Hospital management in patients with Dengue: what challenges do we face in Latin America?

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Dear Editor:
Dengue is a viral disease transmitted by the bite of infected female Aedes mosquitoes [1]. This has evolved from a sporadic disease a major public health problem due to the globalization of travel, unplanned urbanization, climate change and increasing global temperature [1,2]. In 2013 it was estimated that around 390 million infections of Dengue virus each year, of which 96 million clinically demonstrated [3]. These estimates and reports provide a starting point for a broader discussion on the local impact of this disease.
The absence of a vaccine or an antiviral drug against dengue have caused the treatment and prevention of the disease based on their timely recognition [4]. Unfortunately, handling can be delayed due to misidentification of patients who would be at risk of developing serious complications in early stages of the disease. It is also important to mention that most health professionals are not adequately trained in how to manage cases during an outbreak (such as dengue) [5].
For this reason, the World Health Organization (WHO) published the document "Dengue: Guidelines for diagnosis, treatment, prevention and control" to establish the proper management of the disease [4]. As a result, the Ministry of Health of Peru in 2010, developed strategies according to the guidelines established by WHO to strengthen entomological surveillance and prevention of vector in the country [6]. This also has led to several hospitals are developing a clinical practice guidelines for the management of Dengue [7]. To the importance of knowing the most common types of clinical management used in hospitals, 18 patients were evaluated previously hospitalized with the diagnosis of Dengue in the Jaen hospital from the Lambayeque, Peru in 2015, in whom used a survey record the following data: general data, epidemiological data, clinical data and management of patients with dengue data. The results are shown in Table 1.
In assessing practices in the management of patients with Dengue, we found that 15 (83.33%) patients were administered acetylsalicylic acid (aspirin) or ibuprofen, only 10 (58.82%) it was performed determining hematocrit values regarding therapy partially liquid; it was not met with the administration of intravenous fluids in 8 (44.44%) patients with non-severe Dengue; also the use of hypotonic intravenous fluids for severe Dengue in 13 (100%) patients, only 16 (88.89%) were given intramuscular injections and finally was partially fulfilled in 8 (50%) patients were missing revision of intravenous fluid therapy once haemodynamic status stabilized.
Our results indicate that not make use of the guide for clinical management of Dengue makes the

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Table 1 - Practices in the handle of patients with dengue in an endemic city of Peru. 2015.

Bad practice	*Not fulfilled No (%)*	*Partially No (%)*	*Fulfilled n (%)*
Send home the patients with not severe dengue without any control neither suitable instructions.	14(87,5)	1(6,25)	1(6,25)
Administration of acid acetil-salicílico (aspirin) or ibuprofen.	1(5,56)	2(11,11)	15(83,33)
Not knowing when requests the determination of the values of the haematocrit regarding the therapy of liquids.	3(17,65)	10(58,82)	4(23,53)
Any clinical evaluation of the patient according to the therapy of liquids.	9(50)	5(27,78)	4(22,22)
Interpretation of the levels of the haematocrit independently of the clinical state	14(77,78)	3(16,67)	1(5,56)
Administration of intravenous liquids to any patient with severe dengue	3(16,67)	7(38,89)	8(44,44)
Use of intravenous liquids hypotonic for the severe dengue	0(0)	13(100)	0(0)
Excessive administration or prolonged of intravenous liquids for severe dengue	2(25)	4(50)	2(25)
Administration of intramuscular injections to patients with dengue	0(0)	2(11,11)	16(88,89)
Tax of fixed intravenous liquids and invariable frequency of control and determination of the haematocrit during all the hospitalization by dengue grave.	14(77,78)	3(16,67)	1(5,56)
Not controlling the glycemia, neither know the effect hyperglycemic in the osmotic diuresis and confuse the hypovolemia	14(77,78)	1(5,56)	3(16,67)
Continuation and fault of review of the therapy of intravenous liquids once stabilized the haemodinamic state.	3(18,75)	5(31,25)	8(50)

treatment of the patient not adequate. Unfortunately, this reality resembles that of several studies, which concluded that the lack of training to health personnel creates complications in the treatment of patients [8-10]. For that reason, conducting research to highlight and mention the continuing difficulties in health personnel (at the time of classifying patients with Dengue), it is important to avoid inappropriate evaluation and hospitalization [5, 8-10]. Also used as a strategy training health personnel for the proper management of patients with Dengue, it is helpful, as continuous updates, contribute to quick handling and stability of the patient. Reduce costs by allowing complications and longer hospital stays, mainly in endemic countries.

Conflict of Interest: The authors declare no conflict of interest

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