

Long-term Adherence To PCSK9is: Is Consistency a Necessary Condition?

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INTRODUCTION

Adherence to lipid-lowering therapy (LLT), and particularly Proprotein Convertase Subtilisin/Kexin Type 9 inhibitors (PCSK9is), have been studied.

Little is known about:

- Window-based trajectories of adherence
- The association between these trajectories and healthcare utilization (HCU) in the short-to-medium term.

OBJECTIVE

To estimate quarterly adherence to PCSK9is over a follow-up period of up to three years, and to examine the association between these quarterly adherence patterns and HCU.

METHODS

- A retrospective cohort study among adult Leumit Health Services' enrollees, who have been treated with PCSK9is between January 2021 - July 2023 (n=598, n=393, n= 231 in one, two and three years follow-up respectively).
- Annual and quarterly adherence were measured by proportion of days covered (PDC).
- According to a threshold of PDC $\geq 80\%$, individuals were classified into clusters:

Adherence \ Persistence	High	Low
	High	Low
High	high-high	mix-high
Low	low-low	mix-low

- A multivariable generalized linear model was specified to assess the association between the adherence clusters and hospitalization days, ER visits, imaging utilization and specialist consultations.

LIMITATIONS

- A prescription refill does not necessarily guarantee actual medication ingestion.
- HCU estimates may not be generalizable to other healthcare systems, as practice patterns may differ.

RESULTS



Fig 1. Adherence clusters' association with hospitalization days (compared to the mix-low cluster)

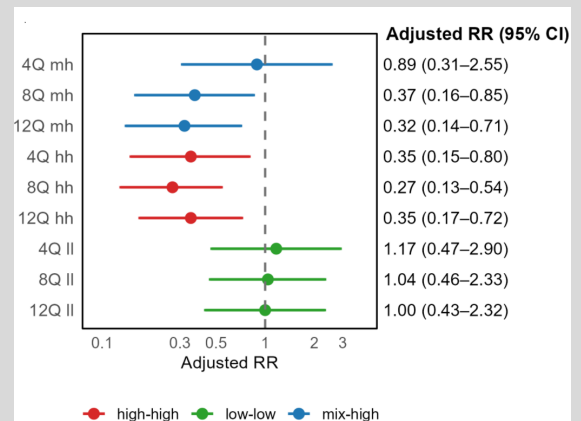
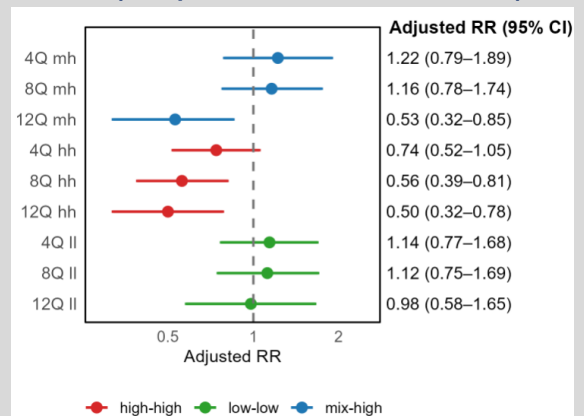


Fig 2. Adherence clusters' association with ER visits (compared to the mix-low cluster)



- A similar trend was not observed for the other healthcare services examined.

CONCLUSIONS

- Adherence to PCSK9is therapy is associated with a reduction in hospitalization days and ER visits, including among patients whose adherence is inconsistent but generally high.
- Suggesting a degree of drug forgiveness with respect to nonadherence over two- and three-year follow-up periods.
- The results provide a basis for further investigation of the clinical mechanisms underlying this tolerance, and may contribute to the development of intervention programs.



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