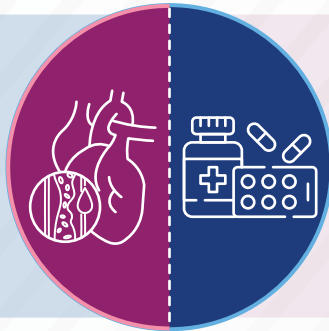


Treatment Persistence and Non-Adherence in Atherosclerotic Cardiovascular Disease

Analysis of risks, patient-related factors, and treatment approaches for clinical management

Dyslipidaemia is a well-established risk factor for atherosclerotic cardiovascular disease (ASCVD)—a leading cause of morbidity and mortality worldwide^{1,2}



Lipid-lowering therapies (LLTs) have demonstrated a significant reduction in the risk of ASCVD, adverse cardiac events, and associated mortality^{1,2}



Despite stringent lipid guideline recommendations, 80% of treatable patients have sub-optimal levels of low-density lipoprotein-bound cholesterol (LDL-C), primarily due to^{1,2,3}:



Lack of treatment



Inadequate treatment



Non-adherence to medication



Side effects of LLTs and fear of these effects



Medication adherence is less than 50% in patients with ASCVD^{3,4}



Lower persistence observed among women³



Lower prescription rates and awareness about ASCVD³



Significant increase in adverse outcomes and associated mortality^{3,4}



Major adverse cardiovascular events



Myocardial infarction



Stroke



Revascularization



Inability to achieve target lipid levels



Hospitalisation



Emergency department visits



Healthcare expenses



Resource utilisation

Understanding the factors that contribute to LLT non-adherence can help devise strategies to enhance patient adherence and improve ASCVD treatment outcomes in patients³



Primary non-adherence

Patients fails to:



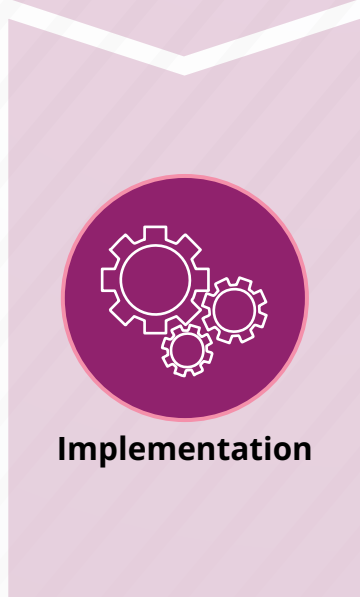
Obtain a newly prescribed treatment or suitable alternative within an acceptable time frame



Follow the prescribed/dispensed treatment



Overall rate of primary non-adherence: >10%



Secondary non-adherence



Missed doses



Incorrect administration and dosing



Failure to refill prescriptions



Stockpiling medication



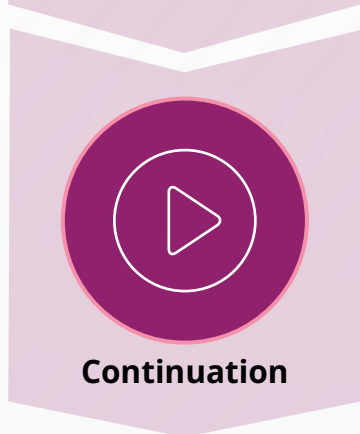
Frequency of dosing



Late refill



Primary prevention as a risk factor for secondary non-adherence
Risk ratio: 1.52



Early discontinuation



Observation of discontinuation of treatment among patients treated using statins: 24%

Successful ASCVD treatment encompasses⁶:

Assessing potential barriers to treatment adherence



Delivering tailored care



Exploring patient factors associated with key barriers

Identifying non-adherent patients

- Intentional: behavioural assessment and counselling, and disease education
- Non-intentional: giving reminders and frequent monitoring



Patient factors



Poor awareness of ASCVD and associated risks



Lack of understanding of prescription and medical instructions



Fear of perceived and actual side-effects



Limited understanding of the benefits of LLTs



Unintentional non-adherence or forgetfulness



Treatment-related factors



Increased healthcare expenses



Polypharmacy—concurrent medications for various comorbidities and the possibility of drug-drug interactions



Access to medications



Inability to easily refill prescriptions



Treatment frequency



Healthcare-related factors



Healthcare disparities in statin prescription and use because of age, sex, race/ethnicity, socio-economic vulnerability



Types of clinical practice



Limited time for discussion with patient



Access to healthcare



Lack of standardised metrics

Strategies to improve medication adherence include^{1,6,7,8}:



Patient engagement and shared decision-making



Risk versus benefit evaluation



Improving patient education and generating awareness using digital and artificial intelligence-assisted tools



Pharmacist-led interventions



Automated reminders provided through wearable devices and digital applications



Mailing pharmacy orders and medication synchronisation



Choosing dosage regimens with lesser administration frequency



Increasing the frequency of monitoring lipid levels



Use of telemedicine

Role of healthcare providers in improving treatment adherence^{1,7,8}



Educating providers about the types of drugs, potential side effects, cost, and frequency of administration



Encouraging strong one-on-one patient-healthcare professional interaction



Educating patients on the benefits of LLTs and the risks associated with medication non-adherence



Scheduling regular follow-up visits in-person or via telemedicine



Mass communication of credible information through digital and social media



Adopting a community or organisation-based approach to improve awareness



Advocating and improving policies towards affordable treatments



Adapting medications that meet patient requirements or convenience to improve adherence

Key message

Identifying non-adherent patients, addressing individual barriers to treatment adherence, and adopting a patient-centric treatment approach can help improve compliance and patient outcomes in ASCVD

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