Bridging Gaps in Dyslipidemia Management in Indonesia Through ACS Europath Strategies

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ABSTRACT

Dyslipidemia is a significant global public health concern, particularly in Indonesia. Current dyslipidemia guidelines stated the management should be done with a combination of lifestyle and pharmacological interventions. Treatment with lipid lowering agents should be initiated early for better prognostic benefit. ACS Europath IV project emphasizes the importance of early intensification of lipid-lowering therapy to reduce the risk of recurrent cardiovascular events and improve patient outcomes. This literature review the current state of dyslipidemia management in Indonesia and discussing the potential role of ACS Europath strategies in improving patient outcomes.

Keywords: Acute coronary syndrome, dyslipidemia, LDL, lipid lowering therapy.

ABSTRAK

Dislipidemia adalah masalah kesehatan masyarakat yang signifikan secara global, khususnya di Indonesia. Pedoman dislipidemia saat ini menyatakan bahwa tata laksana harus dilakukan dengan menggabungkan intervensi gaya hidup dan pengobatan farmakologi. Pengobatan dengan agen penurun lipid harus dimulai lebih awal untuk manfaat prognostik yang lebih baik. Proyek ACS Europath IV menekankan pentingnya intensifikasi dini terapi penurun lipid untuk mengurangi risiko kejadian kardiovaskular berulang dan meningkatkan hasil terapi. Tinjauan literatur ini bertujuan untuk mengeksplorasi tata laksana dislipidemia saat ini di Indonesia dan membahas peran potensial strategi ACS Europath untuk meningkatkan kualitas hidup pasien. **Akhtar Fajar Muzakkir, Richard Antonius. Menjembatani Kesenjangan Tata Laksana Dislipidemia di Indonesia dengan Strategi ACS Europath.**

Kata Kunci: Sindrom koroner akut, dislipidemia, LDL, terapi penurun lipid.

Introduction

Dyslipidemia is a significant public health concern globally, particularly in Indonesia where it is associated with a high prevalence of cardiovascular disease. The prevalence of dyslipidemia in Indonesia is 9.3% for age group 25-34 years old and increasing to 15.5% at the age group of 55-64 years old.[1] The management of dyslipidemia in Indonesia faces several challenges, including limited awareness among healthcare providers and patients, limited treatment options, and lack of standardized guideline.[1,2] This literature review aims to address these challenges by examining the current landscape of dyslipidemia management in Indonesia and discussing how ACS EuroPath strategies may improve patient outcomes.

Discussion

Dyslipidemia is a condition characterized by abnormal levels of low-density lipoprotein cholesterol (LDL-C), high-density lipoprotein (HDL) cholesterol, or triglycerides in the blood. It is a major risk factor for atherosclerotic cardiovascular disease (ASCVD), which is the leading cause of mortality and morbidity in Indonesia.[2,3] Data from the 2022 ACS Registry in South Sulawesi revealed that among 323 individuals hospitalized for Acute Coronary Syndrome (ACS), more than 50% (173 person) had high LDL-C level (Data from POKJA ACC, not published). Additionally, up to 80%-90% individuals with type 2 diabetes in Indonesia suffer from dyslipidemia.[2] Limited access to healthcare services, particularly in rural areas, and a lack of standardized treatment guidelines further complicate dyslipidemia management in Indonesia.[4,5] Despite the latest revision of the dyslipidemia guidelines in 2022 from the Indonesia Heart Association (IHA),[6] which suggests that lower LDL-C levels correspond to a lower risk of cardiovascular disease, challenges persist in implementing these guidelines due to various factors, including patient compliance with statin therapy, medication availability, potential complications, and health insurance support.[6]

Current management practices for dyslipidemia in Indonesia are often inadequate, with many patients not receiving appropriate treatment or monitoring.[5,6] This is partly due to limited awareness among healthcare providers about the importance of dyslipidemia management and the availability of effective treatment options. Additionally, in our opinion, the lack of standardized guidelines for treatment and the limited availability of healthcare services in rural areas contribute to the inadequate management of dyslipidemia.

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The current guidelines for managing dyslipidemia in Indonesia are based on the recommendations of the Indonesia Heart Association (IHA) and the Indonesian Society for Endocrinology (ISE).[2,6] These guidelines emphasize the importance of early detection and treatment of dyslipidemia, particularly in individuals with type 2 diabetes, to reduce the risk of cardiovascular disease. Dyslipidemia should be managed according to the current dyslipidemia guidelines, with a combination of lifestyle and pharmacological interventions. Trials have consistently demonstrated that lower LDL-C levels after ACS are associated with lower CV event rates.[2,6] The current treatment goal for secondary prevention is to lower LDL-C to <1.4 mmol/L (<55 mg/dL) and to achieve a ≥50% LDL-C reduction from baseline.[6,7]

The Indonesian guidelines are similar to international guidelines in that they recommend a combination of lifestyle modifications and pharmacological interventions to manage dyslipidemia.[5,6] Lifestyle modifications include dietary changes, physical activity, and weight management. Pharmacological interventions include the use of statins, ezetimibe, fibrate, and other lipid-lowering medications. The newest LDL lowering agent shows that bempedoic acid also helps to lower the LDL-C level.[6]

Indonesian guidelines also have some unique features that reflect the country's specific healthcare context. Guidelines are customized to address local healthcare requirements and limits, such as socioeconomic issues and infrastructure constraints. A few obstacles prevented Indonesian healthcare providers from effectively implementing the recommendation. Despite the recommendations from the guidelines, health insurance also had its requirements for the patient to receive regular lipid-lowering medication. Additionally, in our experience, most of our patients did not regularly visit their doctors for lipid management evaluation.

The Indonesian Heart Association guidelines (IHA) also emphasize the importance of early intensification of lipid-lowering therapy using a combination of medications, which is similar to the 'Fire to Target' strategy proposed by the ACS EuroPath IV project. This strategy involves early intensification of the LLT using statins, ezetimibe, bempedoic acid, and proprotein convertase subtilisin/kexin type-9 (PCSK9) inhibitors and is presented as algorithm for routine application.[6,8]

After an ACS event, lipid-lowering treatment should be initiated as early as possible, both for prognostic benefit and to increase patient adherence after discharge.[6,10] It is recommended that a high-intensity statin (e.g. atorvastatin or rosuvastatin) is initiated as early as possible after hospital admission, preferably before planned percutaneous coronary intervention (PCI), and prescribed up to the highest tolerated dose to reach the LDL-C goals.[9] Treatment with ezetimibe was shown to be safe and provided long-term benefits for CV outcomes.[10] As such, if patients are on a maximally tolerated statin dose, have no prior statin treatment, and have LDL-C levels that indicate it is unlikely that targets will be reached with statin therapy alone, initiating ezetimibe in addition to a statin (or statin plus ezetimibe combination treatment) may be considered during the ACS hospitalization.[6,9,10]

In addition to these guidelines, the European ACS EuroPath IV project offers a framework for optimizing lipid management in ACS patients.[11] This project emphasizes the importance of early intensification of lipid-lowering therapy using a combination of medications, such as statins, ezetimibe, bempedoic acid, and proprotein convertase subtilisin/kexin type-9 inhibitors, to reduce the risk of recurrent cardiovascular events and improve patient outcomes.

Several challenges hinder the effective management of dyslipidemia in Indonesia. These include limited access to healthcare services, particularly in rural areas, and a lack of standardized guidelines for treatment. Additionally, the high prevalence of dyslipidemia in Indonesia, particularly among individuals with type 2 diabetes, poses significant challenges for healthcare providers.[4,12] Patients educational background, distance from healthcare services, traditional paradigm, and patient obedience to consume medicine still become the wall that our practitioners struggle to faced. Therefore, it is still difficult for healthcare providers to achieve the expected results for the better future of lowering risk of cardiovascular diseases.

To bridge the gaps in dyslipidemia management in Indonesia, several strategies can be employed. One such strategy is the implementation of ACS EuroPath strategies, which involve the use of evidence-based guidelines for the management of dyslipidemia especially in post-ACS patients. These guidelines provide healthcare providers with a framework for identifying and managing patients with dyslipidemia, as well as for monitoring patient outcomes.[2,6,13] In all cases, lipid levels should be re-evaluated 4–6 weeks after each treatment or dose adjustment to determine whether treatment goals have been achieved and to check for any safety issues; the therapeutic regimen can then be adapted accordingly. If the LDL-C goals are not achieved with the maximum tolerated dose of a statin alone after 4–6 weeks following ACS, adding ezetimibe is recommended. Initiation of PCSK9 inhibitor treatment is recommended in patients who do not reach their LDL-C goal despite maximum tolerated statin and ezetimibe therapy.[14-16] Other strategies also include giving combination pills to make patient more compliance to consume the medicine and to lower the cost burden for health insurance. Early combination therapy in ACS patients may benefit in achieving target LDL-C to enhance better cardiovascular outcomes. It also includes the use of a treatment algorithm for the acute phase, a standardized discharge letter, an assessment tool for lipid-lowering therapy (LLT) efficacy at follow-up, an education plan for healthcare providers and patients, and a patient engagement discharge kit.[11]

The ACS EuroPath IV project is a quality control initiative aimed at improving lipid-lowering therapy (LLT) in patients with ACS. The project was conducted in 2022 and involved 530 European cardiologists who provided data for up to 5 patients from their center, for both the acute and follow-up phases of ACS.[13,14]

The project focused on assessing clinical practice in terms of LLT in post-ACS patients, to improve the quality of lipid management and prevention, both during the acute phase and during the first year of follow-up. The survey included specific questions about the details of LLT prescription, notably the type and intensity of LLT prescribed, the time of prescription, LDL-C levels at baseline and during follow-up (up to 12 months), and

the time frame to achieve the two quality indicators (QIs) related to lipid-lowering treatment.[13,14]

The ACS EuroPath IV project detected 10 potential changes in prescription that could enhance attainment of two QIs: (i) Prescription of high-intensity statins (or equipotent treatment) before discharge, and (ii) Proportion with LDL- C <55 mg/dL (1.4 mmol/L) during follow-up. The overall strategy proposed is 'Fire to Target', which involves early intensification of the LLT using statins, ezetimibe, bempedoic acid, and proprotein convertase subtilisin/kexin type-9 inhibitors and is presented as an algorithm for routine application.[14]

In the context of dyslipidemia management in Indonesia, the ACS EuroPath IV project can serve as a model for optimizing lipid management in patients with ACS. The project's focus on quality control and the identification of potential changes in prescription can help healthcare providers in Indonesia improve the quality of lipid management and prevention in their patients. Additionally, the project's emphasis on early intensification of LLT using a combination of medications can help reduce the risk of recurrent cardiovascular events and improve patient outcomes in Indonesia, where cardiovascular disease is a significant public health concern.[14]

However, it is essential to note that the ACS EuroPath IV project was conducted in Europe and may not directly apply to the specific healthcare context in Indonesia. Nevertheless, the project's findings and strategies can be adapted and tailored to the Indonesian healthcare system to improve dyslipidemia management in patients with ACS.[15]

Implementing ACS EuroPath strategies in dyslipidemia management in Indonesia can have several benefits. These strategies are based on evidence-based guidelines and are designed to optimize lipid management in patients with ACS. Some of the benefits that can be expected from implementing these strategies:

1. Improved lipid goal attainment: The ACS EuroPath project has shown that implementing these strategies can lead to improved attainment of lipid goals, particularly in terms of LDL-C levels. This is crucial for reducing the risk of recurrent cardiovascular events in patients with ACS.[15]
2. Enhanced patient care: The strategies are designed to improve patient care by providing healthcare providers with tools and resources to optimize lipid management. This includes the use of self-assessment tools to identify gaps in clinical practice and the development of country-specific pathway models to guide treatment decisions.
3. Increased awareness and education: The ACS EuroPath project has highlighted the importance of raising awareness about dyslipidemia and its management among healthcare providers and patients. This increased awareness can lead to better patient outcomes and improved healthcare practices.
4. Standardization of guidelines: The ACS EuroPath strategies are based on evidence-based guidelines, which can help standardize the management of dyslipidemia across different healthcare settings in Indonesia. This standardization can improve the consistency and quality of care provided to patients.[15]
5. Improved patient outcomes: By optimizing lipid management, the ACS EuroPath strategies can help reduce the risk of recurrent cardiovascular events and improve patient outcomes. This is particularly important in Indonesia, where cardiovascular disease is a significant public health concern.[14]
6. Cost-effective: Implementing the ACS EuroPath strategies can be cost-effective in the long run by reducing the risk of recurrent cardiovascular events and improving patient outcomes. This can also help reduce healthcare costs associated with managing cardiovascular disease.[14]
7. Enhanced collaboration: The ACS EuroPath project has brought together experts from across Europe to share knowledge and best practices in lipid management. This collaboration can be replicated in Indonesia to enhance the exchange of ideas and expertise among healthcare providers.
8. Improved patient adherence: The strategies are designed to improve patient adherence to treatment regimens by providing patients with better education and support. This can lead to improved patient outcomes and reduced healthcare costs.
9. Increased accessibility: The ACS EuroPath strategies can help increase accessibility to lipid management services, particularly in rural areas where healthcare resources may be limited. This can help bridge the gap in healthcare services and improve patient outcomes.
10. Improved healthcare system: Implementing the ACS EuroPath strategies can help improve the overall healthcare system in Indonesia by promoting evidence-based medicine, standardizing guidelines, and enhancing patient care. This can lead to improved healthcare outcomes and reduced healthcare costs in the long run.[15]

Conclusion

The management of dyslipidemia in Indonesia faces several challenges, including limited access to healthcare services, a lack of standardized guidelines for treatment, and a high prevalence of dyslipidemia and CVD risk factors. To bridge these gaps, the implementation of ACS EuroPath strategies can be employed. These strategies involve the use of evidence-based guidelines for the management of dyslipidemia and can help to improved lipid goal attainment, enhanced patient care, increased awareness and education, standardization of guidelines, improved patient outcomes, and ensure cost-effectiveness. Additionally, these strategies can foster enhanced collaboration among healthcare providers, improve patient adherence to treatment regimens, increase accessibility to lipid management services, and improve the overall healthcare system in Indonesia. By adopting and tailoring the ACS EuroPath strategies to the Indonesian healthcare context, significant improvements can be made in the management of dyslipidemia, ultimately reducing the burden of cardiovascular disease in the country.


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