# Re: Simple Formulas for Screening Abnormal Blood Pressure in Children and Adolescents

IJKD 2011;5:210-2
www.ijkd.org

Editor,

I read the recent publication by Badeli and colleagues with great interest. They "presented new formulas that are concise and memorable, and will help physicians to screen prehypertensive and hypertensive pediatric patients.[1]" This is a very useful attempt to simplify the difficult formula for screening abnormal blood pressure in children. I would like to share a few ideas on this work. First, Badeli and colleagues presented a good correlation study, but did not completely present the diagnostic property (sensitivity, specificity, and accuracy). If these data are provided, it will be very good supportive evidence for the new proposed formula. Second, it is a simple question whether they can prove that their new proposed formula is easily memorable. Is there any supportive evidence? Finally, it is also questionable that the new formula is developed from the most up-to- date data from actually normal pediatric referencing population since all referred data are not primary.

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## REFERENCES

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## REPLY BY AUTHOR

I am very pleased to read the letter to editor of Viroj Wiwanitkit about our article. I reply to those questions as the same order of the original letter. First, we did not perform a diagnostic study; therefore, we could not pull out sensitivity and specificity. Second, our attempt was made to summarize a useful new table[1] in screening of children and adolescence high blood pressure. These formulas seem to be memorizable in comparison with a table with a lot of variables. Third, our data were extracted from the National High Blood Pressure Education Program[2] which is known and reliable for children hypertension in most parts of the world.

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2. National High Blood Pressure Education Program Working Group on High Blood Pressure in Children and Adolescents. The fourth report on the diagnosis, evaluation, and treatment of high blood pressure in children and adolescents. Pediatrics. 2004;114:555-76.

# Survey of Microalbuminuria: a Study in Thailand

Editor,

Kidney disease is an important public health concern at present. There are many million cases of kidney disorders around the world. Prevention of renal disease in some chronic medical disorders such as diabetes mellitus and hypertension includes screening for presence of protein in urine.[1] Basically, the 24-hour urine sample is required for clinical testing for urine protein.[2] However, this might

be inconvenience. Thus, many alternatives such as urinalysis strips are proposed. However, the standard practical guidelines mention that the measurement of urine protein for early diagnosis of renal impairment must be the determination of albumin level comparing with creatinine level in urine, which is called *albumin-creatinine ratio*.[3] The early reversible renal disorder can present low excreted urine albumin level that is called *microalbuminuria*. Many reports confirm the clinical relationship between this urine biomarker and prevention of kidney disease. However, the problem of the "quality" of the determination of microalbuminuria must be addressed. Here, the author retrospectively appraised on the published papers on microalbuminuria determination in Thailand. The author performed a literature review to identify published papers in well-known medical reference databases (PubMed and Scopus).

The search term was *microalbuminuria* and the specific setting was Thailand. The papers which reported the microalbuminuria determinations were further included into this study. The exclusion was made in cases of nonclinical studies. All papers were carefully read and the specific technique for microalbuminuria determination was extracted for further assessment. The judging on the standardization of the techniques was based on the reference reports on the recommendation of microalbuminuria determination.[3]

According to the literature searching, there were 19 published papers for assessments. Of the overall 19 reports, only 17 used standard microalbuminuria determination, the urine albumin-creatinine ratio quantitative measurement by automated clinical chemistry analyzer (89.5%). It can be seen that not all reports used standard tools, which means the doubtfulness of results and conclusions on many published papers. Interestingly, the two problematic papers (10.5 %) used a semiquantitative single urine strip test (immunoassay urine strip) to determine urine albumin level without any comparison to urine creatinine level. Using the single urine strip test is considered nonstandard practice, since it cannot provide the result that can be used for interpretation of microalbuminuria, although it can provide a very fast result.[3] General readers and practitioners should be concerned about the correct principle of microalbuminuria determination and correctly use it in their routine clinical practices. In addition, this work can also reflect the importance of the standardization of urine screening test for kidney disease in Thailand. This has never been systematically evaluated although there are some previous concerns on other tests for other diseases such as diabetes mellitus.[4] The concern on standardization of laboratory testing should be focused in pre-analytical quality management.[5]

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# Cyclosporine Trough Level Monitoring

Editor,

In an interesting paper, Hami and colleagues[1] mentioned cyclosporine trough level (C0) has no direct relation with drug side effects and it is not a suitable measure for assessment of drug side effects. In addition, they concluded C0 is not a reliable tool for dose adjustment of drug after kidney transplantation. We would like to draw the attention of the readers to studies that might be relevant to discuss in this context.