CORRESPONDENCE

Reply to: “The application of urinary antigen test score in pneumococcal pneumonia in children”

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To the Editor:

We thank Dr Wen-Chan Huang for the correspondence on concentrated urine samples and underlying disease of patients in our study.1 Even under universal immunization with conjugate pneumococcal vaccine, Streptococcus pneumoniae remains the leading pathogen in childhood community acquired pneumonia.2,3 One of the challenges facing clinicians is to explore the early detection of pneumococcal disease by disease severity in hospitalized patients. Current urinary antigen test scores were obtained using original unconcentrated urine samples from patients at admission in our study. The correlation between urine specific gravity and the urinary antigen test scores was studied. The urinary antigen test reaction may have been slightly enhanced by the higher urine specific gravity. However, the time to positive reaction and the intensity of reaction band were not influenced by the urinary gravity. The findings were also in agreement with a report by Tateda et al.,4 who suggested that the fold difference between severe and non-severe groups could not be achieved by urinary concentration under normal physiological status.

The underlying illness of patients did not influence the result of the urinary antigen test score and its application in disease severity assessment. First, the percentage of patients with underlying disease was low (around 5.8–12.5%) in comparison with adult patients.5 Second, multivariate analysis revealed no statistically significant differences in the distribution of underlying illness among three groups. Third, we obtained the same results after exclusion of patients with underlying illness. Therefore, the urinary antigen test is not only a diagnostic tool, but also serves as a useful prognostic marker in clinical practice.

References
