**International Journal of Scientific Research and Management (IJSRM)**
**||Volume||12||Issue||09||Pages||1173-1176||2024||**
**Website: www.ijsrm.net ISSN (e): 2321-3418**
**DOI: 10.18535/ijsrm/v12i09.mp01**

# Interdisciplinary Approach to the Treatment and Management of Dyslipidemia in Albania

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**Abstract:**
The prevalence of dyslipidemia in Albania is approximately 60%. Since the total adult population is 2.173 million, there are about 1.3 million patients with dyslipidemia.
We conducted a descriptive study, through the distribution of questionnaires and interviews of outpatient doctors, laboratory doctors and pharmacists, as some of the most important components of this journey. 100 professionals for each specialty were included in the study.
The medical specialists included in the study during their daily practice are involved in situations of management, treatment and follow-up of patients with dyslipidemia, in a significant percentage; doctors 90-100% and pharmacists with over 70%. Based on the therapeutic alternatives present in our country, it turns out that statins are the most commonly used therapy, and the treatment starts with low doses and in most cases the maximum dosage is not reached, as a result of the side effects that this therapy causes. These professionals are also involved in the long-term follow-up of patients, where in over 80% of cases they suggest returning for consultations every three months, or they do the evaluation of the cardiovascular risk factors for this category of patients, in over 50% of cases.
The role of all medical specialties involved in the management of dyslipidemias consists in strengthening the cooperation and coordination of all components of the healthcare system, and especially of all members of the multidisciplinary team, in the management of dyslipidemias, in order to achieve successful therapeutic results.

**Keywords:** Dyslipidemia, Cardiovascular disease, healthcare, treatment gap, patient outcome.

## 1. Introduction

Cardiovascular diseases affect 422.7 million people worldwide, with 17.9 million deaths occurring annually. Most of these deaths happen in low and middle-income countries, including Albania.[1-3] Hyperlipidemia is a key risk factor for developing atherosclerotic cardiovascular diseases, posing a significant public health concern. Typically asymptomatic, dyslipidemia necessitates screening to identify patients requiring treatment. Screening for dyslipidemia is always recommended for patients with clinical manifestations of cardiovascular diseases, in clinical conditions associated with a 10-year cardiovascular disease risk ≥ 10%.[4,5]

Numerous clinical studies demonstrate the benefits of lipid-modifying therapies in reducing mortality and morbidity associated with cardiovascular diseases.[6,7] Despite extensive literature supporting the use of lipid-modifying therapies and widespread dissemination of guidelines in clinical practice prescribing patient management strategies, especially for those at high cardiovascular risk, studies show that a considerable proportion of patients are not screened, do not initiate appropriate therapy, or are not treated to target lipid levels.[8,9] Less than half of the population, including those with documented cardiovascular diseases suitable for lipid-modifying therapy, receive it.[8,9] Furthermore, long-term adherence among patients receiving this therapy is very low, with approximately 50% of the population prescribed lipid-modifying therapy continuing it at the end of the first year.[10,11]

In an effort to address the so-called treatment gap and address factors related to patients, physicians, and the healthcare system, which may be responsible for this gap, multidisciplinary teams focusing on managing cardiovascular risk factors are essential to help patients achieve therapeutic objectives. Pharmacists, as part of the multidisciplinary team, can play a crucial role in managing patients with dyslipidemia.[12]

In Albania, the total costs of dyslipidemias are estimated to be around 136 million Euros, equivalent to 1% of GDP in 2020 (13.3 billion dollars).[13] To emphasize the significance of these figures, it suffices to say that the approved Budget for the Ministry of Health (MOH) in 2022 was 505 million euros[14], meaning that the total costs of dyslipidemias in 2020 amount to 26.9% of this budget. The prevalence of dyslipidemia in Albania is approximately 60%,[15] and according to 50% of key representatives in medical fields, this rate may be higher (even up to 70%). Given that the total adult population is around 2.173 million, this means there are approximately 1.3 million patients with dyslipidemia in Albania.[16]

**Materials and Methods**

Based on current epidemiological data on dyslipidemias in our country, a previous study we conducted, and considering the multidisciplinary team involved in managing and treating patients with dyslipidemia, our aim was to assess some of the most important elements followed during the course of the disease in their patients. We conducted a descriptive study in 2022, through the distribution of questionnaires and interviews with outpatient physicians, laboratory physicians, and pharmacists, as some of the most important stakeholders in this journey. One hundred professionals were included in the study for each specialty.

**Results**

The results of a recent study we conducted helped us better understand and create a more concrete picture of the current treatment situation and therapeutic alternatives in our country. Analyzing the period from 2017 to the present, the study showed that the amount of medication consumed by patients has progressively increased by +1 million tablets/capsules. During the reviewed years, it was observed that the use of each therapeutic alternative for the treatment of dyslipidemias was always increasing, with the largest increase in statins at 3.8 million tablets/capsules (+40%), followed by fibrates at 1.25 tablets/capsules (+83%), and combinations at 25 tablets/capsules (+135%). The reimbursement value over the years has increased for this category of medications. The reimbursement percentage from the SHI Fund in 2020 was 42.40% of the total drug costs, the highest in 5 years.[14,15]

Considering the current situation in our country, we conducted our next study, initially assessing the overall follow-up and interaction with this category of patients by professionals selected to participate in the study, resulting in 100% of outpatient physicians, 94.4% of laboratory physicians, and 72.5% of pharmacists following up on the treatment of patients with dyslipidemia in their daily practice. One of the questions addressed concerned the initial moments of identification or diagnosis of these patients and whether healthcare professionals advised initiating therapy for dyslipidemia. It was found that 62.2% of outpatient physicians advise initiating therapy in >30% of cases; 31.6% in 10-30% of cases, and 6.1% in less than 10% of cases. 58.3% of laboratory physicians advise initiating therapy in >30% of cases; in 19.4% in 10-30%; 13.9% in <5%, and 8.3% in 5-10% of cases. The situation is different for pharmacists, where the percentages in each group are similar: 26.7% advise initiating therapy in >30% of cases; also 26.7% in 5-10%; followed by 24.8% in <5%, and 21.8% in 10-30% of cases.

Laboratory physicians are the first to see the results of patients' analyses; therefore, we asked them about the percentage of cases when they offer consultation/advice for their patients when the patient's lipid profile results show dyslipidemia. The majority, 58.3% of them, offer consultation/advice in >30% of cases; followed by 19.4% offering consultation/advice in 10-30% of cases; followed by 13.9% in <5% of cases, and 8.3% in 5-10% of cases. Similarly, concerning the same situation, when the lipid profile results show dyslipidemia, we asked about the percentage when they recommend the patient to be referred to a clinical physician for further follow-up. In this situation, the majority, 72.2% of them, recommend it in >30% of cases; followed by 22.2% in 10-30% of cases; and equally 2.8% in 5-10% and <5% of cases.

Taking into account the existing therapeutic alternatives in Albania for the treatment of dyslipidemias, we addressed outpatient physicians to see which are the main types of statins used in practice. Atorvastatin appears to be the most commonly used therapy (94.3%), followed by rosuvastatin at 5.7%. To better understand how treatment with this category of drugs starts, we referred to the dose with which this treatment begins. The majority of physicians (54.1%) expressed that treatment begins with the lowest dose (10 mg), followed by 45.9% at a dose of 20 mg. Meanwhile, pharmacists executing prescriptions issued by physicians responded that the starting dose for patients presenting to receive medication for the first time is 10mg at 75.2%, followed by 20mg in 24.8% of cases. Less than 10% of patients receive the maximum dose according to 70.7% of outpatient physicians and 52.9% of interviewed pharmacists. A question that arises in this situation is why treatment does not start with the maximum dose from the beginning.

**Discussion**

The results obtained show that in Albania, the majority of healthcare professionals (physicians, laboratory physicians, and pharmacists) participate in the management of patients with dyslipidemia, focusing on their treatment. The therapeutic alternatives used in clinical practice are continuously increasing, and this trend is also observed in the number of tablets/capsules used for this category of drugs. Despite the efforts made, the percentages of healthcare professionals who offer consultation/advice to patients with dyslipidemia, and recommend referring them to a clinical physician for further follow-up, are relatively low, highlighting the need for improved collaboration and communication among healthcare providers in managing dyslipidemia patients.

The most frequently prescribed statin therapy is atorvastatin, with the majority of physicians initiating treatment with the lowest dose. However, pharmacists report that the majority of patients receive a starting dose of 10mg, and only a small proportion receive the maximum dose, raising questions about the discrepancy between prescribed and dispensed doses. There appears to be a need for better alignment between physician-prescribed doses and dispensed doses by pharmacists to optimize patient treatment outcomes.

**Conclusion**

In Albania, the treatment of patients with dyslipidemia involves various healthcare professionals, including outpatient physicians, laboratory physicians, and pharmacists. Although the majority of healthcare professionals advise initiating therapy and offer consultation/advice to patients with dyslipidemia, there is room for improvement in terms of interprofessional collaboration and communication.[17-19] Standardizing treatment approaches and ensuring alignment between prescribed doses and dispensed doses could optimize patient management and improve treatment outcomes. Further research and initiatives focusing on enhancing the management of dyslipidemia are warranted to address the current challenges and improve patient care in Albania.

**Acknowledgment**

We would like to thank all the authors contributing to this paper and also all the participants in the study.

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