

Study finds 2.6 percent mortality rate among children hospitalized for stroke

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A major international study has found that 2.6 percent of infants and children hospitalized for stroke die in the hospital.

Loyola Medicine neurologist José Biller, MD, a nationally known expert on strokes in [children](#), is among the co-authors of the study, published in the journal *Pediatrics*. First author is Lauren A. Beslow, MD, of the Children's Hospital of Philadelphia.

The retrospective study included 915 infants younger than one month and 2,273 children aged one month to 18 years who were [stroke patients](#) at 87 hospitals in 24 countries. The type of stroke examined in the study, called ischemic, is caused by blood clots and is the most common type.

The study found that during their hospitalizations for ischemic stroke, 1.5 percent of the infants and 3.1 percent of the children died, with an overall mortality rate of 2.6 percent.

Researchers classified the causes of death as stroke alone, a combination of an underlying disease and stroke or simply an underlying disease. Nearly two-thirds (65 percent) of [hospital](#) deaths with a known cause were related to the stroke and/or subsequent deficits.

Risk factors for dying in the hospital included congenital heart disease and having a severe type of [ischemic stroke](#) known as "posterior plus anterior circulation."

Hispanic ethnicity also was associated with higher mortality, but black infants and children were not at higher risk of dying. The reason for the higher Hispanic mortality rate is not known. Future studies "should explore whether ethnic differences in mortality rates are related to disparities in care," researchers wrote.

Also at higher risk of dying were infants and children who did not have seizures. The reason may be that [infants](#) who present with seizures might be diagnosed and treated more quickly for their strokes, researchers wrote.

Childhood ischemic strokes affect 1.2 to 2.4 per 100,000 children per year in developed countries. Although deaths from ischemic and other types of stroke appear to have declined, stroke remains among the top 10 causes of death among children in the United States.

Researchers wrote that improved stroke recognition, earlier supportive care, more rapid intervention and neuroprotective treatments "are critical for decreasing [mortality](#) after [stroke](#) in the pediatric population."

The study is titled, "Mortality After Pediatric Arterial Ischemic Stroke."

Provided by Loyola University Health System

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