

SUPPLEMENTARY MATERIAL

Efficacy and safety of antisense oligonucleotide therapies targeting APoC-III in patients with severe hypertriglyceridemia: a meta-analysis of randomized controlled trials

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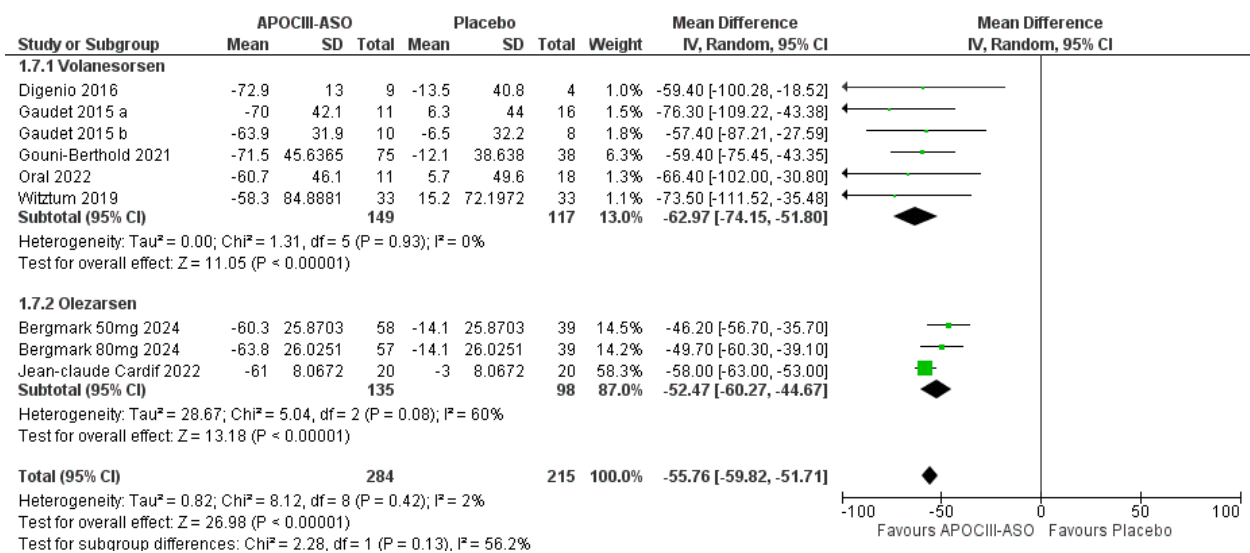
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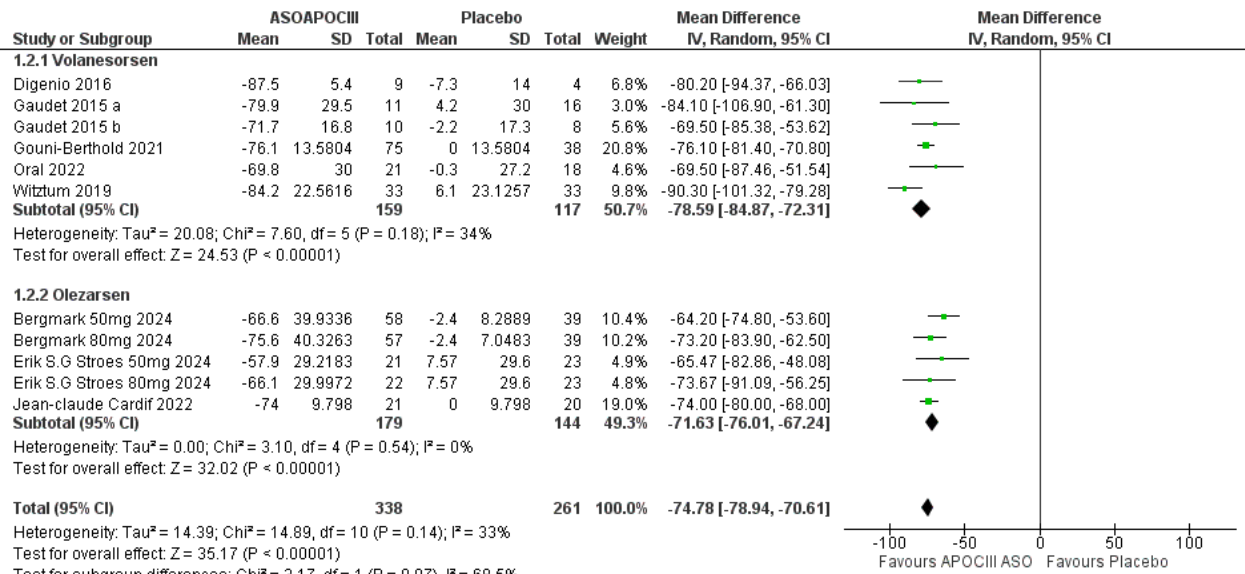
Key words: hypertriglyceridemia, antisense oligonucleotides, cardiovascular risk.

Study ID	Experimental	Comparator	D1	D2	D3	D4	D5	Overall	
Tardif 2022	Olezarsen	Placebo	!	+	+	+	+	!	Low risk Some concerns High risk
Stroes 2024	Olezarsen	placebo	!	+	+	+	+	!	
Bergmark 2024	Olezarsen	placebo	!	+	+	+	+	!	
Oral 2022	volanesorsen	Placebo	!	+	!	+	+	!	
Gaudet 2015	volanesorsen	placebo	+	+	!	+	+	!	D1 Randomisation process
Witztum 2019	Volanesorsen	Placebo	+	+	+	+	+	+	D2 Deviations from the intended interventions
Digenio 2016	Volanesorsen	placebo	+	+	+	+	+	+	D3 Missing outcome data
Gouni-Berthold	volanesorsen	placebo	+	+	!	+	+	!	D4 Measurement of the outcome
Lightbourne 2022	Volanesorsen	Placebo	+	+	+	+	+	+	D5 Selection of the reported result

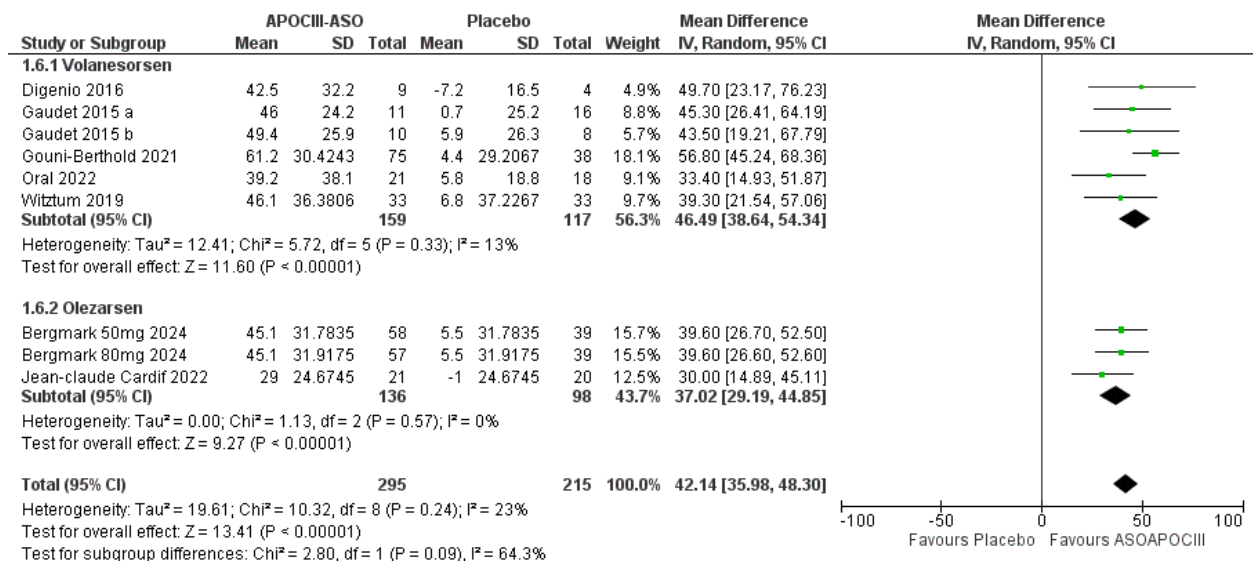
Supplementary Figure 1. Risk of Bias of included studies.



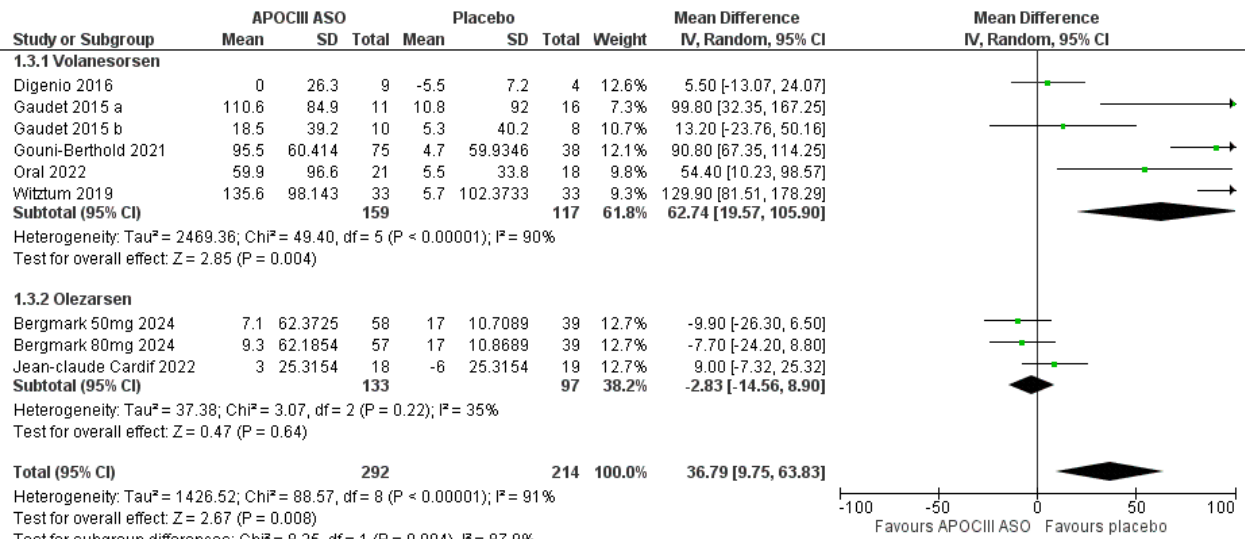
Supplementary Figure 2. Changes in very low-density lipoprotein-cholesterol levels.



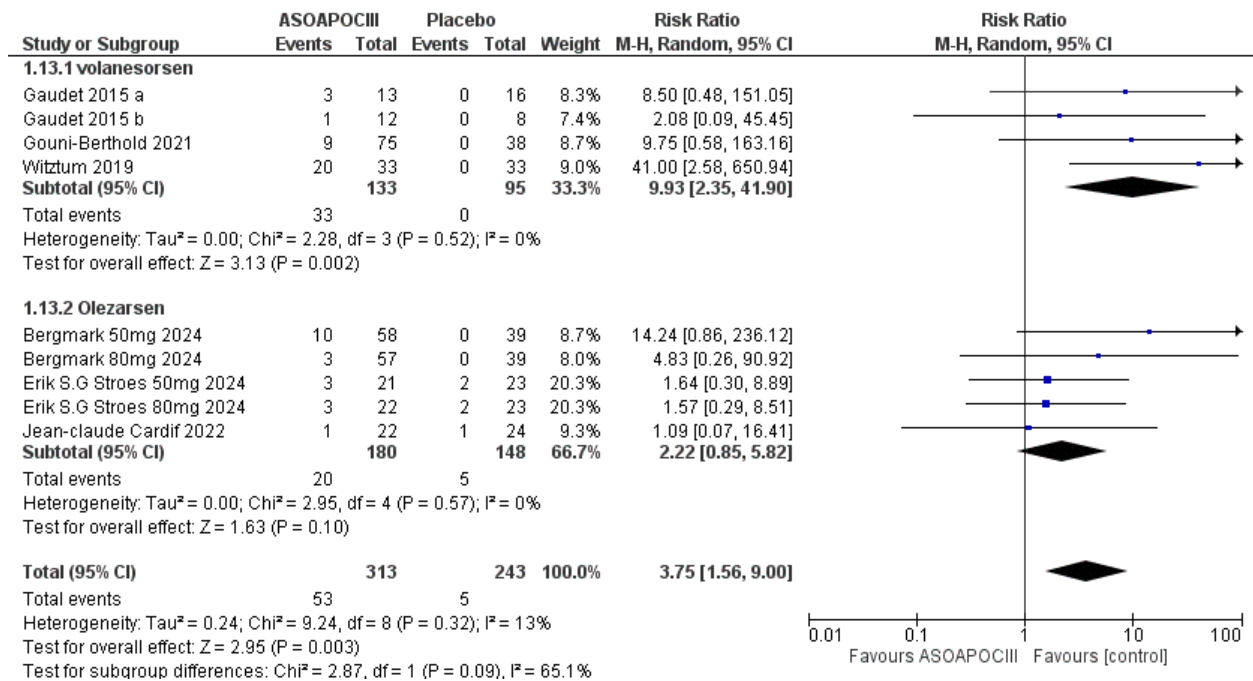
Supplementary Figure 3. Changes in APOC3 levels.



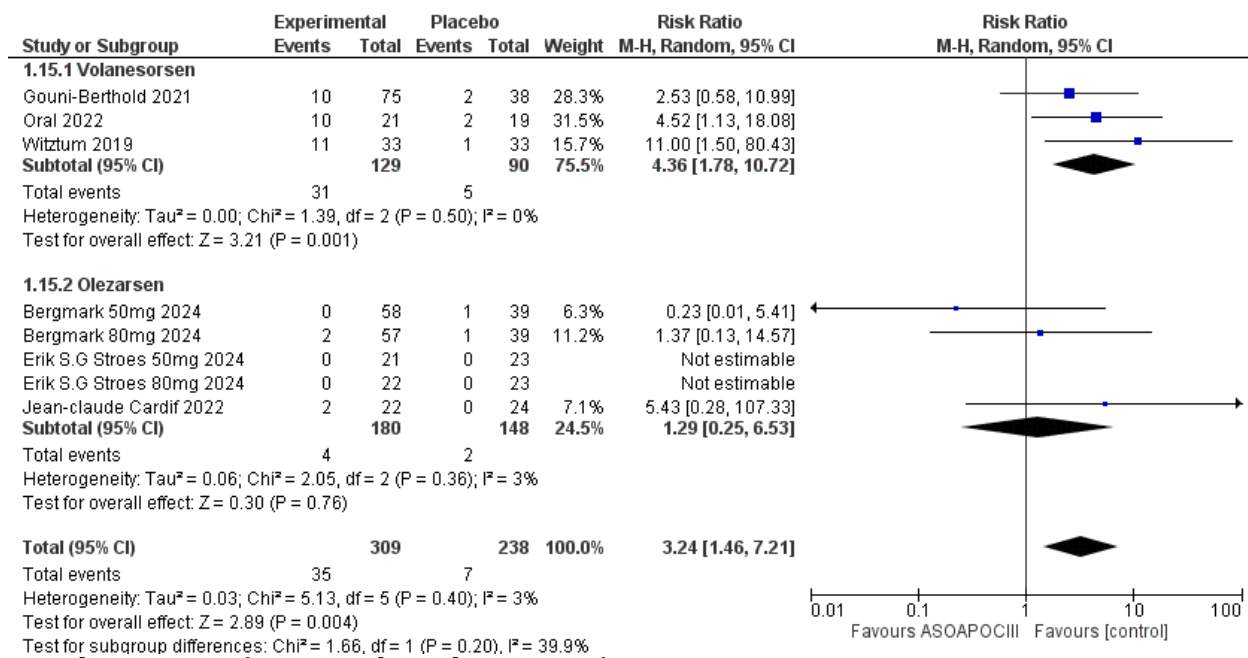
Supplementary Figure 4. Changes in high-density lipoprotein levels.



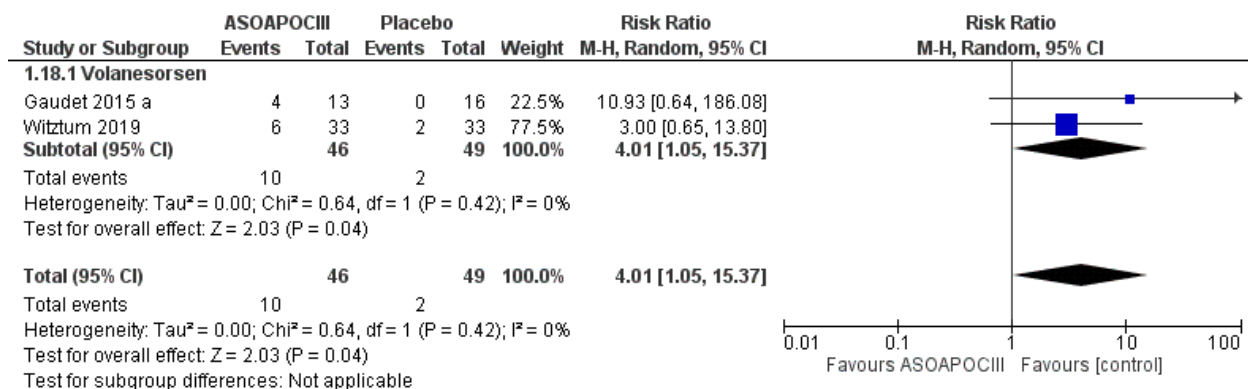
Supplementary Figure 5: Changes in low-density lipoprotein-cholesterol levels.



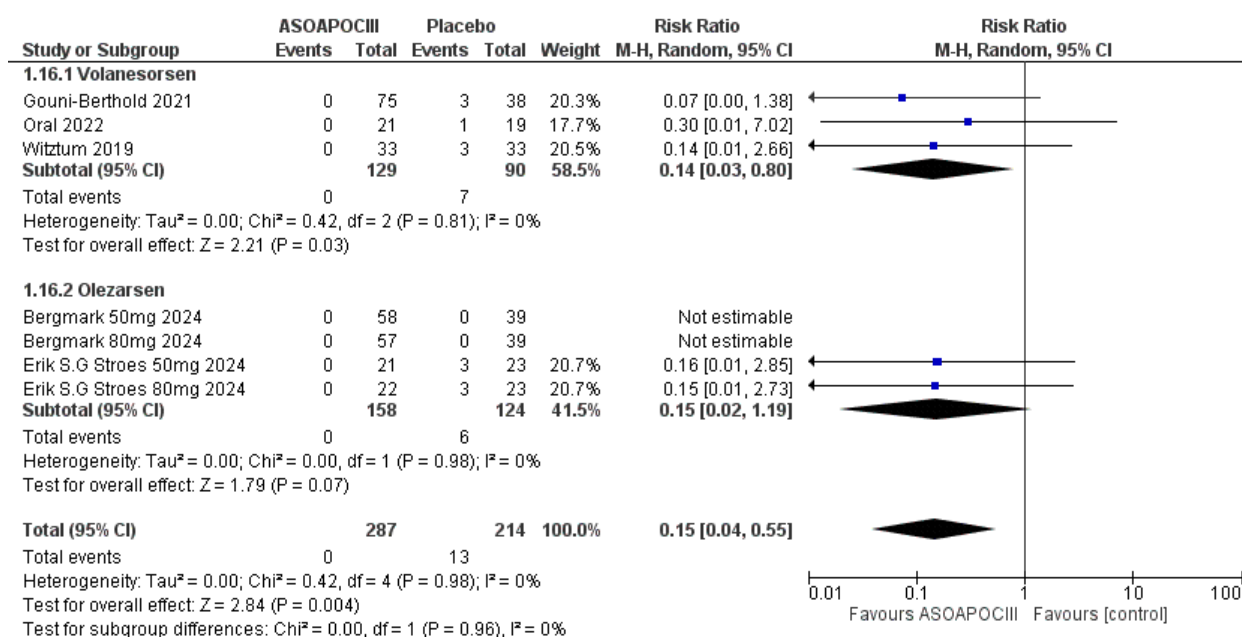
Supplementary Figure 6: Local injection site reactions.



Supplementary Figure 7. Thrombocytopenia.



Supplementary Figure 8. Nausea.



Supplementary Figure 9. Acute pancreatitis.

Detailed search strategy

("isis 304801"[Supplementary Concept] OR "isis 304801"[All Fields] OR "volanesorsen"[All Fields] OR "Olezarsen"[All Fields] OR ("isis 304801"[Supplementary Concept] OR "isis 304801"[All Fields] OR "isis 304801"[All Fields]) OR "ISISApoCIIIIRx"[All Fields] OR "IONIS-ApoCIIIIRx"[All Fields] OR "AKCEA-APOCIII-LRx"[All Fields] OR ("oligonucleotides antisense"[Pharmacological Action] OR "oligonucleotides, antisense"[MeSH Terms] OR ("oligonucleotides"[All Fields] AND "antisense"[All Fields]) OR "antisense oligonucleotides"[All Fields] OR ("antisense"[All Fields] AND "oligonucleotide"[All Fields]) OR "antisense oligonucleotide"[All Fields])) AND ("hypertriglyceridaemia"[All Fields] OR "hypertriglyceridemia"[MeSH Terms] OR "hypertriglyceridemia"[All Fields] OR "hypertriglyceridaemias"[All Fields] OR "hypertriglyceridemias"[All Fields] OR "FCS" [All fields] OR "familial chylomicronaemia syndrome"[All fields])