

AREXVY (Adjuvanted RSVPreF3) 2-Year Update

ACIP June 26, 2024

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GSK

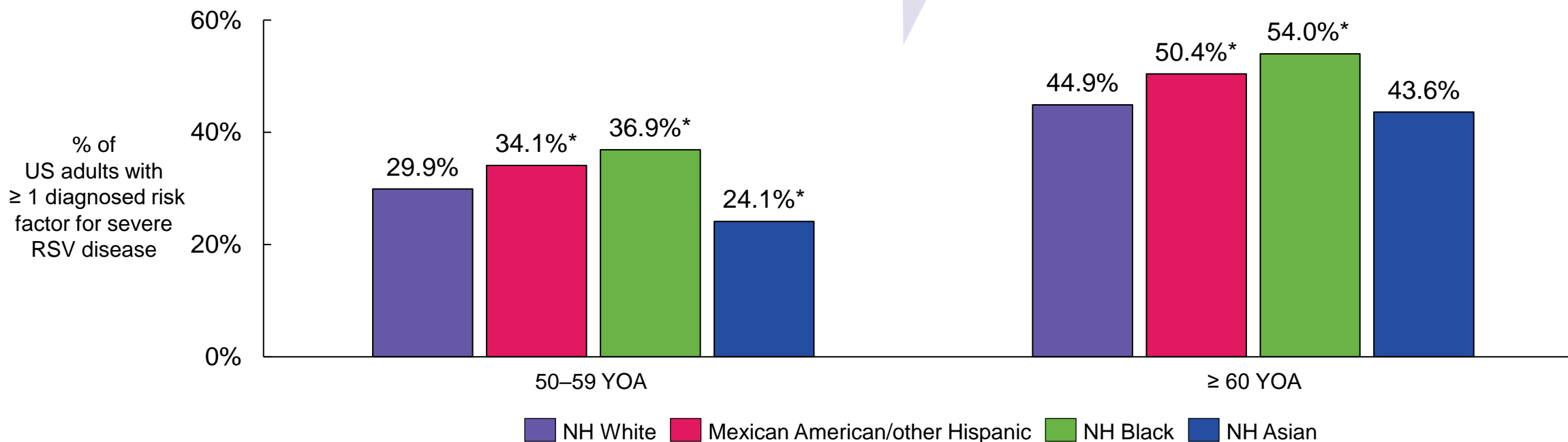
AREXVY Indications

AREXVY now indicated for active immunization for prevention of lower respiratory tract disease (LRTD) caused by RSV in

- Individuals **≥ 60 YOA**
- Individuals **50-59 YOA** at increased risk for LRTD caused by RSV

Risk Factors for Severe RSV Disease Are Highly Prevalent Among Adults ≥ 50 Years with Disparities Observed by Race and Ethnicity

- **31.4%** of adults **50–59 YOA** and **46.9%** of adults **≥ 60 YOA** are **diagnosed with ≥ 1 risk factor for severe RSV disease^a**
- **Mexican American/other Hispanic and NH Black adults** have **significantly higher** prevalence of **≥ 1 diagnosed risk factor** in each of these age groups (vs. NH White adults)^b



Horn et al. NFID ACVR, May 8-10, 2024

^aSelf-reported diagnosis of the following conditions: CHF, CHD, stroke, angina pectoris, MI, COPD (COPD, emphysema, or current chronic bronchitis), asthma (current), diabetes, liver disease (current), renal disease. ^bOther race/multi-racial results not presented.

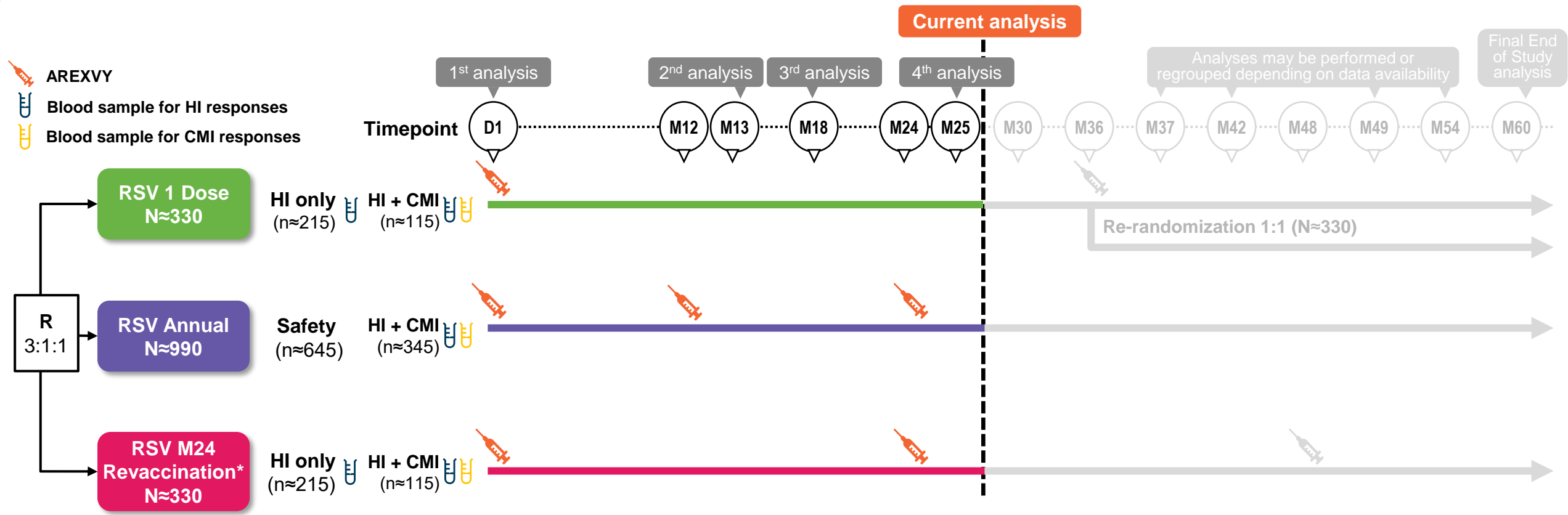
*Statistically significant based on two-sided $P < 0.05$. P-values were calculated based on pairwise chi-square analysis on 2x2 tables using non-Hispanic White adults as the reference group.

Notes: Retrospective, cross-sectional analysis of pooled NHANES data spanning the period 2011-March 2020. Weighting to the United States population conducted in accordance with NHANES published guidelines: <https://www.cdc.gov/nchs/nhanes/tutorials/weighting.aspx>. CHD, coronary heart disease; CHF, congestive heart failure; COPD, chronic obstructive pulmonary disease; MI, myocardial infarction; NH, Non-Hispanic; NHANES, National Health and Nutrition Examination Survey; YOA, years of age.

AReSVi-004: Immunogenicity, Safety, Reactogenicity and Persistence of Single Dose of AREXVY Vaccine and Different Revaccination Schedules in Adults \geq 60 YOA

Randomized, open-label, multi-country study (NCT04732871)

AReSVi-004 Phase 3 Study Design¹⁻³



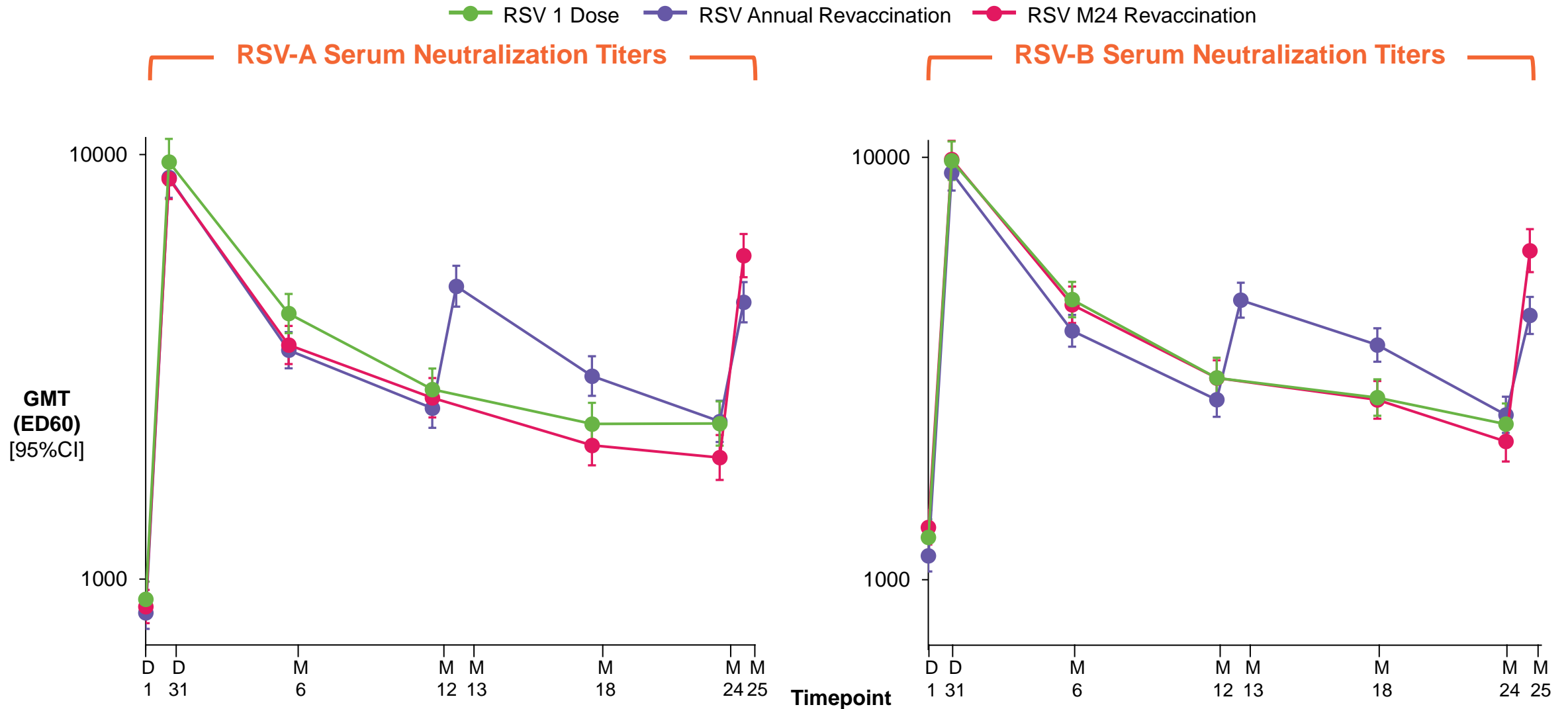
All participants followed for safety

Primary objective: To evaluate humoral immune response following 1-dose primary schedule up to 12 months post-dose 1**

Key secondary objectives: To evaluate humoral and CMI*** responses following 1-dose primary schedule and re-vaccination doses, up to study end (M60); safety and reactogenicity also assessed

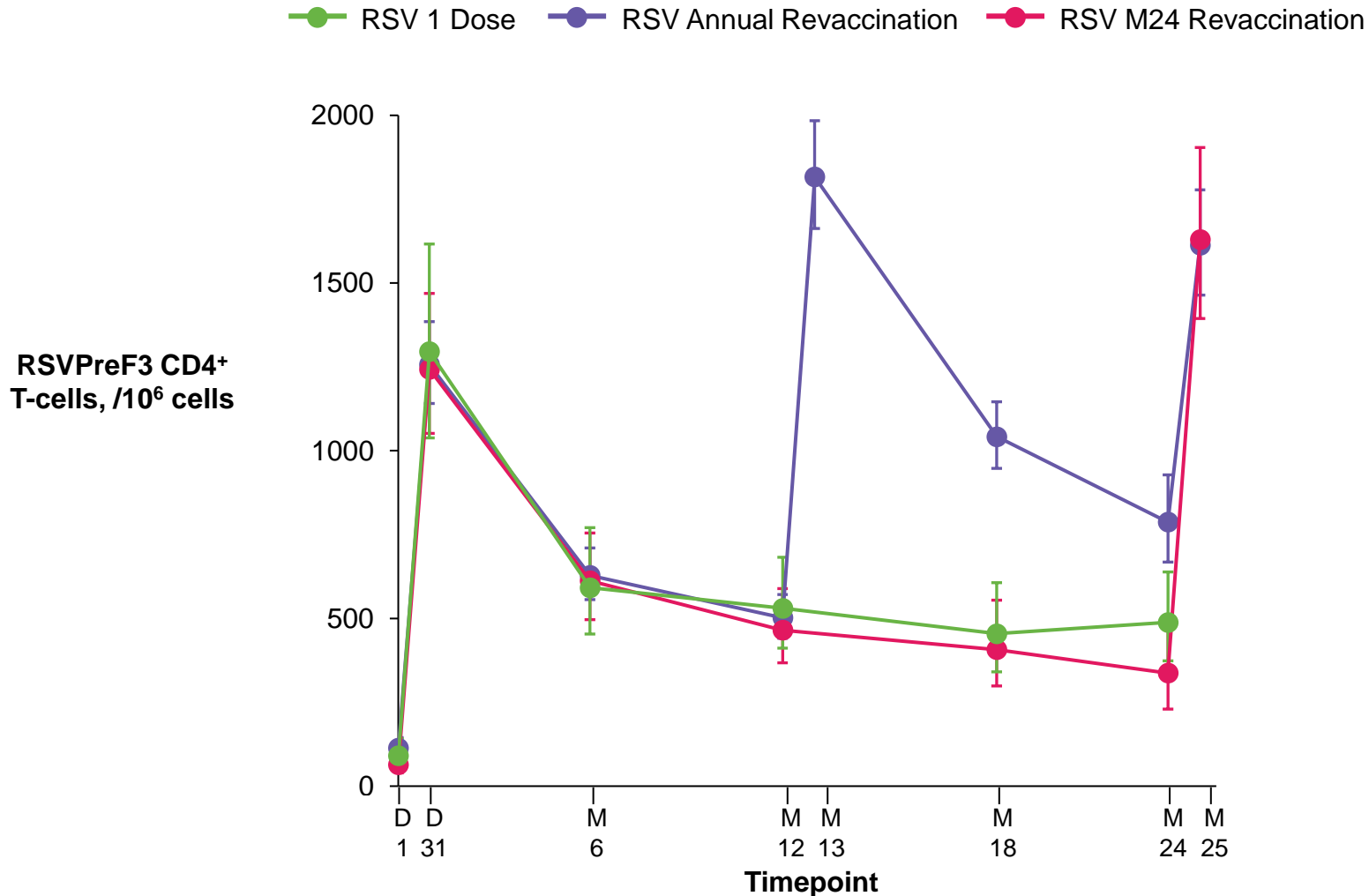
*RSV M24 revaccination: Participants receiving first dose (Dose 1) of AREXVY at Day 1 followed by revaccination dose at 24 months post Dose 1; **Primary endpoints: NAb (neutralizing antibody) geometric mean titers (RSV-A and RSV-B) at Day 1 (pre-vaccination), D31, M6, and M12 post-dose 1; ***CMI response in terms of frequency of RSVPreF3-specific CD4+ and/or CD8+ T-cells expressing > 2 activation markers; CMI, cell-mediated immunity; HI, humoral immunity; 1. Schwarz TF et al. 2023; 2. ClinicalTrials.gov. NCT04732871; 3. GSK, 2024 <https://www.gsk-studyregister.com/en/trial-details/?id=212496> (All URLs accessed June 2024)

Higher RSV-A and RSV-B Neutralizing Antibody Titers Observed After 24 Month Vaccination Interval



RSV Annual revaccination (N=250-341): Participants receiving first dose (Dose 1) of AREXVY at Day 1, followed by revaccination dose at 12 months post Dose 1 and at 24 months post Dose 1;
 RSV M24 revaccination (N= 223-319): Participants receiving first dose (Dose 1) of AREXVY at Day 1 followed by revaccination dose at 24 months post Dose 1;
 RSV 1 dose (N=281-318): Participants receiving single dose (Dose 1) of AREXVY at Day 1; ED60: estimated dilution 60; GMT: geometric mean titer
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CD4+ T-Cell Responses Increased 1-Month Post Each Vaccination Dose

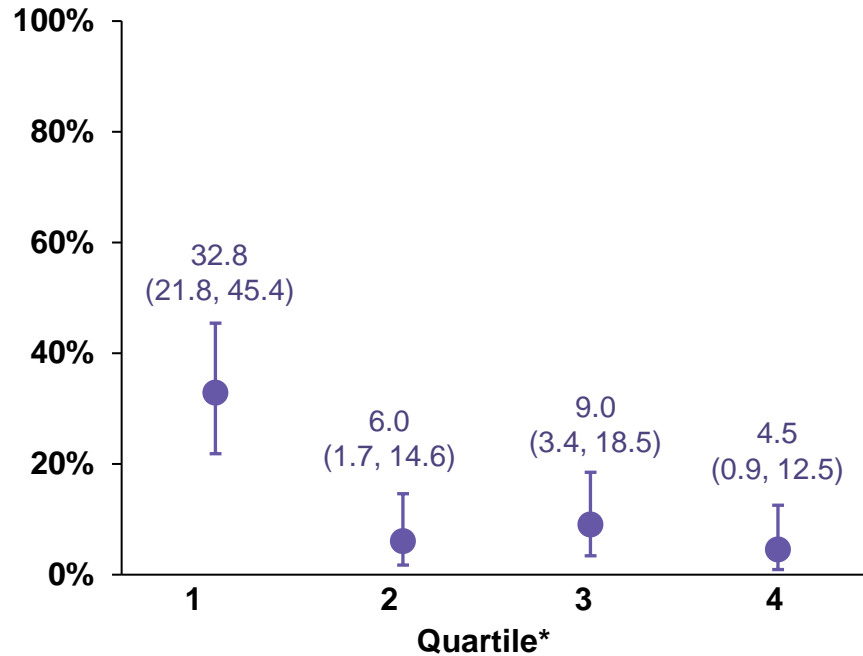


RSV Annual revaccination (N=216-286): Participants receiving first dose (Dose 1) of AREXVY at Day 1, followed by revaccination dose at 12 months post Dose 1 and at 24 months post Dose 1; RSV M24 revaccination (N=68-94): Participants receiving first dose (Dose 1) of AREXVY at Day 1 followed by revaccination dose at 24 months post Dose 1; RSV 1 dose (N=83-95): Participants receiving single dose (Dose 1) of AREXVY at Day 1; CD4+ T-cells expressing ≥ 2 activation markers including ≥ 1 cytokine among CD40L, 4-1BB, IL-2, TNF- α , IFN- γ , IL-13, IL-17 events/ 10^6 cells; (by intracellular staining)

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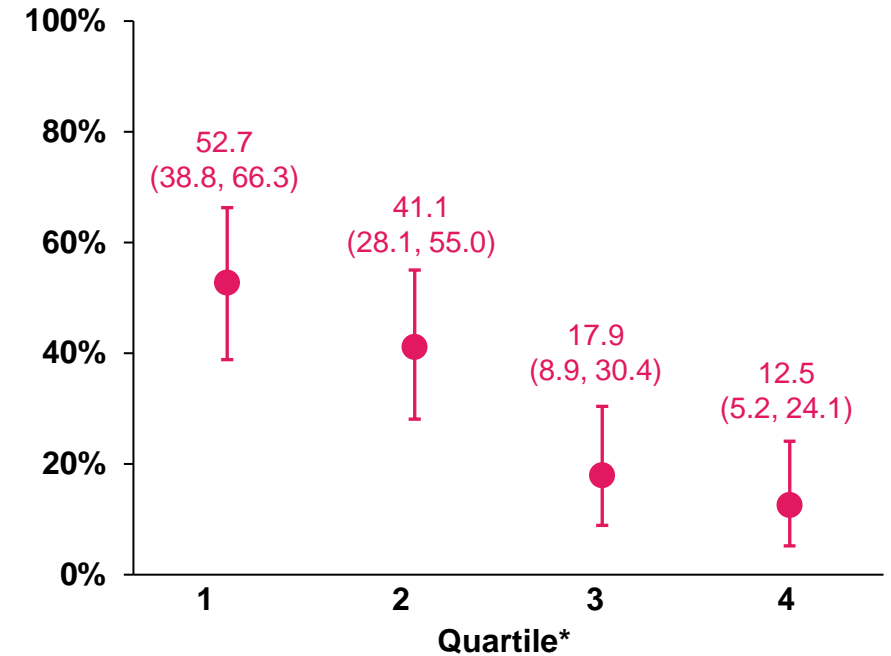
Lower Prevaccination RSV-A NAb Titers Associated with Higher Seroresponse Rates (≥ 4 -Fold Increase) Following Revaccination

RSV Annual Revaccination



Participants with ≥ 4 -fold increase in RSV-A NAb titers at M13 vs M12 [95% CI]

RSV M24 Revaccination



Participants with ≥ 4 -fold increase in RSV-A NAb titers at M25 vs M24 [95% CI]

n/N	22 / 67	4 / 67	6 / 67	3 / 67
NAb baseline GMT (ED60)	193 – <1,304	1,304 – <2,381	2,381 – <4,078	4,078 – 123,535

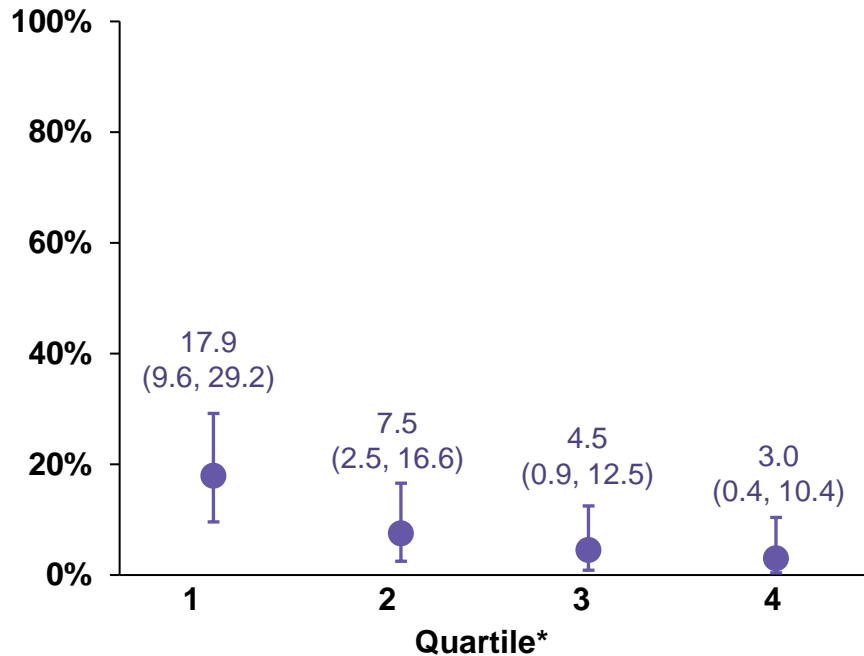
29 / 55	23 / 56	10 / 56	7 / 56
283 – <1,000	1,000 – <1,849	1,849 – <3,736	3,736 – 38,840

*Participants were grouped into quartiles depending on their baseline NAb titers: 1 = baseline NAb min-<1; 2 = baseline NAb 1-<2 (median); 3 = baseline NAb 2 (median)-<3; 4 = baseline NAb 3-4. Participants in the quartile 1 had the lowest pre-revaccination NAb and those in the quartile 4 had the highest; ED60, serum dilution inducing 60% inhibition in plaque-forming units; GMT, geometric mean titer; NAb, neutralizing antibody; RSV Annual revaccination: Participants receiving the first dose (Dose 1) of Arexvy at Day 1, followed by a revaccination dose at 12 months post Dose 1 and at 24 months post Dose 1; RSV M24 revaccination: Participants receiving the first dose (Dose 1) of Arexvy at Day 1 followed by a revaccination dose at 24 months post Dose 1.

Lower Prevaccination RSV-B NAb Titers Associated with Higher Seroresponse Rates (≥ 4 -Fold Increase) Following Revaccination

RSV Annual Revaccination

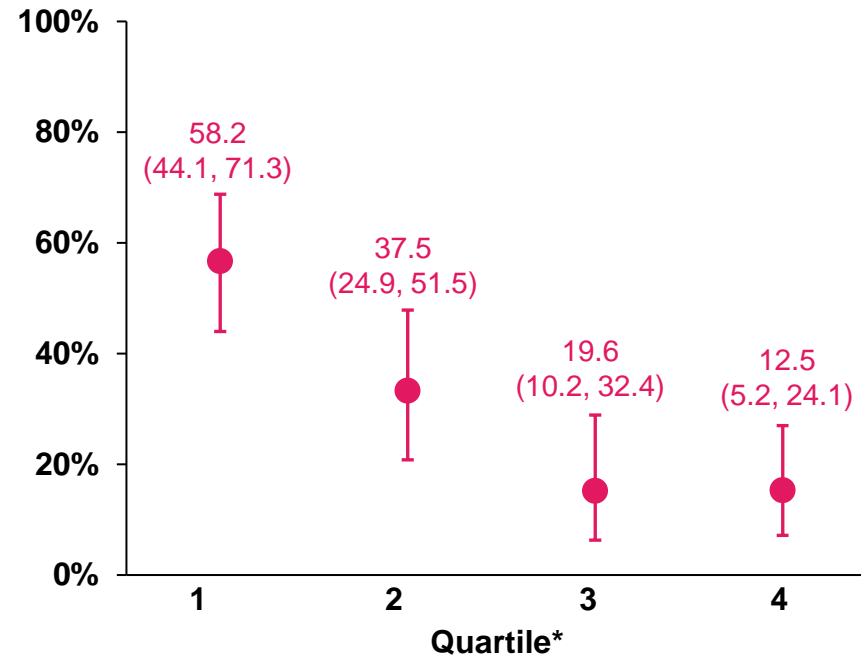
Participants with ≥ 4 -fold increase in RSV-B NAb titers at M13 vs M12 [95% CI]



n/N	12 / 67	5 / 67	3 / 67	2 / 67
NAb baseline GMT (ED60)	351 – <1,607	1,607 – <2,453	2,453 – <4,133	4,133 – 36,391

RSV M24 Revaccination

Participants with ≥ 4 -fold increase in RSV-B NAb titers at M25 vs M24 [95% CI]

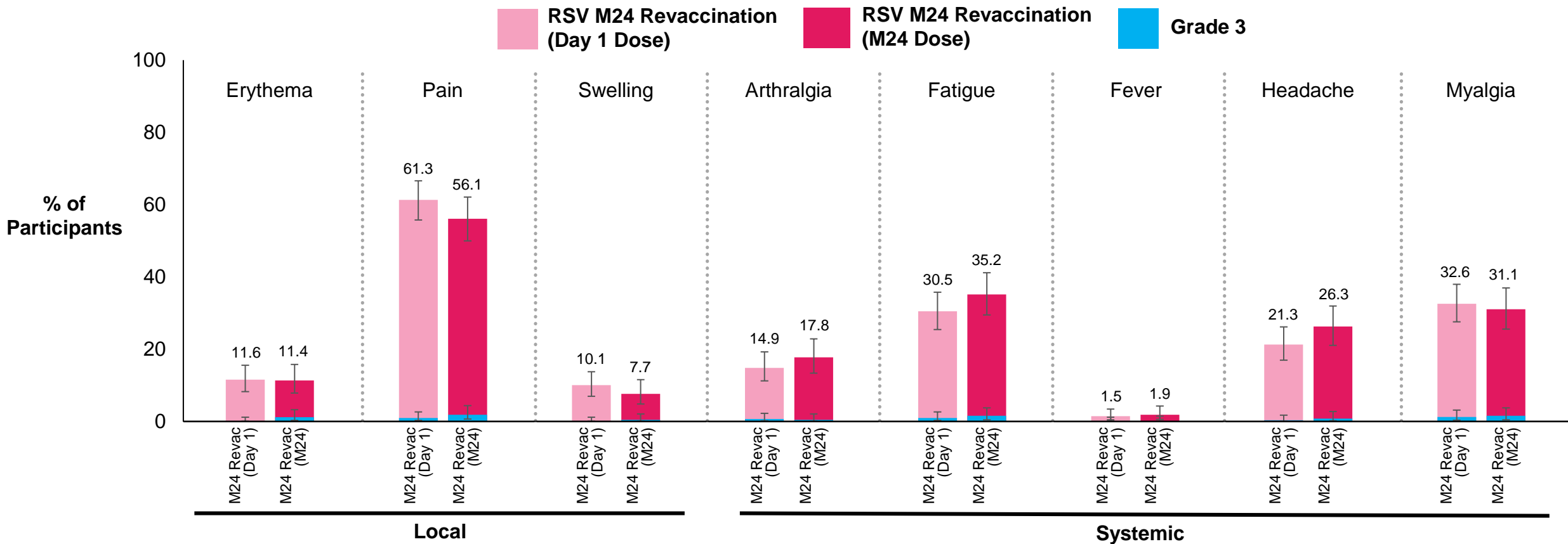


n/N	32 / 55	21 / 56	11 / 56	7 / 56
NAb baseline GMT (ED60)	271 – <1,190	1,190 – <2,122	2,122 – <3,845	3,845 – 26,385

*Participants were grouped into quartiles depending on their baseline NAb titers: 1 = baseline NAb min-<1; 2 = baseline NAb 1-<2 (median); 3 = baseline NAb 2 (median)-<3; 4 = baseline NAb 3-4. Participants in the quartile 1 had the lowest pre-revaccination NAb and those in the quartile 4 had the highest; ED60, serum dilution inducing 60% inhibition in plaque-forming units; GMT, geometric mean titer; NAb, neutralizing antibody; RSV Annual revaccination: Participants receiving the first dose (Dose 1) of Arexvy at Day 1, followed by a revaccination dose at 12 months post Dose 1 and at 24 months post Dose 1; RSV M24 revaccination: Participants receiving the first dose (Dose 1) of Arexvy at Day 1 followed by a revaccination dose at 24 months post Dose 1.

Safety and Reactogenicity Profile in Individuals Revaccinated at Month 24 Similar to First Dose

Solicited AEs reported within 4 days of each vaccine dose (exposed set)



Unsolicited AEs, SAEs, Fatal SAEs and pIMDs of individuals who were revaccinated at Month 24 are also similar to those vaccinated at Day 1

AE, adverse event; M, month; RSV 24M revaccination: Participants receiving the first dose (Day 1 Dose) of RSVPreF3 OA investigational vaccine at Day 1 followed by a revaccination dose at 24 months (M24 Dose) post-Dose 1 (n=270-328). Grade 3: >100 mm for erythema and swelling; significant pain at rest, prevents normal everyday activities for pain; prevents normal activity for headache, fatigue, myalgia, and arthralgia; >39.0°C (102.2°F) for fever.

AReSVi-004 Summary

1

Revaccination at a 24-month interval provides higher RSV-A and RSV-B neutralizing antibody titers as compared to a 12-month interval

2

The lower the prevaccination RSV-A and RSV-B neutralizing antibody titers observed at 2 years post initial vaccination, the higher the seroresponse rates after revaccination

3

Safety and reactogenicity profiles of second dose comparable with first dose

4

Future results from this trial will help inform optimal revaccination timing

Postmarketing Safety Update

AREXVY: Post-Licensure Safety Surveillance After 1 Year Reflects Acceptable Safety Profile in Clinical Trials

Vaccine Exposure

- ~ **8 million** doses of AREXVY administered in US since launch*

AE

- 1,640 AEs (from US, 1,344 AE reports received) [launch 3 May '23-2 June '24]**
- 89% non-serious
- Majority related to labelled reactions

GBS

- Since launch, GSK received **13 reports** of GBS, all from US
- Reports do not exceed expected background incidence¹
 - 17 cases expected in absence of vaccination

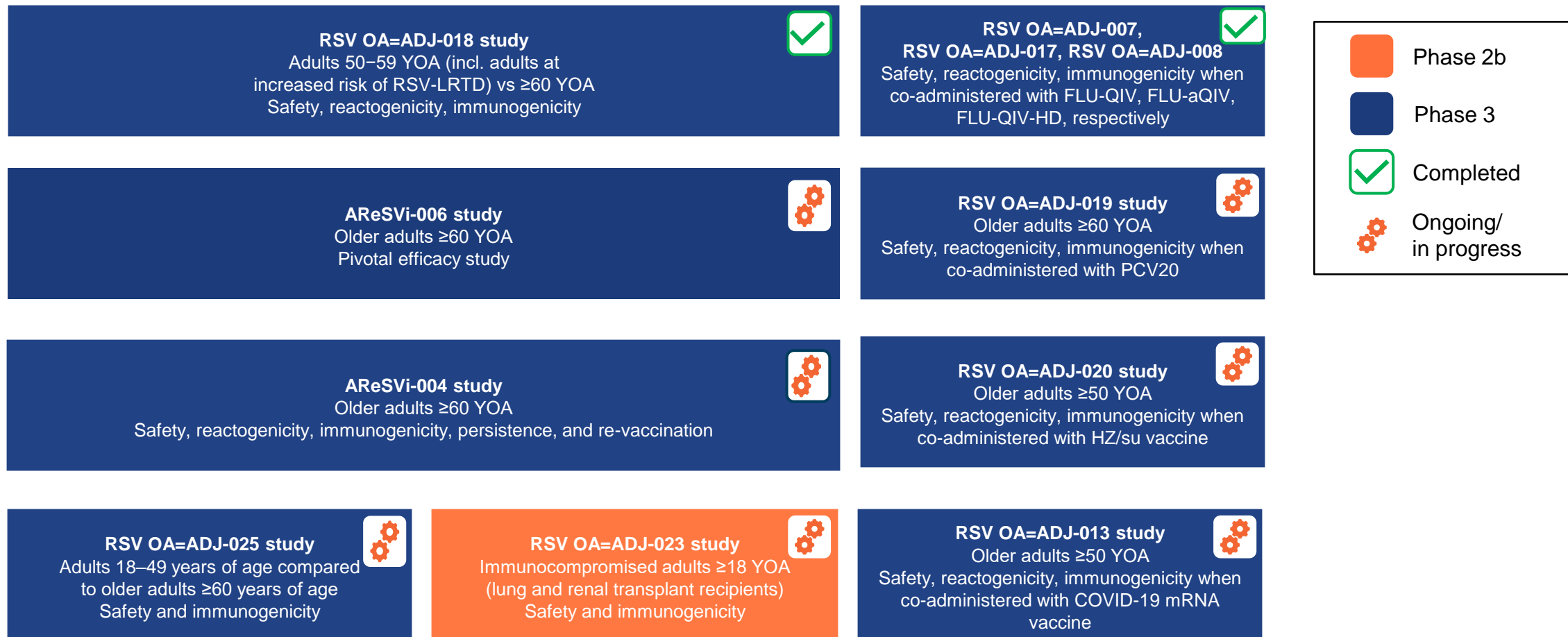
*IQVIA NPA Rapid Weekly TRx, to 13 May 2024

**Based on GSK safety database, spontaneous AE reports not necessarily causally-related to vaccination

1. Sejvar JJ, et al. 2011; AE: adverse event

Overview of Clinical Development Program

AREXVY Clinical Development Program

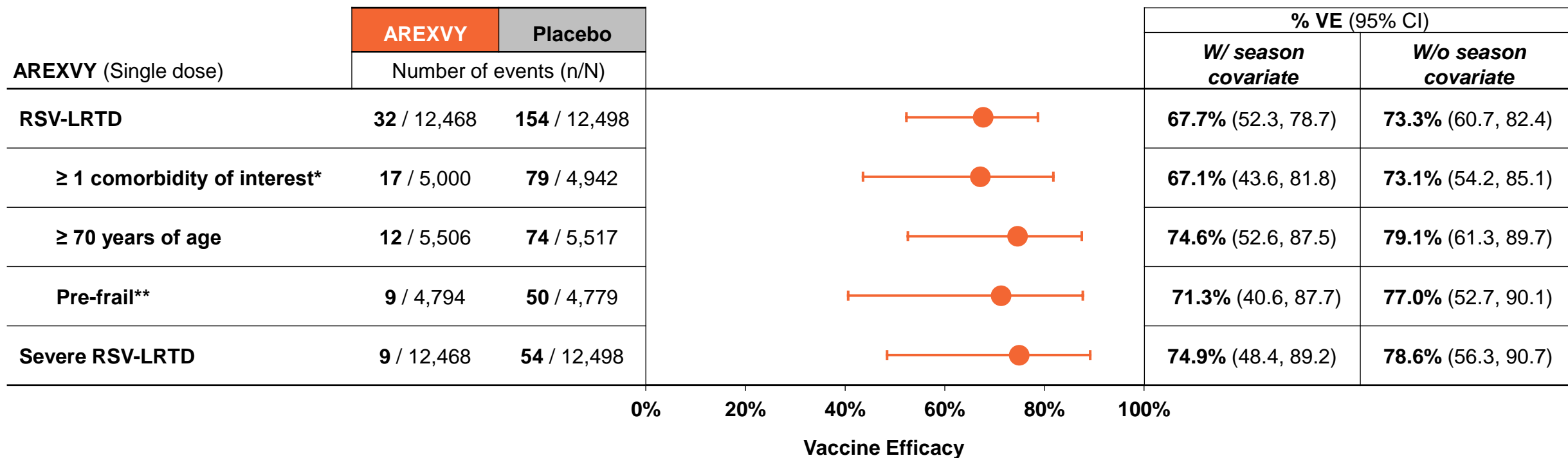


FLU-aQIV: adjuvanted quadrivalent influenza vaccine; FLU-QIV: quadrivalent influenza vaccine; FLU-QIV-HD: high-dose quadrivalent influenza vaccine; HZ/su: herpes zoster recombinant subunit; 1MPD1: 1 month post dose 1; PCV20: 20-valent pneumococcal conjugate vaccine; YOA: years of age

All studies ClinicalTrials.gov; All URLs accessed June 2024

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Efficacy of a Single Dose of AREXVY over 2 Calendar Years



Median follow-up: 23.3 months

*Comorbidities of interest: COPD, asthma, any chronic respiratory or pulmonary disease, heart failure (cardiorespiratory condition), diabetes mellitus type 1 or 2, advanced liver or renal disease (endocrine or metabolic condition); **frailty assessed using gait speed test: walking speed < 0.4 m/s or not able to perform test (frail), walking speed 0.4–0.99 m/s (pre-frail), walking speed ≥ 1 m/s (fit); Due to too few cases observed, cannot conclude VE for frail and ≥ 80 years of age

Conclusion

- Immunogenicity data supports potential for revaccination with AREXVY
 - Stronger immune responses were observed in those revaccinated after 24-month interval compared to those revaccinated annually
 - Results from ongoing Phase 3 studies will help inform timing of revaccination
- AREXVY provides protection over 2 calendar years
- Acceptable safety profile following administration of ~ 8 million doses
- FDA recently expanded AREXVY's indication to include use in individuals 50–59 YOA at increased risk for RSV-LRTD
 - Will help to close equity gap by broadening access for populations at increased risk for severe disease caused by RSV

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