superior blood glucose control in the complex hospital environment. **Methods:** We performed a retrospective review of electronic medical records from a single university hospital. The hospital implemented new order sets allowing prandial insulin dosing based on an ICR and inpatient nursing staff received necessary training. We compared glucose levels over the first three days after admission in hospitalized patients prescribed prandial insulin either as a fixed dose or based on an ICR. Patients on fixed dose insulin were selected from a time 3 months prior to the implementation of ICR order sets, to avoid any bias in patient selection. Patients on ICR dosing were selected from 3 months after implementation of ICR order sets, to allow adequate time for initial implementation. Our inclusion criteria included patients admitted to both medicine and surgery services, with Type 1 or Type 2 DM, age between 18-80. Exclusion criteria included transplant patients, patients on insulin infusion, pregnancy, steroid use and dialysis. 65 patients were included in each group. Outcome measures included average blood glucose over 72 hours, fasting and postprandial hypoglycemia (<70 mg/dL) and hyperglycemia incidence (>180 mg/dL). **Results:** Average glucose over 3 days was 167 +/- 39 mg/dL and 162 +/- 33 mg/dL and did not differ between groups. However, a higher percentage of glucose values were in target range (70-180 mg/dL) in the fixed dosing group (67.9%) compared to ICR (62.5%, p=0.018). The incidence of hypoglycemia was low and did not differ between groups (1.2% in both). However, patients had more overall hyperglycemia with ICR dosing (36% vs 31%, p=0.018), particularly pre-lunch hyperglycemia (52% vs. 38%, p=0.007). Fasting glucose was similar between groups.

**Conclusions:** In conclusion, our study demonstrated that prandial insulin administered based on ICR did not improve overall glycemic control or reduce incidence of hypoglycemia in hospitalized patients with diabetes. In fact, overall and post-meal rates of hyperglycemia were generally higher with ICR dosing. This could be related to inaccurate counting of carbohydrates or delayed timing of insulin administration as it was given after the food was consumed. Additional studies are needed to further evaluate the effectiveness of flexible meal dosing and the impact on patient satisfaction and staff workload.

**Diabetes Mellitus and Glucose Metabolism**

**GESTATIONAL DIABETES, DIABETES IN PREGNANCY, AND IN UTERO EXPOSURES**

Secretagogin Levels Are Unrelated to Gestational Diabetes Mellitus in a Cohort of Pregnant Women

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**SUN-639**

Introduction Secretagogin (SCGN) is a calcium binding protein related to insulin release in the pancreas. Although SCGN is not co-released with insulin, plasma concentrations have been found to be increased in type 2 diabetes mellitus patients. Up to this day, no study on SCGN levels in patients with gestational diabetes mellitus (GDM) has been published.

**Patients and Methods**

In 138 women of a high-risk population for GDM at the Medical University of Vienna, secretagogin levels of GDM patients were compared to women with a normal glucose tolerance (NGT). Glucose tolerance, insulin resistance and secretion were assessed with an oral glucose tolerance test (oGTT) performed before 20 weeks gestation. The women with GDM (39.1%) were further divided into GDM types depending on insulin sensitivity or secretion defects defined as below the 25th percentile in the oGTT of the NGT controls.

**Results**

Compared to women with NGT (mean SCGN= 52.7 ng/dl), there was no statistically significant difference in SCGN in patients with GDM (mean value 53.9 ng/dl, p=0.857). After splitting into secretion defect and insulin resistance subtypes, SCGN remained unrelated to GDM in our study population. However, Secretagogin was found to be significantly higher in postpartum visits (mean= 62.9 ng/dl) than during pregnancy (mean value= 48.5 ng/dl; p= 0.047). Furthermore, SCGN was positively correlated with BMI (p=0.006) in the present analysis.

**Conclusion**

Unlike in studies conducted on type 2 diabetes, a relationship between GDM and Secretagogin levels could not be demonstrated in this study. However, lower levels during pregnancy point towards physiological changes in SCGN levels unrelated to (gestational) diabetes mellitus. Further research, ideally including before-pregnancy levels, is paramount to assess possible roles of SCGN during pregnancy.

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**Adrenal**

**ADRENAL CASE REPORTS II**

**Spontaneous Adrenal Hemorrhage in a Patient with Antiphospholipid Syndrome on Rivaroxaban: A Potentially Fatal Complication.**

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**SUN-192**

Introduction: Primary Adrenal insufficiency is an uncommon complication of antiphospholipid syndrome, with an incidence of 0.4% [3]. It is often secondary to bilateral adrenal hemorrhage. We present a case of bilateral adrenal hemorrhage in a patient with APLS on anticoagulation with rivaroxaban.

**Case:** 46-year-old m with a history of antiphospholipid syndrome, recently transitioned from