**PREGNANCY—CLINICAL**

At baseline, groups were comparable regarding all the clinical variables tested. During the follow-up period (36 days (1-141)), no correction of the automatically proposed treatment was done by doctors. Mean number of BG downloads by patient was 10.2±8 (1-29) and the mean number of changes in diet automatically proposed was 0.48. Mean number of BG values/day, mean BG and the % of BG values above 140 mg/dl, pre-partum HbA1c, and all the perinatal outcomes tested were similar between the groups. Mean number of face-to-face visits performed including first visit and training was 4.8±2.8 for the control group and 1.4±0.6 for the active group (p=0.001).

In conclusion, this computer-based smart telemedicine system successfully replaced face-to-face follow-up visits in women diagnosed of GD while insulin therapy was not required.

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**Successful Replacement of Weekly Face-to-Face Visits by Unsupervised Smart Home Telecare in Diet-Treated Gestational Diabetes (GD)**

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We have developed a computer-based smart telemedicine system to give automated support to GD patients while insulin is not required. The system combines a platform for remote monitoring of diabetes-related parameters with a decision-support system based on expert knowledge that generates automatic feedback to patients. Blood glucose (BG) data downloaded to the system from the patient’s glucose meter is automatically classified into mealtime intervals and timing of measurement (preprandial, postprandial) by a classifier based on a decision tree.

After downloading BG data and informing on ketonuria fasting status, the patient immediately receives an evaluation of the data including completeness and, if needed, a proposal of diet adjustment. In case insulin therapy is advised, the system also contacts the responsible doctor who schedules a face-to-face appointment.

Sixty-nine patients diagnosed of GD following the NDDG criteria were randomized (2:1) to use the system (active group) and to download BG data every three days or to attend the usual weekly visits (control group).

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**Excess Gestational Weight Gain Associated with Greater Accrual of Fat, but Not Lean, Mass**

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Gestational weight gain (GWG) alters maternal body composition, but the impact of excess GWG specific to fat and lean body mass accrual is unclear. We conducted a secondary analysis of overweight/obese women to measure maternal body composition changes with GWG. In early (13-18 weeks) and late (34-36 weeks) pregnancy, maternal height and weight, and body composition (using BOD POD) were assessed. We measured correlations between GWG and change in maternal lean body mass (ΔLBM) and fat mass (ΔFM), and compared ΔLBM and ΔFM by adherence to 2009 IOM GWG guidelines. We then used linear regression to explore associations between ΔFM and: maternal lipids, insulin sensitivity (ISogtt), scored activity and nutrition questionnaires. Mean BW was 32.4±5.1 kg/m²; women gained 9.3±5.8 kg. Overweight, vs. obese, women were equally likely to have excess GWG (48% vs. 35%; p=0.06). ΔLBM was correlated with GWG (r²=0.52, p=0.001). ΔFM was similar whether excess or adequate GWG. ΔFM was correlated with GWG (r²=0.07, p=0.001). Women with excess, vs. adequate, GWG had greater ΔFM (8.4±7.1 vs. 6.0±3.4 kg, p=0.001). ΔFM was not associated with change in fasting lipid profile, ISogtt, physical activity, or dietary quantity or composition. Excess GWG is associated primarily with maternal FM but not LBM accrual. Future research must evaluate maternal factors, other than those assessed here, to explain our findings and explore implications.

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**New Screening Criteria for Glucokinase Monogenic Diabetes in Pregnancy: Performance in a Multicentric Cohort**

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Despite the importance of identifying glucokinase monogenic diabetes (GCK-MODY) in pregnancy, universal genetic testing is not yet practicable. Standard pre-genetic screening criteria (SSC) are well established. New pregnancy-specific screening criteria (NCSC) were recently proposed to identify gestational diabetes (GDM) cases that should be tested for GCK-MODY. The NCSC (fasting glucose ≥5.5mmol/L and pre-pregnancy BMI ≥25kg/m²) were derived from a predominantly Anglo-Celtic population. Its applicability to other ethnicities has not been examined.

To test this, we used an enrichment strategy to identify cases of GCK-MODY, previously diagnosed as GDM. A multicentric GDM database with post-partum data from 776 women was used to identify 63 women whose post-partum OGTT was highly suggestive of GCK-MODY by SSC. 31/63 agreed