

# 3<sup>rd</sup> International Conference on Nephrology & Therapeutics

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## Screening for microalbuminuria in adolescents with type 1 diabetes

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The American Diabetes Association (ADA) has updated its clinical practice recommendations and published it in the January edition of Diabetes Care, volume 37 supplement 1 January 2014. Section VIII of the position statement is dedicated to diabetes care in specific populations.

Children and Adolescents; In the paragraphs discussing “Screening and Management of Complications”, “Nephropathy” carries the following recommendations:

**Screening:** “Annual screening for albumin level, with random spot urine sample for albumin-to-creatinine ratio (ACR), should be considered for the child at the start of puberty or at age  $\geq 10$  years, whichever is earlier, once the youth has had diabetes for 5 years.”

There are several problems with the above recommendation. First, random urine sample may introduce the orthostatic component of proteinuria and increase the amount of protein in the urine. First mornings void is a more appropriate sample for screening and follow up of proteinuria.

The second issue is the epidemiology of proteinuria. Benign, asymptomatic proteinuria has a bi-modal distribution related to age. Before puberty the incidence is under 10% of screened populations. It increases to 15-16% of adolescents at the peak of pubertal growth spurt. The incidence drops down to 1-3% in the adult population and rises at older age with the accumulation of adult-onset morbidities like diabetes and hypertension.

Screening 14-17 year old diabetic youth is likely to yield a significant number of incidental proteinuria that is not necessary related to diabetic nephropathy.

Over-diagnosing proteinuria will lead to the next recommendation; “Treatment with an ACE inhibitor”. The problems here are lack of long-term studies confirming efficacy and teratogenic potential of ACE inhibitors and ARB’s in a population of young ladies at the verge of reproductive years.

### Biography

Pinhas Geva has graduated from Sackler School of Medicine in Tel Aviv, Israel in 1981. After completing a residency program in Israel he became a Pediatric Fellow at UCLA between the years 1985-87. He served as Junior Faculty at the Department of Pediatric, Division of Pediatric Nephrology, Albert Einstein College Medicine in the Bronx, New York. In 1997, he joined the Faculty at Michigan State University, Department of Pediatrics and Human Development and became an Attending Pediatrician at Sparrow Health System. After becoming Chief of Pediatric Nephrology Services he became Chairman of the Department of Pediatrics and member of Medical Executive Committee for Sparrow Health System.

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