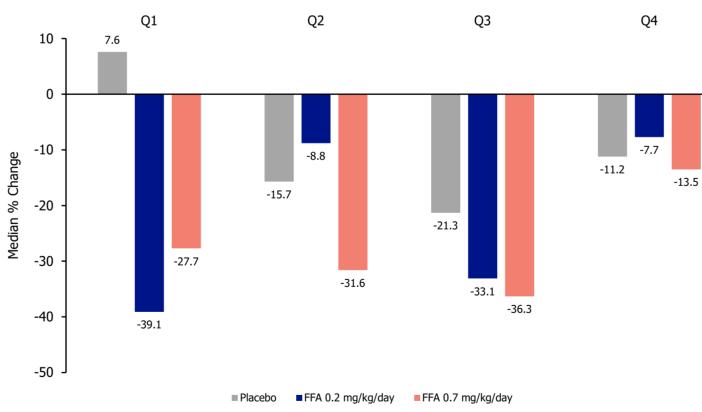
- Median percent change from baseline in frequency of seizures associated with a fall by quartiles and treatment groups is presented in the **Figure**
- FFA efficacy was observed irrespective of baseline severity of seizures associated with a fall An additional efficacy outcome was the proportion of patients rated by investigators and caregivers as having clinically meaningful improvement ratings ("Much Improved" or "Very Much Improved") on Clinical Global Impression-Improvement (CGI-I) scale at last visit, also displayed in the Figure
- Incidence of treatment emergent adverse events (TEAEs) reported by ≥10% was not affected by disease severity as evaluated by quartiles of baseline seizures associated with a fall
- In each of the four guartiles, decreased appetite and fatigue occurred in ≥10% of patients in the FFA 0.7 mg/kg/day group
- Median percent changes from baseline in GTCS by treatment groups and quartiles were as follows: • Placebo, Q1→Q4: 98.9%, 25.1%, -4.8%, -19.4%
- FFA 0.2 mg/kg/day, Q1→Q4: -79.2%, -39.7%, -50.4%, -78.2%
- FFA 0.7 mg/kg/day, Q1→Q4: -77.4%, -28.5%, -39.9%, -60.2%
- Both FFA treatment groups were associated with reductions in GTCS from baseline, and a numerically greater reduction in GTCS from baseline compared with placebo

The results of this post-hoc analysis evaluating FFA use in patients with LGS highlight that FFA can be used safely and effectively across a spectrum of LGS disease severity.

Table 1. Baseline Characteristics by Quartiles of Baseline Frequency of

-	-		
Quartile 1 n=65	Quartile 2 n=66	Quartile 3 n=66	Quartile 4 n=66
14.2 (7.1)	17.2 (7.4)	14.3 (6.9)	9.3 (7.0)
38 (58.5) 27 (41.5)	40 (60.6) 26 (39.4)		
25 (38.5) 40 (61.5)	20 (30.3) 46 (69.7)	32 (48.5) 34 (51.5)	47 (71.2) 19 (28.8)
19.9 (4.8)	21.3 (5.2)	19.4 (5.7)	18.2 (4.0) ^a
8 (2-16)	8 (1-20)	8 (1-18)	7 (2-19)
3 (1-4)	3 (1-4)	3 (1-5)	3 (1-4)
26	26	14	21
23.8 (2-34)	47.5 (35-76)	105.5 (78-171)	348 (177-1761)
21	20	25	23
21.8 (4.1-32)	51.5 (35-75)	118 (77-175)	399 (199.8-2943)
18	20	27	22
20 (6.5-31)	56.5 (38-75)	111 (77-173)	460 (183-1803)

Figure 2. Median Percent Change From Baseline in Frequency of Seizures Associated With a Fall by Baseline Quartiles^a



aQ1 (2-34): Placebo, n=26; FFA 0.2 mg/kg/day, n=21; FFA 0.7 mg/kg/day, n=18; Q2 (35-76): Placebo, n=26; FFA 0.2 mg/kg/day, n=20; FFA 0.7 mg/kg/day, n=18; Q2 (35-76): Placebo, n=26; FFA 0.2 mg/kg/day, n=20; FFA 0.7 mg/kg/day, n=18; Q2 (35-76): Placebo, n=26; FFA 0.2 mg/kg/day, n=20; FFA 0.7 mg/kg/day, n=18; Q2 (35-76): Placebo, n=26; FFA 0.2 mg/kg/day, n=20; FFA 0.7 mg/kg/day, n=18; Q2 (35-76): Placebo, n=26; FFA 0.2 mg/kg/day, n=20; FFA 0.7 mg/kg/day, n=18; Q2 (35-76): Placebo, n=26; FFA 0.2 mg/kg/day, n=20; FFA 0.7 mg/kg/day, n=18; Q2 (35-76): Placebo, n=26; FFA 0.2 mg/kg/day, n=20; FFA 0.7 mg/kg/day, n=18; Q2 (35-76): Placebo, n=26; FFA 0.2 mg/kg/day, n=20; FFA 0.7 mg/kg/day, n=18; Q2 (35-76): Placebo, n=26; FFA 0.2 mg/kg/day, n=20; FFA 0.7 mg/kg/day, n=18; Q2 (35-76): Placebo, n=26; FFA 0.2 mg/kg/day, n=20; FFA 0.7 mg/kg/day, n=18; Q2 (35-76): Placebo, n=26; FFA 0.2 mg/kg/day, n=20; FFA 0.7 mg/kg/day, n=18; Q2 (35-76): Placebo, n=26; FFA 0.2 mg/kg/day, n=20; FFA 0.7 mg/kg/day, n n=20; Q3 (77-175): Placebo, n=14; FFA 0.2 mg/kg/day, n=25; FFA 0.7 mg/kg/day, n=27; Q4 (177-1943): Placebo, n=21; FFA 0.2 mg/kg/day, n=23 mg/kg/day, n=22 FFA, fenfluramine; Q, quartile.

- The proportion of patients with CGI-I ratings of clinically meaningful improvement by treatment group and quartile by investigator and caregiver are displayed in **Figure** and **Figure 3B**, respectively
 - FFA groups were associated with higher rates of clinically meaningful improves compared with placebo; patients in the placebo groups with higher baseline frequency of seizures associated with a fall (Q3 or Q4) demonstrated no clinical meaningful improvements as reported by both investigators and caregivers
 - Investigators and caregivers seemed generally aligned across Q1-Q3; in Q4, caregivers found more patients treated with FFA had clinically meaningful improvement, compared with ratings from investigators
- Incidence of TEAEs reported by $\geq 10\%$ of patients in either group over the course of RCT (decreased appetite, somnolence, fatigue, pyrexia, diarrhea, vomiting) by basel guartiles of seizures associated with a fall are described in **Table 2**
- In each of the four quartiles, decreased appetite and fatigue occurred in ≥ 109 patients in the FFA 0.7 mg/kg/day group

27 (41.5)	20 (33.4)	20 (42.4)	50 (54.5)	
25 (38.5) 40 (61.5)	20 (30.3) 46 (69.7)	32 (48.5) 34 (51.5)	47 (71.2) 19 (28.8)	
19.9 (4.8)	21.3 (5.2)	19.4 (5.7)	18.2 (4.0)ª	
8 (2-16)	8 (1-20)	8 (1-18)	7 (2-19)	
3 (1-4)	3 (1-4)	3 (1-5)	3 (1-4)	
26	26	14	21	
23.8 (2-34)	47.5 (35-76)	105.5 (78-171)	348 (177-1761)	
21	20	25	23	
21.8 (4.1-32)	51.5 (35-75)	118 (77-175)	399 (199.8-2943)	
18	20	27	22	
20 (6.5-31)	56.5 (38-75)	111 (77-173)	460 (183-1803)	
or to the first dose of stop date after the f FA, fenfluramine; SI				

 Median percent changes from baseline in frequency of seizures associated with a fall by quartiles and treatment groups are presented in **Figure 2**

FFA efficacy did not appear to be impacted by baseline severity of seizures

• Numerically greater median percent reductions in seizures associated with a fall were observed in all quartiles when patients were treated with FFA 0.7



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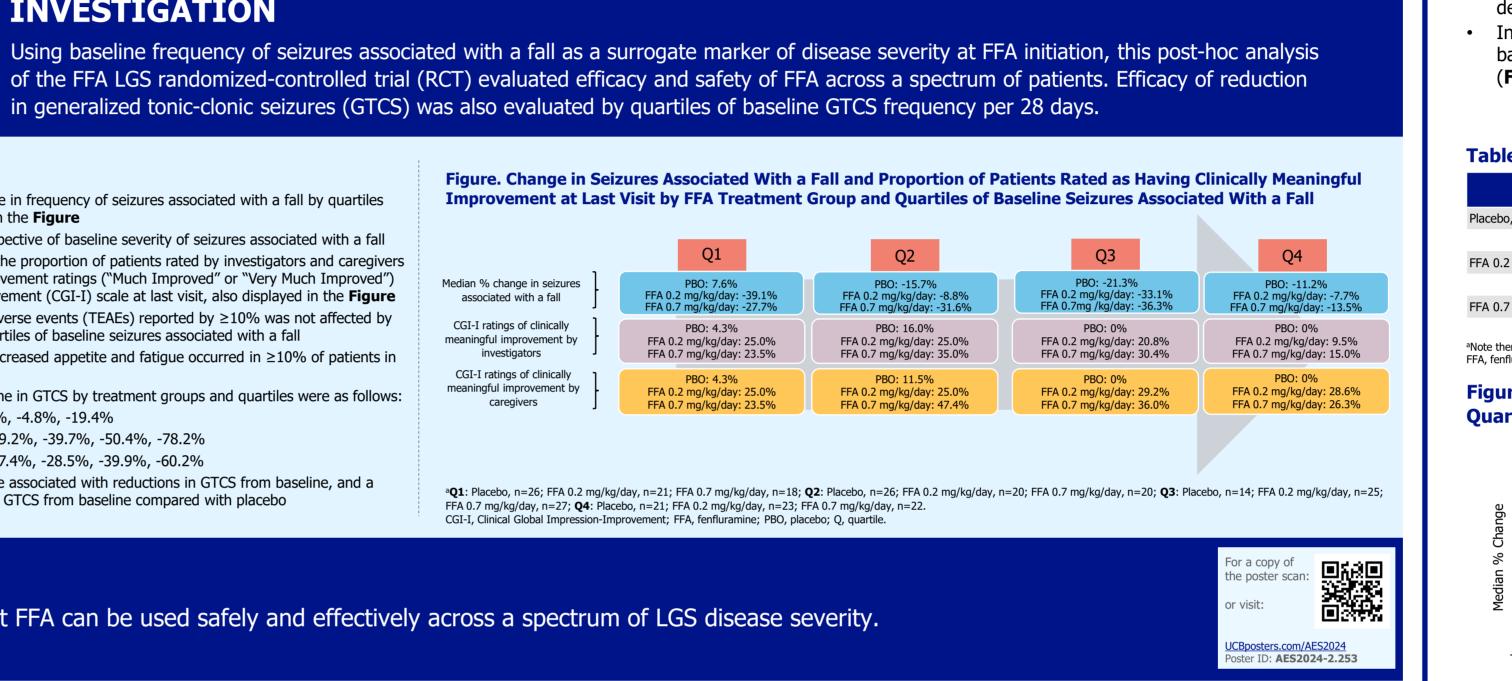
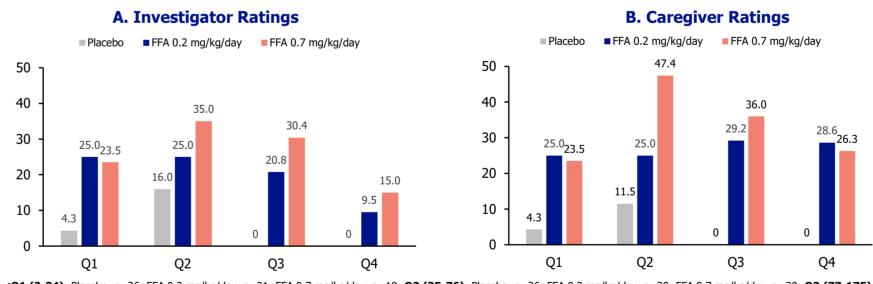


Figure 3. Proportion of Patients Rated as Having Clinically Meaningful Improvement ("Much Improved" or "Very Much Improved") on CGI-I by Treatment Group and Quartiles of Baseline Seizures Associated With a Fall^a



aQ1 (2-34): Placebo, n=26; FFA 0.2 mg/kg/day, n=21; FFA 0.7 mg/kg/day, n=18; Q2 (35-76): Placebo, n=26; FFA 0.2 mg/kg/day, n=20; FFA 0.7 mg/kg/day, n=20; Q3 (77-175): Placebo, n=14; FFA 0.2 mg/kg/day, n=25; FFA 0.7 mg/kg/day, n=27; Q4 (177-1943): Placebo, n=21; FFA 0.2 mg/kg/day, n=23; FFA 0.7 mg/kg/day, n=22. CGI-I, Clinical Global Impression-Improvement; FFA, fenfluramine; Q, quartile.

Table 2. Incidence of TEAEs Reported by $\geq 10\%$ of Patients by Baseline Quartiles of Seizures Associated With a Fall^a

		Q1	Q2	Q3	Q4
	Placebo	21 (80.8)	22 (84.6)	10 (71.4)	17 (81.0)
Any TEAE	FFA 0.2 mg/kg/day	17 (81.0)	16 (80.0)	21 (84.0)	16 (69.6)
	FFA 0.7 mg/kg/day	15 (83.3)	19 (95.0)	23 (85.2)	21 (95.5)
TEAEs Occurring in 2	210% of Patients of Any Group	Over the RCT			
	Placebo	3 (11.5)	5 (19.2)	1 (7.1)	4 (19.0)
Decreased appetite	FFA 0.2 mg/kg/day	4 (19.0)	3 (15.0)	9 (36.0)	2 (8.7)
	FFA 0.7 mg/kg/day	8 (44.4)	9 (45.0)	7 (25.9)	8 (36.4)
	Placebo	4 (15.4)	4 (15.4)	1 (7.1)	1 (4.8)
Somnolence	FFA 0.2 mg/kg/day	2 (9.5)	4 (20.0)	2 (8.0)	2 (8.7)
	FFA 0.7 mg/kg/day	2 (11.1)	5 (25.0)	2 (7.4)	6 (27.3)
	Placebo	5 (19.2)	4 (15.4)	1 (7.1)	1 (4.8)
Fatigue	FFA 0.2 mg/kg/day	4 (19.0)	1 (5.0)	2 (8.0)	1 (4.3)
	FFA 0.7 mg/kg/day	3 (16.7)	3 (15.0)	6 (22.2)	4 (18.2)
	Placebo	2 (7.7)	3 (11.5)	2 (14.3)	4 (19.0)
Pyrexia	FFA 0.2 mg/kg/day	4 (19.0)	0	3 (12.0)	4 (17.4)
	FFA 0.7 mg/kg/day	1 (5.6)	4 (20.0)	3 (11.1)	1 (4.5)
	Placebo	0	4 (15.4)	0	0
Diarrhea	FFA 0.2 mg/kg/day	1 (4.8)	6 (30.0)	1 (4.0)	2 (8.7)
	FFA 0.7 mg/kg/day	4 (22.2)	1 (5.0)	5 (18.5)	1 (4.5)
	Placebo	0	1 (3.8)	0	4 (19.0)
Vomiting	FFA 0.2 mg/kg/day	3 (14.3)	4 (20.0)	3 (12.0)	2 (8.7)
	FFA 0.7 mg/kg/day	1 (5.6)	4 (20.0)	2 (7.4)	2 (9.1)

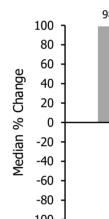
n=14; FFA 0.2 mg/kg/day, n=25; FFA 0.7 mg/kg/day, n=27; Q4 (177-1943): Placebo, n=21; FFA 0.2 mg/kg/day, n=23; FFA 0.7 mg/kg/day, n=22. FFA, fenfluramine; Q, quartile; RCT, randomized-controlled trial; TEAEs, treatment-emergent adverse events

- described in **Table 3**
- (Figure 4)

Placebo, n
Median (range)
FFA 0.2 mg/kg/day, n
Median (range)
FFA 0.7 mg/kg/day, n

Median (range) FFA, fenfluramine; GTCS, generalized tonic-clonic seizures; RCT, randomized-controlled trial.

Ouartiles^a



^aQ1 (1-7): placebo, n=6, FFA 0.2 mg/kg/day, n=13, FFA 0.7 mg/kg/day, n=9; Q2 (7.3-15), placebo, n=11, FFA 0.2 mg/kg/day, n=10, FFA 0.7 mg/kg/day, n=8; Q3 (15.5-30), placebo, n=11, FFA 0.2 mg/kg/day, n=8, FFA 0.7 mg/kg/day, n=9; Q4 (32-198), placebo, n=10, FFA 0.2 mg/kg/day, n=7, FFA 0.7 mg/kg/day, n=12. FFA, fenfluramine; GTCS, generalized tonic-clonic seizures; Q, quartile.

Conclusions

References

1. Strzelczyk A, et al. Orphanet J Rare Dis. 2023;18(1):42. 2. Fattorusso A, et al. Front Neurol. 2021;12:674483. 3. Simon K, et al. Curr Res Pharmacol Drug Discov. 2022;3:100078. 4. Sullivan J Helen Cross J. Epilepsy Behav. 2021;121(Pt A):108061. 5. Sourbron J, Lagae L. Front Pharmacol. 2023;14:1192022. 6. UCB, Inc. FINTEPLA® (fenfluramine) oral solution [prescribing information Smyrna, GA; March 2023. 7. UCB. Fintepla 2.2 mg/mL oral solution [summary of product characteristics]. Bruxelles, BE; 2024. 8. UCB Pharma LTD. Fintepla 2.2 mg/ml oral solution [summary of product characteristics]. Slough, Berkshire; April 2024. 9. UCB Pharma S.A. 2024. <u>https://israeldrugs.health.gov.il/#!/medDetails/169%2041%2036976%2099</u>. 10. Nippon Shinyaku Co. Ltd. 2024. <u>https://www.nippon-shinyaku.co.jp/file/download.php?file_id=7484</u>. 11. Knupp K, et al. *JAMA Neurol*. 2022;79(6):554-64.

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Analysis by quartiles of GTCS (N=114)

Quartiles of baseline GTCS per 28 days and baseline GTCS by RCT treatment group are

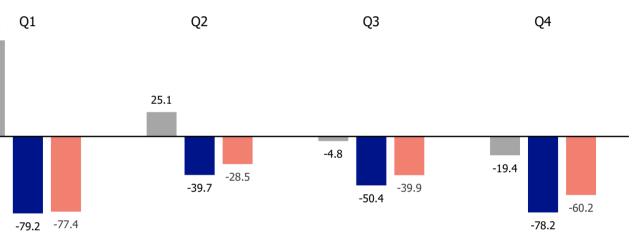
 In all quartiles, both FFA treatment groups were associated with reductions in GTCS from baseline, and a numerically greater reduction in GTCS from baseline compared with placebo

 The greatest reduction in GTCS from baseline was observed in the first guartile of FFA treatment groups

Table 3. Baseline GTCS Frequencies by RCT Treatment Group (N=114) Quartile 2 (7.3-15) Quartile 3 (15.5-30)^a Quartile 4 (32-198)^a Quartile 1 (1-7) n=28 n=29 n=29 n=28 11 10 11 1.5 (1-6) 13 (8-15) 23 (16-29)

50 (34-132) 7 10 (7.3-15) 3 (1-7) 20 (16-29) 63 (32-91) 12 4 (1-6) 11.5 (9-15) 21.8 (17-30) 83 (32-198) ^aNote there were no patients with 31 GTCS/28 days at baseline.

Figure 4. Median Percent Change From Baseline in Frequency of GTCS by Baseline GTCS



Placebo = FFA 0.2 mg/kg/day = FFA 0.7 mg/kg/day

In this post-hoc analysis evaluating use of FFA by guartiles of baseline seizure frequency in patients with LGS, greater median percent reductions in seizures associated with a fall were observed in all quartiles when patients were treated with FFA 0.7 mg/kg/day compared with placebo. A greater reduction in GTCS from baseline compared with placebo was observed in all FFA treatment groups throughout all quartiles of baseline GTCS frequency. Additionally, baseline disease severity did not impact FFA effectiveness as evaluated by CGI-I scores or safety and tolerability as described by rates of TEAEs. These results support the use of FFA across the spectrum of LGS disease severity.

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