REPLY

The above situation described by the author is an interesting and often faced dilemma in pediatric nephrology practice. Since this child has already received 6 weeks of daily steroids and went into remission, the relapse should be technically treated as the first relapse. Most regimens for treatment of initial episode have recommended 4-6 weeks of daily steroids followed by alternate day therapy for another 6 weeks only, as longer durations predispose to more adverse effects [1,2]. We should treat this episode as first relapse and give the child daily prednisolone (2mg/kg/d) till 3 days of remission and then continue on alternate day (1.5 mg/kg/d) of oral prednisolone for another 4 weeks. This means that the child would receive at least another 5-6 weeks of steroids and she had already missed 6 weeks of alternate day steroids during the treatment of initial episode. Even if we consider this episode as continuum of the initial episode the child would still merit 6 weeks of alternate day steroid therapy that she had missed. However since the child relapsed after gaining remission it should be labeled as a relapse. The definition of relapse as per the guideline is "Urine albumin 3+ or 4+ (or proteinuria >40 mg/m^2/h) for 3 consecutive early morning specimens, having been in remission previously" [1]. The definition of first relapse or subsequent relapses is not any different. The subsequent treatment of this child would be decided by the disease course on follow-up.

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Diabetes Monitoring in Hemoglobinopathies

A-10-year-old boy was recently diagnosed as type I diabetes mellitus. As a part of work up, an HbA1c (glycosylated hemoglobin) was sought but could not be done due to presence of abnormal hemoglobin, later confirmed as HbE trait.

In our experience, we note an increasing number of children with abnormal hemoglobin and diabetes. The Diabetes Control and Complications Trial (DCCT) and the United Kingdom Prospective Diabetes Study (UKPDS) demonstrated conclusively that risks for complications are related directly to glycemic control, as measured by HbA1c [1, 2].

Four basic types of methods are used to measure HbA1c: immunoassay, ion-exchange high-performance liquid chromatography (HPLC), boronate affinity HPLC, and enzymatic assays. All the four methods are ineffective in assessment of glycemic control in patients homozygous for HbS, C or SC disease or any other conditions that reduce the life span of the erythrocytes. In HbAS, AC, AE, AD and F, the interference of results depend on the method of assay and the laboratories should be aware of the limitations of their method with respect to these interferences, as it turned out in our case [3].

Other parameters of assessing glycemic control like frequent self monitoring of blood glucose (SMBG) and glycated albumin (fructosamine) may be used. In SMBG, cost of the glucometer strips, accuracy and repeated pricking are limiting factors. For fructosamine, the non-availability of the assay in many centers and the standardization of reporting is a problem. Fructosamine levels usually reflect the average glycemic control in the previous 2-3 weeks and the frequency of tests has to be decided based on that. With recent advances, continuous glucose monitoring system (CGMS) has been introduced where a catheter is inserted in the subcutaneous plane and is connected to a computerized glucose sensing apparatus. It aspirates micro-quantities of interstitial fluid at regular intervals and records the glucose values which may be analyzed later. The expected cost of the above system is a major limiting factor in a resource-constrained setting. Another test, though not approved by FDA, is 1,5 anhydroglucitol estimation whose concentration normally falls if blood glucose is above 180mg/dl. Hence, this is used to assess glycemic variability and reflects more of post-prandial control [4]. However, in a given situation like in our patient, these methods have to be resorted to once in a while to assess