# Proposed Additional Diabetes Care Indicators

## 1- Retinal Eye Exams
### (Fundoscopy/Ophthalmoscopy) for Diabetic Retinopathy

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| ***Screening Recommendations*** | **Group** | **Commencement** | **Frequency** | **Scientific Evidence** |
| | Patients with Type 2 Diabetes Mellitus (T2DM) | At diagnosis of DM | Every 1-2 years | Grade A Level 1 |
| | Patients with Type 1Diabetes Mellitus (T1DM) | Five years after diagnosis in individuals 15 years and older | Annually | Grade A Level 1 |
| ***Reference*** | Canadian Diabetes Association Clinical Practice Guidelines Expert Committee, 2013<br>Canadian Journal of Diabetes<br>http://guidelines.diabetes.ca/browse/Chapter30 | | | |
| ***Proposed Indicator Definition*** | Percentage of people age 18 years and older with diabetes and no established diagnosis of diabetic retinopathy who received a retinal eye exam in the past two years. | | | |
| ***Alternative Definition*** | Percentage of people with diabetes who received a retinal eye exam in the past two years. | | | |
| ***Rationale*** | Ophthalmologic complications are frequent in diabetics. Eye exams are simple and accepted process indicator on quality of care for diabetics. | | | |
| ***Questions*** | 1. Are you (or will you be) able to identify the proportion of diabetic patients who received a retinal eye exam? | | | |
| | 2. Are you (or will you be) able to identify the proportion of diabetic patients with no established diabetic retinopathy diagnosis? | | | |
| | 3. Are you (or will you be) able to identify the proportion of diabetic patients with no diabetic retinopathy who received a retinal eye exam? | | | |

## 2- Peripheral Neuropathy Screening

### For Diabetic Neuropathy

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| ***Screening Recommendations*** | Group | Commencement | Frequency | Scientific Evidence |
| | Patients with Type 2 Diabetes Mellitus (T2DM) | At diagnosis of DM | Annually | Grade D |
| | Patients with Type 1Diabetes Mellitus (T1DM) | After 5 years' post-pubertal duration of diabetes | Annually | Grade D |
| ***Reference*** | Canadian Diabetes Association Clinical Practice Guidelines Expert Committee, 2013<br><br>Canadian Journal of Diabetes<br>http://guidelines.diabetes.ca/browse/Chapter31 | | | |
| ***Proposed Indicator Definition*** | Percentage of people with diabetes and no established diagnosis of diabetic neuropathy who received at least one peripheral neuropathy screening in the past year. | | | |
| ***Alternative Definition*** | Percentage of people who received at least one peripheral neuropathy screening in the past year. | | | |
| ***Rationale*** | Screening for peripheral neuropathy is simple and reliable and serve as an important process indicator on quality of care for diabetics. | | | |
| ***Questions*** | 1. Are you (or will you be) able to identify the proportion of diabetic patients who received a peripheral neuropathy exam? | | | |
| | 2. Are you (or will you be) able to identify the proportion of diabetic patients with no established peripheral neuropathy diagnosis? | | | |
| | 3. Are you (or will you be) able to identify the proportion of diabetic patients with no peripheral neuropathy who received a peripheral neuropathy exam? | | | |

## 3- LDL Cholesterol Test

### Screening for Dyslipidemia in Diabetes

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| ***Screening Recommendations*** | Group | Commencement | Frequency | Scientific Evidence |
| | All patients with Diabetes Mellitus | At diagnosis of DM | Annually | Grade D |
| ***Reference*** | Canadian Diabetes Association Clinical Practice Guidelines Expert Committee, 2013<br><br>Canadian Journal of Diabetes<br>http://guidelines.diabetes.ca/browse/Chapter24 | | | |
| ***Proposed Indicator Definition*** | Percentage of people with diabetes with at least one LDL cholesterol test in the past year. | | | |
| ***Rationale*** | Important process indicator on quality of care for diabetics. | | | |
| ***Questions*** | 1. Are you (or will you be) able to identify the proportion of diabetic patients with at least one LDL cholesterol test? | | | |

## 4- LDL Cholesterol Level with Statins

### Screening for Dyslipidemia Management in Diabetes

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| ***Recommendations*** | Group | | Scientific Evidence |
| | All patients with Diabetes Mellitus | For patients with indications for lipid-lowering therapy, treatment should be initiated with a statin *(to achieve LDL-C ≤2.0 mmol/L)* | Grade A Level 1<br><br>*(Grade C Level 3)* |
| ***Reference*** | Canadian Diabetes Association Clinical Practice Guidelines Expert Committee, 2013<br><br>Canadian Journal of Diabetes<br>http://guidelines.diabetes.ca/browse/Chapter24 | | |
| ***Proposed Indicator Definition*** | Percentage of people with diabetes and LDL-C ≥ 2.0 mmol/L who are on statins. | | |
| ***Rationale*** | outcome indicator on quality of care for diabetics. | | |
| ***Questions*** | 1. Are you (or will you be) able to identify the proportion of diabetic patients with LDL ≥ 2.0 mmol/L ? | | |
| | 2. Are you (or will you be) able to identify the proportion of diabetic patients who are on statins ? | | |
| | 3. Are you (or will you be) able to identify the proportion of diabetic patients with LDL ≥ 2.0 mmol/L who are on statins? | | |

## 5- Patient-Specific HbA1c Target Level

### For Glycemic Control

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| ***Recommendations*** | Group | Glycemic Target | Scientific Evidence |
| | Most patients with Type1 and 2 Diabetes Mellitus | HbA1C ≤7.0% | Grade A Level 1A |
| | Patients with Type 2 Diabetes Mellitus (T2DM) and risk of nephropathy and/or retinopathy | HbA1C ≤6.5% | Grade A Level 1 |
| | Patients with type 1 or type 2 diabetes with specific conditions and comorbidities* | HbA1C 7.1%–8.5% | Grade D |
| ***Reference*** | Canadian Diabetes Association Clinical Practice Guidelines Expert Committee, 2013<br><br>Canadian Journal of Diabetes<br>http://guidelines.diabetes.ca/executivesummary/ch8<br><br>**Please visit* http://guidelines.diabetes.ca/executivesummary/ch8 *for a list of the conditions* | | |
| ***Proposed Indicator Definition*** | Percentage of patients with diabetes whose individualized HbA1C target ranges were met in the last 12 months.<br>The glycemic control ranges are:<br>• HbA1C ≤ 7%<br>• HbA1C between 7.1% - 8.5% | | |
| ***Alternative Definition*** | Percentage of diabetic patients <80 years old whose HbA1C ≤7.0% in the past year. | | |
| ***Rationale*** | Outcome indicator on quality of care for diabetics. | | |
| ***Questions*** | 1. Are you (or will you be) able to use two HbA1C ranges to record individualized glycemic control targets?<br>• HbA1C ≤ 7%<br>• HbA1C between 7.1% - 8.5% | | |
| | 2. Are you (or will you be) able to retrieve and capture the two HbA1C ranges in a systematic way? | | |
| | 3. Are you (or will you be) able to identify the proportion of diabetic patients who met their individualized HbA1C targets ranges? | | |
| **If No to all of the above:** | Are you (or will you be) able to identify the proportion of diabetic patients who are <80 years old with HbA1C ≤7.0% | | |

## 6. Self-management

Strictly speaking, it is challenging to differentiate between the impact of self-management from that of other interventions and, therefore, difficult to measure that in an objective way. For example, self-management can be a component of A1c and blood pressure outcome indicators. Patients with successful active self-management tools and support are most likely to have better A1c and BP outcome.

Self-management refers to the measures that a patient can take to manage and prevent the symptoms of his or her chronic disease in accordance with the participation of his or her health care team.
(https://www.livinghealthynortheast.ca/Portals/0/Documents/Literature%20Review%20on%20Chronic%20Disease%20Self%20Management.pdf)

Diabetes self-management is defined as: Activities that assist the person with prediabetes or diabetes in implementing and sustaining the behaviors needed to manage his or her condition on an ongoing basis beyond or outside of formal self-management training. The type of support provided can be behavioral, educational, psychosocial, or clinical.
http://care.diabetesjournals.org/content/37/Supplement_1/S144.full.pdf+html

Ultimately, this involves 2 components:

1- Role of providers in offering support, education and counselling on lifestyle and self-management. Thus, the question to ask would be:
**Are you or will you be able to identify the percentage of diabetic patients who were offered counselling on self-management support? (process indicator).**
If so, then an outcome indicator can also be used, such as the one Denis suggested: *"positive progress with self-management goals established at previous visit"*

2- Role of patients. This comes through patients self-reporting activities and behaviors such as: testing blood sugar at home, eating habits, checking feet at home, smoking, physical activity etc.

I don't know if FHTs collect these information and how. If so the question can be something like:
**Are you or will you be able to identify the proportion of diabetic patients who reported compliance/improvement with one or more of the following self-management practices:**

- Regular blood glucose monitoring
- Insulin administration
- Healthy eating
- Regular physical activity
- Smoking cessation