

00070 Audit on Annual Nephropathy Screening in Children With Diabetes

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Aims: Long term complications in diabetes include nephropathy which can result in renal failure and hypertension.¹ Screening for microalbuminuria (MA), an early marker for nephropathy may be the first sign of microvascular complication. In children with diabetes, it is essential to identify patients at risk so that treatment strategies such as improvement in glycaemic control and blood pressure can be implemented early.²

To assess the compliance of annual screening and prevalence of MA among the children with diabetes in accordance with International Society of Paediatric and Adolescent Diabetes (ISPAD) standards.¹

Methodology: All patients with Type 1 and Type 2 diabetes, age 10-19 years and diagnosed >1 year, on active follow-up between 1st January 2014 to 31st December 2016 were included. Baseline demographic data and urine sample for MA testing were collected and analysed. If first urine sample is found abnormal, second and/or third sample is collected.

Result: The screening rate for MA improved from 65% (n=170) in 2014, to 85% (n=240) in 2015 and 80% (n=231) in 2016. Percentage of abnormal first urine sample was 18% (n=30) in 2014, 15% (n=37) in 2015 and 13% (n=31) in 2016. Prevalence of MA detected from the screening was 4% (n=7) in 2014, 3% (n=8) in 2015 and 3% (n=6) in 2016. Mean age at MA detection was similar, 14.3y±2.1 (2014), 15.1y±0.0 (2015) and 14.5y±4.9 (2016). Mean duration of diabetes at MA detection was also similar 3.7y±1.4 (2014), 3.9y±1.4 (2015) and 4.0y±1.4 (2016). Mean HbA1c at MA detection was 8.5%±3.5 (2014), 8.5%±1.6 (2015) and 9.6%±3.3 (2016). Only one patient was found hypertensive at MA detection in 2014.

Conclusion: There was an improvement in screening rate for MA with the implementation of Annual Review Clinic in July 2014. Early detection of MA with optimisation of glycaemic control and blood pressure can prevent further deterioration of diabetic kidney disease.