## Lipid Algorithm For Type 1 and Type 2 Diabetes Mellitus in Adults





Fasting Lipid Goals (mg/dL)<sup>1</sup> Determine Baseline Lipid Profile at Initial Evaluation or at age 40 LDL-C < 100 mg/dL(If lipids are at goal, reevaluate every 1-2 years) < 70 if 1+ CV risk factors -or- 50% reduction from baseline TG < 150 mg/dLEvaluate and treat secondary causes of dyslipidemia: Uncontrolled diabetes, Hepatic disease, Nephrotic syndrome, Chronic kidney disease, Hypothyroidism, Alcohol, Estrogens, Anabolic steroids, Drugs including thiazides, beta-blockers, retinoid drugs LDL-C not at goal? Treat TG first if > 500 mg/dL Begin TLC: Begin TLC: Medical Nutrition Therapy, Weight loss, Exercise TG > 150 mg/dLAt goal omega-3 fatty acids, fiber, optimize glycemic control Smoking cessation, glucose control, addition of fiber TG > 200-499Start statin<sup>2,3,4,5</sup> Continue statin at maximally tolerated dose<sup>8</sup> As above and add Statin Reevaluate lipids at 3 months -or- if TG ≥ 500 mg/dL As above + add fibrate<sup>6</sup> or prescription omega-3 fatty acids -and/orrefer to lipid specialist Continue statin at maximally tolerated dose8 -and-At goal Add ezetimibe -or-TLC = Therapeutic Lifestyle Changes: Bile acid resin -or-Refer to Medical Nutrition Therapy, Reevaluate lipids at 4-8 weeks9 Weight Loss & Exercise, Glucose control algorithms Smoking cessation Add PCSK-9 inhibitor<sup>7,10</sup> At goal Continue course HMG = Co-A Reductase Inhibitor and continue other lipid therapy at maximally tolerated dose<sup>7</sup> Lipid reevaluation optional TG = Triglycerides

## Footnotes:

- <sup>1</sup> Add 30 mg/dL to each LDL-C value for Non-HDL-C goals
- <sup>2</sup> Exceptions: No statin therapy if < 40 yrs age and no cardiovascular disease and no risk factors Moderate dose statin if age 40-75 and no CVD and no risk factors Risk Factors: LDL ≥ 100 mg/dL, HTN, smoking, overweight/obesity
- <sup>3</sup> Consider moderate dose statin if < 40 with risk factors or > 75 with or without risk factors
- <sup>4</sup> Alternate day dosing of a statin may be as effective as daily use
- 5 Statin + niacin not recommended

- <sup>6</sup> Fenofibrate, but not gemfibrozil, may be added to atorvastatin
- PCSK-9 inhibitors are indicated only for patients with atherosclerotic cardiovascular disease or familial hypercholesterolemia
- <sup>8</sup> Sanofi and Amgen package inserts
- 9 Sanofi package insert
- <sup>10</sup> PCSK-9 Alirocumab can be up-titrated

PCSK-9 = Proprotein convertase subtilisin/kexin-type<sup>9</sup>

DIARFTES TREATMENT ALGORITHMS

## HMG CO-A REDUCTASE INHIBITORS AND PCSK-9 INHIBITORS EQUIVALENCY IN PATIENTS WITH HYPERCHOLESTEROLEMIA

FLUVASTATIN	PRAVASTATIN	LOVASTATIN	PITAVASTATIN	SIMVASTATIN	ATORVASTATIN	ROSUVASTATIN	EZETIMIBE/	EZETIMIBE/ ATORVASTATIN	PCSK-9	APPROXIMATE
\$	\$	\$	\$\$\$	\$	\$	\$\$	SIMVASTATIN \$\$	\$\$	ALIROCUMAB SQ 75 or 150mg q2 wk	% LDL↓
									EVOLOCUMAB SQ 140mg q2 or 420mg q4 wk	
									\$\$\$\$\$	
20 mg	10 mg	10mg						_		15–20
40 mg	20 mg	20mg		5–10mg						21–29
80-XLmg	40-80mg	40mg	1-2mg	20mg	10mg					30–38
		80mg	4mg	40mg	20mg	5-10mg	10/10mg	10/10mg		39–48
				80mg	40mg	20mg	10/20mg	10/20mg		49–54
_						40mg	10/40mg	10/40mg		55-59
_	_							10/80mg		-60
_	<del></del>								75,150mg	60-70%
									140 or 420mg	

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