Reply to Akbar et al

To the Editor—The purpose of our recent article “Dengue—How Best to Classify It?” is to start a logical and healthy debate on this important issue [1]. We welcome the comments in the Letter to the Editor by Akbar et al [2].

First, the term “Dengue Shock Syndrome” appears only as an abbreviation in the 2009 guideline [3]. It is not explicitly stated that shock due to plasma leakage is the most common cause of dengue severity. The 2009 classification appears to give equal importance to...
isolated organ failure, the true incidence of which is poorly documented, and ignores a well-recognized syndrome that has been shown to be associated with severity and mortality [4]. However, we agree that dengue classification should accommodate new and underrecognized manifestations. A category called “Expanded Dengue Syndrome,” which includes severe organ involvement in the absence of evidence of plasma leakage, has been added to the classification in the guidelines recently published by the World Health Organization Regional Office for South-East Asia [5].

Second, the description of the revised classification in the guidelines consists of a single diagram with almost no accompanied explanation [3]. The text indicating the requirement for dengue diagnostic tests in the absence of plasma leakage was placed under the column describing probable dengue. It is not clear whether this requirement also applies to severe dengue cases or cases with warning signs. The requirement for dengue diagnostic tests in all suspected dengue (according to the 2009 case definitions) in the absence of plasma leakage will be a major obstacle for clinical practice and public health reporting, particularly where rapid diagnostic tests may not be widely available.

As we point out, dengue fever (DF)/dengue hemorrhagic fever (DHF) classification is based on clinical syndromes, not on severity. Nevertheless patients with DHF are at significantly higher risk for severity and treatment requirement than those who do not meet DHF case definition [6]. In contrast, the authors’ own study has demonstrated that few cases of dengue requiring hospitalization and moderately intensive treatment meet the revised criteria of severe dengue [7]. In clinical practice, DHF is diagnosed in real time rather than retrospectively, as indicated by the authors. With proper clinical and laboratory monitoring, plasma leakage and hemorrhage can be promptly detected and treatment initiated. Prompt recognition and treatment of plasma leakage has been the cornerstone of dengue management, which has improved dengue case-fatality rate worldwide.

Whether the revised classification will be widely accepted remains to be seen. A number of studies comparing the 2009 and 1997 dengue classifications have been published [8–11]. Deficiencies in some of these, such as the inclusion of unconfirmed dengue cases, lack of critical laboratory results, repetition of the study design and gold standard of the original Dengue Control study, and questionable interpretation of the statistics, underscore a critical need for a well-designed comparative study. Such a study must generate information necessary for both classifications to allow a true comparison of clinical applicability of the 2 systems. We agree that the need for change should be continuously reevaluated as new information and technologies become available. However, this can only be done with a full consideration of the advantages and disadvantages of each approach.

Notes

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