

Abstract

Background: Fasting plasma glucose (FPG) is the most commonly used screening tool for diabetes in Sri Lanka. Cut-off values from American Diabetes Association recommendations are adopted in the absence of local data. We aimed to establish FPG cut offs for Sri Lankans to screen for diabetes and pre-diabetes.

Methods: Data on FPG and diabetes/pre-diabetes status were obtained from Sri Lanka Diabetes and Cardiovascular Study (SLDCS), a community based island wide observational study conducted in 2005-6. Sensitivity specificity and area under the ROC curve were calculated for different FPG values.

Results: Study included 4014 community dwelling people after excluding people already on treatment for diabetes or pre-diabetes. Mean age was 45.3 (\pm 15) years and 60.4% were females. FPG cut off of 5.3 mmol/L showed better sensitivity and specificity than 5.6 mmol/L in detecting diabetes (87.8% and 84.4% Vs 80.8% and 92.1%) and pre-diabetes (54.7% and 87.0% Vs 43.8% and 94.2%).

Conclusions: A lower FPG cut off of 5.3 mmol/L has a better sensitivity and acceptable specificity in screening for diabetes and pre-diabetes in Sri Lankan adults.