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**Predictive validity of Post Prandial Blood Sugar (PPBS) at booking visit and routine urine dip stick test (UDST) in detecting Gestational Diabetes Mellitus (GDM)**

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### **Background**

Prevalence of GDM in Sri Lanka is estimated to be around 5-10%. Recommended screening methods for detection of GDM include risk based PPBS and routine urine dip stick test.

### **Objective**

To determine the predictive validity of PPBS at booking visit and the validity of UDST to detect GDM among pregnant women in Anuradhapura district.

### **Methods**

Pregnant women at 24-28 week POA, residing in Anuradhapura district and who had undergone PPBS during the first trimester were selected for the present study. GDM was defined using International Association of Diabetes and Pregnancy Study Group (IADPSG) criteria using 75g Oral Glucose Tolerance Test (OGTT). Screening results were extracted from the ante natal records. Ethical clearance was obtained from the ethics review committee of Faculty of Medicine & Allied Sciences, Rajarata University of Sri Lanka.

### **Results**

Of the 405 women screened for the study, only 113 (27.9%) had PPBS either at booking visit or during the first trimester. Out of them, 19 (6.8%) were confirmed as having GDM. Sensitivity, specificity, positive and negative and predictive values of PPBS was 10.5%, 100.0%, 100.0% and 84.6% respectively. Regular UDST was done for 389 (96.0%) pregnant women and of them, 43 (10.9%) were confirmed as having GDM. Out of them, only 3 had abnormal dipstick results. There were 7 false positive urine dipstick results at least once during the pregnancy showing a sensitivity of 6.8%.

### **Conclusion**

Validity of the present recommended screening practice is highly doubtful. Alternative methods for screening should be employed to control the effects of GDM.