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Feature Articles

Epidemiology of sepsis in pediatric intensive care units: First Colombian Multicenter Study*
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Abstract

Objectives: In 2002, the Surviving Sepsis Campaign pointed out the need to recognize sepsis as an important cause of death and high economic and social costs. There are few epidemiologic studies of this disease in pediatrics and none in Colombia. The objective of this study was to describe the sociodemographic and clinical characteristics of patients with sepsis who were admitted at participating pediatric intensive care units.

Design: Prospective study.

Setting and Patients: A Web site, http://www.sepsisencolombia.com, was created, in which 19 pediatric intensive care units from the ten principal cities in the country reported epidemiologic data about patients with sepsis between March 1, 2009, and February 28, 2010.

Interventions: None.

Measurements and Main Results: There were 1,053 patients. Of these, 55% were male. Fifty-six percent came from urban areas. Fifty-six percent were <2 yrs of age. Seventy-six percent belonged to a low socioeconomic strata and 44% received government-subsidized health insurance. Forty-eight percent of patients had septic shock, 25% severe sepsis, and 27% sepsis. Forty-three percent were diagnosed with multiple organ dysfunction syndrome. In 54%, the infection was of respiratory origin followed by the abdomen as the site of origin in 18% of the patients. In almost 50%, the etiological agent was detected with Gram-negative bacteria being the most frequent and of highest mortality. Fifty percent had some type of relevant pathologic antecedent. Eleven percent had an invasive device on admission. Sixty-eight percent of the patients required mechanical ventilation. Mortality rate was 18%. The most important risk factors for mortality were age under 2 yrs, presence of shock or multiple organ dysfunction syndrome, and presence of Gram-negative bacteria.

Conclusions: Sepsis is common in Colombian pediatric intensive care units. Clear risk factors for getting sick and dying from this disease were identified. Mortality resulting from this disease is considerable for a developing society like ours.

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