PLACE 2026
PLATFORM OF LABORATORIES FOR ADVANCES IN CARDIAC EXPERIENCE

CONGRESSO
ROMA, 25 - 27 Giugno 2026

Sindrome Coronarica Cronica: ottimizzazione del C-LDL e riduzione del rischio CV con la triplice terapia orale

Dott.ssa Ilaria Jacomelli

Combination therapy in the guidelines: from high-intensity statins to high-intensity lipid-lowering therapies

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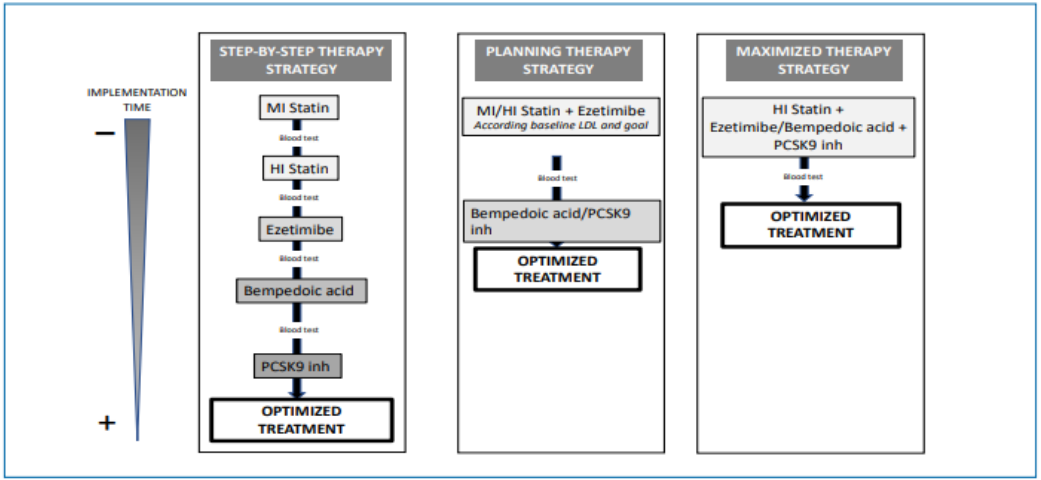

Figure 1 | Different strategies to optimize lipid-lowering therapy.

STEP-RCV Project: ScienTific Expert Panel per i pazienti a rischio cardiovascolare alto e molto alto: come ottimizzare la terapia ipolipemizzante

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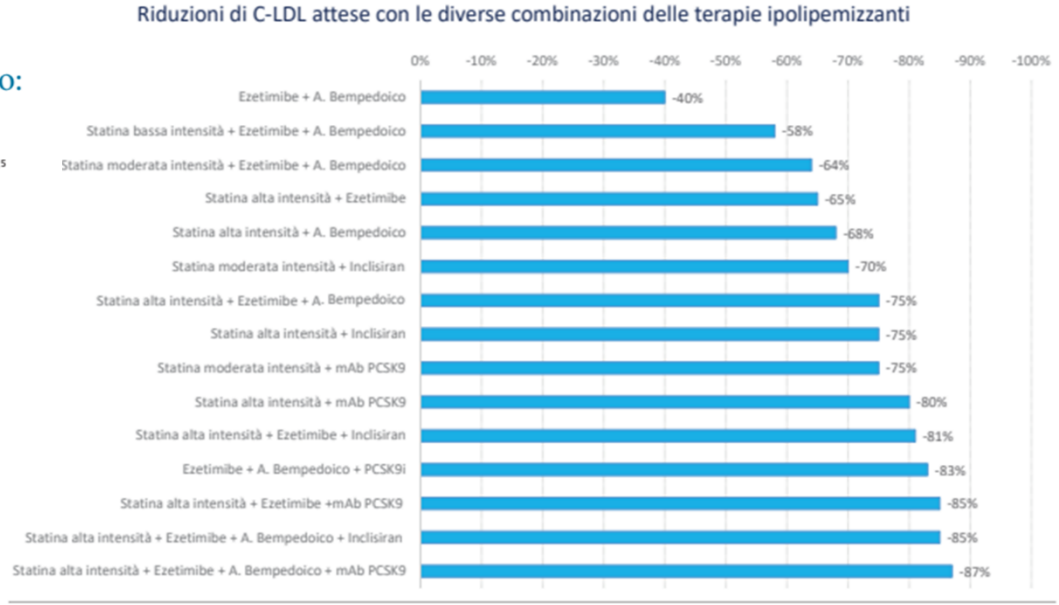
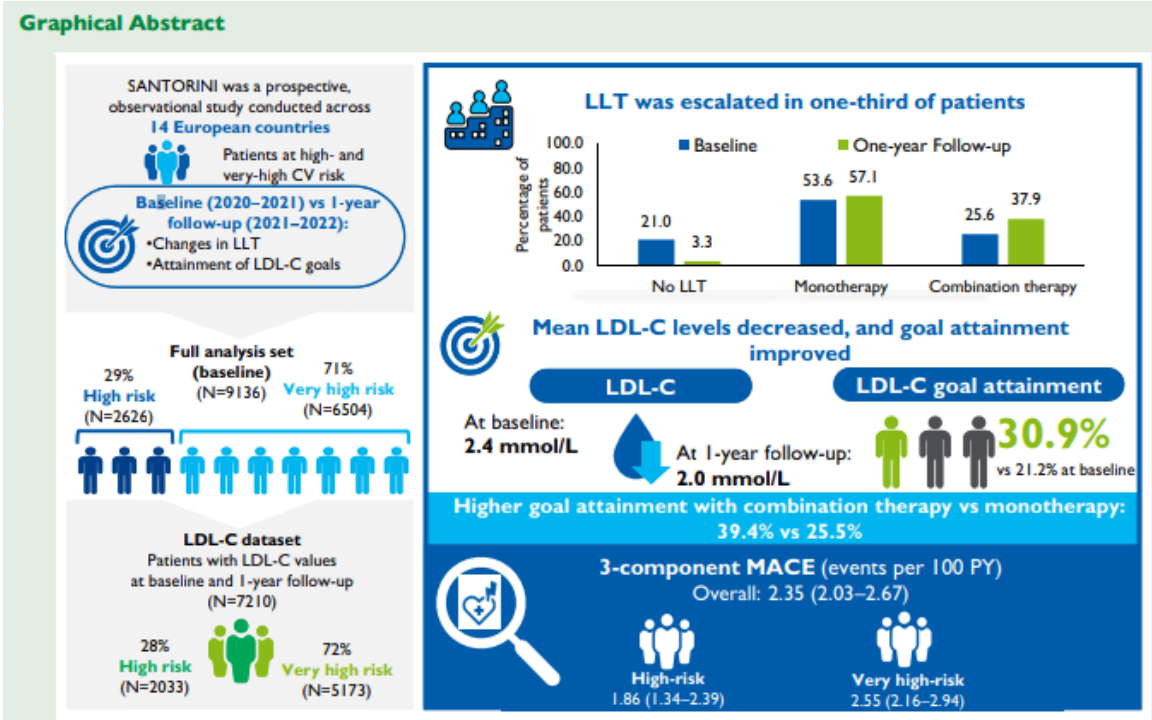


Figura 2. Rappresentazione grafica della riduzione attesa dei livelli di colesterolo legato alle lipoproteine a bassa densità (C-LDL) con le diverse possibili combinazioni dei trattamenti attualmente disponibili. I valori delle variazioni percentuali di C-LDL riportate sono tratti da Banach et al.[24] e Masana et al.[25] (riportati come media quando disponibili due valori).
A. Bempedoico, acido bempedoico; mAb, anticorpi monoclonali; PCSK9i, inibitore della proproteina convertasi subtilisina/kexina di tipo 9.

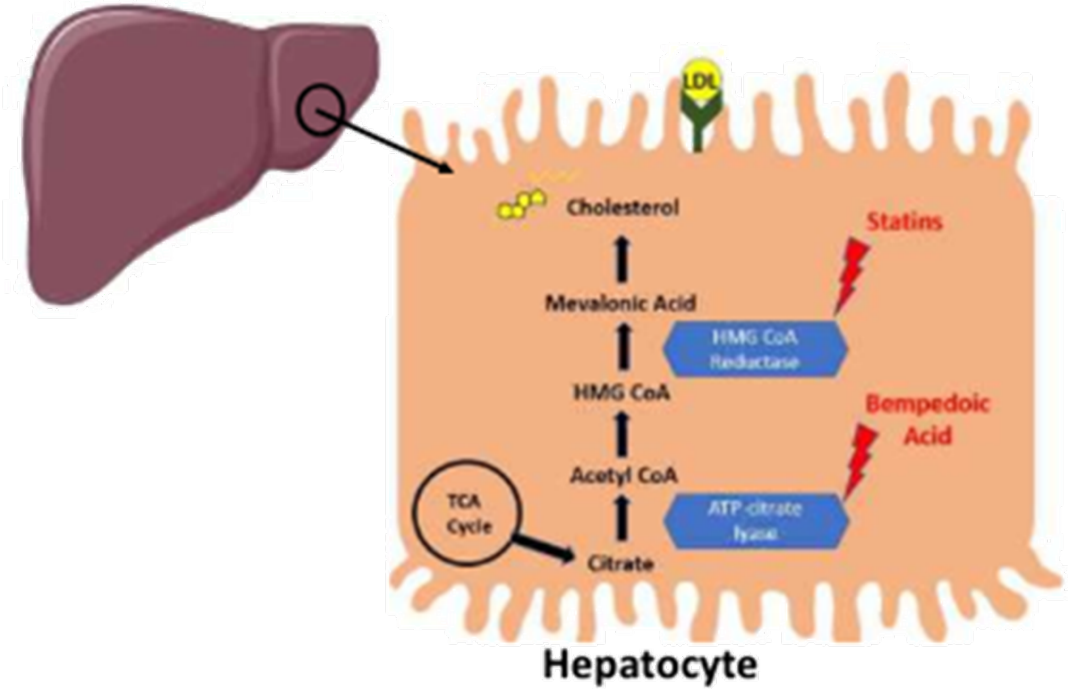
Use of combination therapy is associated with improved LDL cholesterol management: 1-year follow-up results from the European observational SANTORINI study

Graphical Abstract



European Journal of Preventive Cardiology (2024) **31**, 1792–1803
https://doi.org/10.1093/eurjpc/zwae199

Bempedoic Acid: Mechanism of Action



↑Upregulation of LDL Receptor

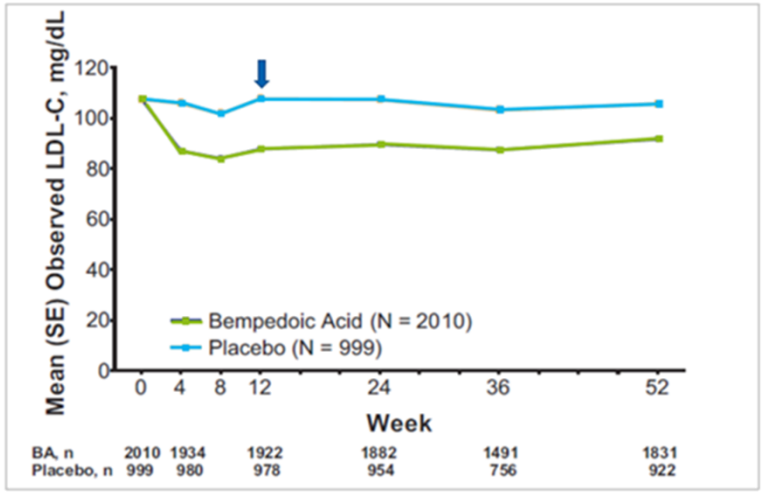
↑ LDL-C Clearance

↓Plasma LDL-C

Pazienti in trattamento con statine ad intensità alta/moderata

L'acido bempedoico riduce i livelli di LDL-C in maniera significativa rispetto a placebo

(Analisi "pooled" degli studi CLEAR Harmony e CLEAR Wisdom)



Alla settimana 12:

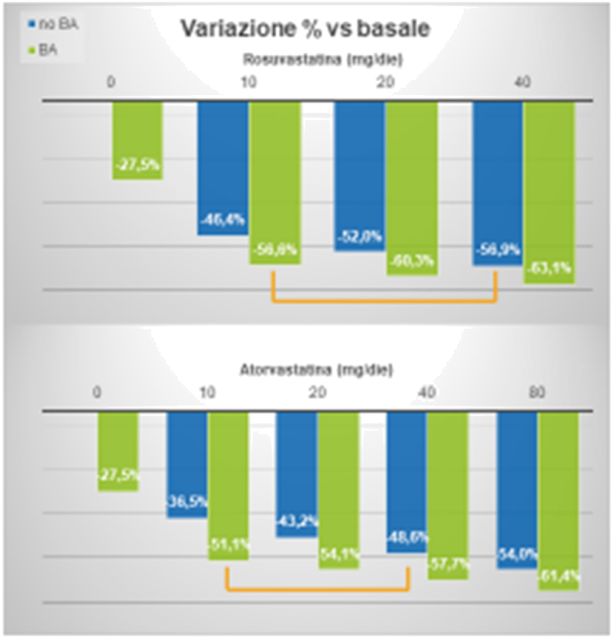
Variazione percentuale media di LDL-C:
−16.0% nel gruppo acido bempedoico vs
+1.8% nel gruppo placebo (**−17.8%**, $P < 0.001$)

Riduzione media assoluta di LDL-C:
−19.8 mg/dL nel gruppo acido bempedoico,
+0.3 mg/dL nel gruppo placebo

Banach M. et al., JAMA Cardiology, published online July 1, 2020. doi:10.1001/jamacardio.2020.2314

Effetti farmacodinamici della combinazione acido bempedoico+statina

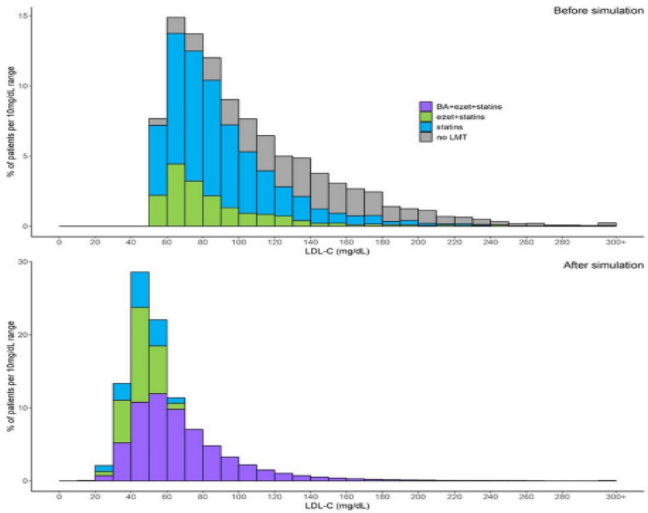
Previsioni da un modello dose-risposta



- Si può prevedere che la combinazione dell'acido bempedoico con la dose più bassa di ciascuna statina consenta di raggiungere riduzioni dei livelli di LDL-C simili a quelle che si avrebbero quadruplicando la dose della statina in monoterapia.

Elaborato da Jadhav SB et al, *European Heart Journal - Cardiovascular Pharmacotherapy*, pvab064, https://doi.org/10.1093/ehjcvp/pvab064

Figure: Stacked frequency bars showing LDL-C values before and after simulation



Terapia orale tripla di combinazione per la riduzione dei lipidi e raggiungimento degli obiettivi di colesterolo LDL: una simulazione basata sulla coorte dello studio SANTORINI.

Ottieni l'accesso

Giulio L. Katzmann ✉, Kausik K Ray, Ben Lee, Cristiano Becker, Konstantin Articus, Alberico L Catapano, Ulrich Laufs a nome degli investigatori SANTORINI

Conclusions: Real-world data from the large contemporary SANTORINI cohort suggest that stepwise optimized oral combination therapy with statins, ezetimibe, and BA could enable six in ten patients to achieve LDL-C goals, with predicted meaningful long-term CV risk reduction compared with statins alone.

LDL-cholesterol goal attainment with ezetimibe and bempedoic acid in patients at high and very-high cardiovascular risk: A simulation study in the Italian cohort of the SANTORINI study

Marcello Arca[1], Angela Pirillo[2], Rosanna Gambacurta[3], Françoise Diamand[4], Kausik K. Ray[5], Alberico L. Catapano[6]

Conclusions

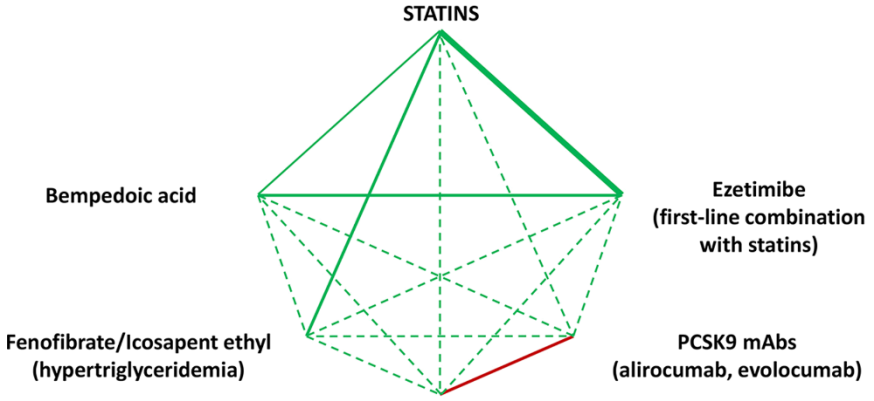
The SANTORINI analysis has shown that many Italian patients at high and very-high cardiovascular risk do not achieve the LDL-C goals required in Italy due to a sub-optimal use of combination therapy. With the simulated addition of ezetimibe and bempedoic acid, the number of patients reaching the goals could be significantly increased. With these oral therapies, the number of patients requiring PCSK9i therapy to achieve the LDL-C goals would have been halved, resulting in significant cost savings for the Italian healthcare system.

Figure 2 | Percentage of patients at goal before and after the simulated addition of ezetimibe and bempedoic acid in the whole cohort (A), very-high-risk (B) and high-risk subjects (C) of the Italian cohort of the SANTORINI study.

Beyond statins: New pharmacological targets to decrease LDL-cholesterol and cardiovascular events

Emanuel Raschi [a,*], Manuela Casula [b,c], Arrigo F.G. Cicero [a,d], Alberto Corsini [e], Claudio Borghi [a,d], Alberico Catapano [c]

Lipid-Lowering Combination Therapies



Recommended association (first/second line) with consolidated evidence (LDL-C lowering and cardiovascular risk reduction) [the thicker the line, the stronger the evidence]

Possible association (mechanistic plausibility or preliminary evidence limited to LDL-C reduction)

No mechanistic plausibility of additional LDL-C lowering and cardiovascular risk reduction

> Rev Esp Cardiol (edizione inglese).Gennaio 2025;78(1):56-63. doi: 10.1016/j.rec.2024.05.017.
Pubblicato online il 24 luglio 2024.

Efficacia e sicurezza dell'acido bempedoico nella sindrome coronarica acuta. Disegno dello studio clinico ES-BempeDACS.

[Articolo in inglese e spagnolo]

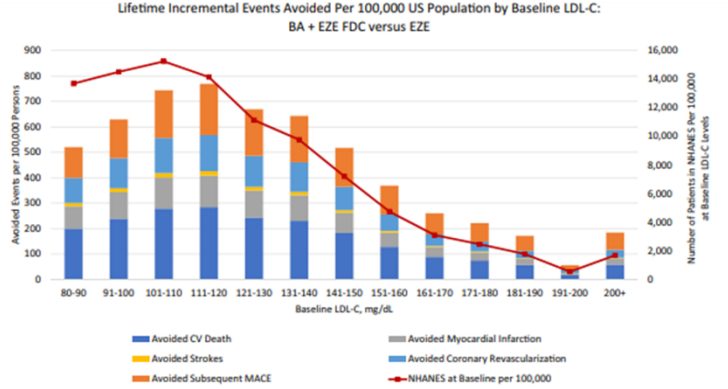
Sergio Raposeiras-Roubín [1], Emad Abu-Assi [1], José Ángel Pérez Rivera [2], Pablo Jorge Pérez [3],

Metodi: Uno studio clinico indipendente, prospettico, pragmatico, controllato, randomizzato, in aperto e in cieco per l'osservatore (disegno PROBE) analizzerà l'efficacia e la sicurezza di una triplice terapia orale ipolipemizzante: statina ad alta potenza + acido bempedoico (BA) 180 mg + ezetimibe (EZ) 10 mg rispetto alle attuali linee guida europee (statina ad alta potenza ± EZ 10 mg), in pazienti con infarto miocardico acuto (IMA). Il colesterolo LDL verrà determinato entro le prime 48 ore. I pazienti con LDL-C ≥ 115 mg/dL (senza precedente terapia con statine), ≥ 100 mg/dL (con precedente terapia con statine a bassa o alta potenza a dose submassimale) o ≥ 70 mg/dL (con precedente terapia con statine ad alta potenza ad alto dosaggio) saranno assegnati in modo casuale 1:1 tra 24 e 72 ore dopo l'IMA alla combinazione BA/EZ o a statine ± EZ, senza BA. L'endpoint primario è la proporzione di pazienti che raggiungono LDL-C < 55 mg/dL a 8 settimane dall'inizio del trattamento.

Conclusioni: Una triplice terapia orale intensiva precoce per la riduzione dei lipidi, rispetto al trattamento raccomandato dalle attuali linee guida cliniche, potrebbe facilitare il raggiungimento di livelli ottimali di LDL-C nei primi 2 mesi successivi a un infarto miocardico acuto (un periodo ad alto rischio).

Potential Cardiovascular Events Avoided with Bempedoic Acid Plus Ezetimibe Fixed-Dose Combination Compared with Ezetimibe Alone in Patients with Atherosclerotic Cardiovascular Disease Taking Maximally Tolerated Statins

R. Brett McQueen[1] · Seth J. Baum[2] · Michael J. Louie[3] · William J. Sasiela[3] · Aikaterini Bilitou[4] · Hemal Shah[5] · Beth Nash[6] · Kristin K. Gillard[3] · Kausik K. Ray[7]

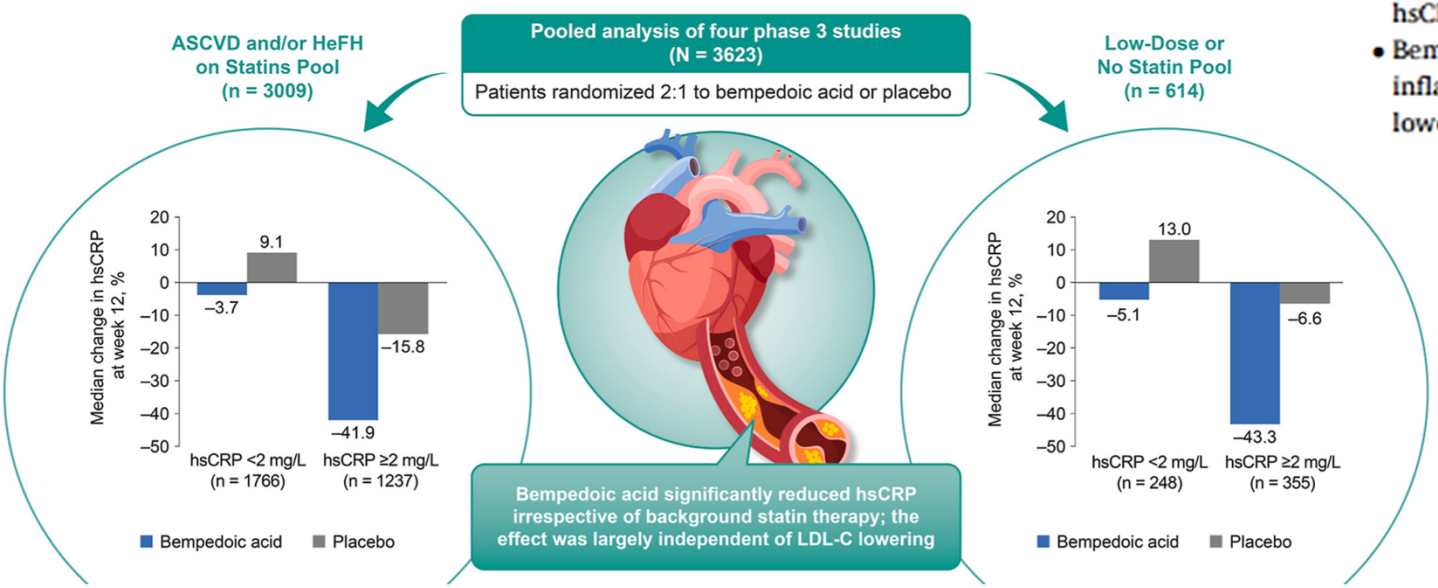


Results Among patients with atherosclerotic cardiovascular disease not at the LDL-C goal with maximally tolerated statins, the addition of BA+EZE FDC compared with the addition of EZE was predicted to provide incremental absolute reductions in major adverse cardiovascular events dependent on baseline LDL-C levels at the population level. For those with baseline LDL-C of 101–110 mg/dL (n = 15,237), there were 4.9% (744) fewer events predicted, while for patients with baseline LDL-C of > 200 mg/dL (n = 1689), 10.9% (184) fewer events were predicted through the addition of BA+EZE FDC versus EZE.

Conclusions Further LDL-C reductions through the addition of BA+EZE FDC to maximally tolerated statins are predicted to reduce major adverse cardiovascular events compared with the addition of EZE. Benefits are potentially greater among those with higher starting LDL-C.

Bempedoic acid lowers high-sensitivity C-reactive protein and low-density lipoprotein cholesterol: Analysis of pooled data from four phase 3 clinical trials

Erik S.G. Stroes [a,*], Harold E. Bays [b], Maciej Banach [c], Alberico L. Catapano [d], P. Barton Duell [e], Ulrich Laufs [f], G.B. John Mancini [g], Kausik K. Ray [h], William J. Sasiela [i], Yang Zhang [j,1], Antonio M. Gotto Jr. [j,k]



HIGHLIGHTS

- Bempedoic acid significantly and consistently lowers hsCRP independent of statins.
- Weak statistical correlations were observed between changes in LDL-C and hsCRP.
- Bempedoic acid may have anti-inflammatory effects beyond LDL-C lowering.

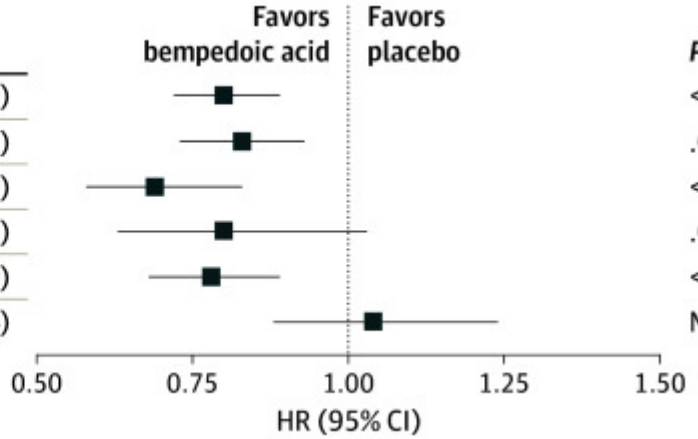
JAMA Cardiol. 2024 Jan 17;9(3):245–253. doi: 10.1001/jamacardio.2023.5155

Impact of Bempedoic Acid on Total Cardiovascular Events

A Prespecified Analysis of the CLEAR Outcomes Randomized Clinical Trial

Stephen J Nicholls [1,✉], Adam J Nelson [1], A Michael Lincoff [2], Danielle Brennan [2], Kausik K Ray [3], Leslie Cho [2], Venu Menon [2], Na Li [4], LeAnne Bloedon [4], Steven E Nissen [2]

Event type	HR (95% CI)	P value
CV death, MI, stroke, revascularization	0.80 (0.72-0.89)	<.001
CV death, MI, stroke	0.83 (0.73-0.93)	.002
Nonfatal MI	0.69 (0.58-0.83)	<.001
Nonfatal stroke	0.80 (0.63-1.03)	.09
Coronary revascularization	0.78 (0.68-0.89)	<.001
CV death	1.04 (0.88-1.24)	NA



META-ANALYSIS

Risk of cardiovascular outcomes with bempedoic acid in high-risk statin intolerant patients: a systematic review and meta analysis

Muhammad Hamayal[*,a], Warda Shahid[a], Chaudhary Humayun Akhtar[a], Fnu Shekiba[a], Iqra Iftikhar[a], Muhammad Danyal Tahir[a], Muhammad Awwab[b], Saima Hussain[c], Saman Naeem[a] and Momina Hafeez[a]

[a]Federal Medical & Dental College (FMDC), Al-Farabi Center, Hanna Road, G-8/4, Islamabad, 44080, Pakistan; [b]Quaid-e-Azam Medical College, Circular Road, Bahawalpur, 63100, Pakistan; [c]University of Regina Saskatoon, The Concourse, Innovation Place, Saskatoon, SK S7N 3R3, Canada

ABSTRACT

Aim: Statin intolerance and myopathy is a major issue with prolonged use of statins myopathy. Bempedoic acid can be a good alternative for those intolerant to statins. This systematic review aims to observe incidence of major adverse cardiovascular events (MACE) and other adverse events, in high-risk statin intolerant patients receiving bempedoic acid.

Methods: Literature search was conducted via Google Scholar, Science Direct and PubMed, after which screening, selection and data extraction of articles was done. Meta-analysis was performed on RevMan 5.4. Subgroup analysis was also conducted and heterogeneity was evaluated. Risk of bias was performed using ROB2 assessment scale. (CRD42024536827).

Results: Only six randomized controlled trials were used in final analysis consisting of 17,844 patients. Treatment with bempedoic acid was associated with a reduced risk of MACE compared with placebo (RR 0.86; 95% CI [0.79, 0.94] $p = 0.0005$), with myocardial infarction significantly reduced. Incidence of adverse effects was increased with bempedoic acid (RR: 1.02; 95% [1.00, 1.03] $p = 0.01$) but no significant difference was observed. Incidence of myalgia was reduced in bempedoic group as well.

Conclusion: Bempedoic acid is a safe and effective alternative to statins in high-risk patients intolerant to statins, decreasing the risk of MACE.

Identikit del paziente ideale

- Alto rischio
- Intolleranza statinica
- Mancato raggiungimento del target
- Assunzione di politerapie

Grazie per l'attenzione