

## INTRODUCTION

Renal diseases have emerged as a serious public health problem. Data from the United States Renal Data System (USRDS) show that incidence of kidney failure is rising among adults and is commonly associated with poor outcomes and high cost. In the past decade, the incidence of the renal diseases in children has steadily increased, with poor and ethnic minority children disproportionately affected. (**Annual Data Report of USRDS, 2011**).

There is a growing prevalence of kidney disease world wide. This is in large part due to the fact that in most population we are getting fatter due to excess caloric intake without a concomitant increase in energy expenditure resulting in an epidemic of obesity and diabetes. In addition our diets are high in sodium and low potassium resulting in a high prevalence of hypertension. ( **Baum M, 2011**).

The major health consequences of renal diseases include not only progression to kidney failure but also an increased risk of cardiovascular disease. Evidence-based clinical practice guidelines support early recognition and treatment of renal diseases-related complications to improve growth and development and, ultimately, the quality of life in children with this condition. ( **Kopple, 2001**).

In recent years, a number of urine screening programs have been launched for the early detection of renal diseases, which has been proved

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extremely important for reducing the growing burden of renal diseases in both developed and developing countries. An effective screening program makes use of acceptable tests that can accurately and reliably detect relatively asymptomatic disease at an early stage (**Rao et al, 2006**).

Mass school students for urine screening program can detect renal diseases in early stage, and recommends that more attention should be paid to identify those children with combined hematuria and proteinuria, and massive proteinuria. When mass screening is used, the initial aggressive diagnostic procedures such as renal biopsy are not needed. In addition, a regular follow-up for those children with isolated hematuria and isolated proteinuria is certainly warranted (**Park et al, 2005**).

Hematuria is one of the most common urinary findings that bring children to the attention of the pediatric nephrologists. A positive reaction on the urine dipstick test is usually the first indication of the presence of hematuria. Hematuria can be gross (i.e., the urine is overtly bloody, smoky, or tea colored) or microscopic. It may be symptomatic or asymptomatic, transient or persistent, and either isolated or associated with proteinuria and other urinary abnormalities (**Gulati et al, 2006**).

Proteinuria is known to be the best predictor for reduced renal function, and the urine dipstick test for proteinuria is less expensive and is cost-effective. Universal screening with the urine dipstick test for proteinuria could be one solution to reduce end-stage renal disease (ESRD) due to glomerulonephritis (**Yamagata et al, 2008**).