

A CLINICAL SCORE FOR DIAGNOSIS OF PROBABLE DENGUE IN CHILDREN IN AN ENDEMIC AREA, THAILAND

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Abstract. Dengue is one of the most important mosquito-borne diseases in tropical and subtropical regions of the world. Laboratory diagnosis is often expensive or unavailable in some endemic areas, making clinical diagnosis important for case management. In order to develop and validate the Mahidol dengue clinical score (MDCS), a predictive of dengue among children who present with acute febrile illness without localizing signs in a dengue endemic area, data on clinical and laboratory findings in a cohort study of children with acute febrile illness without localizing signs identified prospectively were analyzed and compared between those with and without laboratory-confirmed dengue. MDCS was then developed using independent clinical risk factors associated with dengue. The validity of MDCS was further evaluated by comparison to WHO dengue diagnostic criteria. In children who had acute febrile illness without localizing signs, MDCS-A version comprising of mucosal bleeding, facial flush, absence of rhinorrhea, positive tourniquet test, leucopenia, and thrombocytopenia had a diagnostic value comparable to WHO 1997 criteria, while MDCS-B version that excludes data on leukopenia and thrombocytopenia, making it more feasible in laboratory-limited settings, had a diagnostic value comparable to WHO 2009 criteria. Thus, MDCS can be used as a screening diagnostic tool for dengue infection in children in a dengue endemic area.

Keywords: clinical finding, dengue, Mahidol dengue clinical score, Thailand

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