ASCVD Risk Reduction Primary and Secondary Prevention

Always counsel patient on lifestyle interventions: emphasizing exercise, weight loss, heart healty diet.

Secondary Prevention:
History of Symptomatic CAD (MI, Revascularization, Angina), Ischemic Stroke, Symptomatic PAD or History of Revascularization/Amputation, Familial Hypercholeserolemia, CKD 3/4 (**NOT Hemodialysis**)

1. Lifelong **HIGH** Intensity Statin
- If not tolerated then **Medium** Intensity Statin + Ezetimibe

If LDL > 70 despite **adherence** on **HIGH** intensity statin, then add Ezetimibe

If LDL > 70 despite **adherence** on **HIGH** intensity statin and Ezetimibe, add PCSK9-1

1. Statin -> 2. Ezetimibe -> 3. PCSK9-1

Primary Prevention Treatment Indications
See detailed flowsheets that follow for additional information.

LDL > 190
- HIGH intensity statin and work-up for familial disorder consider Ezetimibe and PCSK9-1

DM2 and Age 40 to 75
- MODERATE intensity statin
- based on other risk factors consdier HIGH intensity statin (see chart on following pages)

ASCVD 10 Year Risk > 20%

ASCVD 10 Year Risk > 7.5% and < 20%
- **If** significant other RFs or lifetime risk > 39%
- Favor to start MODERATE Intensity Statin

Shared Decision Making Required
Especially for those with **NO CVD risk equivalent** such as:
- DM2, LDL > 190, 10 year ASCVD risk > 20%, CKD 3/4
Use Mayo Clinic Statin Choice Decision Aid: https://statindecisionaid.mayoclinic.org/

Medication and Lab Tips

Preferred Statins at St. Vincent's
1. Rosuvastatin, 2. Atorvastatin, 3. Pravastatin

1st Line, no comorbidities:
Rosuvastatin
- most potent
- less drug interactions
- hydrophilic (lower risk for cognitive SEs)
- long half life (dose at anytime)

1st Line, CKD 3 / 4:
Atorvastatin
- high intensity
- not renally cleared
- long half life (dose at anytime)

1st Line, Liver Disease (LFTs > 3Xs ULN, stable chronic liver diesae) or Statin Intolerance due to SEs including myalgias:
Pravastatin
- clinical trial shows safety in liver disease
- medium intensity
- less drug interactions
- hydrophilic (lower risk for cognitive

Hemodialysis:
- Multiple clincal trials has shown no definitive benefit
- Only consider in patients with high LDL levels > 150

Order a **NON-fasting** Lipid panel for screening, inconvenient and not necessary to order fasting; if TG extremely high can do fasting

Statin Intensity Dosing Chart

Drug	Low	Moderate	High
Rosuvastatin	NA	5 to 10	20 to 40
Atorvastatin	NA	10 to 20	40 to 80
Pravasatin	10 to 20	40 to 80	NA

***Low: LDL Dec < 30%; Moderate: LDL Dec 30 to 50%, High: LDL Dec > 50%**

Notes of commonly prescribed statins
Simvastatin: **NOT HIGH intensity, multiple drug interactions including with amlodipine,** take at night versus other statins recommended can take at most convenient time, lipophilic, short half-life
Lovastatin: not a potent statin, can use if only need small reductions in LDL, lipophilic, short half-life

Risk Calculators to Use:
https://tools.acc.org/ascvd-risk-estimator-plus/#!/calculate/estimate/
- LDL optional, only need total and HDL cholesterol

Lab Tips When Prescribing Statins
- **Baseline Labs**: CMP (BMP + LFTs), CK, TSH, Pregnancy Test
- **CK**: only at initiation unless concern for muscle injury
- **Liver**: if LFTs > than 3 times ULN, consider pravastatin or lower dose of rosuvastatin; no routine monitoring required during statin therapy; hepatic failure due to statins is EXTREMELY RARE and liver dysfunction due to statins is not a significant concern
- **Thyroid**: hypothyroidism is a cause of hyperlipidemia and predisposes to muscle injury, only at initation