

days, and median duration of v-EEG was 20 hours. All seizures were recorded in the first 3 hours of v-EEG. Of 18 monitored patients suspected of having epileptic seizures by ICU staff, only 4 (22%) had confirmed seizures. Short-duration v-EEG is more appropriate than continuous v-EEG in comatose PICU patients with a history of seizures, epilepsy, or clinical events suspected to be seizures. (Shahwan A, Bailey C, Shekerdemian L, Harvey AS. The prevalence of seizures in comatose children in the pediatric intensive care unit: a prospective video-EEG study. *Epilepsia* July 2010;51:1198-1204). (Respond: Dr Amre Shawan, Neurology Department, The Children's University Hospital, Temple St, Dublin 1, Ireland. E-mail: [amre\\_s@yahoo.com](mailto:amre_s@yahoo.com)).

COMMENT. The authors conclude that epileptic seizures are relatively uncommon (7%) in comatose PICU patients, and v-EEG should be short in duration and limited to those with clinical seizures prior to admission, or in patients suspected of having clinical seizures by medical or nursing staff. Further studies are recommended. These findings and recommendations for PICU patients are in contrast to neonatal ICU comatose patients with a higher prevalence of epileptic seizures and a longer NICU stay. Continuous EEG with simultaneous video recording is recommended for detection of seizures in comatose NICU patients. In studies of neonates involving HIE, seizures occur in 22-59% (McBride MC et al. *Neurology* 2000;55:506-513); 70-88.5% of seizures are NCS.

## **EFFECT OF WHOLE-BODY COOLING ON PHENOBARBITAL CONTROL OF SEIZURES IN NEONATES WITH HIE**

Forty-two infants with hypoxic-ischemic encephalopathy (HIE) admitted to University of Alabama, Birmingham, from 1999 to 2007, received whole-body hypothermia and of these, 20 also received a single dose (40 mg/kg) of prophylactic phenobarbital. Infants in the phenobarbital group achieved a body temperature of 33.5C at 3 +/- 2 hrs after birth, and controls with cooling only achieved the same degree of hypothermia but at 5 +/- 2 hours (P=0.03). Follow-up data at 18 to 49 months found 23% infants in the phenobarbital group had moderate to severe neurodevelopmental impairment or death compared with 45% of controls (P=0.3). During NICU admission, only 15% of infants treated with cooling and prophylactic phenobarbital had clinical seizures compared with 82% of control infants (P<0.0001). Patients who received phenobarbital at birth were less likely than controls to be discharged on phenobarbital (P=0.01). Higher birth weight, higher 5-min Apgar score, and prophylactic phenobarbital were associated with significantly improved outcome. (Meyn DF Jr, Ness J, Ambalavanan N, Carlo WA. Prophylactic phenobarbital and whole-body cooling for neonatal hypoxic-ischemic encephalopathy. *J Pediatr* July 2010;157:334-336). (Reprints: Dr Donald F Meyn Jr, 9000 Airline Hwy Suite 340, Baton Rouge, LA 70815. E-mail: [don.meyn@infamedics.com](mailto:don.meyn@infamedics.com)).

COMMENT. Adverse cognitive effects of phenobarbital must be considered in weighing possible neuroprotective benefits of prophylactic phenobarbital in HIE.