Oral presentation

**OP-002** IMPROVEMENT OF GLYCEMIC CONTROL IN PREDIABETIC AND TYPE 2 DIABETIC PATIENTS UNDERGOING LAPAROSCOPIC SLEEVE GASTRECTOMY (LSG) IN NEWFOUNDLAND AND LABRADOR

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**Introduction** Newfoundland and Labrador (NL) has the highest prevalence of diabetes in the country. In 2011, 11.1% of the population were identified as diabetic. LSG is a minimally invasive and irreversible procedure in which 80% of the stomach is removed, leaving a much smaller stomach or “sleeve”. It is a promising treatment option for obesity, and recent studies demonstrate that LSG may be effective in improving/resolving T2DM in obese patients.

**Objectives** This study is evaluating LSG and its effectiveness in the improvement of glycemic control in prediabetes or type 2 diabetes mellitus (T2DM).

**Methods** All patients (n=66) undergoing LSG in NL since May 2011 are followed prospectively. Patients are classified as having...
prediabetes (HbA1c: 5.7–6.4% or FPG: 6.1–6.9 mmol/L) or T2DM (HbA1c>6.5% or FPG≥7.0 mmol/L, self-reported, or antidiabetic medication use) at baseline. Glycemic control is evaluated at 3, 6, and 12 months. The primary outcome is the proportion of patients experiencing improved glycemic control.

**Results** At baseline, 16 (24.2%) patients have prediabetes (average HbA1c 5.8% (SD 0.3), FPG 5.6 mmol/L (SD 0.7)) and 31 (47.0%) have T2DM (average HbA1c 7.6% (SD 1.4), FPG 8.1 mmol/L (SD 2.5)). Interim analysis within 6 months postsurgery: of the 11 prediabetic patients who’ve completed follow-up, 8 (72.7%) have HbA1c<5.7% (p=0.004) and 11 (100%) FPG<6.1 mmol/L; of T2DM patients who’ve completed follow-up, 12 of 19 (63.2%) have HbA1c<6.5% (p<0.001) and 14 of 17 (82.4%) have FPG<7.0 mmol/L (p=0.003). Prediabetes and T2DM groups show significant improvements in HbA1c (-0.6% and -1.5% respectively) and FPG (-1.0 mmol/L and -2.0 mmol/L respectively), p<0.001 for all. 9 of 21 T2DM patients (42.9%) who completed follow-up are no longer taking antidiabetic medications.

**Conclusions** Interim analysis indicates better glucose control is achieved within 6 months following LSG.