



Table S1. Scoring criteria of the Nursery Neurobiologic Risk Score [9].

Nursery Neurobiologic Risk Score	
Item	Score
Apgar score	0 = Score > 5 at 1 and 5 min 1 = Score ≤ 5 at 1 min and >5 at 5 min 2 = Score ≤ 5 at 1 and 5 min 4 = Score ≤ 5 at 10 min
Arterial oxygen pressure (PaO₂)	0 = PaO ₂ never <35 mm Hg 1 = PaO ₂ < 35 mm Hg for ≤ 2 h (<35 mm Hg ≤ 2 times) 2 = PaO ₂ < 35 mm Hg for > 2 h (<35 mm Hg > 2 times) 4 = PaO ₂ ≤ 20 mm Hg for > 2 h (≤20 mm Hg > 2 times)
Ventilation	0 = No mechanical ventilation 1 = Mechanical ventilation ≤ 7 days 2 = Mechanical ventilation 8 to 28 days 4 = Mechanical ventilation > 28 days
Blood pH	0 = pH never <7.15 1 = pH <7.15 for ≤1 h (<7.15 ≤ 2 times) or <7.15 all respiratory, for any duration 2 = pH <7.15 for >1 h (<7.15 > 2 times) with metabolic component or pH <7.0 metabolic, for any duration 4 = Cardiopulmonary arrest with pH < 7.15
Apnea with bradycardia	0 = No apnea or apnea without bradycardia 1 = Apnea with bradycardia but without cyanosis ≤20 episodes/day 2 = More than 20 episodes of apnea with bradycardia per day, apnea with both bradycardia and cyanosis, or need for manual or mechanical ventilation
Hypotension	0 = Systolic blood pressure always >35 mm Hg if infant weighs ≤ 750 gm or >40 mm Hg if infant weighs > 750 gm 1 = Hypotension ≤ 2 h (hypotension ≤ 2 times) 2 = Hypotension > 2 h (hypotension > 2 times) 4 = Hypotension ≥ 6 h
Patent ductus arteriosus (PDA)	0 = No PDA 1 = PDA responding to fluid restriction, indomethacin, or both 2 = PDA in which medical management failed or surgical ligation was required
Seizures	0 = No seizures 1 = Seizures controlled with one drug and normal interictal electroencephalogram 2 = Seizures not controlled with one drug or abnormal interictal electroencephalogram 4 = Status epilepticus of ≥12 h
Intraventricular hemorrhage	0 = No hemorrhage 1 = Subependymal germinal matrix hemorrhage only 2 = Blood in one or both ventricles 4 = Intraparenchymal blood or development of overt hydrocephalus
Periventricular leukomalacia	0 = No periventricular leukomalacia 1 = Questionable changes followed by return to normal state

	2 = Moderate (definite) changes followed by return to normal state 4 = Cyst formation or cerebral atrophy with large ventricles
Infection	0 = No infection or antibiotics given for possibility of infection with negative cultures 1 = Infection highly suspected or documented without changes in blood pressure 2 = Septic shock (documented sepsis and hypotension) 4 = Meningitis
Hypoglycemia	0 = No glucose level <30 mg/dL (1.7 mmol/L) 1 = Glucose level <30 mg/dL, asymptomatic, and ≤6 hours' duration 2 = Glucose level <30 mg/dL, asymptomatic for >6 h or symptomatic for any duration 4 = Glucose level <30 mg/dL for >24 h and symptomatic
Bilirubin	0 = Bilirubin concentration ≤10 mg/dL if ≤1 kg birth weight or ≤0.01 X birth weight in grams if >1 kg 1 = Bilirubin concentration >10 mg/dL if ≤1 kg birth weight or >0.01 X birth weight in grams if >1 kg 2 = Exchange transfusion for hyperbilirubinemia

Table S2. Scoring criteria of the Perinatal Risk Inventory [10].

Perinatal Risk Inventory	
Item	Score
Apgar score	0 = No neurobehavioral abnormalities 1 = Hyperalert 2 = Mild hypotonia 3 = Severe hypotonia
Electroencephalogram	0 = Normal electroencephalogram or not performed 1 = Abnormal electroencephalogram but normal at discharge 2 = Abnormalities on electroencephalogram (not flat or periodic) with continued abnormalities at discharge 3 = Periodic or flat electroencephalogram with continued abnormalities at discharge
Seizures (nonmetabolic)	0 = No problem 1 = Suspected seizure not treated with anticonvulsants 2 = One or more seizures with response to a single anticonvulsant 3 = One or more seizures with resistance to therapy requiring two or more anticonvulsants
Intracranial hemorrhage	0 = Negative computed tomography or ultrasound or not performed 1 = Subarachnoid hemorrhage with seizures or grade I and grade II intraventricular hemorrhage 2 = Grade III intraventricular hemorrhage 3 = Grade IV intraventricular hemorrhage
Hydrocephalus	0 = No evidence of hydrocephalus on ultrasound or computed tomography 1 = Suspected on clinical basis, resolved without treatment

	2 = Hydrocephalus confirmed on ultrasound or computed tomography, without shunt, treated medically or repeated intraventricular taps 3 = Hydrocephalus confirmed on computed tomography or ultrasound, shunt required
Computed tomography or ultrasound without evidence of hydrocephalus or intracranial hemorrhage, but other central nervous system findings	0 = Negative computed tomography or ultrasound or not done 1 = Abnormal findings with return to normal prior to discharge 2 = Identified abnormalities not specified elsewhere without return to normal prior to discharge 3 = Loss of parenchyma, decreased mantle, or other abnormalities that may result in parenchymal injury not specified elsewhere
Premature with weight >3rd percentile (appropriate for gestational age)	0 = >32 weeks 1 = 32–30 weeks 2 = 29–27 weeks 3 = 26–24 weeks
Weight for gestational age	0 = Weight appropriate for gestational age 1 = <10th percentile for weight but >3rd percentile 2 = <3rd percentile for weight 3 = <3rd percentile for weight, with a 2 or 3 in other categories of perinatal index
Dysmorphic features	0 = None or one dysmorphic feature 1 = Two minor dysmorphic features 2 = Three or more minor dysmorphic features or one major feature with normal chromosomes 3 = Chromosomal abnormalities or a syndrome known to be associated with developmental disabilities such as Down syndrome or fetal alcohol syndrome
Ventilation	0 = Not ventilated 1 = 7 days or less 2 = 8 to 21 days 3 = >21 days or clinical diagnosis of bronchopulmonary dysplasia with tachypnea
Head growth (premature infant hospitalized 6 weeks or more)	0 = Head size >10% and <90% for gestational age with 3.5 cm or greater growth in first 6 weeks 1 = Initial head circumference in the 5th–10th percentile with 3.5 cm or greater growth in the first 6 weeks 2 = Initial head circumference in >3rd percentile with less than 3.5 cm growth in the first 6 weeks 3 = Initial head circumference <3rd percentile for gestational age with <3.5 cm for the first 6 weeks
Head growth (term infants hospitalized >3 weeks)	0 = Initial head circumference > 10th percentile with average head growth ≥ 0.3 cm/wk 1 = Initial head circumference > 10th percentile with average head growth <0.29 cm/wk 2 = Initial head circumference below the 10th percentile with average head growth ≥ 0.3 cm/wk 3 = Initial head circumference below the 10th percentile with average head growth <0.29 cm/wk

Polycythemia	0 = Hematocrit <65% 1 = Hematocrit >65% and <70% without exchange transfusion 2 = Hematocrit >65% without symptoms with exchange transfusion 3 = Hematocrit >65% requiring exchange transfusion because of hypoglycemia, lethargy, apnea, or seizures
Meningitis	0 = None 1 = Suspected diagnosis on clinical or laboratory basis without bacterial or viral confirmation 2 = Confirmed diagnosis with or without seizures with adequate tone and state control within 72 h 3 = Confirmed diagnosis with persistent hypotonia or obtunded state or seizures that persist for more than 72 h
Hypoglycemia	0 = No hypoglycemia 1 = Hypoglycemia without symptoms requiring oral feedings only 2 = Hypoglycemia with lethargy or hypotonia requiring treatment with IV glucose 3 = Hypoglycemia with seizures requiring treatment with IV glucose, glucagon, or corticotropin
Congenital infection	0 = No suspicion of congenital infection 1 = Suspected, but without viral or serologic confirmation 2 = Suspected, may include small for gestational age only with viral or serologic confirmation 3 = Clearly identified diagnosis by culture or serology associated with signs and symptoms, ie., jaundice, chorioretinitis, or hepatosplenomegaly
Hyperbilirubinemia	0 = Not requiring therapy 1 = Mild, requiring phototherapy or single exchange 2 = Hyperbilirubinemia requiring two or more exchange transfusions 3 = Hyperbilirubinemia requiring two or more exchange transfusions and associated with neurologic changes such as lethargy or increased irritability
Associated medical problems such as hydrops, retinopathy of prematurity, cyanotic heart disease, bronchopulmonary dysplasia, and necrotizing enterocolitis (non-central nervous system)	0 = No associated medical problems complicating the neonatal course 1 = Associated medical problems suspected but not substantiated 2 = Established neonatal problems, but resolved prior to discharge 3 = Persistent medical problems at time of discharge such as grade III retinopathy of prematurity, ileostomy, supplemental oxygen requirement, or nasogastric tube