02-CD.MCH.OH-01

Committee: Maternal and Child Health

Title: Prevention of Kernicterus in Otherwise Healthy Full-term Infants

Statement of the Problem:
Kernicterus is a preventable life-long neurologic syndrome caused by severe and untreated hyperbilirubinemia (extreme jaundice) during the neonatal period. In recent years, cases of kernicterus in otherwise healthy full-term infants are re-emerging across the United States after several decades of near absence. In the 1970s, kernicterus in full-term infants virtually disappeared as a result of effective and consistent treatment of hyperbilirubinemia. In the early 1990s, physicians began to debate the need to identify and treat hyperbilirubinemia in healthy, full-term infants without risk factors for hemolysis. During this period, there was also an increase in breastfeeding and early hospital discharge. Early hospital discharge makes peak bilirubin levels less likely to be detected early and more likely for hyperbilirubinemia to be undiagnosed and untreated.

Statement of the desired action(s) to be taken:
CSTE shares the view with the Joint Committee on Accreditation of Healthcare Organizations (JCAHO) and other organizations that kernicterus should not occur in healthy full-term infants. CSTE supports the Sentinel Event Alert issued by JCAHO in April 2001, which recommends that organizations (1) take steps to raise awareness among neonatal caregivers of the potential for kernicterus and its risk factors; (2) review their current patient care processes with regard to the identification and management of hyperbilirubinemia in newborns; and (3) identify strategies from available risk reduction strategies that could effectively enhance the management of hyperbilirubinemia.

CSTE, along with the American Academy of Pediatrics (AAP), Centers for Disease Control and Prevention (CDC), the Health Resources and Services Administration (HRSA), JCAHO, and other health-care and advocacy partners, should work together to develop an agenda that facilitates the capacity of state and local public health agencies to recognize severe hyperbilirubinemia cases in otherwise healthy full-term infants. These groups should work together to clearly define and establish a case definition for kernicterus and/or hyperbilirubinemia that leads to serious neurological sequalae, based upon scientific research and knowledge. The case definition can be used as part of a national strategy to monitor the occurrence of hyperbilirubinemia/kernicterus.

Public Health Impact:
Early detection of hyperbilirubinemia is critical to prevent the irreversible effects of kernicterus. Healthcare providers and parents should be aware of risk factors for hyperbilirubinemia, and treatment should begin immediately when hyperbilirubinemia is diagnosed. Treating hyperbilirubinemia with phototherapy and exchange transfusions prevents kernicterus if treatment is initiated promptly and is continued until bilirubin levels normalize. Efforts by state health departments to assure that timely and appropriate actions are taken in monitoring and treating hyperbilirubinemia will minimize the reoccurrence of an easily prevented life-long disability.

Coordination:

Agencies for Information: (complete contact information must be provided for acceptance to review)

(1) Sue Sheridan
Parent Program Coordinator
Parents of Infants and Children with Kernicterus (PICK)

Boise, Idaho

208.939.0260 (Telephone Number) psheri9110@aol.com (Email Address)

(2) Karen Dixon
Parent Program Coordinator
Parents of Infants and Children with Kernicterus (PICK)
517 Brentwood Drive
Birmingham, AL 35226

205.919.2021 (Telephone Number) ktdixon1@home.com (Email Address)

(3) Martie Hatlie
Partnership for Patient Safety
1 W Superior Place
Suite 2410
Chicago, Illinois 60610

312.274.9695 (Telephone Number) Mhatlie@aol.com (Email Address)

Agencies for Response: (complete contact information must be provided for acceptance to review)

(1) Jeffrey Maisels, MD
Professor of Pediatrics; Chair, Department of Pediatrics; and Chair, Practice Parameter for Management of Neonatal Hyperbilirubinemia
American Academy of Pediatrics (AAP)
William Beaumont Hospital
3602 W. Thirteen Mile Road
Royal Oak, MI 58073-6769

248.551.0412 (Telephone Number) jmaisels@beaumont.edu (Email Address)

(2) José Cordero, MD
Director
National Center on Birth Defects and Developmental Disabilities, CDC
4770 Buford Hwy, NE
Mailstop F-34
Atlanta, GA 30341

770.488.7150 (Telephone Number) jcordero@cdc.gov (Email Address)

(3) Peter C. Van Dyck, M.S., MD., MPH
Associate Administrator for Maternal and Child Health
Health Resources and Services Administration
Parklawn Building
5600 Fishers Lane
Rockville, Maryland 20857

301.443.2170 (Telephone Number) PVanDyck@HRSA.GOV (Email Address)

(4) Paul Schyve, MD
Vice President
Joint Commission of the Accreditation of Healthcare Organizations (JCAHO)
One Renaissance Blvd.
Oakbrook Terrace, IL 60181

630.792.5950 (Telephone Number) pshyve@jcaho.org (Email Address)

Authors: (complete contact information must be provided for acceptance to review)

(1) Bao-Ping Zhu, MD, MS
State MCH Epidemiologist
Michigan Department of Community Health
3423 N. Martin Luther King Jr. Blvd
P.O. Box 30195
Lansing, MI 48909

517-335-8806 (Telephone Number) ZhuB@Michigan.gov (Email Address)