

Gestational Diabetes Mellitus Screening Using Random Plasma Glucose Measurement at 18 to 22 Weeks of Gestation

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The aim of this prospective study was to acquire data about random plasma glucose (RPG) levels at 18-22 weeks gestation so as to evaluate our Gestational Diabetes Mellitus (GDM) screening programme at cut-off levels of ≥ 6.0 mmol/l (last meal < 2 hours) and ≥ 5.0 mmol/l (last meal ≥ 2 hours). There were 6,965 deliveries in the 2-year period studied. The prevalence of GDM was 3.58%. The mean RPG levels were 4.97 mmol/l (last meal < 2 hours) and 4.53 mmol/l (last meal ≥ 2 hours) with standard deviations of 1.11 and 0.82 mmol/l respectively. The sensitivity, specificity, positive predictive value and negative predictive value of our screening programme were respectively 30.20%, 82.12%, 6.87% and 96.42%. We conclude that GDM screening by RPG measurement between 18 and 22 weeks gestation using cut-offs at 80-85th centile levels has a sensitivity of about 30% and a specificity of more than 80%. This, combined with screening by clinical risk factors, achieves a better detection rate of GDM than that by clinical indicators alone. (HKJGOM 2001; 2: 62-67)

Keywords : gestational diabetes mellitus, random plasma glucose, 18-22 week gestation, screening
