Table S1 List of high acuity diagnoses based on the ICD-10 codes and descriptions

q913	Trisomy 18, unspecified
q793	Gastroschisis
q790	Congenital diaphragmatic hernia
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q642	Congenital posterior urethral valves
q620	Congenital hydronephrosis
q6119	Other polycystic kidney, infantile type
q431	Hirschsprung's disease
q212	Atrioventricular septal defect
q211	Atrial septal defect
q210	Ventricular septal defect
p922	Slow feeding of newborn
p819	Disturbance of temperature regulation of newborn, unspecified
p818	Other specified disturbances of temperature regulation of newborn
p760	Meconium plug syndrome
p7422	Hyponatremia of newborn
p711	Other neonatal hypocalcemia
p704	Other neonatal hypoglycemia
p614	Other congenital anemias, not elsewhere classified
p613	Congenital anemia from fetal blood loss
p610	Transient neonatal thrombocytopenia
p551	Abo isoimmunization of newborn
p399	Infection specific to the perinatal period, unspecified
p398	Other specified infections specific to the perinatal period
p352	Congenital herpesviral (herpes simplex) infection
p351	Congenital cytomegalovirus infection
p2930	Pulmonary hypertension of newborn
p28.5	Respiratory failure of newborn
p284	Other apnea of newborn
p251	Pneumothorax originating in the perinatal period
p2401	Meconium aspiration with respiratory symptoms
p239	Congenital pneumonia, unspecified
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p238	Congenital pneumonia due to other organisms
p236	Congenital pneumonia due to other bacterial agents
p234	Congenital pneumonia due to Escherichia coli
p233	Congenital pneumonia due to streptococcus, group b
p229	Respiratory distress of newborn, unspecified
p228	Other respiratory distress of newborn
p221	Transient tachypnea of newborn
p220	Respiratory distress syndrome of newborn
p0718	Other low birth weight newborn, 2,000-2,499 grams
p0717	Other low birth weight newborn, 1,750–1,999 grams
p0716	Other low birth weight newborn, 1,500-1,749 grams
p0715	Other low birth weight newborn, 1,250–1,499 grams
p0714	Other low birth weight newborn, 1,000–1,249 grams
p0703	Extremely low birth weight newborn, 750–999 grams
p0702	Extremely low birth weight newborn, 500–749 grams
p0701	Extremely low birth weight newborn, less than 500 grams
p059	Newborn affected by slow intrauterine growth, unspecified
p0519	Newborn small for GA, other
p0518	Newborn small for GA, 2,000–2,499 grams
p0517	Newborn small for GA, 1,750–1,999 grams
p0516	Newborn small for GA, 1,500–1,749 grams
p0515	Newborn small for GA, 1,250–1,499 grams
p0514	Newborn small for GA, 1,000–1,249 grams
p0513	Newborn small for GA, 750–999 grams
p0512	Newborn small for GA, 500–749 grams
p0510	Newborn small for GA, unspecified weight
n1330	Unspecified hydronephrosis
j9690 :0000	Respiratory failure, unspecified, unspecified whether with hypoxia or hypercapnia
j9602	Acute respiratory failure with hypercapnia
j9601	Acute respiratory failure with hypoxia
j939	Pneumothorax, unspecified
j930	Spontaneous tension pneumothorax
j3801	Paralysis of vocal cords and larynx, unilateral
i959	Hypotension, unspecified
i270	Primary pulmonary hypertension
e8351	Hypocalcemia
e162	Hypoglycemia, unspecified
d696	Thrombocytopenia, unspecified
d6959	Other secondary thrombocytopenia
d6942	Congenital and hereditary thrombocytopenia purpura
d589	Hereditary hemolytic anemia, unspecified

d589

Hereditary hemolytic anemia, unspecified

Table S2 Description of the sample of infants with GA at birth 37 weeks and older (n=352)

Characteristics	Pre-aggregation (n=181)	Post-aggregation (n=171)	P value
Infant characteristics			
Male sex	108 (59.7)	106 (62.0)	0.656
Race/ethnicity <sup>†</sup>			0.735
Non-Hispanic Black	68 (37.6)	61 (35.7)	
Hispanic	53 (29.3)	58 (33.9)	
Non-Hispanic White	37 (20.4)	35 (20.5)	
Other	23 (12.7)	17 (9.9)	
GA (weeks)	39 [38, 39]	39 [38, 39]	0.402
Small for GA at birth	49 (27.1)	39 (22.8)	0.356
High acuity diagnosis at birth	145 (80.1)	148 (86.6)	0.106
Any complication <sup>†</sup>	5 (2.8)	1 (0.6)	0.216
PDA	30 (16.6)	30 (17.5)	0.809
Maternal characteristics			
Maternal age (years)	29 [25, 35]	29 [24.5, 34.5]	0.957
Primary payer			0.400
Medicaid	101 (55.8)	103 (60.2)	
Commercial insurance	80 (44.2)	68 (39.8)	
Gravida			0.976
1	66 (36.5)	64 (37.4)	
2–4	91 (50.3)	84 (49.1)	
5 or more	24 (13.3)	23 (13.5)	
Family visitation, average number per week			0.370
0–2	11 (6.1)	7 (4.1)	
>2-4	24 (13.3)	18 (10.5)	
>4–6	87 (48.1)	76 (44.4)	
>6	59 (32.6)	70 (40.9)	
Median neighborhood income	0.506		
<\$30k	15 (8.3)	18 (10.5)	
\$30k-<\$50k	68 (37.6)	72 (42.1)	
\$50k-<\$70k	43 (23.8)	39 (22.8)	
\$70k-<\$90k	30 (16.6)	18 (10.5)	
\$90k+	25 (13.8)	24 (14.0)	

Data are presented as n (%) or median [IQR]. †, Fisher's exact test. GA, gestational age; PDA, patent ductus arteriosus; IQR, interquartile range.