motor function and affected area of brain involved (Rosenbaum, Paneth, Leviton, et al, 2007)

Data from Nehring W: Cerebral palsy. In Allen PJ, Vessey JA, Schapiro NA, editors: *Primary care of the child with a chronic condition,* ed 5, St Louis, 2010, Mosby/Elsevier; Jones MW, Morgan E, Shelton JE, et al: Cerebral palsy: introduction and diagnosis, part 1, *J Pediatr Health Care* 21(3):146–152, 2007; and National Institute of Neurologic Disorders and Stroke: *Cerebral palsy: hope through research*, 2015, http://www.ninds.nih.gov/disorders/cerebral_palsy/detail_cerebral_palsy.htm.

Diagnostic Evaluation

Infants at risk according to known etiologic factors associated with CP warrant careful assessment during early infancy to identify the signs of neuromotor dysfunction as early as possible. The neurologic examination and history are the primary modalities for diagnosis. Neuroimaging of the child with suspected brain abnormality and CP is now recommended for diagnostic assessment, with MRI being a strong predictor of CP when performed at term (corrected age); general movements assessment (GMA) also had a strong predictive value in children older than 2 years old and younger than 5 years old (Bosanquet, Copeland, Ware, et al, 2013). Metabolic and genetic testing is recommended if no structural abnormality is identified by neuroimaging; routine laboratory tests are no longer recommended in the diagnostic process for CP.

Early recognition is made more difficult by the lack of reliable neonatal neurologic signs. However, nurses should monitor infants with known etiologic risk factors and evaluate them closely in the first 2 years of life. Because cortical control of movement does not occur until later in infancy, motor impairment associated with voluntary control is usually not apparent until after 2 to 4 months of age at the earliest. More often the diagnosis cannot be confirmed until 2 years old, because motor tone abnormalities may be indicative of another neuromuscular condition. In addition, some children who show signs consistent with CP before 2 years old do not demonstrate such signs after 2 years old (Nehring, 2010). However, there is no consensus regarding an age cut-off for the onset of symptoms. Clinical manifestations of CP at the time of diagnosis are listed in Box 30-2; early warning signs are listed in Box 30-3, but these are not considered diagnostic.