

Targeting Pruritus with First-In-Class Therapeutics

February, 2021



Forward Looking Statements

This presentation contains certain forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. In some cases, you can identify forward-looking statements by the words “anticipate,” “believe,” “continue,” “estimate,” “expect,” “objective,” “ongoing,” “plan,” “propose,” “potential,” “projected”, or “up-coming” and/or the negative of these terms, or other comparable terminology intended to identify statements about the future. Examples of these forward-looking statements in this presentation include, among other things, statements concerning plans, strategies and expectations for the future, including statements regarding the expected timing of our planned clinical trials and regulatory submissions; the potential results of ongoing and planned clinical trials; future regulatory and development milestones for the Company's product candidates; the size of the potential markets that are potentially addressable for the Company's product candidates, including the pruritus market and the potential commercialization of Korsuva™.

These statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from the information expressed or implied by these forward-looking statements. Although we believe that we have a reasonable basis for each forward-looking statement contained in this presentation, we caution you that these statements are based on a combination of facts and factors currently known by us and our expectations of the future, about which we cannot be certain. Factors that may cause actual results to differ materially from any future results expressed or implied by any forward-looking statements include the risks described in the “Risk Factors” section of the Company's Annual Report on Form 10-K for the year ended December 31, 2019, as well as those set forth from time to time in the Company's other SEC filings, available at <http://www.sec.gov>. Any forward-looking statements speak only as of the date of this presentation.

The Company undertakes no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise except as required by law.

Pruritus: Large Opportunity Across Different Disease Areas

Chronic Kidney Disease (CKD)

Pruritus occurs in both patients on hemodialysis and those with CKD not yet on dialysis.

~40 to 50%

Chronic Liver Disease (CLD)

Patients with CLD, especially cholestatic liver disease experience significant pruritus

~20% to 30%

Atopic Dermatitis (AD)

Pruritus is a defining symptom of AD

~100%

Notalgia Paresthetica (NP)

Pruritus is the defining symptom of NP

100%

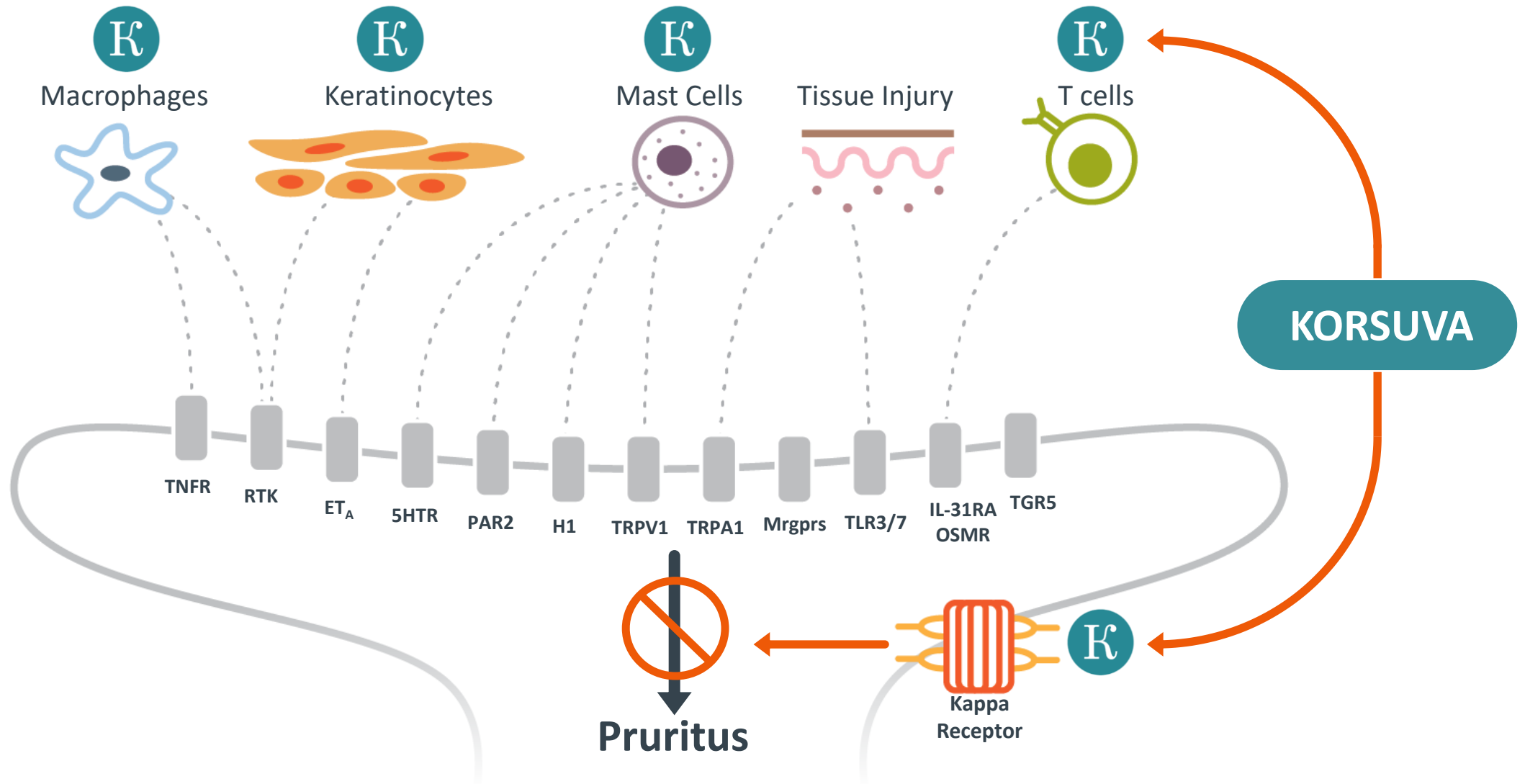


U.S. Patients
Treated for Pruritus:

> **20 Million**

SCRIPTS ANNUALLY[#]

KORSUVA™ (Difelikefalin) Directly Blocks Pruritus Sensory Neurons



Development Pipeline

Program	Indication	STAGE OF DEVELOPMENT				Commercial Rights (ex-Japan and S. Korea)^
		Phase 1	Phase 2	Phase 3	NDA Review	
KORSUVA™ Injection	Pruritus CKD-HD**					US- Vifor* EU/Other- VFMCRP#
Oral KORSUVA™	Pruritus CKD (III-V)					Cara
Oral KORSUVA™	Pruritus Atopic Dermatitis					Cara
Oral KORSUVA™	Pruritus CLD					Cara
Oral KORSUVA™	Pruritus in NP					Cara

The FDA has conditionally accepted KORSUVA™ as the trade name for CR845 / difelikefalin for pruritic indications. CR845 / difelikefalin is an investigational drug product, and its safety and efficacy have not been fully evaluated by any regulatory authority.

^ Commercialization rights to CR845 in defined indications - Japan: Maruishi Pharma; South Korea: CKD Pharma

** Breakthrough Designation for IV CR845 for Pruritus CKD-HD; NDA accepted Feb 2021

VFMCRP and Cara have rights to promote in Fresenius Medical Care dialysis clinics in the US under a profit share agreement

* Vifor has commercial rights in Non-US Fresenius clinics under a profit-share arrangement

CKD-HD: Chronic Kidney Disease- Hemodialysis; **CLD:** Chronic Liver Disease; **NP:** Notalgia Paresthetica

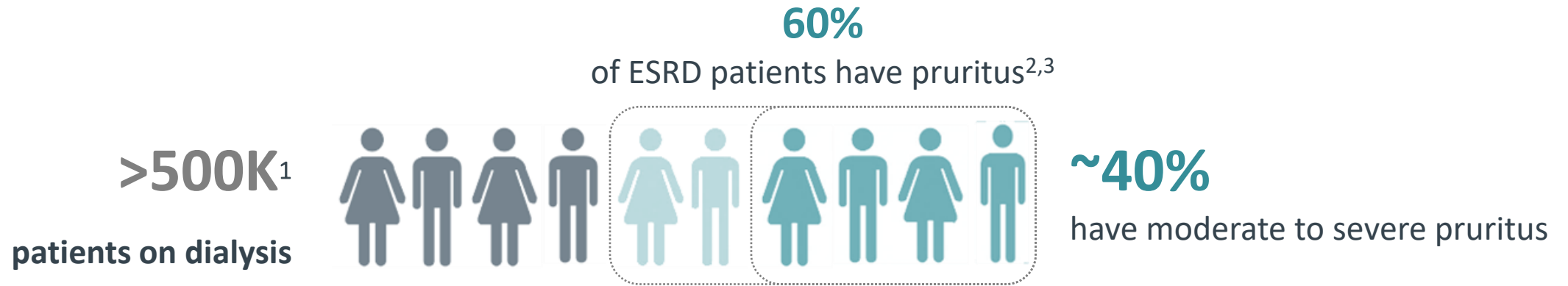
KORSUVA™ Injection for Dialysis Patients

The FDA has conditionally accepted KORSUVA™ as the trade name for difelikefalin injection. Difelikefalin injection is an investigational drug product and its safety and efficacy have not been fully evaluated by any regulatory authority.



CARA
THERAPEUTICS

KORSUVA™ Injection For CKD-associated Pruritus (CKD-aP) in Dialysis Patients



- **Serious intractable systemic pruritus**
- CKD-aP associated with worsening Quality of Life (QoL) sleep disturbance, depressed mood/anxiety, socialization
- Increased mortality risk

KORSUVA™ granted Breakthrough Therapy Designation for CKD-aP

- Significant unmet need
- No FDA approved therapies

Phase 3 Program complete

- NDA submission – Q4, 2020⁴
- Commercial launch - 2021⁴

1. National Kidney Foundation

2. Pisoni RL, Wikstrom B, Elder SJ, et al. Nephrol Dial Transplant. 2006;21:3495-3505.

3. Ramakrishnan et al. International Journal of Nephrology and Renovascular Disease. 2014;7 1–12

4. Current projected timeline with Priority Review & with Dec 2020 NDA submission

KORSUVA Injection: U.S. Commercial Strategy

Cara/Vifor Commercial License



- **Employ Vifor Established Nephrology Commercial Organization**
 - 200 sales FTEs: *Mircera, Velphoro, Venafer*
 - Existing relationships with US LDOs, MDOs and IDOs
 - Established market access team
 - Existing supply chain organization

- **Leverage Existing Cara/Vifor Synergies From Ongoing Collaboration**
 - Global brand development

Cara/Vifor Commercialization Agreement: Summary Terms (Ex-Fresenius Medical Care Clinics)

- Up-Front: **\$150M** (\$100M Cash/ \$50M Equity)
- U.S. Regulatory Approval Milestone: **\$50M Equity**
- U.S. Market Profit Split: **Cara 60%: Vifor 40%**
(Ex-FMC Clinics: Vifor Promotion¹)
- U.S Commercial Sales Milestones: **\$240M**

1. FMC Clinics Profit Split: Cara 50%: VFMC RP 50% - 2018 Cara and Vifor/Fresenius License Agreement

Established Ex-U.S. Commercial Agreements: KORSUVA Injection



Tiered Royalty By Sales: **EU**
\$440 million Commercial Milestones



Maruishi
Pharmaceutical Co., Ltd.

Tiered Royalty By Sales: **Japan**
~\$10 million Commercial Milestone#



Chong Kun Dang

Tiered Royalty By Sales: **S. Korea**

Oral KORSUVA™ Development Programs



Development Pipeline

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CKD-HD: Chronic Kidney Disease- Hemodialysis; **CLD:** Chronic Liver Disease; **NP:** Notalgia Paresthetica

US Market Opportunity in CKD-aP: Non-Dialysis

~7.3 million
diagnosed with CKD (IQVIA est)



33%
receive pruritus tx

Per NKF, CKD is a significant under-recognized US public health issue

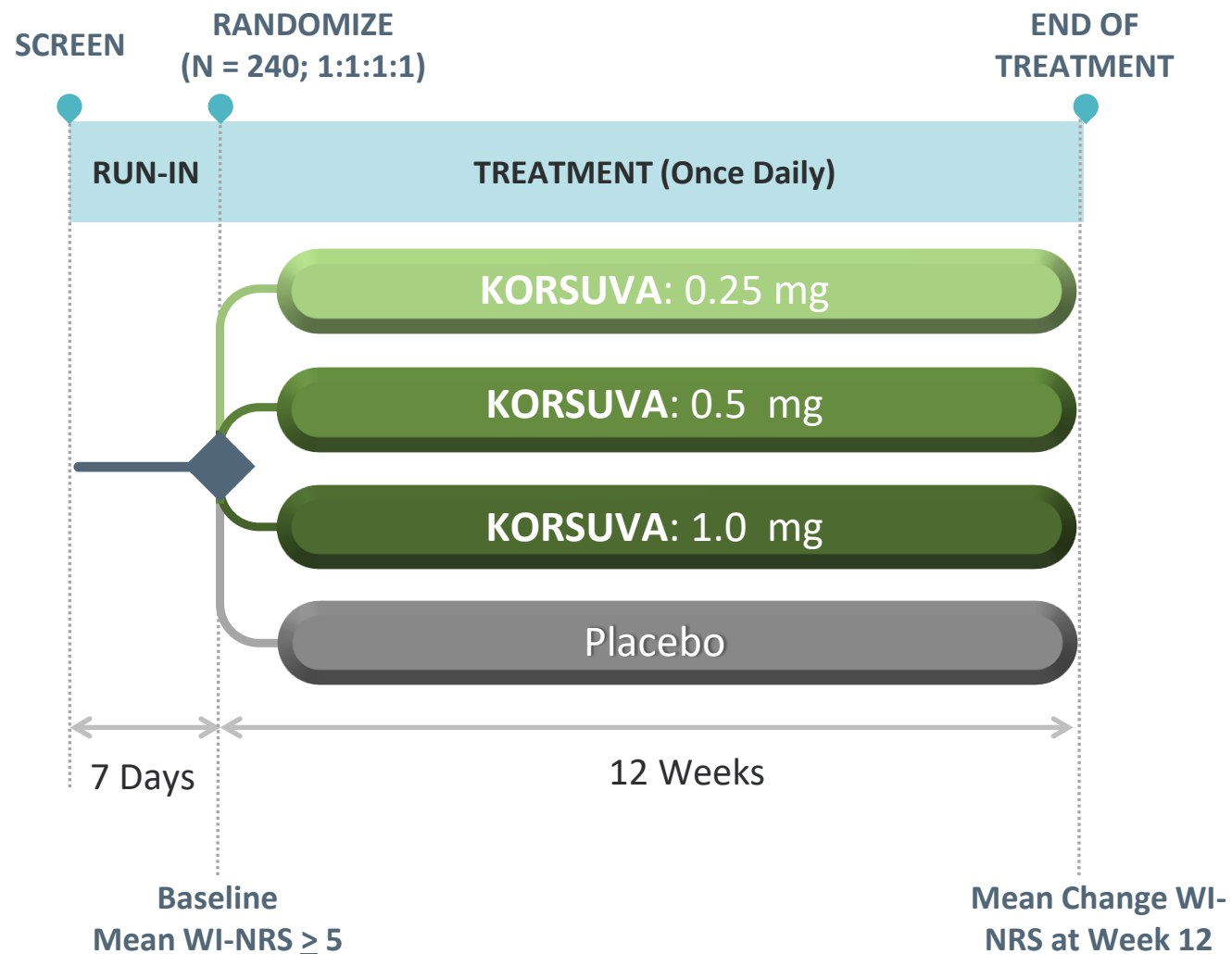
- ~30 million people affected

No FDA approved therapies – large unmet medical need

- Commonly used medications: anti-histamines, corticosteroids, gabapentin, anti-depressants etc.

Oral KORSUVA™, if approved for pre-dialysis patients, would not fall under ESRD bundle payment system

Oral KORSUVA™ for CKD-aP: Phase 2 Trial Design



Endpoints: Week 12

Primary

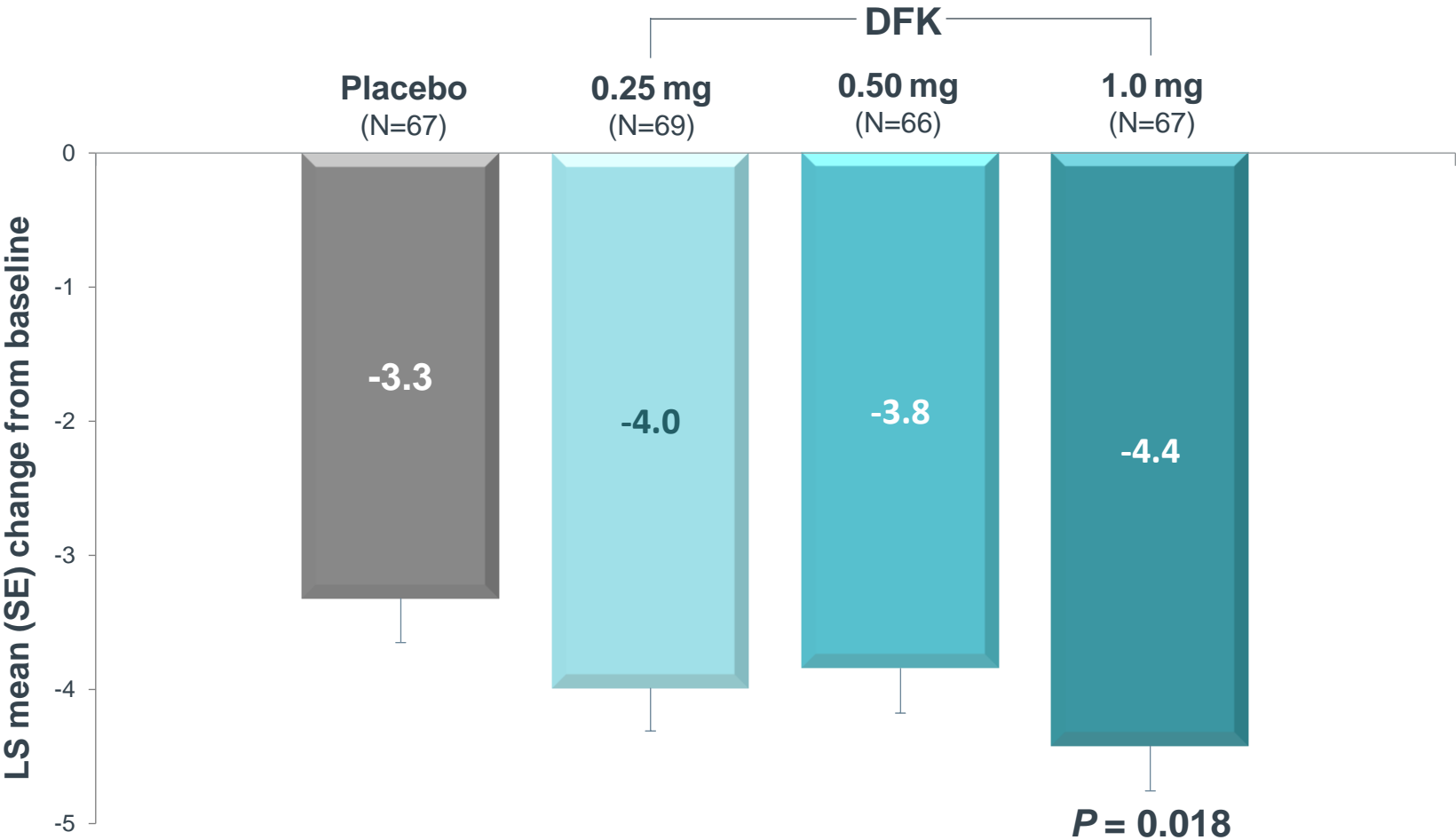
- Change from baseline in weekly mean of daily Worst Itching Intensity NRS (WI-NRS) score

Secondary & Additional

- Change from baseline in itch-related QoL
 - ✓ Skindex-10
 - ✓ 5-D Itch
- Proportion of subjects achieving >3 points improvement from baseline in weekly mean of daily WI-NRS score
- WI-NRS complete responder; patient global impression of change
- Safety Assessments

Primary Endpoint: Change From Baseline in the WI-NRS at Week 12

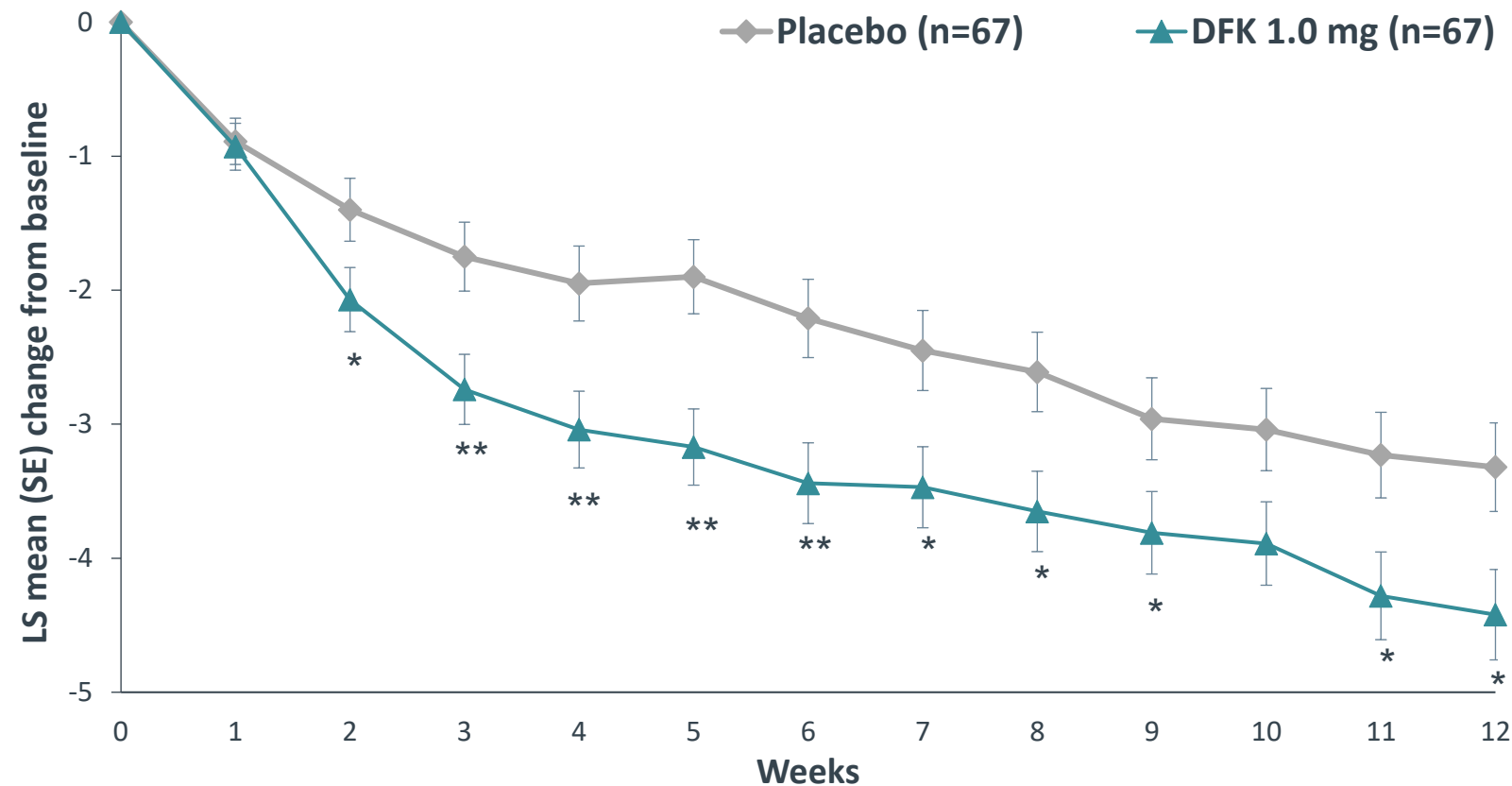
Patients in the DFK 1.0-mg group demonstrated significantly greater improvement in the mean WI-NRS vs placebo



P value vs placebo (P=NS for 0.25 mg and 0.5 mg DFK vs placebo). Statistical tests were 2-sided (alpha=0.5). LS mean from MMRM with terms for treatment group, week, week by treatment interaction as fixed effects; baseline score and strata as covariates; patient as a repeated measure. Analyzed in the full analysis population (patients receiving ≥ 1 dose based on randomized treatment). Error bars represent standard error (SE). Missing data imputed using MI under MAR assumption. LS, least squares; MAR, missing at random; MI, multiple imputation; MMRM, mixed model for repeated measures.

Change From Baseline in WI-NRS Over Time

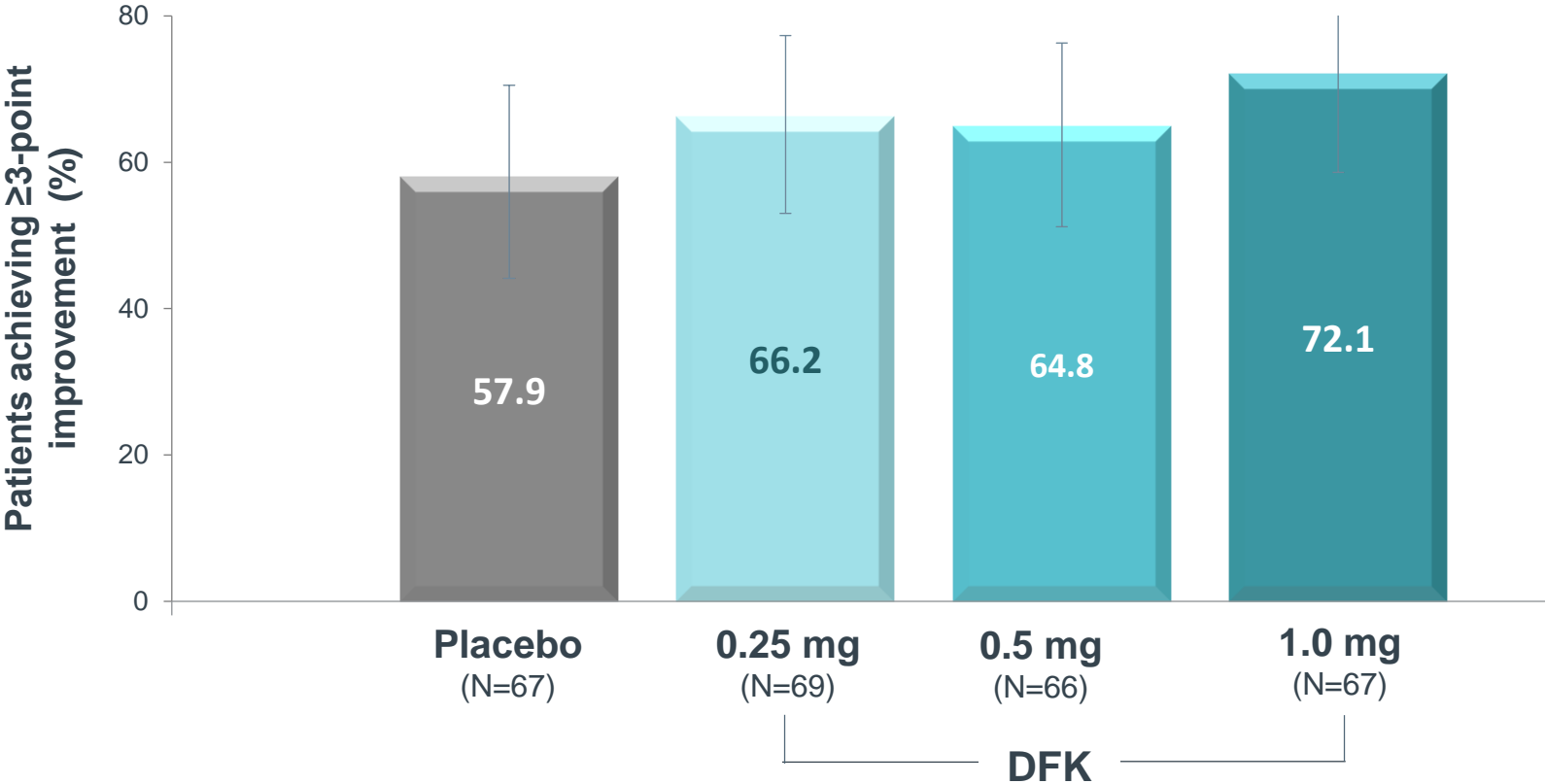
Significantly greater improvements in WI-NRS were observed with DFK 1.0 mg vs placebo as early as week 2 and were maintained up to week 12



* $P < 0.05$. ** $P < 0.01$. Statistical tests were 2-sided ($\alpha = 0.05$). LS mean from MMRM with terms for treatment group, week, week by treatment interaction as fixed effects; baseline score and strata as covariates; patient as a repeated measure. Analyzed in the full analysis population (patients receiving ≥ 1 dose based on randomized treatment). Error bars represent SE. Missing data imputed using MI under MAR assumption.

Achievement of ≥ 3 -Point Improvement in WI-NRS at Week 12

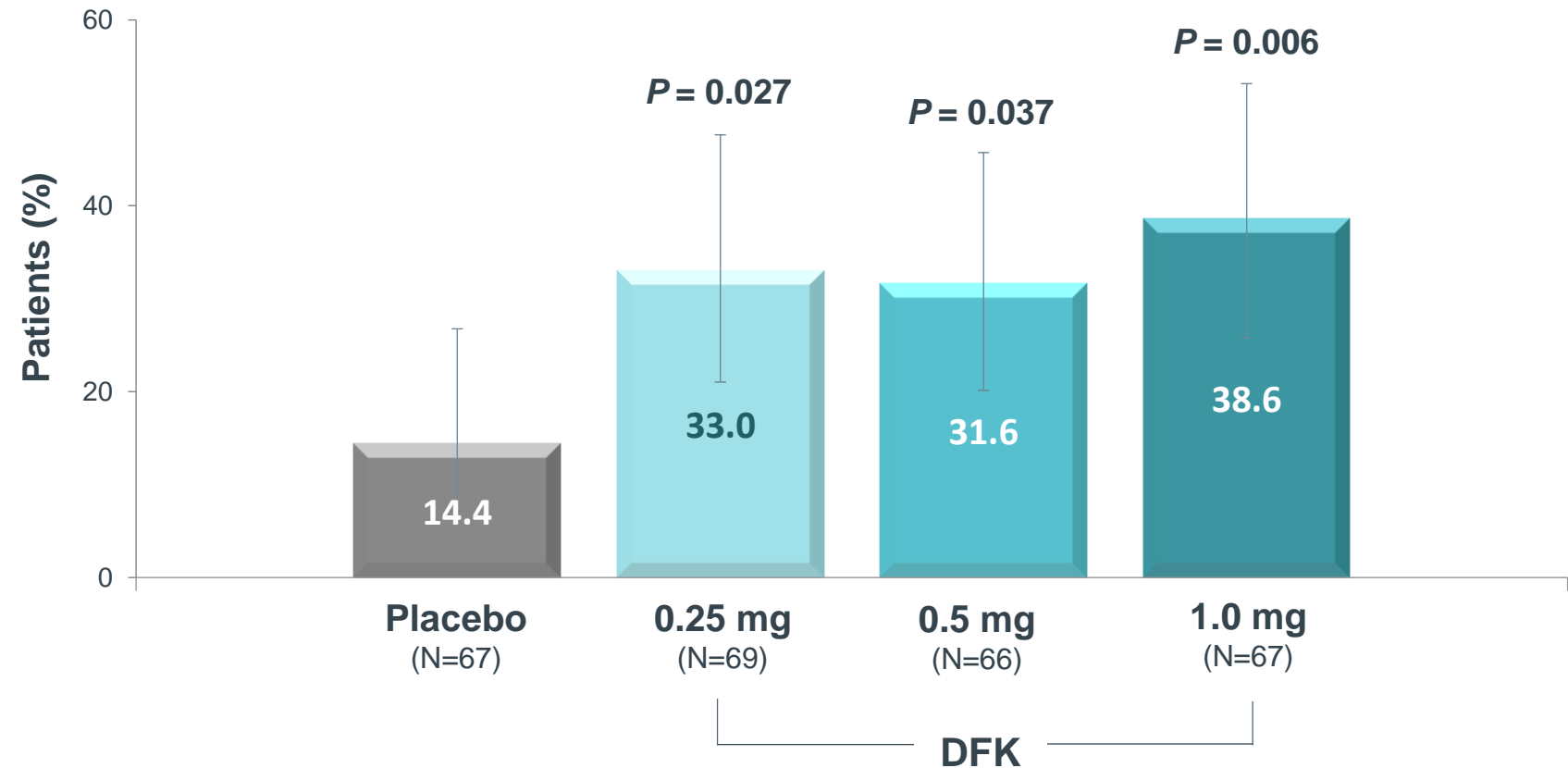
More than 70% of patients achieved ≥ 3 -point improvement in WI-NRS with DFK 1.0 mg



P value vs placebo (*P*=NS for all DFK doses vs placebo). Statistical tests were 2-sided ($\alpha=0.5$). Estimated percentage and *P* values are based on a logistic regression model with terms for treatment group, baseline WI-NRS score, and renal disease status. Analyzed in the full analysis population (patients receiving ≥ 1 dose based on randomized treatment). Error bars represent 95% confidence interval (CI). Missing data imputed using MI under MAR assumption.

Complete Response at Week 12

Significantly greater proportions of patients who received DFK at all 3 dose levels achieved a complete response compared with placebo



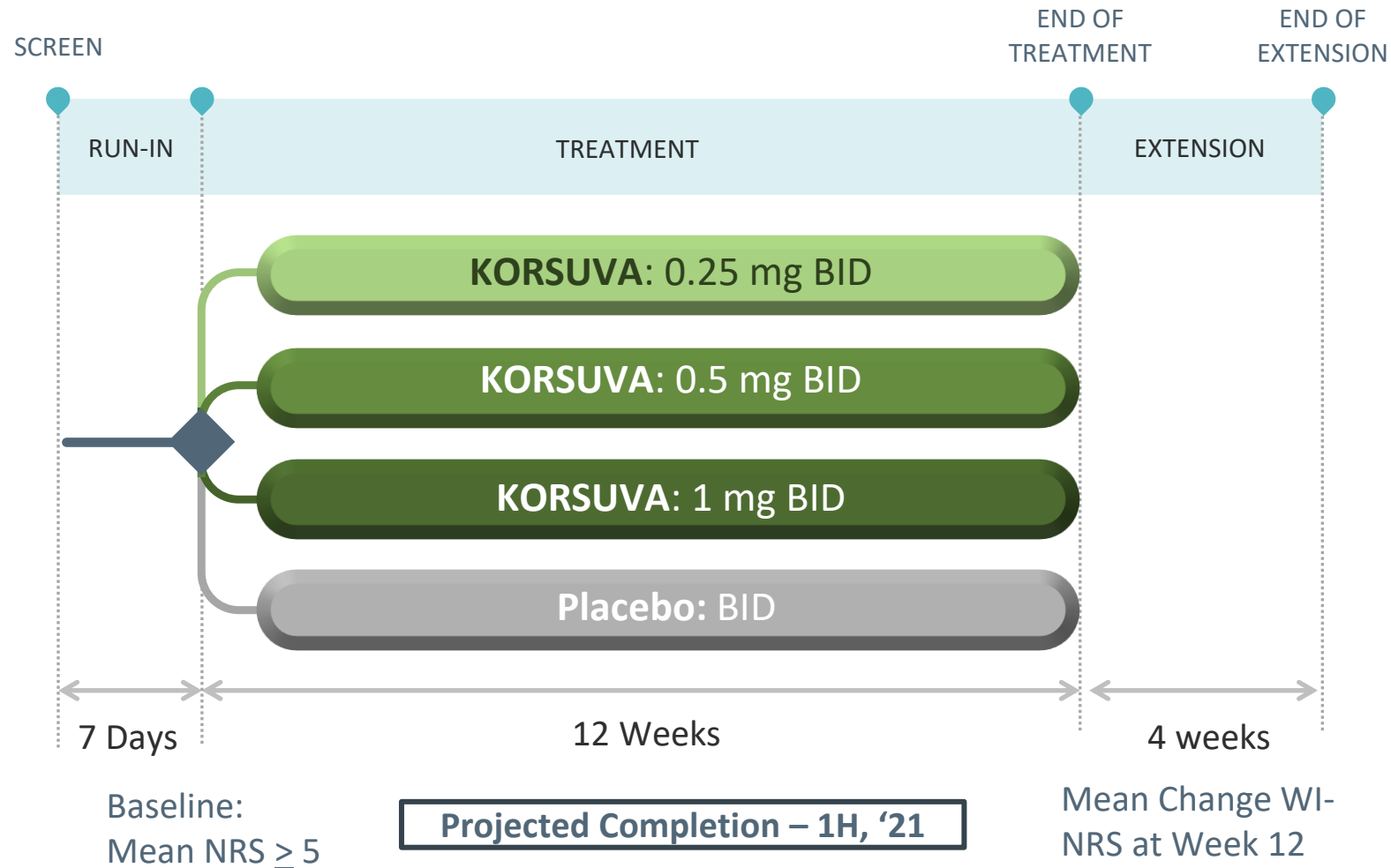
P value vs placebo. Statistical tests were 2-sided (alpha=0.5). Estimated percentage and *P* values are based on a logistic regression model with terms for treatment group, baseline WI-NRS score, and renal disease status. Error bars represent 95% CI. Analyzed in the full analysis population (patients receiving ≥1 dose based on randomized treatment). Complete response is defined as achievement of ≥80% of the non-missing daily NRS scores equal to 0 or 1 in a week.

Executive Summary & Next Steps

- Oral KORSUVA met the primary endpoint: 1mg dose advancement to Phase 3
 - Primary: Change from baseline in weekly mean WI-NRS score
 - Dose-dependent statistically significant improvement in Complete Responders
- Oral KORSUVA was generally well-tolerated: safety profile similar to Phase 3 KORSUVA Injection studies

Projected EOPII Meeting: Q2, 2021

Atopic Dermatitis Associated Pruritus: Phase 2 Trial Ongoing



Study

~400 adult patients with AD and moderate to severe pruritus

Primary Endpoint:

- Change from baseline in the weekly mean of the daily 24-hour WI-NRS score at Week 12

Secondary Endpoints:

- Responder analysis (Week 12):
Change from baseline in WI-NRS score of ≥ 4 points
- Change in itch related QoL:
Skindex-10, 5-D Itch scales & Sleep Quality Assessment at week 12
- Safety assessments

Oral KORSUVA For Atopic Dermatitis-Associated Pruritus



Oral KORSUVA:
Potential Broad Application



30 Million
U.S. Patients



~80% Mild-Moderate Disease*



~20% Moderate-Severe Disease*

Approved Therapies



Topical Steroids & Immunomodulators



Injectable
Biologic

Financial Highlights

(As of December 31, 2020)



Cash/marketable securities
(Q4 2020)

\$251.5M

⁽¹⁾ **Proforma Net loss**
(4th Qtr. 2020)

(\$32.7M)

Shares outstanding
~49.9M

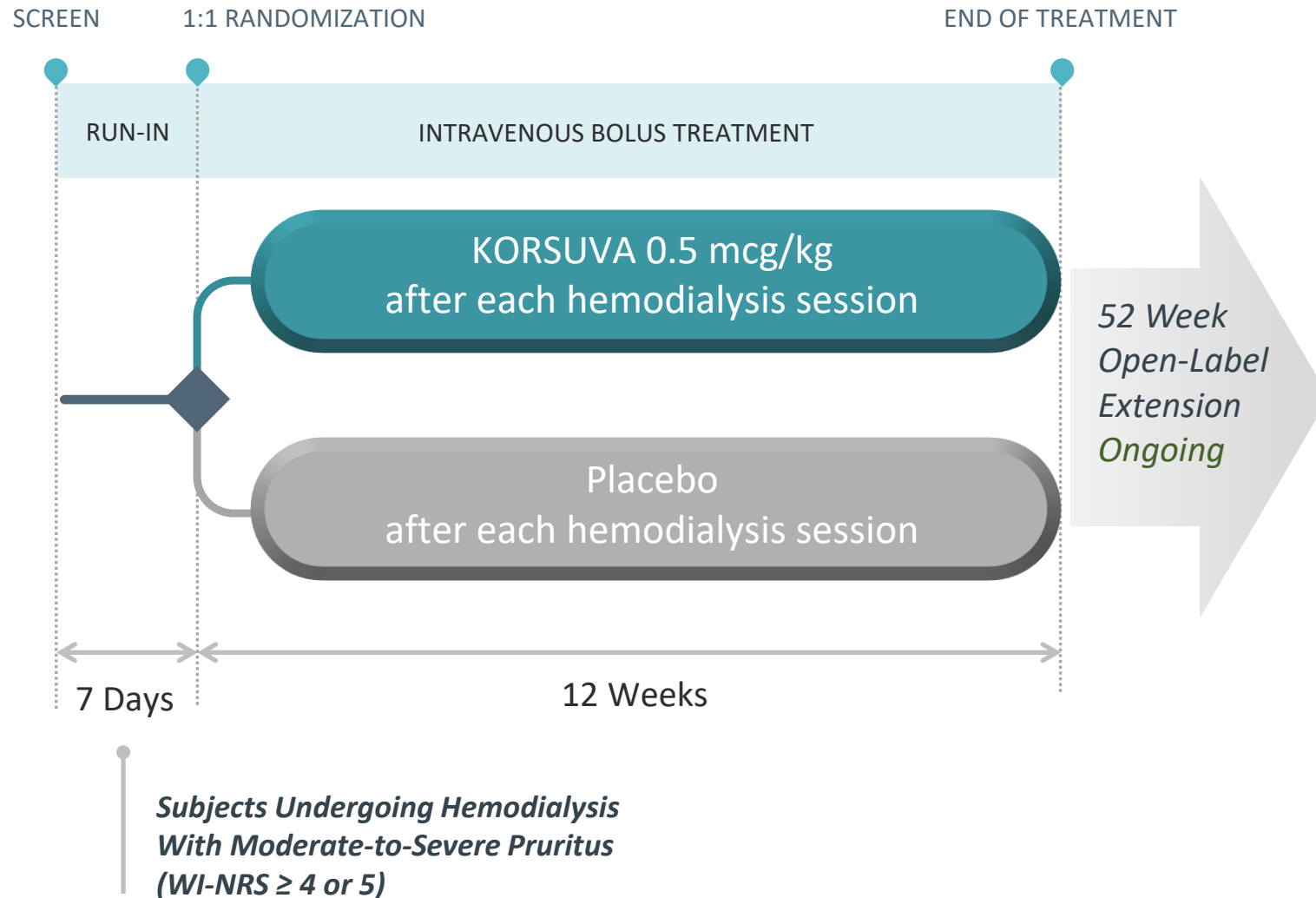
Projected Milestones –2021

	Pruritus / KORSUVA™ Injection	Pruritus / Oral KORSUVA™
1H,2021	NDA Acceptance Priority Review	Topline Data: Phase 2 Atopic Dermatitis
2H,2021	NDA Approval	Topline Data: Phase 2 Chronic Liver Disease
2H,2021	Commercial Launch	Initiate Phase 3 Programs: CKD-aP (Stage III-V CKD) Atopic Dermatitis

Appendix



KALM-1/2: General Pivotal Study Design



Endpoints: Week 12

Primary

- Proportion of subjects achieving ≥ 3 point improvement from baseline in weekly mean of daily worst itching intensity NRS (WI-NRS)

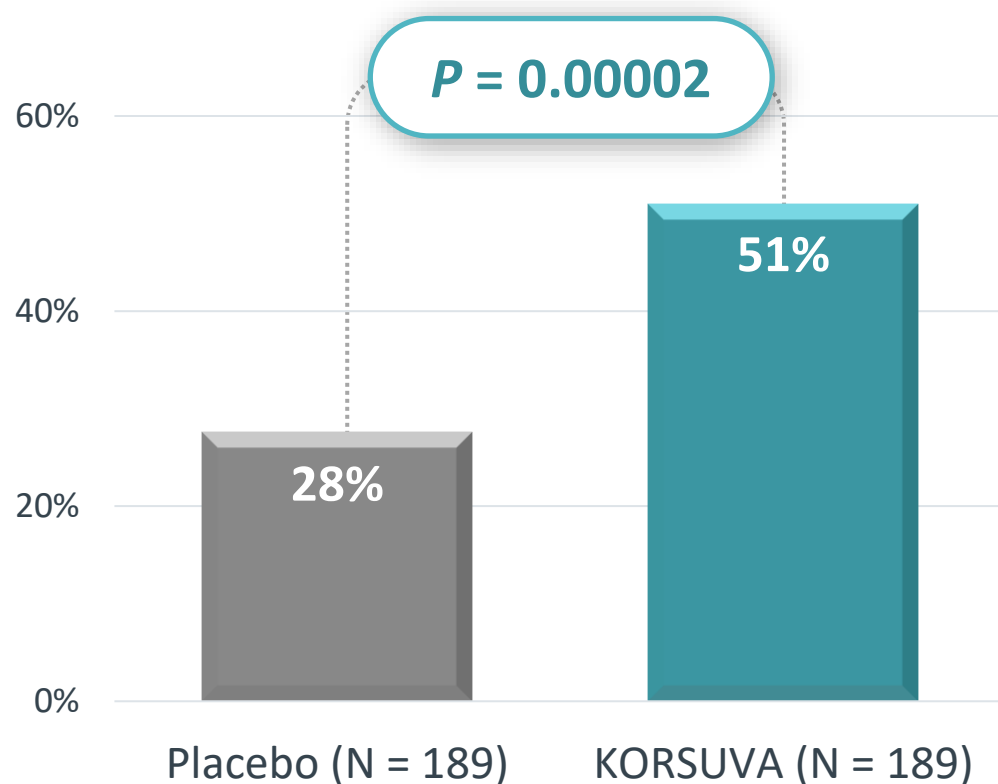
Secondary

- Proportion of subjects achieving ≥ 4 point improvement in WI-NRS
- Change from baseline in itch-related Quality of Life as measured by Skindex-10 and 5-D Itch questionnaires

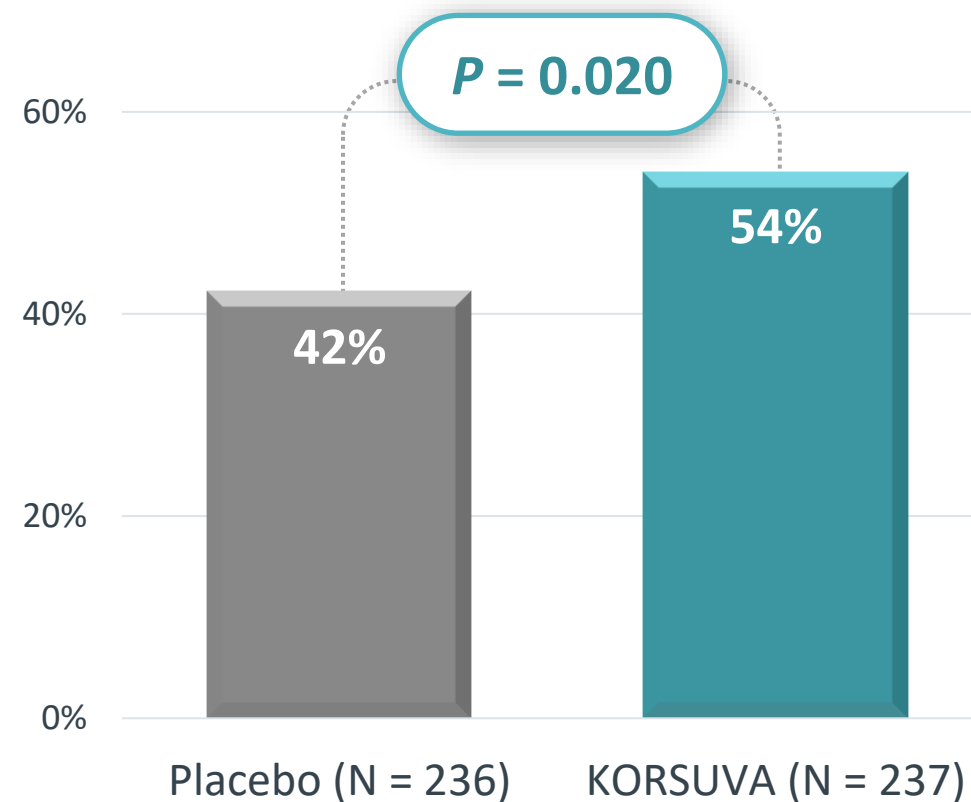
Safety assessments

Primary Endpoint: ≥ 3 point improvement WI-NRS (Week 12)

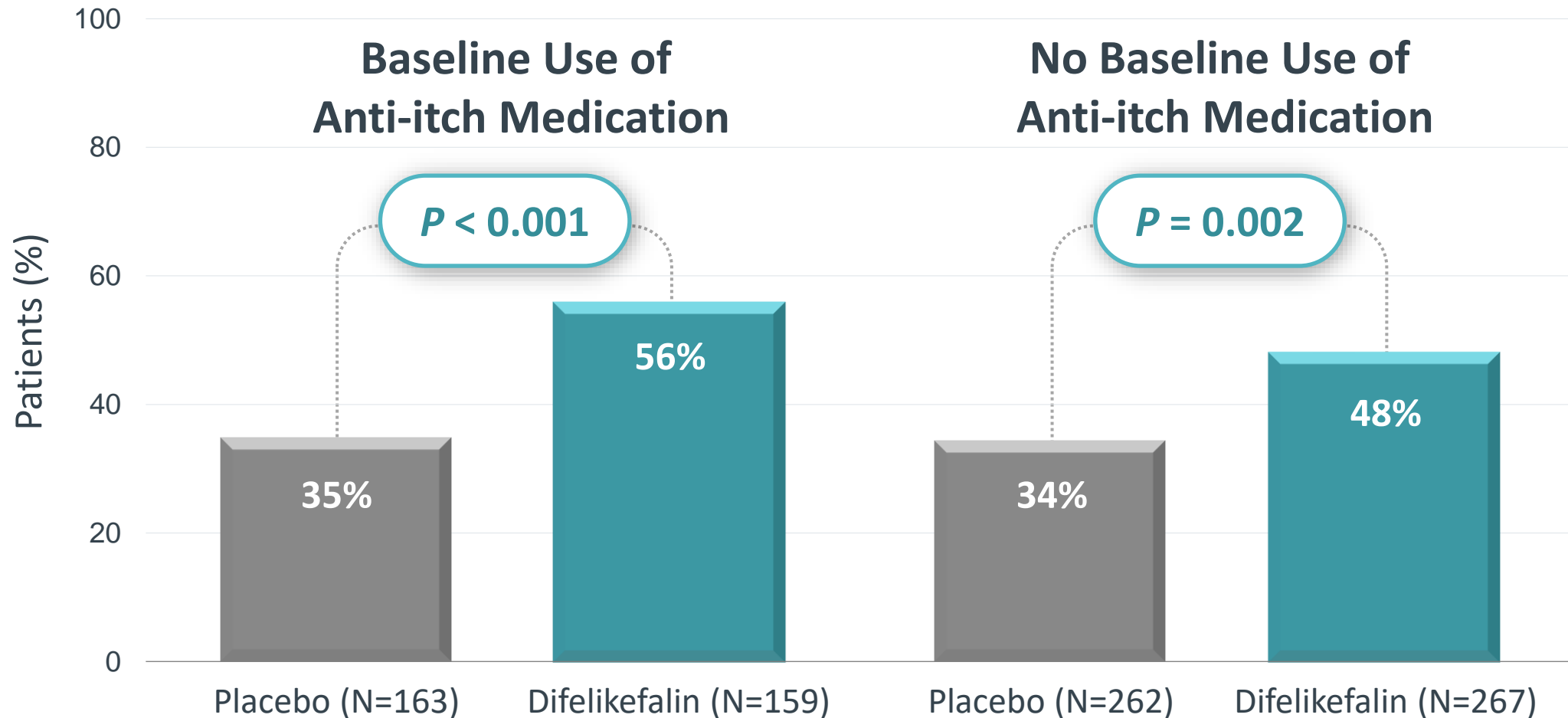
U.S. KALM-1 Trial



Global KALM-2 Trial

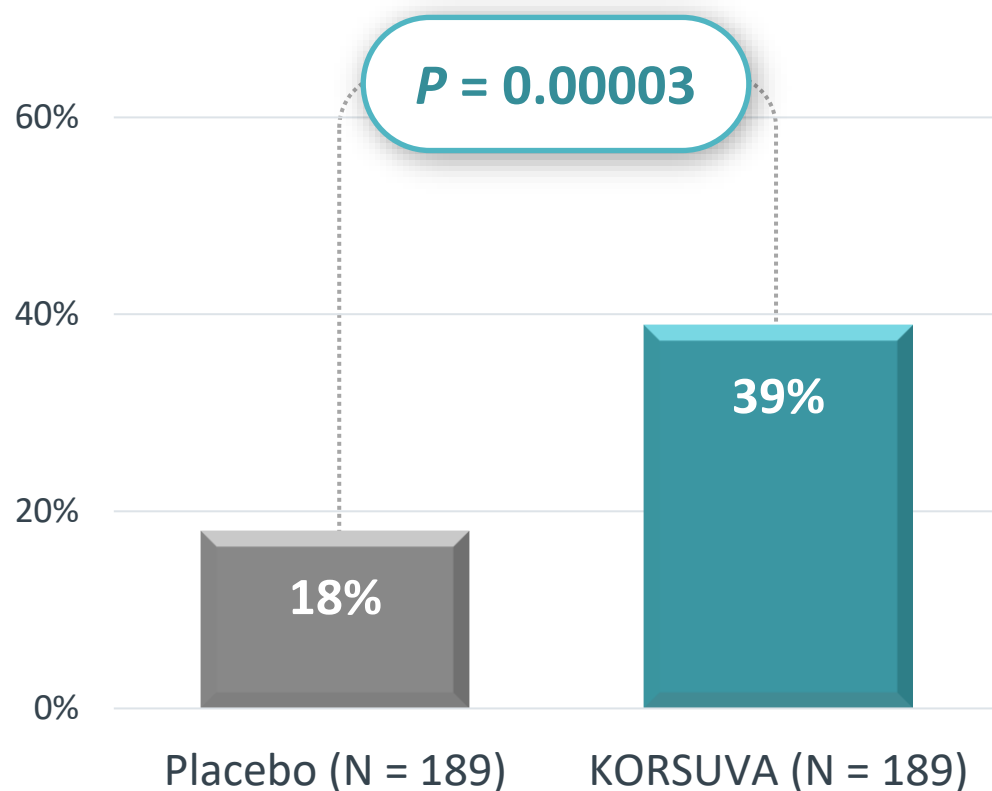


≥3-point Improvement in WI-NRS by Baseline Use of Anti-itch Medication (KALM-1 and KALM-2 Pooled)

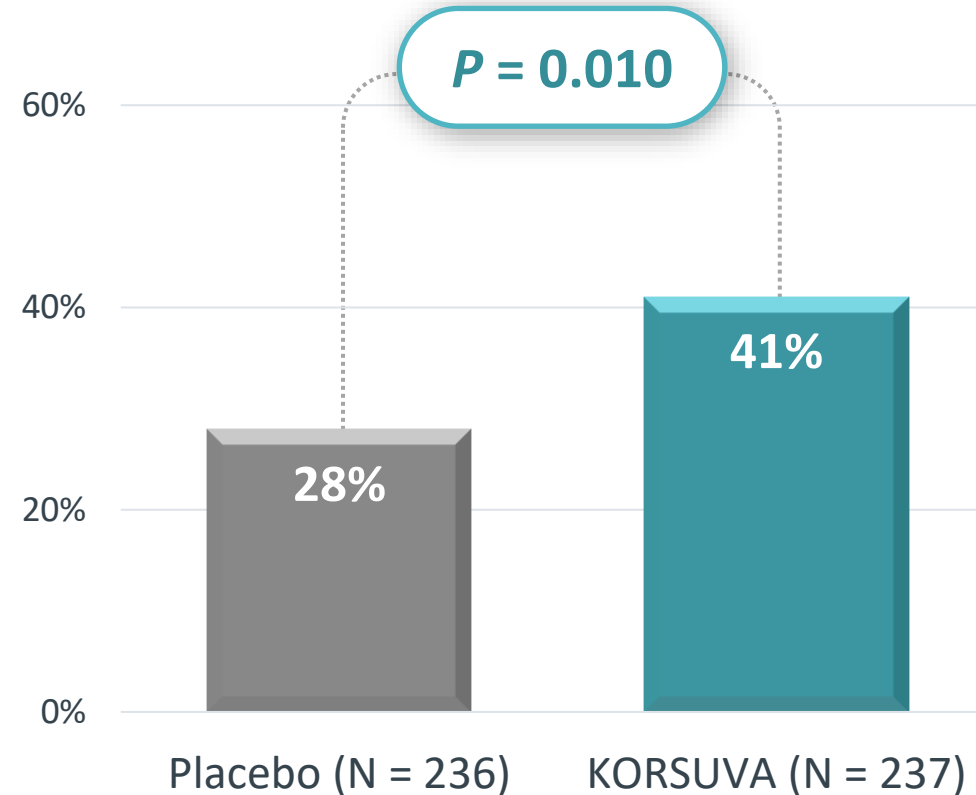


Key Secondary Endpoint: ≥ 4 point improvement WI-NRS (Week 12)

U.S. KALM-1 Trial

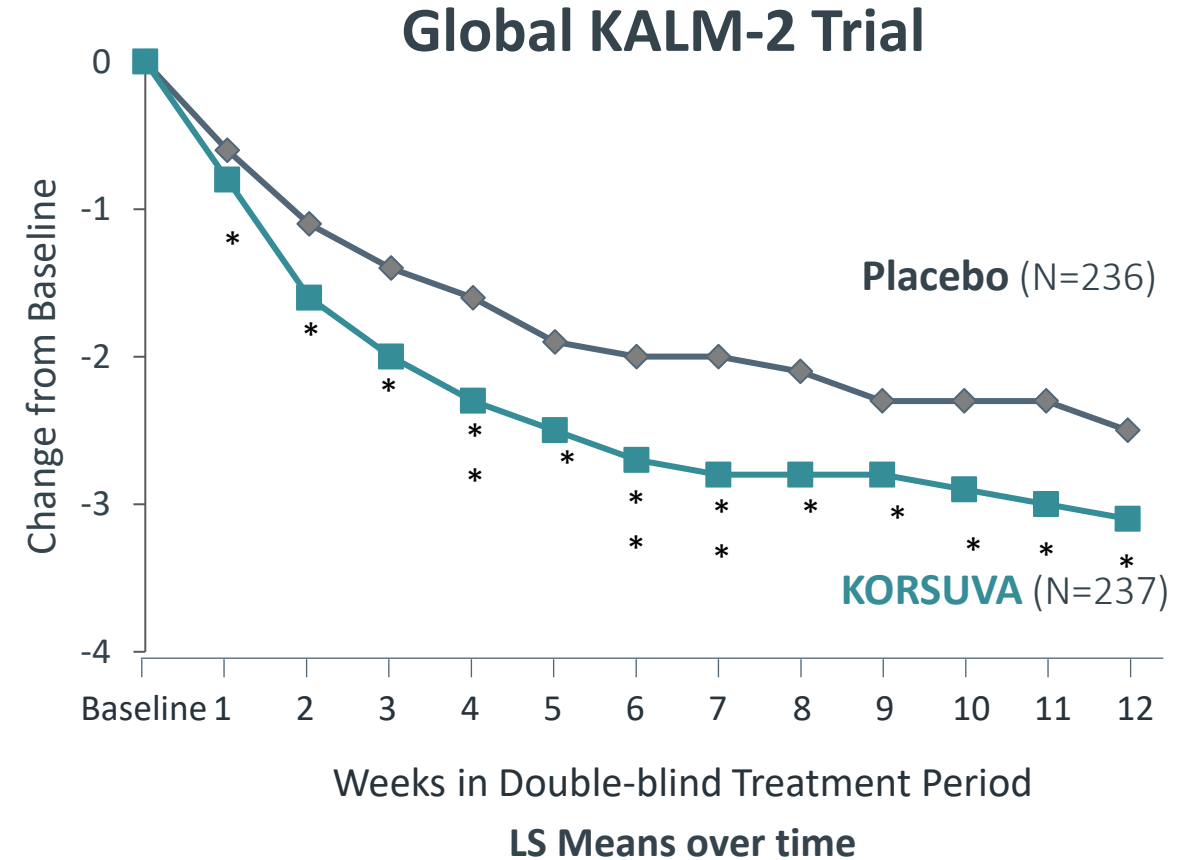
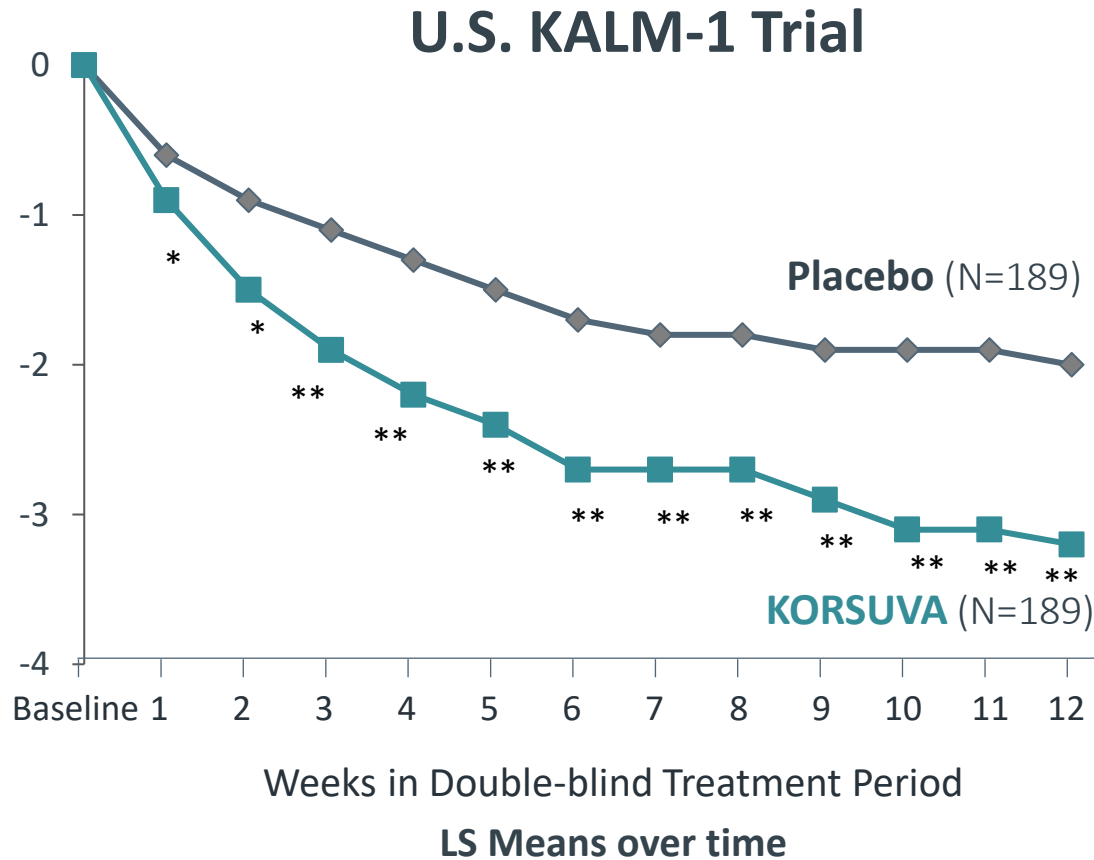


Global KALM-2 Trial



Change from Baseline in WI-NRS Over Time

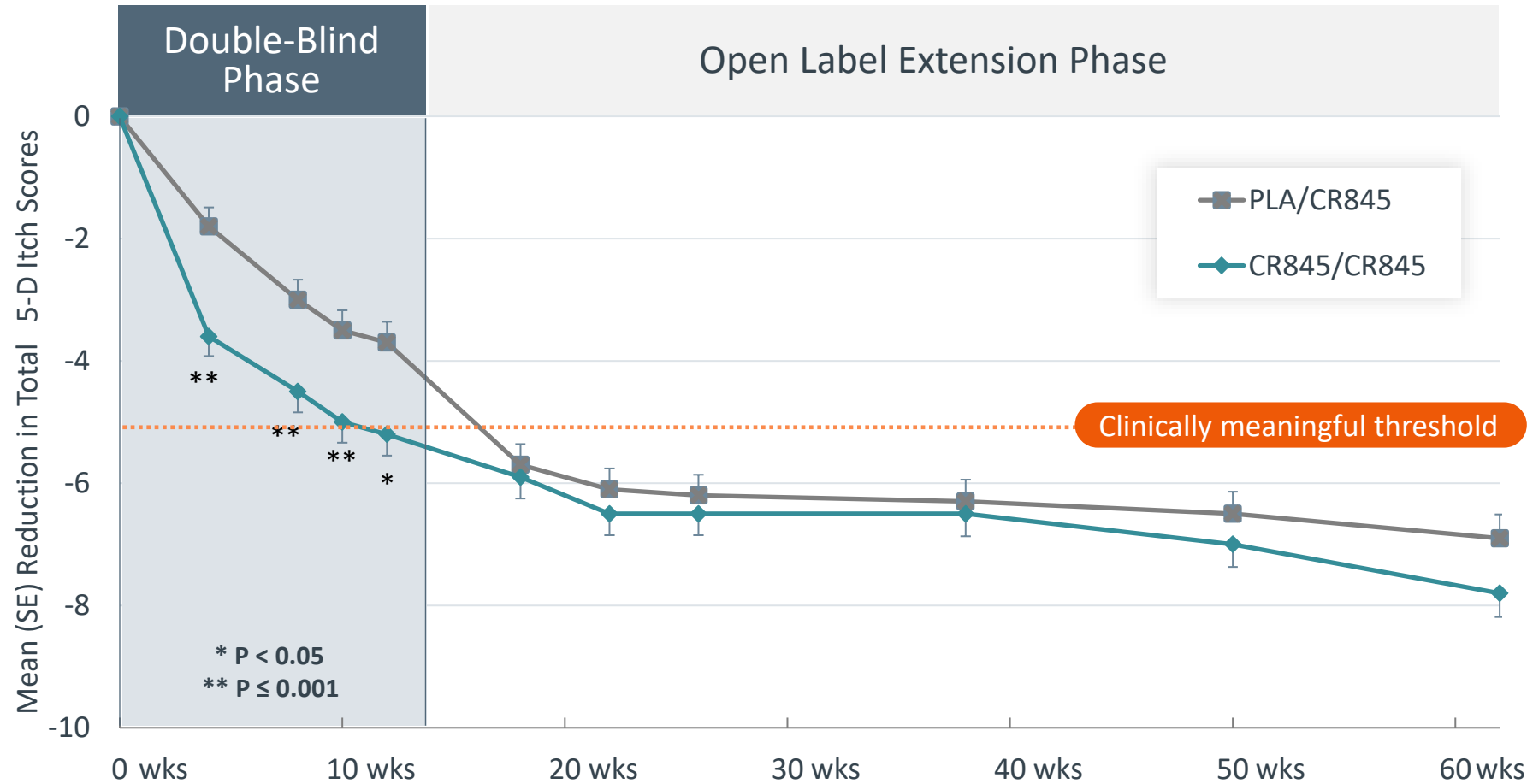
Significant differences observed in WI-NRS starting at Week 1 and sustained through treatment period



* $P < 0.05$, ** $P < 0.001$

LS Means from MMRM with terms for treatment group, week, week by treatment interaction, baseline score, region and strata
Missing data imputed using multiple imputation (MI) under missing at random (MAR) assumption

Korsuva: Sustained Benefit over 15 Month Treatment Period



5D-Itch Scale

- Multidimensional questionnaire evaluating Itch-related Quality of Life
- Questions on characteristic of itch (intensity, duration, change) and disability due to itch (impact on sleep, social interaction, and work)

Clinically meaningful threshold in HD patients with CKD-aP:

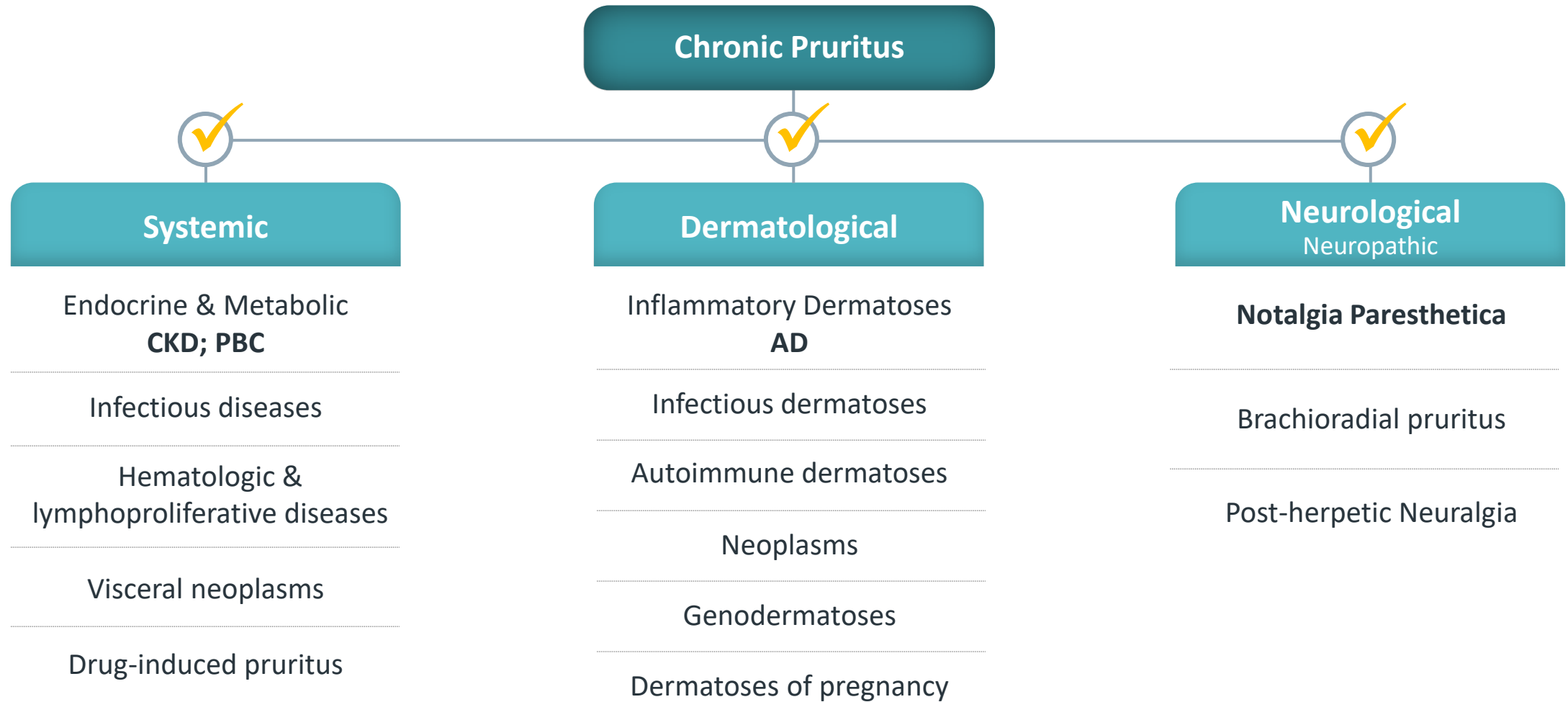
≥ 5 points reduction

Incidence of Common TEAEs: KALM-1 & KALM-2 ($\geq 2\%$ in DFK arm and $\geq 1\%$ Difference versus PBO)

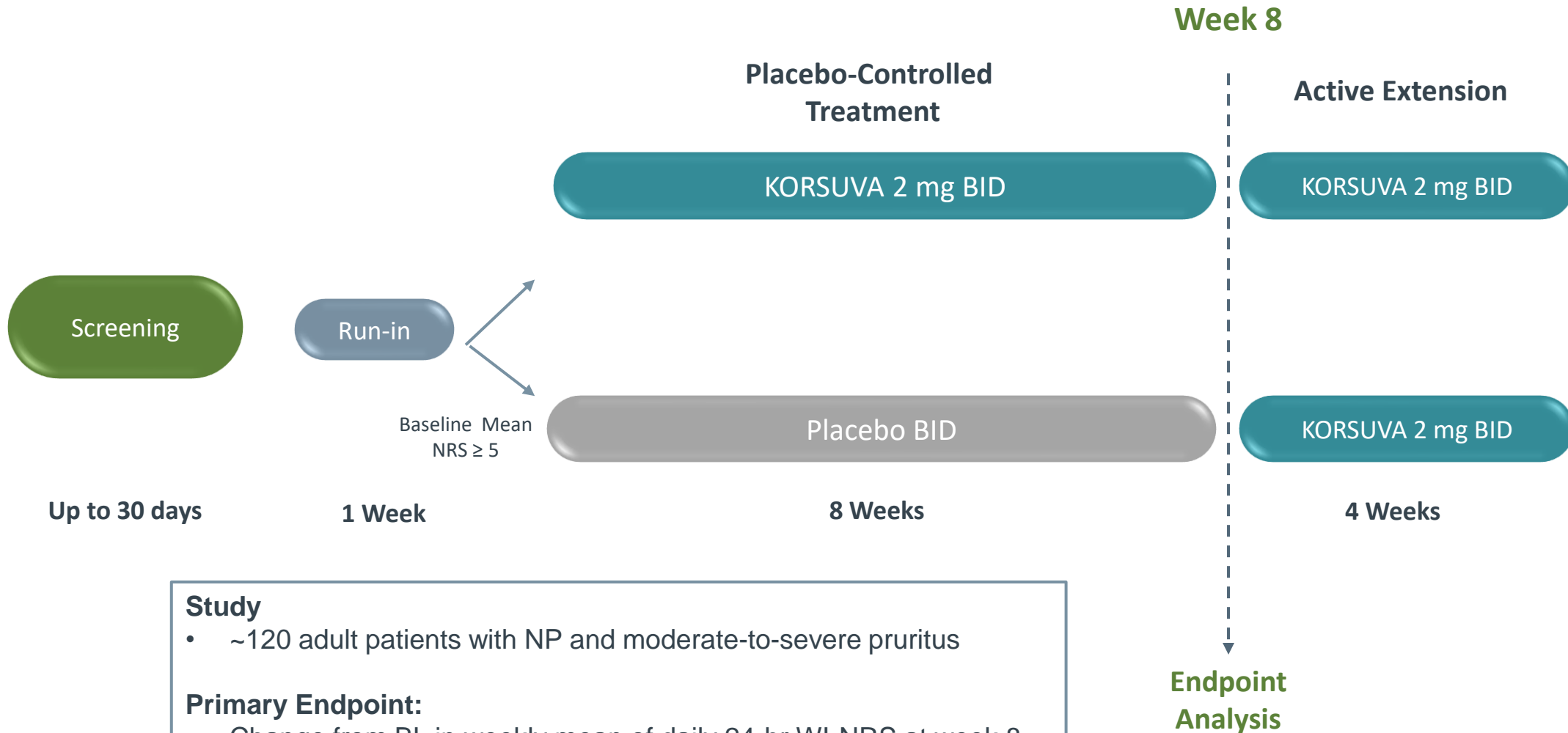
PREFERRED TERM	PBO (n=424)	DFK (n=424)
Subjects with any event	277 (65.3%)	302 (71.2%)
Diarrhea	24 (5.7%)	38 (9.0%)
Dizziness	16 (3.8%)	29 (6.8%)
Nausea	19 (4.5%)	28 (6.6%)
Headache	11 (2.6%)	19 (4.5%)
Hyperkalaemia	15 (3.5%)	20 (4.7%)
Somnolence	10 (2.4%)	18 (4.2%)
Back pain	4 (0.9%)	11 (2.6%)

Most common
adverse events
>5% in DFK arm

Key Chronic Pruritus Categories



Notalgia Paresthetica Associated Pruritus: POC / Phase 2 Study (KOMFORT)



Study

- ~120 adult patients with NP and moderate-to-severe pruritus

Primary Endpoint:

- Change from BL in weekly mean of daily 24-hr WI-NRS at week 8

Other Endpoints:

- QoL, Sleep, Responder Analyses, Safety