SUMMARY

**Background:** Diabetic nephropathy is a major cause of end-stage renal disease worldwide. Presence of nephropathy in patients with diabetes is usually associated with increased urine albumin excretion. Recently however, there have been several reports of nephropathy in patients with type 2 diabetes occurring without increase in urine albumin excretion. This suggests that some type 2 diabetic patients could develop nephropathy that would remain undetected by standard screening methods thus missing out on the benefits accrued from early detection.

**Objective:** To determine the pattern of urinary albumin excretion in patients with type 2 diabetes and chronic kidney disease.

**Research Design and Methods:** A cross-sectional survey of a cohort of 364 patients (225 females; 139 males) with type 2 diabetes was carried out at the diabetes clinic of the Lagos University Teaching Hospital.

Glomerular filtration rate in ml/min/1.73m2 was estimated from serum creatinine for each patient, using the modification of diet in renal disease study equation. Urine albumin excretion was determined from a spot early morning urine sample using the albumin:creatinine ratio.

Chronic kidney disease was defined as a GFR < 60ml/min/1.73m2. Albuminuria was defined as a urine albumin:creatinine ratio > 30mg of albumin per gram of creatinine.
**Results:** A total of 164 subjects (46.2%) had chronic kidney disease. The prevalence of CKD was higher in females than in males. None of the subjects with CKD had normal urine albumin excretion. All had either macroalbuminuria or microalbuminuria. Factors associated with chronic kidney disease in type 2 diabetes were, female gender, absence of truncal obesity and presence of hypertension. Factors associated with macroalbuminuria were, a duration of diabetes $\geq$ 10 years, and a lower GFR.

**Conclusion:** Chronic kidney disease is common among patients with type 2 diabetes. Presence of chronic kidney disease is always associated with increased urine albumin excretion in type 2 diabetics in Lagos. Screening for chronic kidney disease in patients with type 2 diabetes should be done using eGFR or quantification of albuminuria in early morning spot urine sample using albumin:creatinine ratio or an albumin-specific dip stick that measures micro- and macroalbuminuria.