Screening and Management of Lipid Disorders

Patient Population:

Adults aged 18 and older without familial or severe dyslipidemias.

Objectives:

- Define appropriate lipid screening guidelines and monitoring intervals for lipid disorders and medication management.
- Provide best practice prescribing guidelines for the treatment of lipid disorders, including preferred initial treatment agents and dose intensity and place in therapy for non-statin drugs.

Screening Recommendations:

The USPSTF[i] currently recommends the following for lipid screening (*Grade of Recommendation):*

a) Universal, non-fasting lipid screening in adults 40-75 years of age (*B*).
b) Use of clinical judgement to guide the decision to screen in adults aged 21-39 given lack of data on efficacy of screening for or treatment of dyslipidemia in this age group.

B= USPSTF recommends the service. There is a high certainty that the net benefit is moderate or there is moderate certainty that the net benefit is moderate to substantial.

Statin Benefit Groups:

The ACC 2017 Lipid Management Guidelines[ii] endorse treatment (per ACC/AHA 2013 guidelines[iii]) with a statin for primary or secondary prevention and provide recommendations for use of non-statin therapy for patients in 1 of the following 4 evidence-based statin benefit groups:

1. Patients with clinical atherosclerotic cardiovascular disease (ASCVD);*
2. Patients with LDL-C ≥ 190 mg/dL, not due to secondary modifiable causes;
3. Patients aged 40-75 years of age with diabetes mellitus and LDL-C 70-189 mg/dL; or
4. Patients aged 40-75 years of age without diabetes, but with LDL-C 70-189 mg/dL AND predicted 10-year ASCVD risk ≥ 7.5%

*Clinical ASCVD: acute coronary syndrome, myocardial infarction, angina, revascularization, stroke, TIA, or peripheral arterial disease

Treatment Recommendations:

A. If not in statin benefit group 1-4 defined above and predicted 10-year ASCVD risk is <5%

Reinforce healthy lifestyle. Education as appropriate: Smoking cessation, diet/exercise/weight loss, reduce excessive alcohol.

Follow-up: Repeat screening/risk assessment in 4-6 years [IID]. If borderline, consider repeat screening in 1-2 years.

B. If in statin benefit group 1-4 defined above or predicted 10-year ASCVD risk is 5 to 7.5%:

Treatment through lifestyle changes. Education as appropriate: smoking cessation (reduces coronary event rate by ~ 50% within 1-2 years), diet/exercise/weight loss, reduce excessive alcohol.

Initiate *(generic)* statin therapy. (*Non-statin drugs should be reserved for other comorbid conditions, add-on therapy to a statin, or in statin-intolerant patients only after a trial of at least 2-3 statin agents.*)

- Discuss with patient risk reduction benefits, adverse effects, drug-drug interactions, patient preferences.
- Liver Function Tests: Check baseline ALT.

- Careful follow-up of liver tests for those with known liver disease, risk factors for liver disease, or in patients who are on other potentially hepatotoxic medications.

For other patients:

- If baseline liver function tests are normal, no further monitoring is needed.
- If baseline liver function tests are mildly abnormal (< 5X upper limit of normal), reassess after 6-12 weeks of statin therapy for stability. Consider monitoring annually. Abnormal baseline liver function tests can frequently improve with statin therapy.

- If in statin benefit groups 1-4 defined above and with no contraindications, conditions or drug-drug interactions that influence statin safety, initiate **high intensity statin therapy** with one of the following (***Boldfaced type*** *indicates specific doses that were evaluated in >1 RCTs)* {see **Table 1** for expected reduction in LDL-C with each drug/dose}:
  - atorvastatin 40-**80** mg daily; or
  - rosuvastatin **20**-40 mg daily
- For patients without diabetes, with LDL-C 70-189 mg/dL and ASCVD risk of 5-7.5%, or patients who are not candidates for high-intensity statin, initiate **moderate intensity statin therapy** with one of the following (***Boldfaced type*** *indicates specific doses that were evaluated in RCTs)* {see **Table 1** for expected reduction in LDL-C with each drug/dose}*:*
  - atorvastatin **10**-20 mg daily
  - rosuvastatin 5-**10** mg daily
  - simvastatin **20-40** mg daily
  - pravastatin **40**-80 mg daily
  - lovastatin **40** mg daily
  - fluvastatin **40** mg daily
  - fluvastatin XL 80 mg daily
  - pitavastatin 2-4 mg daily *–available as Brand only ($$$)*

<u>Lipid monitoring on Statin Therapy</u>: In 4-12 weeks after initiation

- Check lipids to evaluate adherence.
- For long-term follow-up check lipids annually.
- If lipids do not decrease as expected: address adherence, reinforce lifestyle modifications, (if applicable) increase to high-intensity statin dose and consider referral to a lipid specialist.

<u>CK Monitoring on Statin Therapy:</u>

- Only if symptomatic muscle aches/weakness or to evaluate for drug-drug interactions.

<u>Triglycerides</u>: After statin therapy, if fasting triglycerides ≥ 500 mg/dL, consider specific treatment.

Recommendations for optional use of select non-statin agents based on the ACC 2017 Guidelines:[2]

If in statin benefit group 1-4 above:

<u>Ezetimibe (Zetia)</u>: If LDL-C remains < 25% above goal (LDL-C < 100 mg/dL) on maximally tolerated statin with optimal adherence, consider addition of ezetimibe 10 mg daily. Repeat lipid assessment 4-12 weeks after initiation of ezetimibe.

If in statin benefit group 1 or 2 above:

<u>PCSK-9 inhibitors: alirocumab (Praluent), evolocumab (Repatha)</u>: If LDL-C is ≥ 25% above goal on maximally tolerated statin with optimal adherence, addition of a PCSK-9 inhibitor may be preferred. Repeat lipid assessment 4-12 weeks after initiation.

[i] https://www.uspreventiveservicestaskforce.org/Page/Document/RecommendationStatementFinal/statin-use-in-adults-preventive-medication1

[ii] Journal of the American College of Cardiology Oct 2017, 70 (14) 1785-1822

[iii] Circulation June 24 2014, 129(25) S1-S45

Dose intensity Chart for Select Lipid Lowering Agents

	% LDL-C Reduction	HMG-CoA Reductase Inhibitors ("-statin")							Misc.	PCSK9 Inhibitors	
		Rosuva- (Crestor)	Atorva- (Lipitor)	Pitava- (Livalo)	Simva- (Zocor)	Lova- (Altoprev)	Prava- (Pravachol)	Fluva- (Lescol XL)	Ezetimibe (Zetia)	Alirocumab (Praluent)	Evolocumab (Repatha)
High Intensity	65										**140 mg every 2 weeks** $1340* or **420 mg monthly** $2010* *(LDL-C reduction is regardless of statin use)*
	63	**40 mg** generic	---	---	---	---	---	---		**75 mg every 2 weeks** or **300 mg monthly** $1342* *(LDL-C reduction is regardless of statin use)*	
	62										
	61										
	60		**80 mg** generic								
	59										
	58										
	56	**20 mg** generic									
	54										
	52	**10 mg** generic $196.12‡									
	50		**40 mg** generic $120.05‡								
Moderate Intensity	48										
	46										
	44	**5 mg** generic									
	42		**20 mg** generic	**4 mg** Brand only $332.01‡							
	40				**40 mg** generic						
	38		**10 mg** generic			**60 mg** Brand only					
	36						**80 mg** generic				
	34				**20 mg** Generic $77.41‡			**80 mg ER** Generic $294.87‡			
	32			**2 mg** Brand only			**40 mg** Generic $79.02‡				
	30			**1 mg** Brand only	**10 mg** generic	**40 mg** generic $69.48‡	**20 mg** generic				
Low Intensity	28										
	26				**5 mg** generic	**20 mg** generic					
	24							**40 mg** generic	*(up to 25% LDL-c reduction combined with statin)*		
	22										
	20					**10 mg** generic	**10 mg** generic	**20 mg** generic			
	18								**10 mg** Generic $212.16‡		

‡ Average Cash Price From www.goodrx.com as of December 2017, if exact price is desired, please contact the patient's pharmacy; *Average wholesale price

Tiered Benefit Coverage for Select Local Payers

Coverage based on payer formularies as of January 2018, coverage subject to change and may vary based on patient's individual plan

		Rosuva- (Crestor)	Atorva- (Lipitor)	Pitava- (Livalo)	Simva- (Zocor)	Lova- (Altoprev)	Prava- (Pravachol)	Fluva- (Lescol XL)	Ezetimibe (Zetia)	Alirocumab (Praluent)	Evolocumab (Repatha)
Excellus Commercial	Generic	1	1	--	1	1	1	1	1	--	--
	Brand	3	3	3ST	3	3	3	3	3	2PA	2PA
Excellus Blue Choice Option	Generic	C	C	--	C	C	C	C	C	--	--
	Brand	CST	NC	CST	NC	CST	NC	CST	NC	CPA	CPA
Excellus Medicare	Generic	1	1	--	1	1	1	2	2	--	--
	Brand	NC	NC	4	NC	4ST	NC	NC	NC	5PA	5PA
MVP Commercial	Generic	1	1	--	1	1	1	1	1	--	--
	Brand	3	3	3	3	3	3	3	3	3PA	3PA
MVP Medicaid	Generic	1	1	--	1	1	1	1	1	--	--
	Brand	NC	NC	NC	NC	NC	NC	NC	NC	3	3
MVP Medicare	Generic	3	1	--	1	1	1	2-ER is tier 3 on some plans	3	--	--
	Brand	NC	NC	NC (Tier 4 on some plans)	NC	NC	NC	NC	NC	5PA	NC
Fidelis Care Medicaid	Generic	1	1	--	1	1	1	NC	2	--	--
	Brand	NC	NC	NC	NC	NC	NC	NC	NC	5PA	NC
Fidelis Care Medicare	Generic	1	1	--	1	1	1	1	2	--	--
	Brand	NC	NC	4ST	NC	4ST	NC	NC	NC	5PA	NC
Pharmacy Discount Lists (as of Jan 2018)	--	--	URMC (10 mg)	--	Walgreens, Rite Aid, URMC (5, 10, 20, 40, 80 mg)	Wegmans, Target, Walmart (10, 20 mg), Walgreens, Rite Aid and URMC (10, 20, 40 mg)	Target (10, 20, 40 mg), Walgreens (10, 20, 40, 80 mg), Rite Aid (10, 20, 40, 80 mg)	--	--	--	--

C = Covered NC = Not covered ST = Step therapy required before coverage granted, PA = Prior Authorization req'd, NF = non-formulary (PA required)

Note: Red shading indicates that this agent is non-preferred agent on the payers formulary and may result in higher copayment or may require step therapy or prior authorization prior to use