

ANSWER IS ON

NEWSLETTER
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Dear Colleagues,

At the outset, I wish to appreciate Ancerorn Pharma for this initiative in launching this newsletter, ANSWER IS ON..., which aligns perfectly with the theme of providing comprehensive solutions for the fullness of health.

As digital penetration peaks, we're immersed in endless information. This newsletter series is an attempt by Ancerorn Pharma and will spotlight what truly matters for your clinical practice.

I extend my best wishes for their continued success in their new endeavor, which aims to advance patient care.

In this edition, we will delve into a crucial aspect of managing cardiovascular disease (CVD) patients, with a particular focus on lipid-lowering therapies, specifically discussing on adherence to statin therapy.

OVERVIEW ON STATIN THERAPY:

Indications for statins:

Statin are primarily indicated for:

- **Primary Prevention of Cardiovascular Disease (CVD):** To prevent cardiovascular events in individuals at high risk due to factors such as diabetes, hypertension, or a family history of CVD.
- **Secondary Prevention of CVD:** For individuals who have already experienced a cardiovascular event, such as a heart attack or stroke, to prevent further events.
- **Familial Hypercholesterolemia:** To manage very high cholesterol levels in patients with this genetic condition.
- **Elevated LDL Cholesterol:** In patients with LDL-C levels > 190 mg/dL to reduce the risk of cardiovascular events.

DIFFERENT TYPES OF STATINS

available and their recommendations by AHA & ESC guidelines.

Tabular Column: Statin Types and Recommendations

Statin	AHA Recommendation	ESC Recommendation
Atorvastatin	High-intensity therapy for patients with ASCVD, diabetes, or very high LDL-C	First-line therapy for primary and secondary prevention; high-intensity for high-risk patients
Simvastatin	Moderate-intensity therapy; high-intensity for specific high-risk cases	Moderate-intensity for secondary prevention; high-risk primary prevention
Rosuvastatin	High-intensity therapy for high-risk patients including those with diabetes and ASCVD	High-intensity therapy for secondary prevention; recommended for very high-risk patients
Pravastatin	Moderate-intensity therapy; suitable for those on polytherapy or with moderate risk	Moderate-intensity therapy for secondary prevention and moderate-risk primary prevention

COMMON SIDE EFFECTS OF STATINS:

Common side effects include:

- **Muscle Pain and Weakness:** Can range from mild discomfort to severe muscle inflammation or rhabdomyolysis.
- **Gastrointestinal Issues:** Symptoms such as nausea, diarrhoea, and abdominal pain.
- **Liver Dysfunction:** Elevated liver enzymes; severe liver damage is rare but requires monitoring.
- **Diabetes Risk:** Slight increase in risk of type 2 diabetes, especially in individuals with predisposing factors.
- **Cognitive Effects:** Some patients report memory loss or confusion, generally reversible upon discontinuation.

Adherence to statin therapy in the Indian population:

Adherence to statin therapy in the Indian population is reported to be lower due to side effects. Studies indicate that adherence rates can be around 40-50%, primarily due to adverse effects such as muscle pain and gastrointestinal issues. The perception of side effects and concerns about diabetes risk contribute significantly to lower adherence rates.

This clearly shows, the need for improving the compliance to statin therapy so that we can minimize the CV events and associated costs towards the hospitalization.

Practical Tips to manage Statin Side Effects:

Dose Adjustment

Lower the Dose and Alternate-Day Dosing: Studies have shown that lowering the dose or using alternate-day dosing can help mitigate adverse events, especially muscle-related symptoms.

Non-Statin Alternatives

- **Ezetimibe:** Ezetimibe is a common alternative for patient's intolerant to statins due to its different mechanism of action.
- **Bempedoic acid:** Bempedoic acid is an ATP- Citrate Lyase enzyme inhibitor which can be given to statin intolerant patients.
- **PCSK9 Inhibitors:** PCSK9 inhibitors like evolocumab or alirocumab offer significant cholesterol reduction in patients who are statin intolerant.
- **siRNA:** Inclisiran, an siRNA (small interfering RNA) therapy, works by targeting and silencing the PCSK9 gene, which plays a key role in regulating LDL receptor activity in the liver. By inhibiting PCSK9, Inclisiran enhances the liver's ability to remove LDL cholesterol from the bloodstream, resulting in a 50% reduction in LDL levels.

Monitoring and Supportive Measures

Coenzyme Q10 Supplementation: Some studies suggest CoQ10 can alleviate statin-induced muscle pain, although evidence is still evolving.

- **Liver Function Tests:** Guidelines recommend regular liver enzyme monitoring for early detection of statin-induced liver injury.
- **Rechallenge After a Break:** Some clinicians recommend discontinuing statin therapy temporarily to resolve adverse events, then reintroducing it with a lower dose or alternative strategy.

Lifestyle Modifications

- **Diet and Exercise:** Evidence shows that adopting a heart-healthy diet and physical activity can improve cholesterol levels and may reduce the need for higher statin doses.

FUNCTIONAL FOODS:

- **Soluble Viscous Fibre:** The FDA has approved two types of soluble, viscous fibres—oat beta-glucan and psyllium seed husk—for their lipid-lowering effects. Consuming 3 grams of beta-glucan per day or 7 grams of psyllium seed husk daily can help reduce LDL cholesterol by approximately 5%.
- **Plants Sterol and Stanol Esters:** Plant sterols are prized for their ability to lower cholesterol levels and are naturally found in various plant-based foods, such as vegetable oils. Plant stanols, the hydrogenated derivatives of sterols, share a similar structure with cholesterol and help reduce LDL cholesterol. Consuming 1.5 to 3 grams of plant sterols and stanols daily can effectively lower LDL cholesterol by 7-14%.
- **Soy Protein:** Consuming 25 grams of soy protein concentrate daily, as part of a balanced diet, can help reduce LDL cholesterol by 4-6%. This reduction in cholesterol is particularly beneficial for individuals looking to improve heart health and manage cholesterol levels without relying solely on medication.
- **Nuts:** Nuts, such as walnuts and almonds, are rich in healthy fats, fibre, and antioxidants, which contribute to their heart-protective effects. Regular consumption of these nuts has been shown to not only lower LDL cholesterol but also improve HDL cholesterol levels, helping to reduce the overall risk of cardiovascular disease.

Switching to a Different Statin

Less Potent Statins: Switching to a statin with a different metabolic pathway, such as pravastatin or fluvastatin, has been recommended for patients with intolerance to stronger statins.

The significance in maintaining compliance of patients to statin therapy:

Maintaining compliance is crucial because:

- **Reduces Cardiovascular Events:** Effective management of LDL-C levels decreases the risk of heart attacks, strokes, and other cardiovascular events.
- **Improves Long-Term Outcomes:** Consistent use helps in long-term management of cholesterol levels, reducing overall morbidity and mortality.
- **Prevents Disease Progression:** Adherence helps stabilize atherosclerotic plaques and prevents progression of cardiovascular diseases.

The role of Primary Physicians: To improve patient's compliance

Primary physicians play a critical role by:

- **Educating Patients:** Providing clear, understandable information about statins, including their benefits and potential side effects.
- **Personalizing Treatment:** Tailoring therapy based on individual patient needs, including choosing the appropriate statin and dose.
- **Addressing Side Effects:** Managing side effects proactively by adjusting dosages or switching medications and addressing patient concerns.
- **Regular Follow-Up:** Conducting routine appointments to monitor health, manage side effects, and reinforce adherence.
- **Building Relationships:** Developing a supportive relationship to encourage open communication and improve adherence.

Key Points to Remember:

- Statins are essential for managing high cholesterol and preventing cardiovascular diseases.
- Adherence is critical for long-term cardiovascular health benefits.
- Different statins have varying recommendations based on patient risk and guidelines.
- Primary physicians are crucial in supporting adherence through education, personalized care, and regular follow-up.
- Side effects can impact adherence, but strategies are available to manage them effectively.