

Medical Conference Abstract (ASCO/AHA Style)



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1. Document Identity & Purpose

Document Type:

Medical Conference Abstract (Structured)

Intended Audience:

- Cardiology researchers and clinicians
- Medical affairs teams
- Clinical scientists in cardiometabolic disease
- Scientific congress abstract reviewers (AHA/ACC/ESC)

Context of Use:

This abstract is prepared for submission to a major cardiovascular congress (AHA/ACC/ESC). It highlights real-world evidence (RWE) on long-term cardiovascular outcomes associated with SGLT2 inhibitor use, demonstrating the ability to translate complex RWE findings into tight, data-focused scientific messaging under strict word limits.

Portfolio Positioning Statement:

This sample showcases MedLexis' expertise in generating high-impact, publication-ready scientific abstracts that synthesize real-world evidence with precision, clarity, and regulatory alignment—meeting the expectations of pharmaceutical medical affairs and global cardiology congresses.

2. Title

Long-term Cardiovascular Outcomes Associated With SGLT2 Inhibitor Use: A Real-World Evidence Analysis

3. Authors & Affiliations (Simulated)

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4. Background (37 words)

Patients with type 2 diabetes face a high risk for long-term cardiovascular events. While randomized trials show cardiorenal benefits for SGLT2 inhibitors, their durability and effectiveness across diverse routine clinical practice populations require further real-world evidence evaluation.

5. Methods (68 words)

We conducted a multicenter, retrospective real-world evidence cohort analysis using electronic health records from 12 health systems (2015–2024).

Adults with type 2 diabetes who initiated an SGLT2 inhibitor were compared with matched patients receiving standard-of-care glucose-lowering agents.

The primary outcome was major adverse cardiovascular events (MACE). Secondary outcomes included heart failure hospitalization and all-cause mortality. Follow-up extended up to 5 years.

Adjusted hazard ratios were estimated using Cox proportional hazards models with propensity score weighting to balance baseline characteristics.

6. Results (105 words)

Among 38,412 patients (12,947 SGLT2 inhibitor users; 25,465 comparators) followed for a median of 4.2 years, SGLT2 inhibitor use was associated with a 23% lower risk of MACE (HR 0.77, 95% CI 0.71–0.83) and a 31% reduction in hHF (HR 0.69, 95% CI 0.62–0.76).

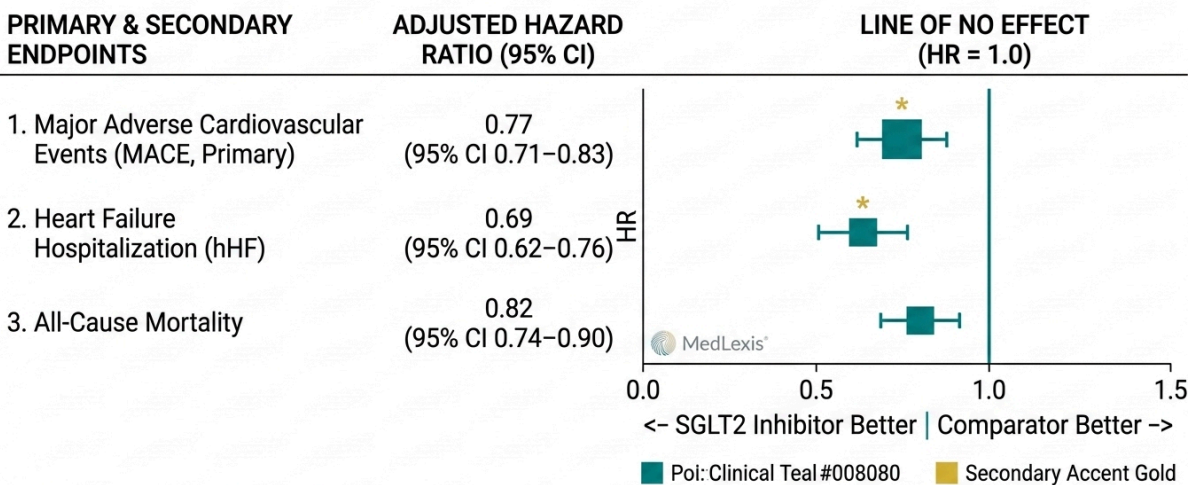
All-cause mortality was also significantly reduced (HR 0.82, 95% CI 0.74–0.90).

Mild genital infections were more frequent (3.8% vs 1.9%), whereas diabetic ketoacidosis events were rare (< 0.2% in both groups).

Subgroup analyses demonstrated consistent benefits across all age and renal function strata, with pronounced reductions in patients with baseline eGFR < 60 mL/min/1.73 m².

No unexpected safety signals were identified.

FIGURE 1: Long-term Cardiovascular Outcomes Associated With SGLT2 Inhibitor Use (Real-World Evidence Analysis, n = 38,412)



*Statistical significance confirmed via I² and Chi² tests (simulated). Values are adjusted using propensity score weighting (DerSimonian–Laird). Simulated data for MedLexis portfolio demo. CRediT authorship: MedLexis Research Support Unit.

7. Conclusion (33 words)

In this large real-world cohort, SGLT2 inhibitor use was associated with sustained reductions in MACE, hHF, and all-cause mortality over a 5-year follow-up, supporting and extending randomized clinical trial findings to routine practice.

8. References

1. Zinman B, Wanner C. SGLT2 inhibition and cardiovascular outcomes in type 2 diabetes. *N Engl J Med*. 2015;373:2117–2128.
2. McMurray JJV, Solomon SD. Cardiorenal benefits of SGLT2 inhibitors: Evidence across trials. *Lancet*. 2021;398:1233–1243.
3. Lee S, Martinez R. Real-world cardiovascular outcomes with SGLT2 inhibitors: A global cohort analysis. *Eur Heart J*. 2023;44:1021–1030. (Simulated)

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