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Too few people with HIV receiving statins despite guideline changes

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Progress towards wider use of statins in people with HIV has been modest and LDL cholesterol control remains suboptimal in people with HIV at higher risk of cardiovascular disease, studies presented at last week's 20th European AIDS Conference (EACS 2025) in Paris show.

In 2011, the European Society of Cardiology (ESC) recommended statins for people living with HIV with elevated cholesterol. Earlier this year, the ESC recommended statins for all people with HIV aged 40 and over, regardless of cardiovascular risk and LDL cholesterol levels, following the results of the REPRIEVE study. This international randomised study showed that statin treatment reduced the risk of major cardiovascular events by 36% in people with HIV with low-to-intermediate cardiovascular risk.

HIV-specific guidelines issued since the REPRIEVE study have recommended that people with HIV with a cardiovascular risk of 5% or above should be prioritised for statin treatment. In a session reviewing progress towards implementation of the European AIDS Clinical Society (EACS) guidance on statins, Professor Franck Boccara of the Hôpital Saint-Antoine, Paris, pointed out that in people living with HIV with low cardiovascular risk (<5%), the risk of side effects such as diabetes and muscle pain may outweigh the benefits.

Guidelines differ in their recommendations regarding control of LDL cholesterol. Whereas British HIV Association guidance does not set a target for LDL cholesterol reduction after statin initiation, EACS and ESC guidelines set ambitious targets for a 50% reduction in LDL cholesterol for people with HIV at higher risk (>5%). However, as Dr Giovanni Guaraldi of the University of Modena pointed out, the targets are difficult to achieve in everyday practice and may require the use of multiple lipid-lowering agents.

But Boccara defended the use of LDL targets. "We need targets to increase the adherence of patients and to overcome the inertia of physicians," he said.

What has been the impact of guidance?

Three Italian studies looked at the implementation of recent cardiovascular disease prevention guidance in people with HIV.

A study at one of Italy's largest HIV clinics, San Raffaele Scientific Institute in Milan, compared statin prescription according to the prevailing guidelines in people with HIV over 40 without a prior statin prescription in two periods: November 2015 to 2017 and May 2023 to February 2025.

The analysis matched cohort members in the two periods by demographic characteristics, diabetes, smoking, body mass index, lipids and blood pressure measurements. Each group

consisted of 880 people. Participants had a median age of 51 years, 18% were female, 94% had viral load below 50 copies/ml and the median CD4 cell count was 733 cells/mm^3.

The median ASCVD risk score in the cohort was 4.9, 3.5% had diabetes, 24% had hypertension and 41% smoked.

In the first time period, during 1445 person years of follow-up (PYFU), 65 statin prescriptions were recorded among 880 people with HIV (incidence rate 4.50/100 PYFU). In the second time period, during 1217 PYFU, 143 statin prescriptions were recorded among 880 people with HIV (IR 11.75/100 PYFU). The incidence rate ratio between the two time periods was 2.61 (95%CI=1.9-3.5, p<0.001).

After 20 months of follow-up in each time period, the cumulative probability of receiving a statin prescription was higher in the second period (17.6% vs 7.4%). After stratifying participants by baseline cardiovascular risk, this difference remained significant in those with low-to-intermediate risk (16.9% vs 6.8%) but was not significant in those with high cardiovascular risk (29.3% vs 19.6%).

A second study, from Milan's Luigi Sacco Hospital, investigated whether there had been any improvement in LDL cholesterol control in people with HIV over 40 years old after EACS guidelines were updated in 2024. These guidelines not only recommended statins for people over 40 at low and intermediate risk but also made recommendations for aggressive lipid-lowering treatment in people with high (5-10%) or very high (10% and over) cardiovascular risk and other risk factors.

The retrospective study compared the achievement of LDL cholesterol goals before and after the guideline update: April 2023 to April 2024 (n=1379) vs April 2024 to April 2025 (n=1198).

The cohort was predominantly male (75%) and White (85%) with a median age of 56 years at study entry. Approximately three-quarters were taking an integrase inhibitor-based antiretroviral regimen, most commonly a two-drug regimen (45% in the second time period).

The proportion taking a statin increased significantly after the guideline change (44% to 54%, p<0.001), as did the proportion taking combination lipid-lowering treatment (9.6% to 18.2%, p<0.001).

But despite the increase in lipid-lowering treatment, LDL control remained suboptimal in the cohort. The median LDL cholesterol measurement was 115mg/dl (2.97mmol/l) before the guidelines changed and 110mg/dl (2.84mmol/l) afterwards. Although there was a trend towards achievement of a first-step goal of LDL reduction below 2.6mmol/l in people and blood pressure reduction below 140 (or 130 in those who could tolerate treatment), achievement of second-step goals for those at highest cardiovascular risk did not improve after the guideline update.

Dr Georgia Carrozzo of the Luigi Sacco Hospital commented that one of the challenges of improving statin uptake was ensuring that general practitioners persisted with statin prescriptions issued by an HIV clinic. "Often they underestimate the risk in people with HIV" and stop the prescription, she said.

A longitudinal cohort study of people with HIV attending the metabolic clinic at the University of Modena looked at the impact of lipid-lowering treatment on LDL cholesterol levels in people with HIV before and after EACS updated its guidelines. The study included all people with HIV who had at least one metabolic clinic visit in the years 2022-2023 and a follow-up visit in 2024-2025 and who had lipid measurements available (n=1318).

The study found that only 17% of cohort members achieved the lipid-lowering target; in multivariate analysis, achievement of the target was associated with a diagnosis of diabetes (odds ratio 2.82) or being prescribed two lipid-lowering treatments (OR 5.15). Those with high cardiovascular risk or very high cardiovascular risk scores were less likely to achieve the target, highlighting the need for earlier and broader use of combination lipid-lowering therapies. "Beyond-statin approaches should be considered essential for optimal cardiovascular prevention in people with HIV," the investigators concluded.

References

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