North York
Family Health Team

MEDICAL DIRECTIVE

LIPID LOWERING THERAPY – DIABETES (NYFHT-005A)

DEFINITION

Assessment of lipid control for patients managed with oral lipid lowering medications (Appendix 1) for the titration and renewal of these therapies in the presence of a diagnosis of diabetes. Lipid control is monitored by the lipid profile, including total cholesterol (TC), low-density lipoprotein (LDL), high-density lipoprotein (HDL), triglyceride (TG), and the ratio of TC/HDL. The treatment target for most patients with diabetes is an LDL < 2.0 mmol/L (Appendix 2).

PHYSICIAN'S ORDERS

- Renew or titrate lipid lowering medications (Appendix 1)
- Order required laboratory monitoring (Appendix 3)

PERSONS AUTHORIZED TO CARRY OUT THIS DIRECTIVE

- Clinical Pharmacist working in NYFHT

SITUATIONAL CIRCUMSTANCES REQUIRED

- Adult patients (>/= 18 years old)
- Current treatment with lipid lowering medication
- Referral to Clinical Pharmacist by physician
- Absence of specific medication contraindication (Appendix 4)
- Target LDL (or other lipid profile marker) indicated on chart (Appendix 2)

RISKS AND PREDICTABLE OUTCOMES

Risk

- Medication related adverse effects (Appendix 5)

Predictable Outcome

- Improved lipid control and overall cardiac risk profile
- Improved patient satisfaction and disease awareness
- Improved patient access to care
- Improved medication adherence

CONTRAINDICATIONS TO THE IMPLEMENTATION OF THE DIRECTIVE

- Evidence of myopathy (symptoms of muscle pain or CK > 5 x ULN)
- Evidence of liver injury (AST, ALT > 3 times ULN)
- Specific contraindication to lipid lowering medication (Appendix 4)

SCHEDULE FOR REVIEW OF MEDICAL DIRECTIVE

- Every 2 years (minimum) or at the discretion of the members of the NYFHT

REFERENCES

Genest J, McPherson R, Frohlich J et al. 2009 Canadian Cardiovascular Society/Canadian guidelines for the diagnosis and treatment of dyslipidemia and prevention of cardiovascular disease in the adult – 2009 recommendations. Can J Cardiol 2009;25(10):567-579.

DEVELOPMENT OF MEDICAL DIRECTIVES

Dr. K. Wintemute, Medical Director
Dr. J. Hunchuck, Pharmacist

DATE

June 14, 2010

APPENDIX 1 – LIPID LOWERING MEDICATION

Drug Name	Usual Starting Dose	Titration Schedule	Maximum Titration	Maximum Dose
HMG-CoA Reductase Inhibitors (Statins)				
Atorvastatin (Lipitor®)	10 mg daily	10 mg daily x 6 weeks 20 mg daily x 6 weeks 40 mg daily x 6 weeks 80 mg daily	10 – 40 mg per dose per 6 weeks	80 mg daily
Rosuvastatin (Crestor®)	5 – 10 mg daily	5 mg daily x 6 weeks 10 mg daily x 6 weeks 20 mg daily x 6 weeks 40 mg daily	5 – 20 mg per dose per 6 weeks	40 mg daily
Simvastatin (Zocor®)	5 – 20 mg daily	5 mg daily x 6 weeks 10 mg daily x 6 weeks 20 mg daily x 6 weeks 40 mg daily x 6 weeks 80 mg daily	5 – 40 mg per dose per 6 weeks	80 mg daily
Pravastatin (Pravachol®)	10 mg daily	10 mg daily x 6 weeks 20 mg daily x 6 weeks 40 mg daily x 6 weeks 80 mg daily	10 – 40 mg per dose per 6 weeks	80 mg daily
Lovastatin (Mevacor®)	10 mg daily	10 mg daily x 6 weeks 20 mg daily x 6 weeks 40 mg daily x 6 weeks 80 mg daily	10 – 40 mg per dose per 6 weeks	80 mg daily
Fluvastatin (Lescol®)	10 mg daily	10 mg daily x 6 weeks 20 mg daily x 6 weeks 40 mg daily x 6 weeks 80 mg daily	10 – 40 mg per dose per 6 weeks	80 mg daily
Fenofibric Acid Derivatives (Fibrates)				
Fenofibrate (Lipidil Micro®, Lipidil Supra®, Lipidil EZ®)	200 mg daily 160 mg daily 145 mg daily	No titration (Dose reduction in renal dysfunction)	NA	200 mg daily 160 mg daily 145 mg daily
Cholesterol Absorption Inhibitors				
Ezetimibe (Ezetrol®)	10 mg daily	No titration	NA	10 mg daily

APPENDIX 2 – TREATMENT TARGETS

Cardiac Risk	Initiate Treatment	Treatment Targets
Low (FRS < 10%)	LDL > 5.0 mmol/L	> 50% reduction in LDL
Moderate (FRS 10-19%)	LDL > 3.5 mmol/L or TC/HDL > 5.0	LDL < 2.0 mmol/L or > 50% reduction in LDL
High (FRS > 20%)	All patients with CAD, PVD, atherosclerosis, most DM	LDL < 2.0 mmol/L

APPENDIX 3 – REGULAR LABORATORY MONITORING

Drug Class	Laboratory Monitoring	Frequency
Statins	AST/ALT*	• 6 weeks after initiation or dosage change • Every 6 – 12 months once stable
	LDL (lipid profile)	
Fibrates	AST/ALT*	
	Serum Creatinine/eGFR	
	LDL (other lipid profile marker)	
Cholesterol Absorption Inhibitors	LDL (or other lipid profile marker)	

*For increase in AST or ALT of 1 – 3 x ULN the dose should not be increased further and the results should be repeated within 2 weeks, additionally if these increased values were subsequent to a dose increase the medication should be held or returned to the previous dose pending repeat bloodwork

APPENDIX 4 – MEDICATION CONTRAINDICATIONS

Drug Class	Contraindication
Statins	• Allergy to statins • AST or ALT > 3 x ULN • Myalgias or CK > 5 x ULN
Fibrates	• Allergy to fibrates • AST or ALT > 3 x ULN • Myalgias or CK > 5 x ULN • eGFR < 30 mL/min
Cholesterol Absorption Inhibitors	• Allergy to cholesterol absorption inhibitors

APPENDIX 5 – MEDICATION ADVERSE EVENTS

Drug Class	Adverse Effects
Statins	• Elevations in liver enzymes • Myalgias
Fibrates	• Elevations in liver enzymes • Myalgias • Renal dysfunction
Cholesterol Absorption Inhibitors	• GI intolerance

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Name of Physician(s)	Signature	Date

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