

FIRST STRATEGY - RISK FACTOR MODIFICATION

1. Lipid Management

- Elevated LDL-C increases the risk of MI, stroke, and cardiovascular mortality; every 40 mg/dL LDL reduction lowers all-cause mortality by ~10%.
- High-intensity statins (atorvastatin 40–80 mg, rosuvastatin 20–40 mg) are preferred unless the patient is elderly or intolerant.
- Moderate-intensity statins may be used in patients >75 years or with intolerance.
- If LDL goals are not achieved, add ezetimibe first, then a PCSK9 inhibitor.
- Lifestyle modifications—reducing saturated/trans fats, adding viscous fiber, plant sterols, and regular physical activity—further lower LDL.
- Plant sterols (2 g/day) reduce LDL by 5–15%; losing 10 lbs reduces LDL by 5–8%.
- Niacin or bile acid sequestrants may be used if statins are not tolerated, though they are less potent.

2. Blood Pressure Management

- Hypertension increases the risk of MI, stroke, and renal dysfunction.
- Initiate treatment at $\geq 130/80$ – $140/90$ mmHg depending on patient risk; target $<140/90$ mmHg or lower if tolerated.
- β -blockers, ACE inhibitors/ARBs, thiazide diuretics, and dihydropyridine CCBs are preferred agents.
- Long-term β -blocker therapy is beneficial after ACS when indicated.
- Lifestyle changes—salt restriction, weight reduction, physical activity, and DASH diet—improve BP control.
- Aggressive targets (<120 mmHg systolic) may reduce events but increase risk of hypotension and renal effects.

3. Smoking Cessation

- Smoking promotes endothelial dysfunction, platelet activation, and reduced HDL, accelerating atherosclerosis.
- Quitting reduces mortality and MI risk by about 30% within 2–3 years.
- Use the 5 A's: Ask, Advise, Assess, Assist, Arrange.
- Pharmacologic aids include nicotine replacement, bupropion SR, and varenicline.
- Avoid exposure to passive smoke for full cardiovascular protection.

4. Diabetes Management

- Diabetes greatly raises cardiovascular risk: $\sim 10\times$ in Type 1 and $2\text{--}6\times$ in Type 2 diabetes.
- HbA1c goal $\leq 7\%$ for healthier, younger patients; $<8\%$ for elderly or comorbid individuals.
- Metformin is first-line due to CV safety and metabolic benefits.
- SGLT2 inhibitors like empagliflozin lower CV death by 38% and HF hospitalization by 35%.
- Avoid rosiglitazone due to increased CV risk.
- Pioglitazone is acceptable but avoid in NYHA III–IV HF because of fluid retention.

5. Physical Activity

- Regular exercise improves symptoms, functional capacity, and cardiovascular outcomes.
- Recommend 30–60 minutes of moderate aerobic activity at least 5 days per week.
- Add resistance training on at least 2 days per week.
- Exercise testing may be used to determine safe exercise intensity.
- Cardiac rehabilitation or structured home programs improve adherence and outcomes.

6. Weight Management

- Maintaining a BMI of 18.5–24.9 kg/m² and proper waist circumference reduces CV risk.
- Aim for an initial weight loss of 5–10%, with further loss if necessary.
- Monitor BMI and waist circumference regularly at clinic visits.
- Combine dietary counseling with increased physical activity for effective weight control.

7. Psychological and Behavioral Health

- Depression is common in SIHD and worsens adherence and quality of life.
- Screening for depression is reasonable in this population.
- Treating depression improves quality of life even if CV outcome benefits are not proven.
- Addressing emotional and behavioral health supports better adherence to medical therapy.

8. Alcohol Consumption

- Moderate alcohol intake may be acceptable if not contraindicated.
- Recommended limits: 1 drink/day for women and 1–2 drinks/day for men.
- Avoid alcohol in patients with liver disease, alcohol misuse, or other contraindications.
- Excessive consumption increases cardiovascular and systemic risks.

9. Environmental Factors

- Air pollution exposure increases cardiovascular risk through inflammation and vascular dysfunction.
- Patients with SIHD should reduce exposure to polluted environments whenever possible.
- Avoid outdoor activity during high particulate matter days or peak pollution hours.

10. Influenza Vaccination

- Annual influenza vaccination is recommended for all patients with SIHD.
- Reduces the risk of influenza-related complications that can trigger acute cardiac events.
- Helps prevent hospitalization, pneumonia, and worsening of underlying cardiovascular disease.

SECOND STRATEGY - ANTI ANGINAL THERAPY RECOMMENDATIONS

Recommendation	Details
β -blockers as initial therapy	Relief of SIHD symptoms
CCBs or long-acting nitrates	When β -blockers are contraindicated or not tolerated
CCBs or long-acting nitrates + β -blockers	When initial β -blocker therapy is unsuccessful
Sublingual nitroglycerin/nitroglycerin spray	Immediate angina relief
Long-acting non-DHP CCB (verapamil/diltiazem) instead of β -blocker	Reasonable as initial therapy
Ranolazine as β -blocker substitute	If β -blockers contraindicated, ineffective, or cause side effect
Ranolazine + β -blocker	Useful when symptoms persist despite β -blockers