Diabetes mellitus is a chronic non communicable disease assuming epidemic populations all over the world especially in developing countries like Sub Saharan Africa. Type 2 diabetes is the commonest type. It can be asymptomatic or symptomatic with complains of polyuria, polydypsia, nocturia, polyphagia and weight loss despite adequate caloric intake. Risk factors of diabetes include; family history of diabetes mellitus in first degree relatives, polycystic ovarian syndrome with BMI > 30, obesity, sedentary lifestyle, metabolic syndrome, waist circumference > 80cm in females and 94cm in males, Asian/African descent (Diabetes UK, 2006). Its complications include non traumatic blindness, impotence in males, end stage renal disease e.t.c. It is managed with lifestyle changes (weight loss, physical exercise and healthy diet), use of insulin and oral hypoglycemic drugs. Diabetes can be prevented by weight reduction and physical exercise.

My capstone project was on screening for type 2 diabetes mellitus with fasting plasma glucose in adults older than 45years. There are several screening tests for type 2 diabetes which includes fasting blood glucose, random blood glucose, urine glucose test, oral glucose tolerance test and glycated hemoglobin (HbA1C). Your choice of screening test will depend on your environment, purpose of screening and availability of resources. A FBS value ≥ 6.6 mmol/l (120 mg/dl) is indicative of diabetes. Sensitivity of FBS can be improved but specificity and PV+ will reduce if the threshold for a “positive” fasting blood sugar test is reduced (Sainaghi P., Castello L., Limoncini A., Bergamasco L., Bartoli E., Schianca G., 2007). The World Health Organization recommends a value > 5.5mmol/L and the American Diabetic Association > 6.1mmol/L as diagnostic criteria for diabetes. Sensitivity is between 40% and 65% with a specificity > 90% for fasting plasma glucose values of 6.1 to 7.8mmol (WHO, 2013). I would use fasting blood sugar (FBS) with a cutoff point of > 6.6mmol/l as a screening test for diabetes in my environment because it is easier, faster to perform, more convenient, less expensive and acceptable to patients (US preventive services task force, 2008). Due to rapid urbanization, diabetes is increasing in my environment and it is predicted to double by the year 2030. This will increase awareness of diabetes and ensure early detection of diabetes before complications arise.

Thanks,
Mofoluwake

Reference

