(HealthDay)—Newborns with significant jaundice are not likely to develop kernicterus if American Academy of Pediatrics' treatment guidelines are followed, according to a new study published online Jan. 5 in *JAMA Pediatrics*.

Researchers from the University of California in San Francisco and the Kaiser Permanente Northern California Division of Research examined data from two groups of more than 100,000 infants. The babies were delivered at one of 15 hospitals between 1995 and 2011. One group of 1,833 newborns had bilirubin levels above the American Academy of Pediatrics' threshold for exchange transfusion. Babies in this group were followed for an average of seven years. A second group included 104,716 newborns who were born at a gestational age of at least 35
weeks and had lower bilirubin levels. This group of infants was followed for six years.

Data analysis revealed three cases of kernicterus occurred among the babies with the highest bilirubin levels. However, the researchers noted that all three of these children had additional risk factors for brain damage. "We found that cerebral palsy consistent with kernicterus did not occur in a single infant with high bilirubin without the presence of additional risk factors," second author Michael W. Kuzniewicz, M.D., M.P.H., an assistant professor of neonatology in the department of pediatrics at the University of California in San Francisco, said in a university news release. "This was the case even in infants with very high bilirubin."

"Based on our study, the current guidelines for when to perform exchange transfusions have been quite successful in preventing kernicterus," lead author Yvonne W. Wu, M.D., M.P.H., a professor of clinical neurology and pediatrics at the University of California in San Francisco, said in the news release. "However, our study also raises the question whether the threshold for exchange transfusion could be higher for infants with high bilirubin levels who are otherwise healthy and who have no other risk factors for brain injury."

More information: Abstract
Full Text

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