Diabetes Obesity Nutrition Strategic Clinical Network
Potential Studentship Partner Projects

Diabetes Foot Care Clinical Pathway Project

Background and Rationale: In 2011, the Premiers of all Canadian provinces and territories selected diabetes foot care for pan-provincial action. Of 210,000 people with diabetes in Alberta, 5,250 will seek treatment for a foot ulcer annually and 15-25% of people with diabetes will suffer from a foot ulcer in their lifetime. Currently in Alberta, annual foot screening rates are performed on only 50% of the diabetic population (compared with >80% for blood glucose control) and in Canada, one-third of people with diabetes never check their own feet. Between 50-85% of lower leg amputations (LLA) in patients with diabetes are preventable through screening, early implementation of treatment and better self-care practices. Thus, the majority of moderate- to high-risk cases will not be identified in a timely manner. The Diabetes Foot Care Clinical Pathway Project (DFCCPP) aims to optimize methods of early detection and treatment of foot ulcers in an effort to reduce LLA and improve quality of life for people with diabetes. The DFCCP has been developed under the leadership of the Diabetes Obesity and Nutrition Strategic Clinical network (DON SCN), and includes an implementation toolkit and educational resources for healthcare providers and patients. A key element is identification and or establishment of High Risk Foot Teams based in the community to provide more timely access to wound care for patients screened as moderate to high risk for foot ulcer. Pilots have been initiated at 3 rural sites In Brooks, Westview and Slave Lake Alberta to test and evaluate the pathway and toolkits. Important components of the evaluation addresses provider and patient experience and satisfaction.

Inhospital Glycemic Management of patients with diabetes

In Alberta, one of every five patients in hospital has diabetes. Data from 6 acute care sites in Alberta indicates that hyperglycemia is prevalent in our hospitals. Over one-third of all blood glucose tests done in hospital are above the national in-hospital recommended targets. Blood glucose optimization is essential for wound healing, prevention of secondary infections and other complications, as well as a timely transition out of hospital and back to the community. The Diabetes Obesity Nutrition Strategic Clinical Network (DON SCN) is leading a multifaceted quality improvement initiative, in collaboration with provincial pharmacy, nutrition and food services and operations, to improve glycemic management in hospital. The goal of the initiative is to increase the number of hospitalized patients that meet national standards for control as recommended by the Canadian Diabetes Association Clinical Practice Guidelines (2013), of blood glucose at 5-10mmol/L.

The Basal Bolus Insulin Therapy (BBIT) Project is a quality improvement project that is led by the DON SCN that targets improving glycemic control in the hospital setting using a multidisciplinary intervention strategy to replace inappropriate, widely-used sliding scale insulin prescription. The lack of sustainment of prescribing the BBIT order set has given rise to the development of a BBIT Knowledge Translation (KT) strategy**,** that aims to assess and inform the interplay between 1) the need to provide safe, timely, and clinically appropriate diabetic therapy for the patient; 2) the unique discipline-specific needs, competencies and comfort level of the provider; and 3) the measurement of outcomes at the provider and patient level, necessary to achieve and sustain change.

Readiness for Diabetes Prevention and Barriers to Lifestyle Change in Women with a History of GDM: an Alberta Cohort Study

Gestational diabetes mellitus (GDM), or impaired glucose intolerance diagnosed during pregnancy, affects approximately 1-14% of pregnant women each year. Pregnancy is an important event for identifying women at risk for future type 2 diabetes and also promoting healthy lifestyle change. Research has demonstrated that preventative behaviours such as diet and exercise can reduce the risk for type 2 diabetes postpartum. Unfortunately, previous diabetes prevention programs targeting this population have been limited by lack of adherence. Women that understand the risk of developing type 2 diabetes rarely adopt the dietary and physical activity recommendations, which may be attributed to personal barriers. The aim is to evaluate the patient's stage of readiness for behaviour change and identify associated barriers and facilitators during three different time intervals following GDM diagnosis in order to inform a lifestyle modification program specifically designed for this target group.

Evaluating Obesity within Alberta

According to the *Health Quality Council of Alberta's 2014 Satisfaction and Experience with Healthcare Services* Survey results, nearly three out of five Albertans over the age of 18 are overweight or obese. Estimated provincial prevalence of adults with overweight and obesity is 35.2% and 23.9% respectively, which is comparable with other North American jurisdictions. Canadian and American Medical Associations have declared obesity to be a chronic disease, implying the need for preventative and treatment protocols consistent with other chronic disease management measures. Obesity is associated with a wide variety of co- morbidities: the impact on individual health, work and society are considerable. The goal for the Diabetes Obesity & Nutrition Strategic Clinical Network is to identify and implement evidence based multidisciplinary initiatives and to explore innovation to improve the quality of care for patients with weight-related health issues.