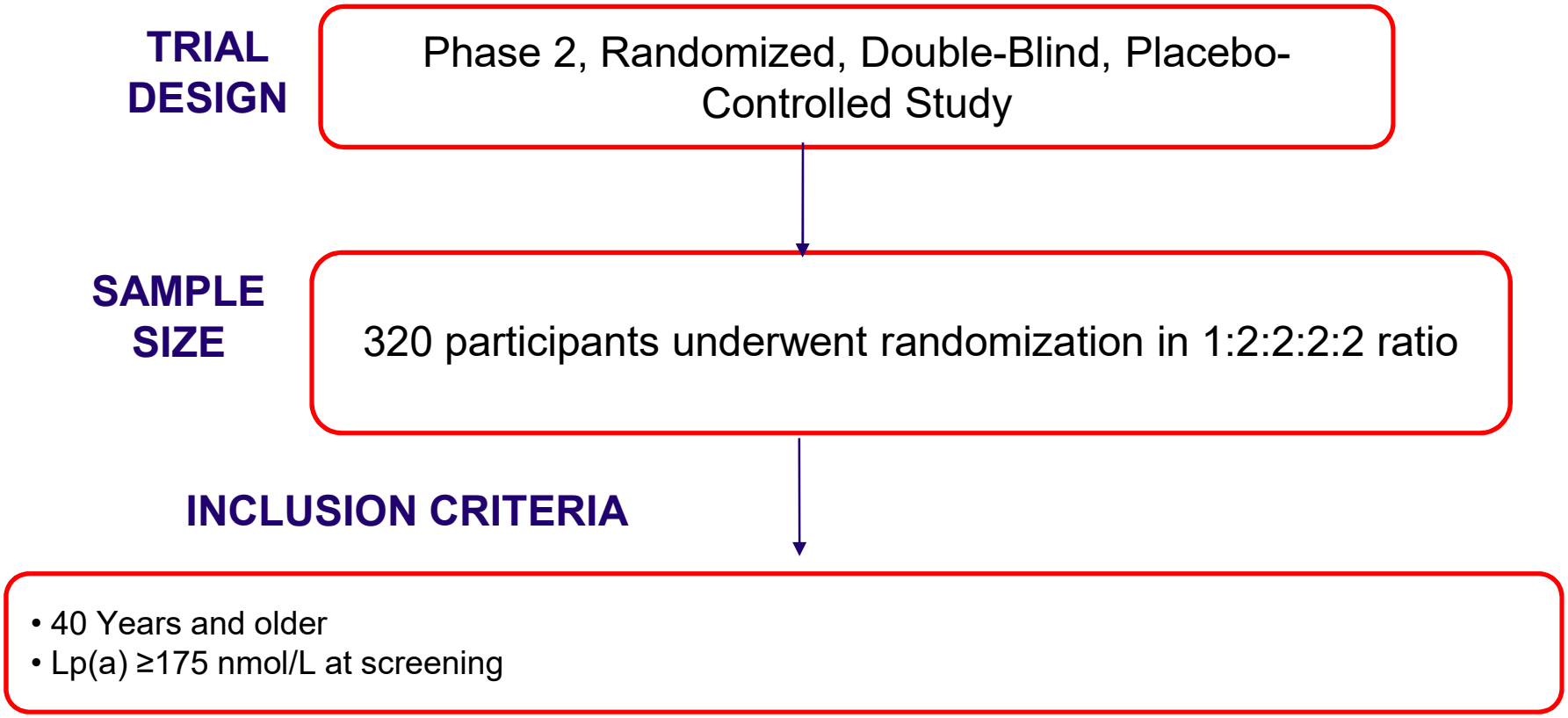
ALPACA

CLINICAL TRIAL SUMMARY

Presenters	Eli Lilly and Company
Objectives	To determine the efficacy and safety of lepodisiran in adults with elevated lipoprotein(a).

Source: https://clinicaltrials.gov/study/NCT05565742


TRIAL DESIGN
Phase 2, Randomized, Double-Blind, Placebo-Controlled Study
SAMPLE SIZE
320 participants underwent randomization in 1:2:2:2:2 ratio
INCLUSION CRITERIA
• 40 Years and older
• Lp(a) ≥175 nmol/L at screening

METHODOLOGY

- the study randomly assigned 360 participants in a 1:2:2:2:2 ratio to receive lepodisiran at a dose of 16 mg, 96 mg, or 400 mg at baseline and again at day 180, lepodisiran at a dose of 400 mg at baseline and placebo at day 180, or placebo at baseline and at day 180, all administered by subcutaneous injection.

- The primary endpoint was the time-averaged percentage change in serum lipoprotein(a) concentration from baseline, measured between day 60 and day 180.

RESULTS

The placebo-adjusted, time-averaged percentage reduction in serum lipoprotein(a) levels from baseline between day 60 and day 180 was –40.8, –75.2, and –93.9 percentage points in the 16-mg group, 96-mg group, and pooled 400-mg groups.

From day 30 to day 360, the corresponding reductions were –41.2 percentage points, –77.2 percentage points, –88.5 percentage points, and –94.8 percentage points for the 16-mg, 96-mg, 400-mg–placebo, and 400-mg–400-mg dose groups, respectively.

Serious adverse events occurred in 35 participants but were not considered to be related to lepodisiran or placebo. Dose-dependent injection-site reactions, generally mild in severity, were observed in ≤12% of participants receiving the highest lepodisiran dose.

CONCLUSION

Lepodisiran led to a reduction in mean serum lipoprotein(a) concentrations between days 60 and 180 following administration.

Nissen SE, Ni W, Shen X, et al. Lepodisiran - A Long-Duration Small Interfering RNA Targeting Lipoprotein(a). *N Engl J Med*. 2025;392(17):1673-1683. doi:10.1056/NEJMoa2415818