

Estimating potential cardiovascular health benefits of improved population level control of LDL cholesterol through a twice-yearly siRNA-based approach: A simulation study of a health-system level intervention

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Atherosclerosis

Volume 391 (April 2024)

DOI: 10.1016/j.atherosclerosis.2024.117472



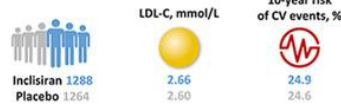
Graphical abstract: Simulation study demonstrating the potential cardiovascular health benefits of sustained LDL-C reductions over 10 years of inclisiran treatment

I. Analysis from the ORION-10 and ORION-11 trials



- Analysis included**
- Patients with ASCVD
 - ≤80 years
 - LDL-C >1.8 mmol/L (>70 mg/dL)
 - hs-CRP <15 mg/L

1. At baseline, patients had high LDL-C levels and 10-year CV risk



2. Observed LDL-C levels in the trials
Placebo-corrected time-adjusted absolute change from baseline in LDL-C with inclisiran (Days 90–540 of treatment)



3. Projected reduction in 10-year CV risk with inclisiran, assuming that LDL-C reductions observed in the trials were persistent



II. Simulation analysis estimating the population benefits in 500,000 ORION-like population

Simulated patients were divided into quintiles of predicted 10-year risk

4. At baseline, large number of patients were in the high-risk categories in inclisiran group

Number (%) of patients per risk category at baseline



5. LDL-C changes were assessed after inclisiran treatment in simulated patients



6. After inclisiran treatment, majority of population shifted to lower CV risk categories

Number (%) of patients per risk category post treatment



7. Overall, 31,522 potential first CV events might be averted over 10-year with inclisiran versus projected increase of 1426 first CV events with placebo in this simulated population



Fig. 1

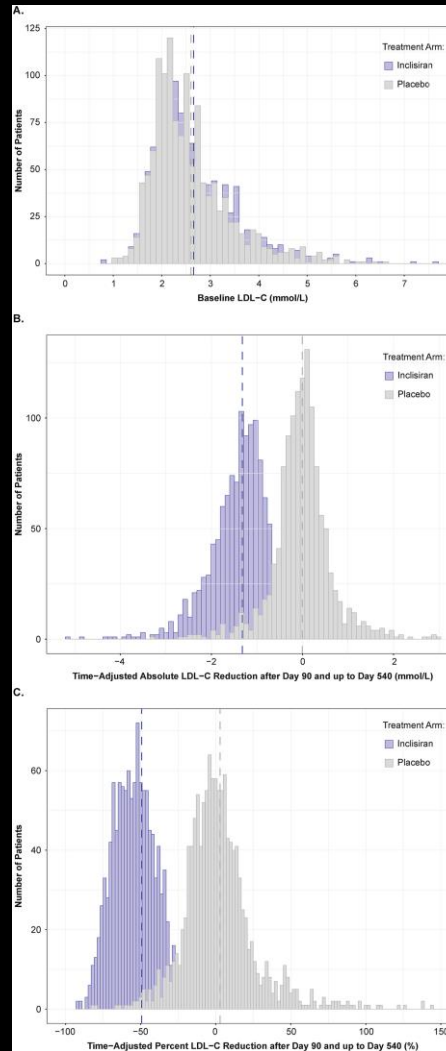


Fig. 2

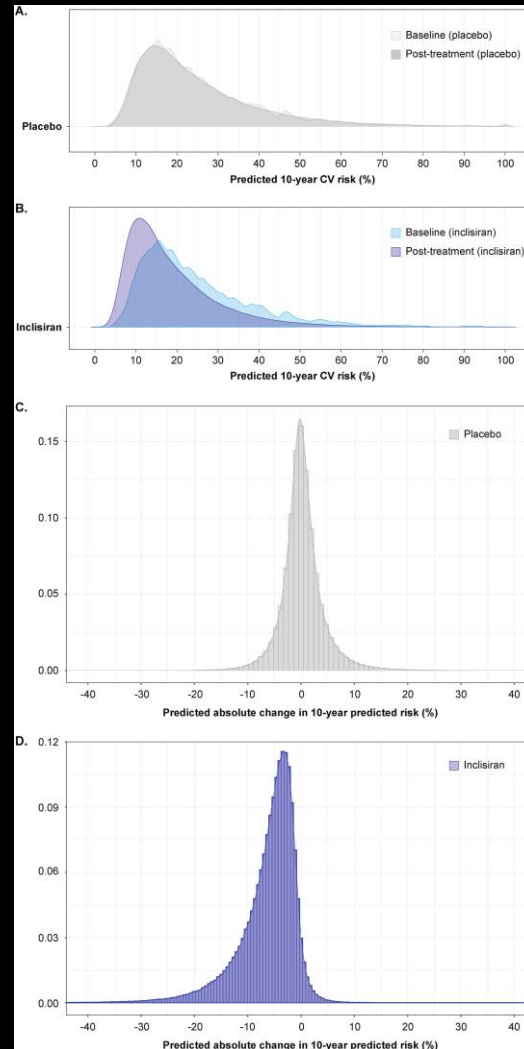


Fig. 3

