



MEDICAL DIRECTIVE

ORAL ANTIDIABETIC MEDICATIONS (NYFHT-004)

DEFINITION

Assessment of glycemic control for patients with diabetes managed with oral antidiabetic medications (Appendix 1) for the titration and renewal of these therapies. Glycemic control is monitored by the glycosylated hemoglobin (HbA1c) for which the target is 7% for most patients.

PHYSICIAN'S ORDERS

- Renew or titrate oral antidiabetic medications (Appendix 1)
- Order regular laboratory monitoring (Appendix 2)
- Order and renew diabetes testing equipment (glucometers, lancets, test strips)

PERSONS AUTHORIZED TO CARRY OUT THIS DIRECTIVE

- Clinical Pharmacist working in the NYFHT

SITUATIONAL CIRCUMSTANCES REQUIRED

- Adult patients (\geq 18 years old)
- Current treatment with oral antidiabetic medication
- Referral to Clinical Pharmacist by physician (written or verbal)
- Absence of specific medication contraindication (Appendix 3)

RISKS AND PREDICTABLE OUTCOMES

Risk

- Medication related adverse effects (e.g. hypoglycemia)

Predictable Outcome

- Improved glycemic control
- Improved patient satisfaction and disease awareness
- Improved patient access to care

CONTRAINDICATIONS TO THE IMPLEMENTATION OF THE DIRECTIVE

- Evidence of hypoglycemia on self-monitoring of blood glucose (3.5 mmol/L or less)
- Current insulin therapy
- Specific contraindication to oral antidiabetic medication (Appendix 3)

SCHEDULE FOR REVIEW OF MEDICAL DIRECTIVE

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

REFERENCES

Canadian Diabetes Association Clinical Practice Guidelines Expert Committee. Canadian Diabetes Association 2008 clinical practice guidelines for the prevention and management of diabetes in Canada. *Can J Diabetes*. 2008;32(suppl 1):S1-S201.

MEDICAL DIRECTIVE DEVELOPMENT

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DATE

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APPENDIX 1 – ORAL ANTIDIABETIC MEDICATIONS

Drug Name	Usual Starting Dose	Titration Schedule	Maximum Titration	Maximum Dose
Metformin (Glucophage®)	250 mg daily	250 mg daily x 7 days 250 mg BID x 7 days 500 mg BID x 7 days 500 mg TID x 7 days 1000 mg BID	250 – 500 mg per dose per 7 days	2550 mg daily (divided)
Sulfonylureas				
Glyburide (Diabeta®)	2.5 mg daily	2.5 mg daily x 7 days 2.5 mg BID x 7 days 5 mg BID x 7 days 10 mg BID	2.5 – 5 mg per dose per 7 days	10 mg BID
Gliclazide (Diamicon®)	40 mg daily	40 mg daily x 7 days 40 mg BID x 7 days 80 mg BID x 7 days 160 mg QAM and 80 mg QPM x 7 days 160 mg BID	40 – 80 mg per dose per 7 days	160 mg BID
Gliclazide MR (Diamicon MR®)	30 mg daily	30 mg daily x 7 days 60 mg daily x 7 days 90 mg daily x 7 days 120 mg daily	30 mg per dose per 7 days	120 mg daily
Glimepiride (Amaryl®)	1 mg daily	1 mg daily x 7 days 2 mg daily x 7 days 4 mg daily x 7 days 8 mg daily	1 – 2 mg per dose per 7 days	8 mg daily
Thiazolidinediones (TZD, glitazones)				
Pioglitazone (Actos®)	15 mg daily	15 mg daily x 28 days 30 mg daily x 28 days 45 mg daily	15 mg per dose per 28 days	45 mg daily
Rosiglitazone (Avandia®)	2 mg daily	2 mg daily x 28 days 2 mg BID x 28 days 4 mg BID	2 – 4 mg per dose per 28 days	4 mg BID
Meglitinides				
Repaglinide (Gluconorm®)	0.5 mg TID	0.5 mg TID x 7 days 0.5 mg QAM, 0.5 mg qNOON, 1 mg QPM x 7 days 0.5 mg QAM, 1 mg QNOON, 1 mg QPM x 7 days 1mg TID x 7 days 2 mg TID x 7 days 4 mg TID	0.5 – 2 mg per dose per 7 days	4 mg TID
Nateglinide (Starlix®)	60 mg TID	60 mg TID x 7 days 120 mg TID x 7 days 180 mg TID	60 mg per dose per 7 days	180 mg TID
Acarbose (Glucobay®, Prandase®)	50 mg daily	50 mg daily x 14 days 50 mg BID x 14 days 50 mg TID x 14 days 100 mg QAM, 50 mg QNOON, 50 mg QPM x 14 days 100 mg QAM, 50 mg QNOON, 100 mg QPM x 14 days 100 mg TID	50 mg per dose per 14 days	100 mg TID
Sitagliptin (Januvia®)	50 – 100 mg daily	50 mg daily x 14 days 100 mg daily	50 mg per dose per 14 days	100 mg daily

APPENDIX 2 – LABORATORY MONITORING OF GLYCEMIC CONTROL

Laboratory Test	Maximum Frequency
Glycosylated Hemoglobin (HbA1C)	Every 12 weeks
Serum Creatinine/eGFR	Every 12 weeks
AST/ALT	Every 12 weeks

APPENDIX 3 – CONTRAINDICATIONS TO ORAL ANTIDIABETIC MEDICATIONS

Drug Name	Contraindication
Metformin	<ul style="list-style-type: none">• Allergy to metformin• eGFR < 30
Sulfonylureas	<ul style="list-style-type: none">• Allergy to sulfonylurea• eGFR < 30
TZD	<ul style="list-style-type: none">• Allergy to TZD• History of heart failure• History of osteoporosis• Treatment with furosemide• Treatment with insulin• Treatment with bisphosphonate• Liver enzyme testing (AST or ALT) > 2.5 times upper limit of normal (ULN)
Meglitinides	<ul style="list-style-type: none">• AST or ALT > 2.5x ULN
Acarbose	<ul style="list-style-type: none">• History of inflammatory bowel disease• History of malabsorption syndrome
Sitagliptin	<ul style="list-style-type: none">• NA

