ULIXACALTAMIDE (PRAX-944) ESSENTIAL1 ESSENTIAL TREMOR TOPLINE RESULTS

March 2023

Forward Looking Statements

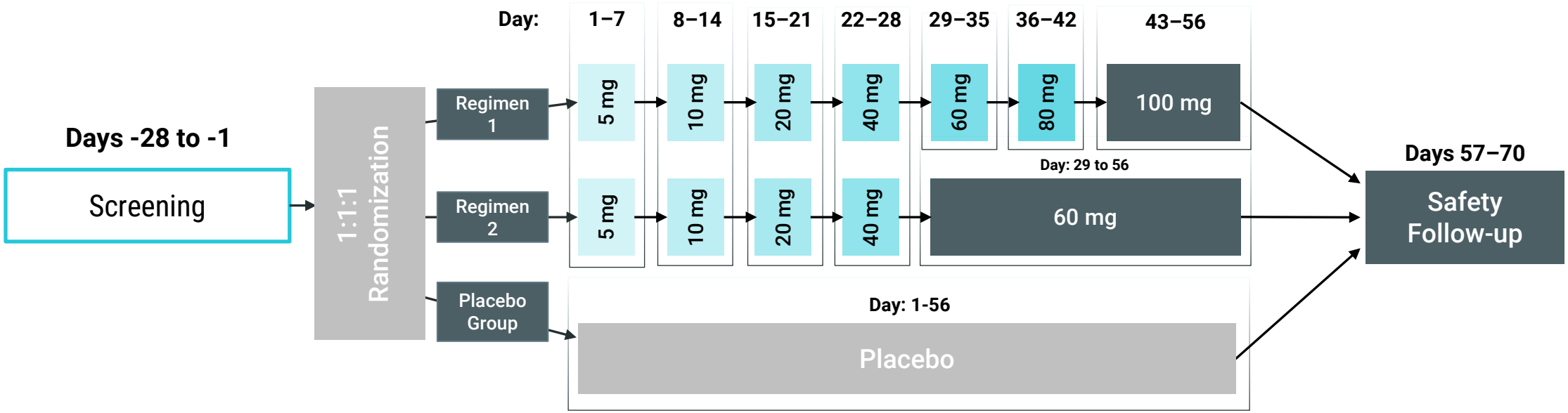
This presentation may contain "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995 relating to our business, operations, and financial conditions, including but not limited to express or implied statements regarding the current beliefs, expectations and assumptions regarding the future of our business, future plans and strategies, our development plans, our preclinical and clinical results and other future conditions. Any forward-looking statements in this presentation are based on management's current expectations and beliefs and are subject to a number of risks, uncertainties and important factors that may cause actual events or results to differ materially from those expressed or implied by any forward-looking statements contained in this presentation, including, without limitation, risks relating to: (i) the success and timing of our ongoing clinical trials, (ii) the success and timing of our product development activities and initiating clinical trials, (iii) the success and timing of our collaboration partners' product development activities, (iv) our ability to obtain and maintain regulatory approval of any of our product candidates, (v) our plans to research, discover and develop additional product candidates, (vi) our ability to enter into collaborations for the development of new product candidates, (vii) our ability to establish manufacturing capabilities, and our and our collaboration partners' abilities to manufacture our product candidates and scale production, and (viii) our ability to meet any specific milestones set forth herein. New risks and uncertainties may emerge from time to time, and it is not possible to predict all risks and uncertainties. Except as required by applicable law, we do not plan to publicly update or revise any forward-looking statements contained herein, whether as a result of any new information, future events, changed circumstances or otherwise. Although we believe the expectations reflected in such forward-looking statements are reasonable, we can give no assurance that such expectations will prove to be correct. Accordingly, readers are cautioned not to place undue reliance on these forward-looking statements.

For further information regarding the risks, uncertainties and other factors that may cause differences between our expectations and actual results, you should review the "Risk Factors" section of our Annual Report on Form 10-K filed for the year ended December 31, 2022 and other filings with the Securities and Exchange Commission.

Certain information contained in this presentation relates to or is based on studies, publications, surveys and other data obtained from third-party sources and our own internal estimates and research. While we believe these third-party sources to be reliable as of the date of this presentation, we have not independently verified, and make no representation as to the adequacy, fairness, accuracy or completeness of, any information obtained from third-party sources. In addition, all of the market data included in this presentation involves a number of assumptions and limitations, and there can be no guarantee as to the accuracy or reliability of such assumptions. Finally, while we believe our own internal research is reliable, such research has not been verified by any independent source.

Essential1 Phase 2b Study Evaluating the Efficacy and Safety of Ulixacaltamide for Essential Tremor

ESSENTIAL1 DESIGN



Primary Endpoint: Change From Baseline to Day 56 on the Modified TETRAS ADL

ADL = activities of daily living.
ClinicalTrials.gov NCT05021991

Topline Analysis: Essential1 Endpoints Measure Function and Quality of Life Improvements that Matter Most to Patients

PRIMARY ENDPOINT

- Change from baseline to Day 56 on the TETRAS modified Activities of Daily Living (mADL)

SECONDARY ENDPOINTS

- Incidence and severity of AEs, including discontinuation of study drug due to AEs
- Clinical Global Impression-Severity (CGI-S)
- Patient Global Impression-Change (PGI-C)
- TETRAS-ADL total score, TETRAS-UL score, TETRAS-CUL score, TETRAS-PS score

POST-HOC ANALYSES

- Modified Activities of Daily Living score excluding the TETRAS-PS (mADL excluding PS)

ADL = activities of daily living; AE = adverse event; CUL = combined upper limb; PS = performance subscale; TETRAS = TRG Essential Tremor Rating Assessment Scale; UL = upper limb.

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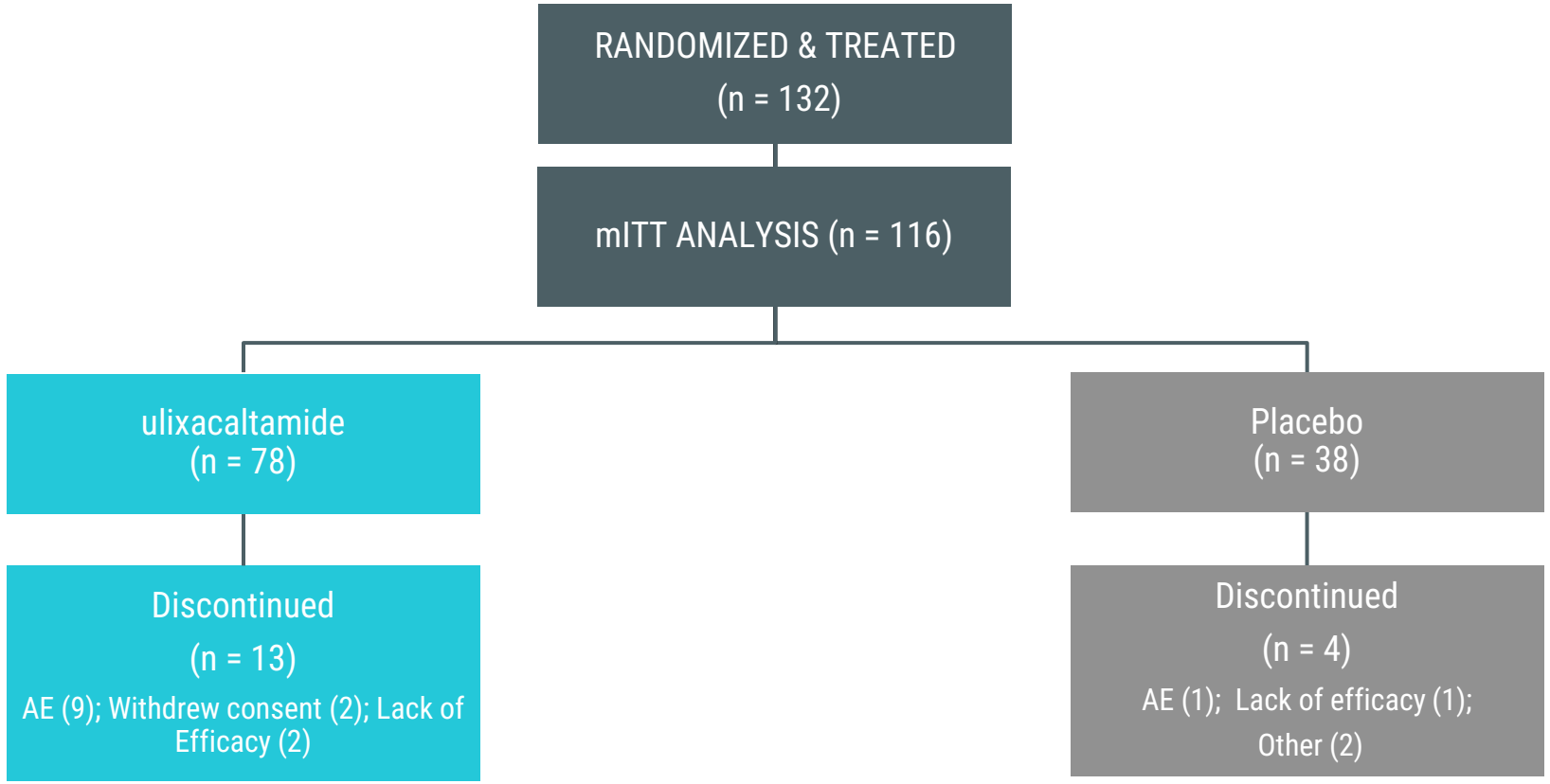
Essential1 Enrolled Adults with Moderate to Severe Essential Tremor

- CLINICAL DIAGNOSIS OF ET OF ≥3 YEARS
- MODERATE TO SEVERE FUNCTIONAL IMPAIRMENT DETERMINED USING TETRAS AND CGI-S
- COULD CONTINUE PROPRANOLOL AT A STABLE DOSE
- NO PRIOR SURGICAL INTERVENTION OR FOCUSED ULTRASOUND FOR TREATMENT OF ET

Essential1 Patient Disposition



mITT ANALYSIS: Defined as all patients enrolled under Version 4 of Protocol (or enrolled in prior version and eligible for V4), who were randomized to treatment, and received 1 dose of study drug [n=116]
Excluded from mITT analysis are 16 patients enrolled under earlier protocol version and did not meet Version 4 inclusion/exclusion criteria and dose levels
Safety Analysis Population (N = 132)

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Essential1 Demographics and Baseline Characteristics (mITT)

	ULIXACALTAMIDE (n = 78)	PLACEBO (n = 38)
AGE, mean (min, max)	70.4 (32, 86)	67.7 (29, 88)
GENDER (Male / Female, %)	59% / 41 %	58% / 42%
FAMILY HISTORY OF ET	59 (76%)	23 (61%)
PROPRANOLOL USE	27 (35%)	9 (24%)
mADL SCORE, mean (min, max)	20.6 (12, 32)	20.8 (12, 34)
ADL SCORE, mean (min, max)	29.0 (20, 38)	28.6 (19, 39)
mADL EXCLUDING PS , mean (min, max)	16.4 (9, 25)	16.4 (8, 25)
ET PATIENTS WITH INTENTION TREMOR (%)	18 (23%)	15 (40%)

Ulixacaltamide was Generally Well-tolerated

	ULIXACALTAMIDE (n=91)	PLACEBO (n=41)
ANY TEAE	*70 (76.9%)*	*21 (51.2%)*
TEAEs > 5%		
DIZZINESS	13 (14.3%)	2 (4.9%)
CONSTIPATION	9 (9.9%)	0
HEADACHE	8 (8.8%)	1 (2.4%)
FATIGUE	8 (8.8%)	1 (2.4%)
ANXIETY	6 (6.6%)	0
FEELING ABNORMAL	6 (6.6%)	0
PARAESTHESIA	6 (6.6%)	0

No clear dose response relationship for TEAEs

AEs were generally mild to moderate

No drug related SAEs*

*3 SAEs in 2 subjects, all deemed unrelated to treatment (exacerbation of COPD in 1 patient; esophageal obstruction & gastric adenocarcinoma in 1 patient)

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Discontinuations – mITT Population

	ULIXACALTAMIDE (n=78)	PLACEBO (n=38)
DISCONTINUATION	13 (17%)	4 (11%)
DISCONTINUATION DUE TO AEs	9 (12%) (1) Hallucination (1) Restless Legs (1) Anxiety (2) Dizziness (1) Feeling Abnormal (1) Confusion (1) Constipation (1) Mental Impairment	1 (3%) (1) Adenocarcinoma, gastric
DAYS TO AE (MIN, MAX)	(3, 39)	(28, 28)

PRIMARY POPULATION:

EFFICACY MEASURES

Essential1 Efficacy Measures

PRIMARY ENDPOINT

- Change from baseline to Day 56 on the TETRAS modified Activities of Daily Living (mADL)

SECONDARY ENDPOINTS

- Clinical Global Impression-Severity (CGI-S)
- Patient Global Impression-Change (PGI-C)
- TETRAS-ADL total score, TETRAS-UL score, TETRAS-CUL score, TETRAS-PS score

ADL = activities of daily living; AE = adverse event; CUL = combined upper limb; PS = performance subscale; TETRAS = TRG Essential Tremor Rating Assessment Scale; UL = upper limb.

Modified ADLs: A Modified Measure of TETRAS Activities of Daily Living (ADLs)

TETRAS ADL measures observed:

1. Speaking
2. Feeding with a spoon
3. Drinking from a glass
4. Hygiene
5. Dressing
6. Pouring
7. Carrying food trays, plates or similar items
8. Using keys
9. Writing
10. Working
11. Overall disability with most affected task
12. Social Impact

Each measure is individually scored from 0-4:

0 = Normal
1 = Slightly abnormal. Tremor is present but does not interfere with __.
2 = Mildly abnormal. Spills a little.
3 = Moderately abnormal. Spills a lot or changes strategy to complete task.
4 = Severely abnormal. Cannot drink from a glass or uses straw or sippy cup.

TOTAL SCORE OF UP TO 48

Modified ADL measures observed:

1. Speaking
2. Feeding with a spoon
3. Drinking from a glass
4. Hygiene
5. Dressing
6. Pouring
7. Carrying food trays, plates or similar items
8. Using keys
9. Writing
10. Working
11. Overall disability with most affected task
~~12. Social Impact~~
PS6. Spirals (Left, Right)
PS7. Handwriting

Each measure is individually scored from 0-3:

0 = Slightly abnormal. Tremor is present but does not interfere with __.
1 = Mildly abnormal. Spills a little.
2 = Moderately abnormal. Spills a lot or changes strategy to complete task.
3 = Severely abnormal. Cannot drink from a glass or uses straw or sippy cup.

TOTAL SCORE OF UP TO 42

PS = performance subscale

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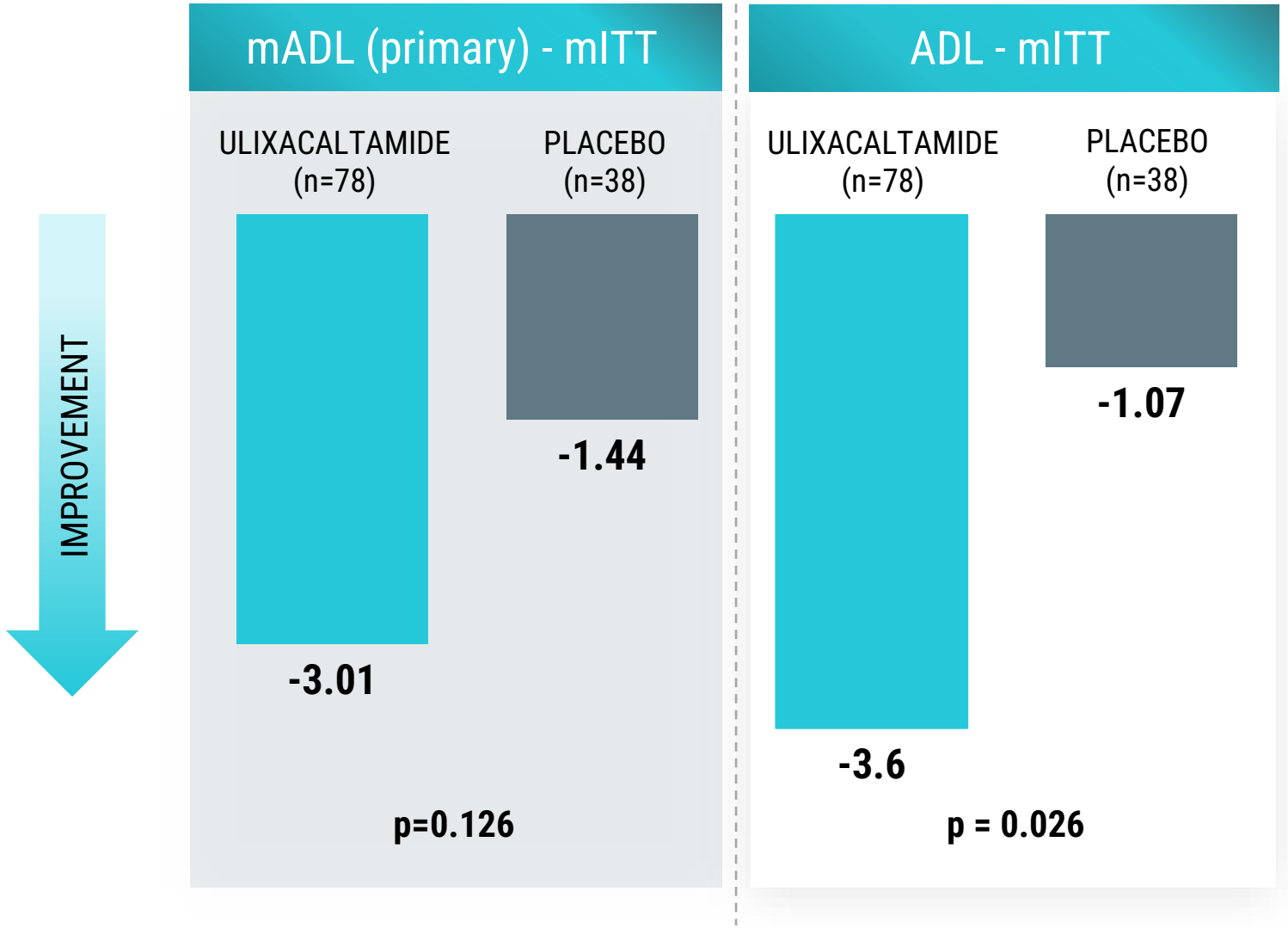
mADL and ADL Improvement Over Placebo at Day 56

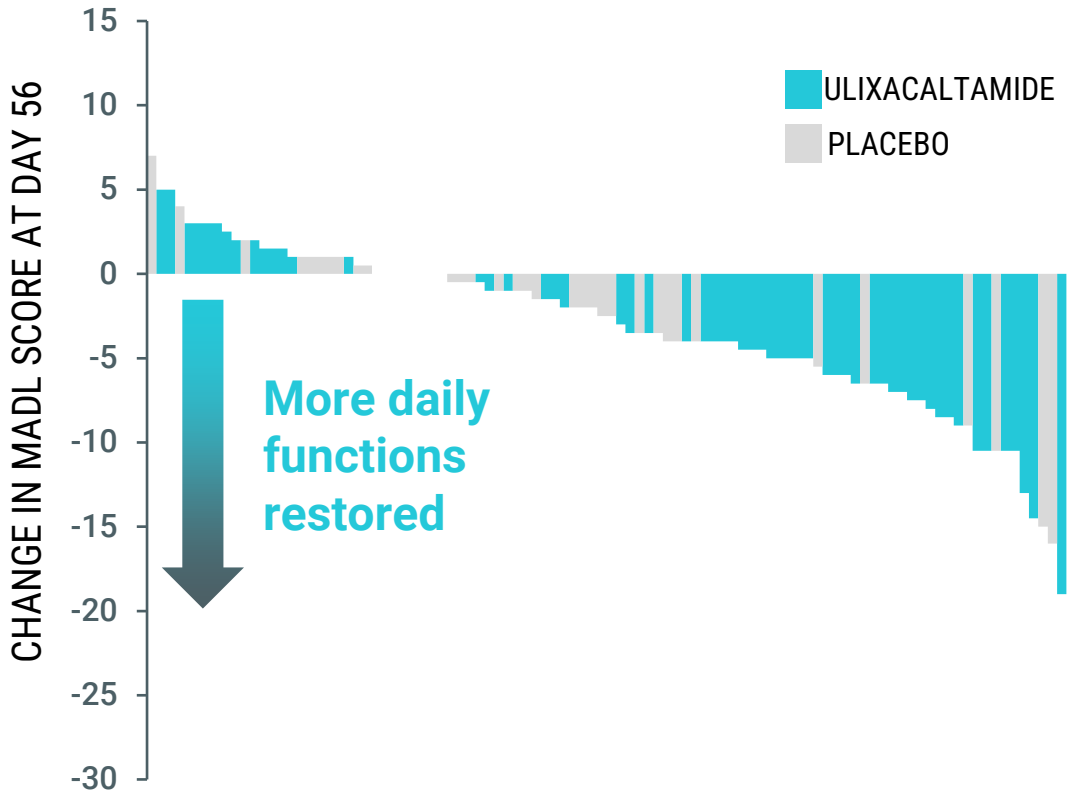


No dose related difference in efficacy between 60 mg and 100 mg groups

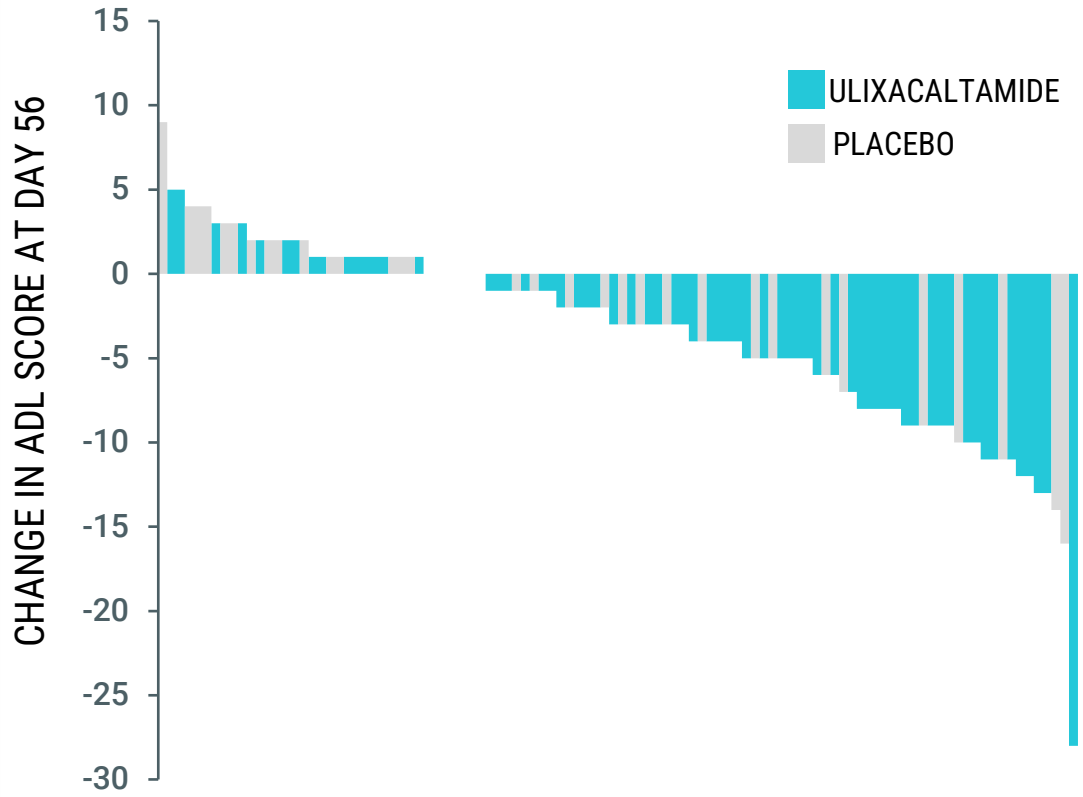
MMRM, Adjusted by baseline value, propranolol use and familial history of ET, all p values are nominal

More Patients Taking Ulixacaltamide Showed Improvements in ADL Scores Compared to Patients on Placebo

Observed mADL Change - mITT



Observed ADL Change - mITT



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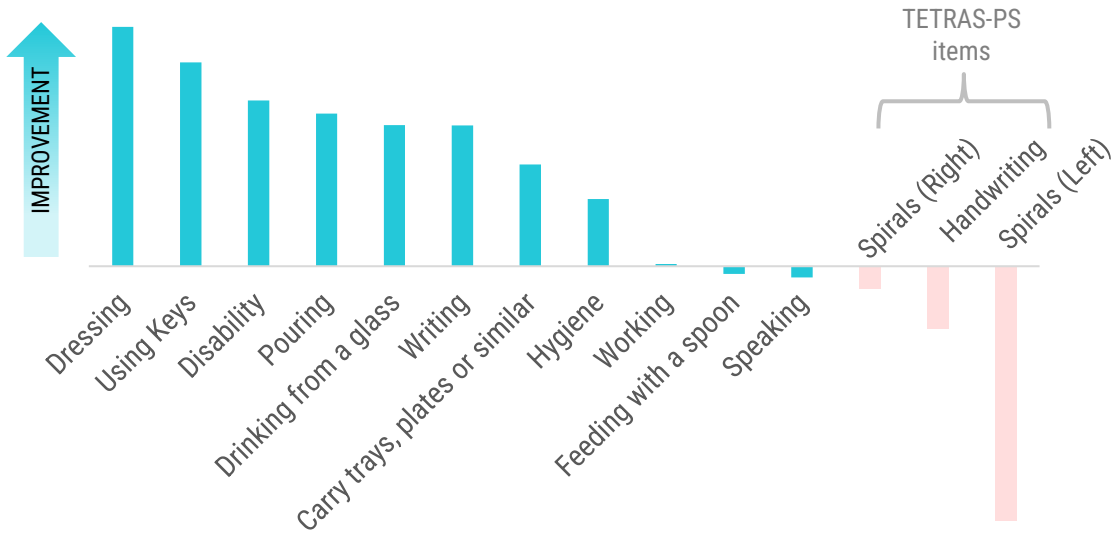
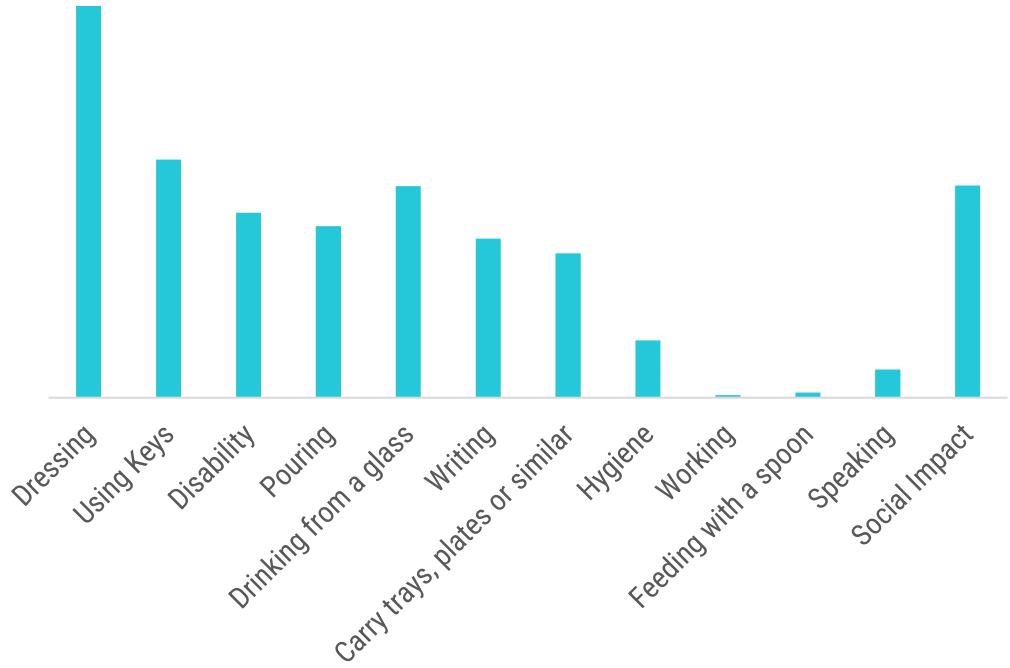
Ulixacaltamide Demonstrated Consistent Effect Relative to Placebo Across ADL Scored Items

Difference from Placebo in mADL Items - mITT

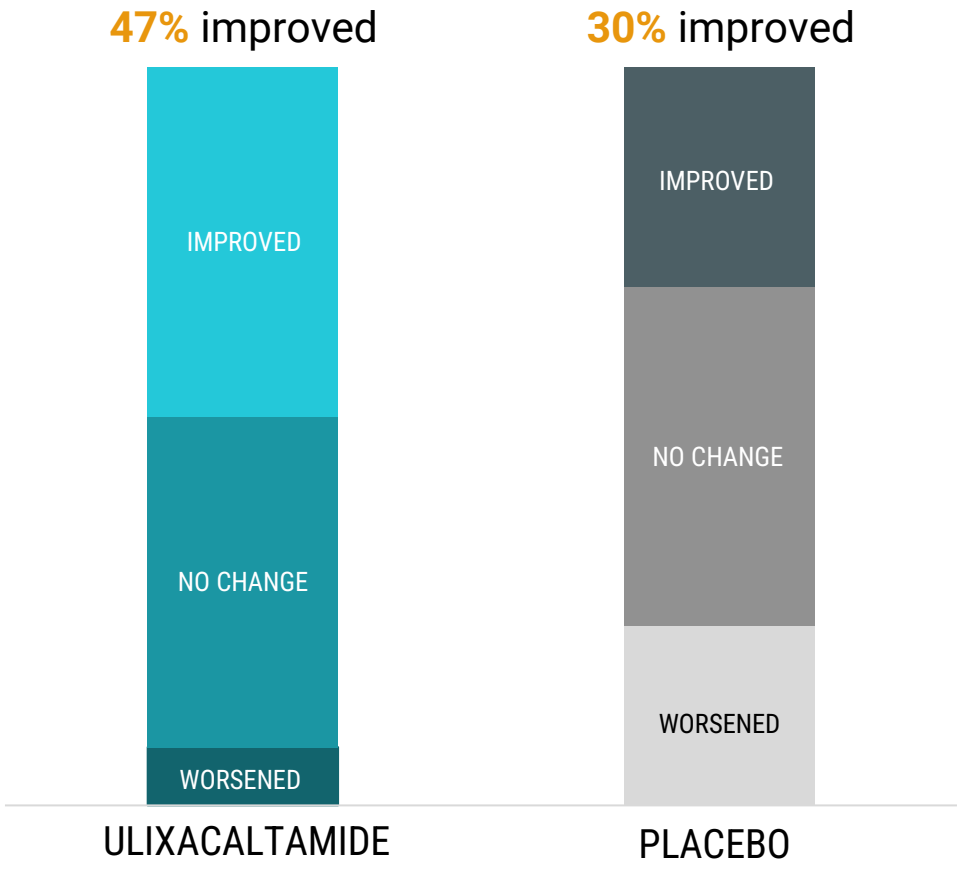


Difference from Placebo in ADL Items - mITT

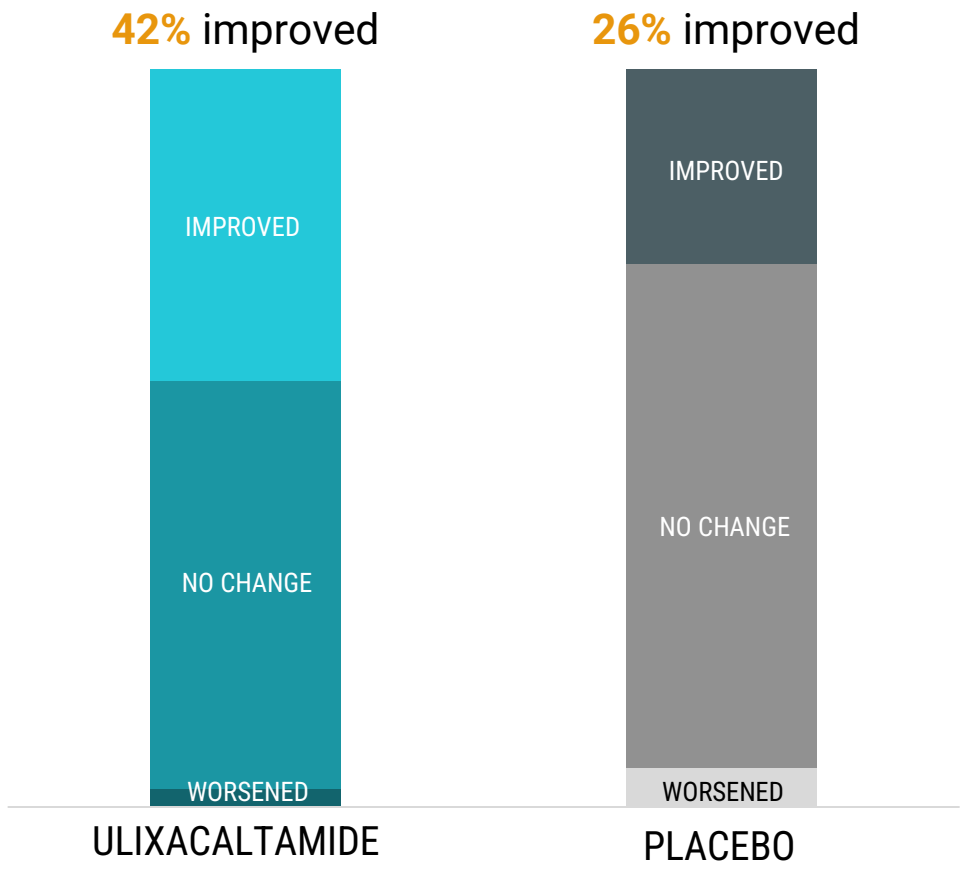


Patients and Investigators Reported Higher Overall Improvement in Status with Ulixacaltamide vs Placebo

PGI-C - mITT (p<0.05*)



CGI-S - mITT (p<0.05**)



CGI-S= clinical global impression improvement scale; PGI-C = patient global impression of change , all p-values are nominal
*RANK ANALYSIS
**RANK ANCOVA

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POST-HOC ANALYSIS

mADL Excluding PS - Definition and FDA Feedback

TETRAS-ADL ITEMS FEEDBACK*

"In contrast, the Activities of Daily Living (TETRAS-ADL) subscale allows for assessment of meaningful change in patients' ability to function on activities of daily living (ADL) and has the potential to be an acceptable clinical endpoint. Therefore, we recommend that you include items 1-11 in the TETRAS-ADL subscale in your final endpoint. However, we recommend excluding Item 12 (Social Impact) of the TETRAS-ADL because the responses can be affected by factors unrelated to tremor."

SCORING FEEDBACK*

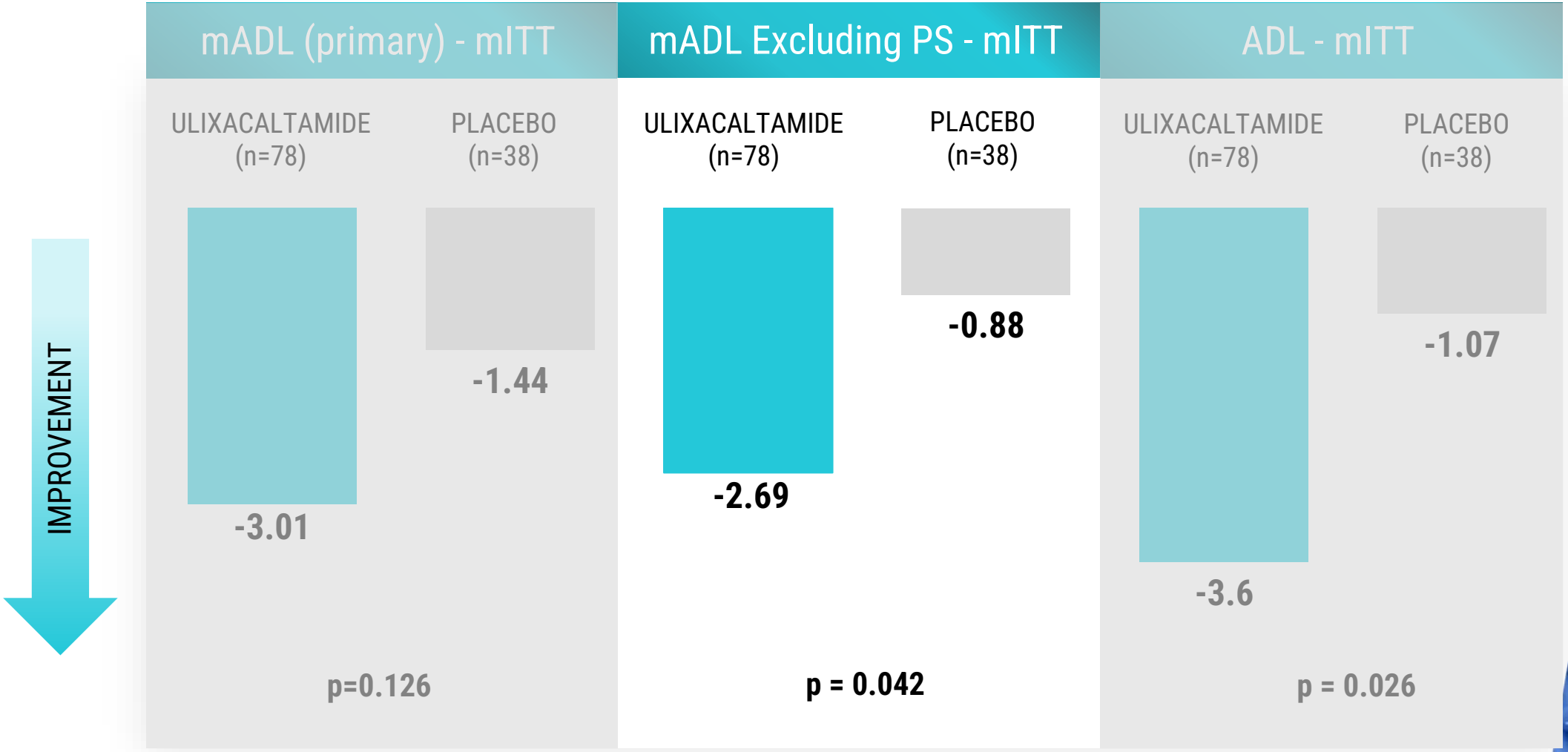
"The current response option 1 describes slight abnormalities that do not interfere with function; therefore, the change in score from 0 to 1 does not represent a meaningful change in function. The range of responses for Item 1 (Speaking) would be rescored as below (in red), and the other items would be rescored in a similar fashion.

0 0 = Normal.
0 1 = Slight voice tremulousness, only when "nervous".
1 2 = Mild voice tremor. All words easily understood.
2 3 = Moderate voice tremor. Some words difficult to understand.
3 4 = Severe voice tremor. Most words difficult to understand.

We note that you may collect scores for the TETRAS using standard scoring methods during the study and rescore as we have recommended for the purpose of the final analysis."

*Excerpts from Praxis communications with the FDA in relation to endpoints for ET studies. For full text, see item 7.01 of the Form 8-k filed with the Securities and Exchange Commission on March 3, 2023.

Ulixacaltamide Demonstrated Improvement Over Placebo in the mADL Excluding PS at Day 56



MMRM, Adjusted by baseline value, propranolol use and familial history of ET, all p values are nominal

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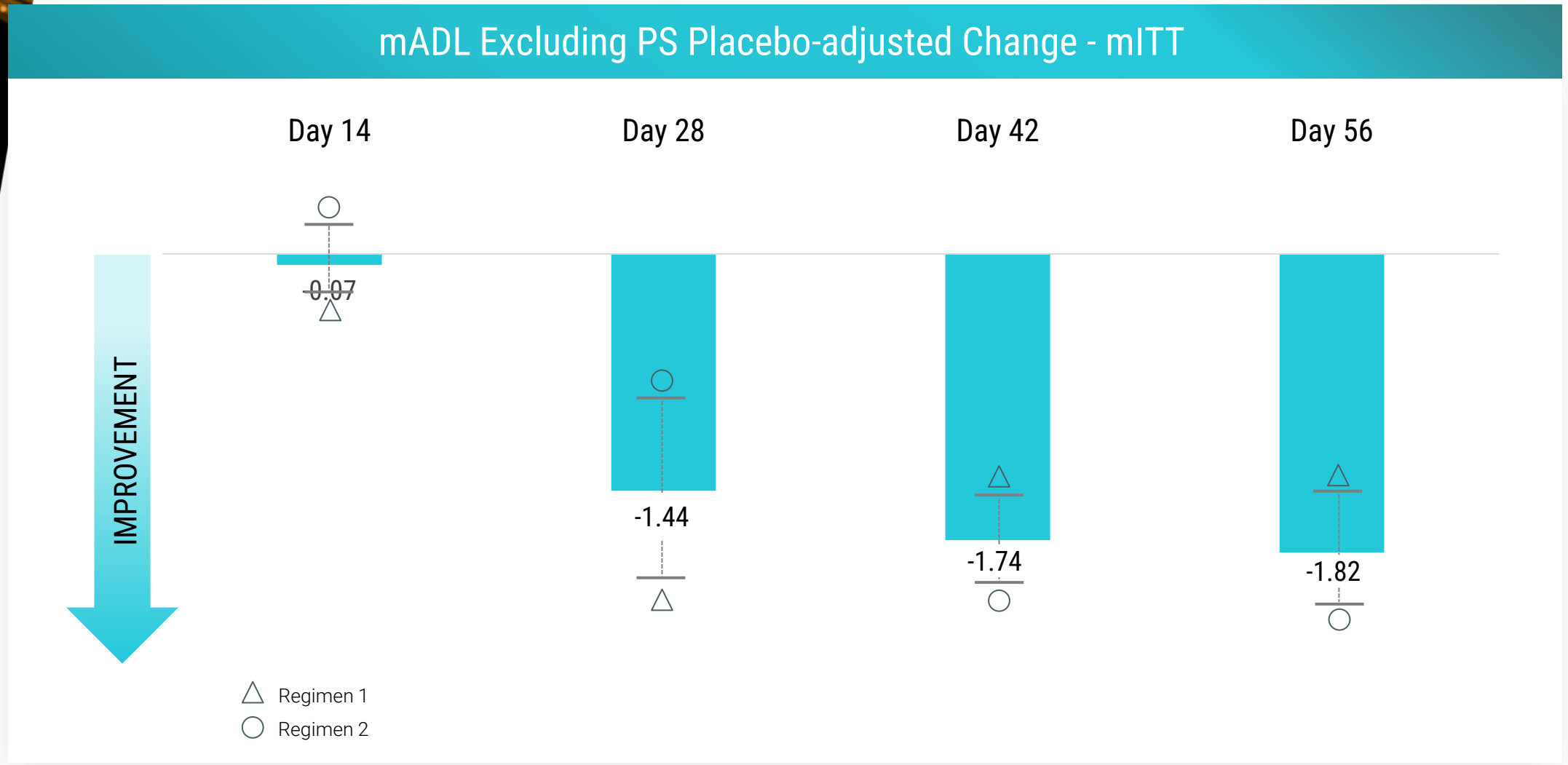
Consistent Effect Observed Across Both Dosing Regimens



MMRM, Adjusted by baseline value, propranolol use and familial history of ET

PROGNOSTIC FACTORS EXPLORATION

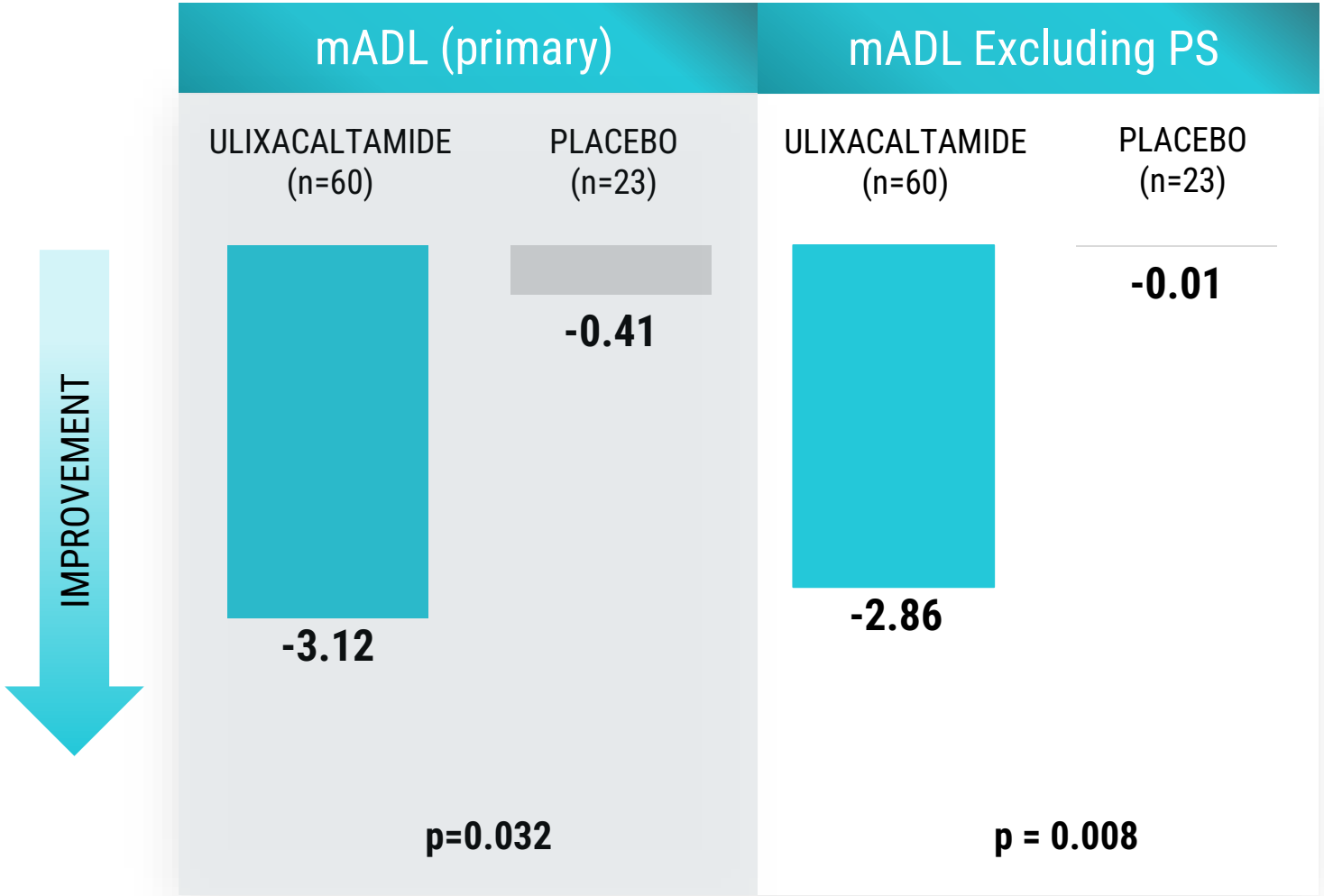
Intention Tremor

Intention tremor is a type of tremor characterized by rhythmic and high amplitude oscillations during directed and purposeful motor movements, which worsen as the target is approached. It is often associated with dysfunction of the cerebellum, a brain structure responsible for motor coordination, posture, and balance. This tremor can affect the precision of coordinated movements of speech muscles and limbs. The underlying cause of intention tremor is thought to be impaired feedback mechanisms between the cerebellum, cortex, and brainstem, which leads to kinetic errors, particularly in fine motor skill tasks. Intention tremor is therefore a key clinical sign of cerebellar dysfunction and can have significant impact on the patient's ability to perform activities of daily living.

1. Treasure Island (FL): StatPearls Publishing; 2022 Jan
2. Louis ED. Tremor. Continuum (Minneap Minn). 2019 Aug;25(4):959-975.
3. Lenka A, Louis ED. Revisiting the Clinical Phenomenology of "Cerebellar Tremor": Beyond the Intention Tremor. Cerebellum. 2019 Jun;18(3):565-574.
4. Bötzel K, Tronnier V, Gasser T. The differential diagnosis and treatment of tremor. Dtsch Arztebl Int. 2014 Mar 28;111(13):225-35; quiz 236.
5. Deuschl G, Wenzelburger R, Löffler K, Raethjen J, Stolze H. Essential tremor and cerebellar dysfunction clinical and kinematic analysis of intention tremor. Brain. 2000 Aug;123 (Pt 8):1568-80.

mADL and mADL Excluding PS Improvement Over Placebo at Day 56

mITT Excluding ET Patients with Intention Tremor



We intend to control for the presence of ET patients with intention tremor in future trials

MMRM, Adjusted by baseline value, propranolol use and familial history of ET, all p values are nominal

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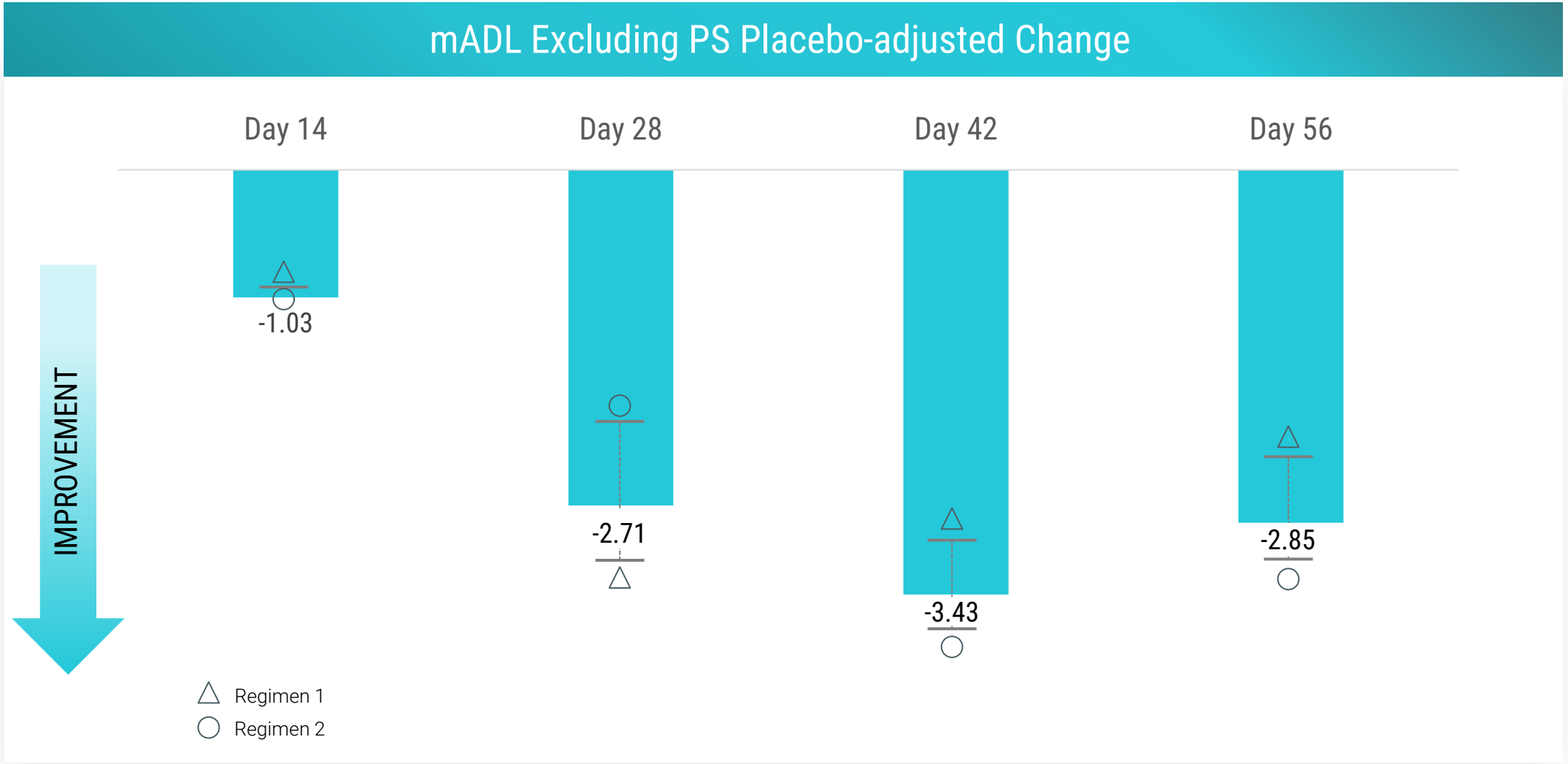
Consistent Effect Observed Across Both Dosing Regimens

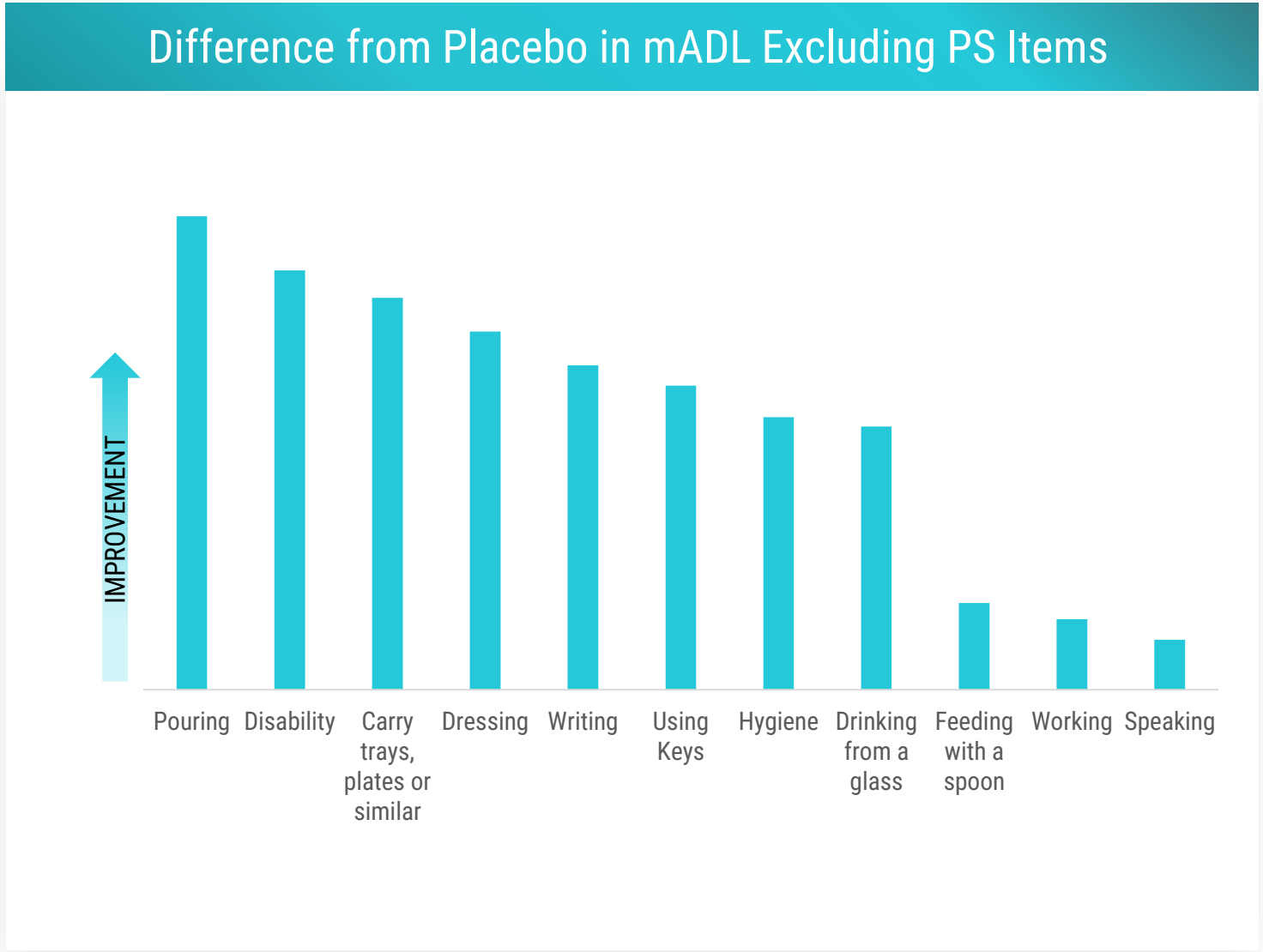
mITT Excluding ET Patients with Intention Tremor



MMRM, Adjusted by baseline value, propranolol use and familial history of ET

Post-hoc Analysis of Observed mADL Scored Items

mITT Excluding ET Patients with Intention Tremor



Breaking Ground with Essential1 - Path Forward Towards Registration

ESSENTIAL1 ENABLES PROGRESS

- Clinically meaningful effect observed in functional outcomes despite not achieving statistical significance in planned analysis
- Therapeutic drug levels achieved, suggesting individualized exposure response
- Well tolerated safety profile, no new safety signals identified
- TETRAS performance subscale not reliable due to variability
- Opportunity to further control for prognostic factors in subsequent clinical trials, including ET patients with intention tremor

NEXT STEPS

- Prepare and conduct an End of Phase 2 meeting with the FDA within ~100 days

- Preliminary elements of Phase 3 program planned to start in 2H23:
  - Parallel design with 60 mg and placebo treatment arms
  - Primary endpoint of mADL excluding PS
  - 6-week treatment duration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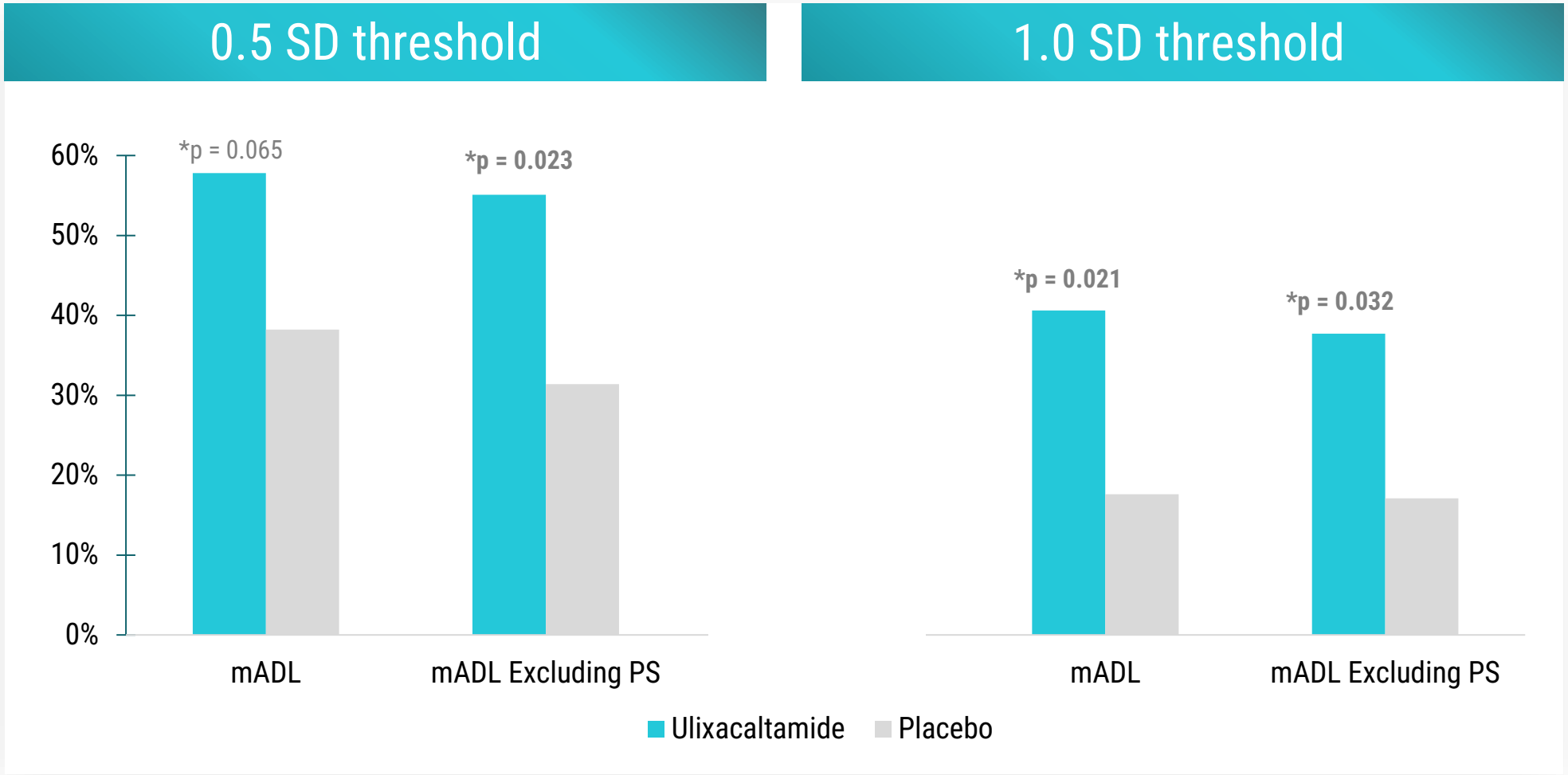
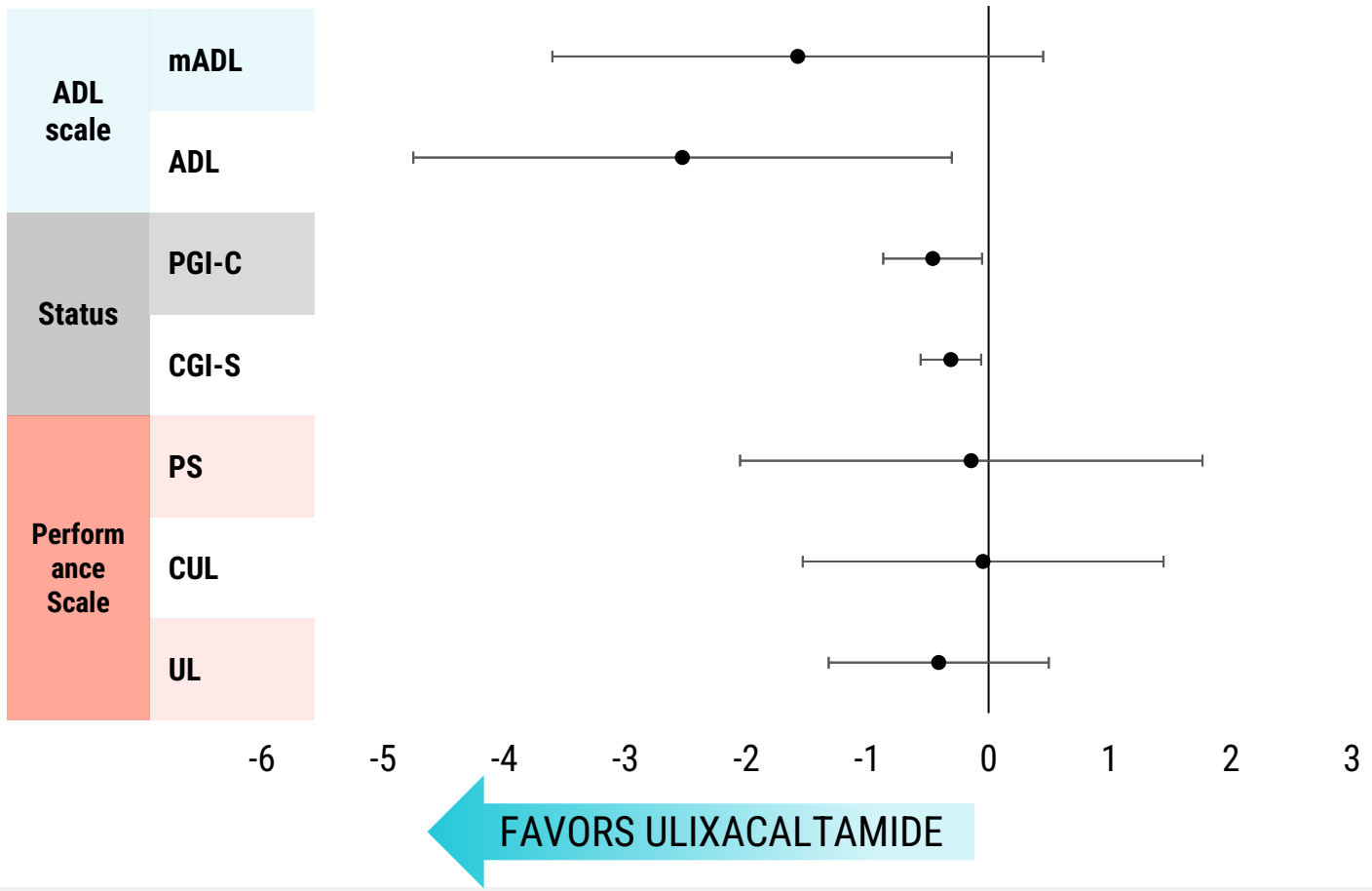
Post-hoc Responder Analysis Using MCID Distribution Method mITT Population



*Chi-sq comparisons in response rates between Ulixacaltamide and Placebo
One standard deviation equals 4.92 for mADL and 4.07 for mADL excluding PS
Mouelhi et al. Health and Quality of Life Outcomes (2020) 18:136

Endpoints Analysis for mITT Population

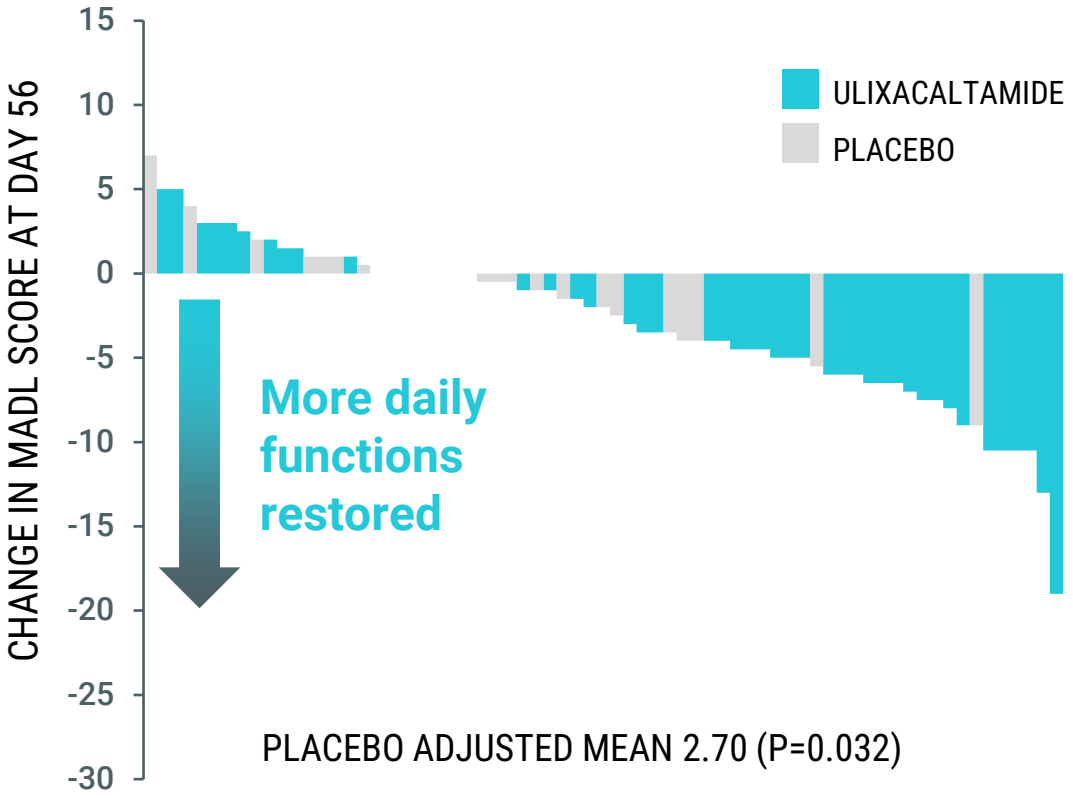


		LS MEANS DIFF	LOWER 95% CI	UPPER 95% CI
ADL scale	mADL	-1.576	-3.604	0.451
	ADL	-2.529	-4.753	-0.305
Status	PGI-C	-0.462	-0.871	-0.053
	CGI-S	-0.313	-0.562	-0.063
Performance Scale	PS	-0.144	-2.053	1.765
	CUL	-0.046	-1.535	1.444
	UL	-0.412	-1.321	0.497

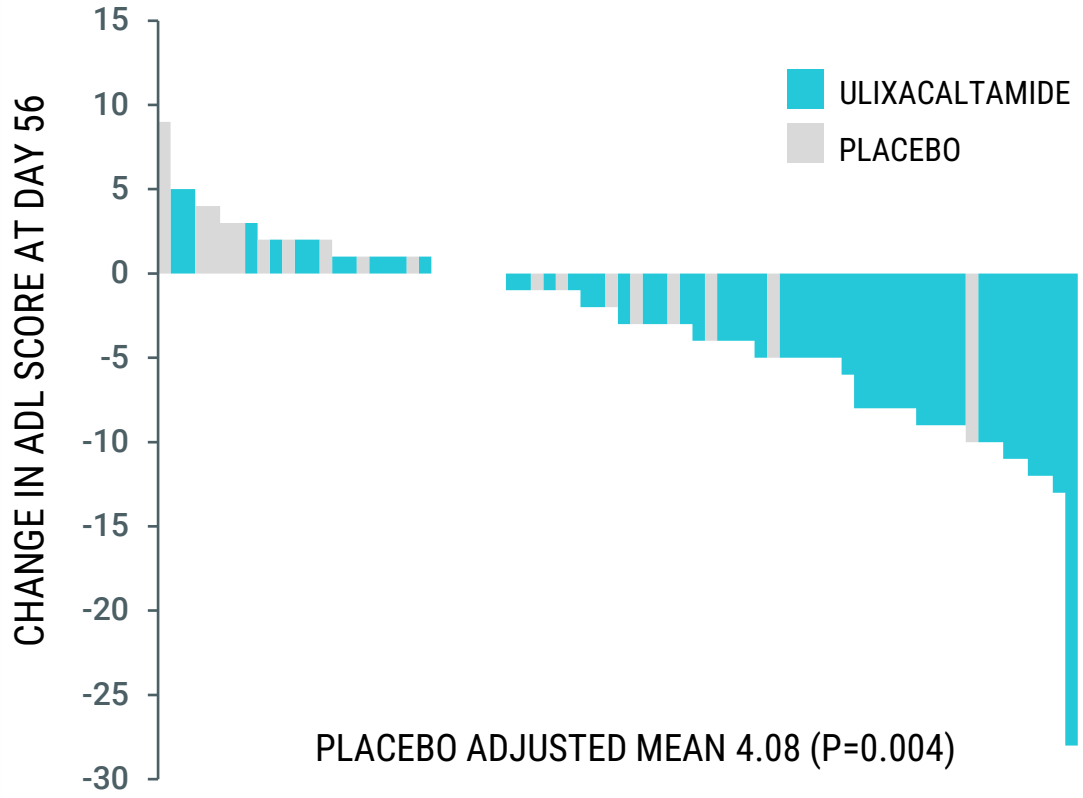
mADL = modified ADLs; ADL = Activities of Daily Living; PS = Performance Subscale; CUL = Combined Upper Limb; UL = Upper Limb, PGI-C = Patient Global Impression – Change; CGI-S = Clinical Global Impression – Severity, MMRM

Post-hoc Analysis Excluding ET Patients with Intention Tremor at Baseline

Observed mADL Change



Observed ADL Change



MMRM, all p values are nominal
Presence of intention tremor was assessed by Investigator during screening

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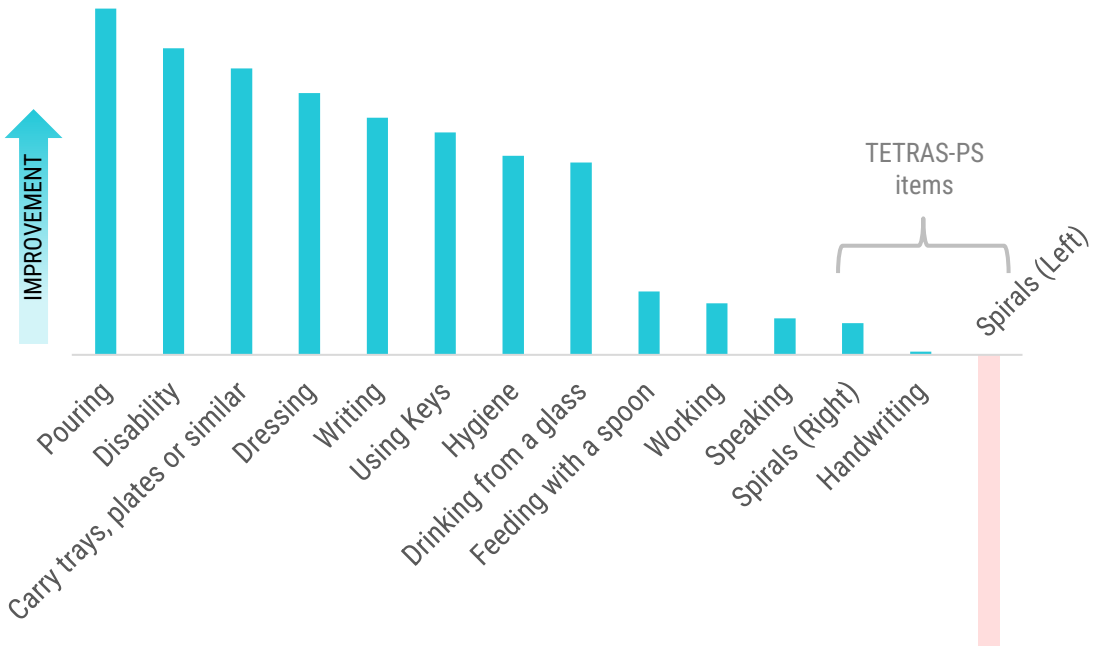
Post-hoc Analysis Excluding ET Patients with Intention Tremor at Baseline

Difference from Placebo in mADL Items - mITT



Difference from Placebo in ADL Items - mITT