

Supplemental Table 1. Participating Children's Hospital Association Institutions

Akron Children's Hospital*	Akron, Ohio
All Children's Hospital*	St. Petersburg, Florida
Ann & Robert H. Lurie Children's Hospital of Chicago*	Chicago, Illinois
Arkansas Children's Hospital*	Little Rock, Arkansas
Boston Children's Hospital	Boston, Massachusetts
Children's Hospital & Medical Center*	Omaha, Nebraska
Children's Hospital & Research Center Oakland*	Oakland, California
Children's Hospital Central California*	Fresno, California
Children's Hospital Colorado*	Denver, Colorado
Children's Hospital Los Angeles	Los Angeles, California
Children's Hospital of Michigan*	Detroit, Michigan
Children's Hospital of Pittsburgh of UPMC*	Pittsburgh, Pennsylvania
Children's Hospital of The King's Daughters*	Norfolk, Virginia
Children's Hospitals and Clinics of Minnesota*	St. Paul/Minneapolis, Minnesota
Children's Medical Center	Dallas, Texas
Children's Mercy Hospitals and Clinics*	Kansas City, Missouri
Children's of Alabama*	Birmingham, Alabama
Children's Healthcare of Atlanta*	Atlanta, Georgia
Children's Hospital of Orange County*	Orange, California
Children's Hospital of Wisconsin*	Milwaukee, Wisconsin
Children's Hospital*	New Orleans, Louisiana
Children's National Medical Center*	Washington, DC
Cincinnati Children's Hospital Medical Center*	Cincinnati, Ohio
Connecticut Children's Medical Center	Hartford, Connecticut
Cook Children's Health Care System*	Fort Worth, Texas
Driscoll Children's Hospital*	Corpus Christi, Texas
East Tennessee Children's Hospital	Knoxville, Tennessee
Le Bonheur Children's Medical Center*	Memphis, Tennessee
Lucile Packard Children's Hospital at Stanford	Palo Alto, California
Miami Children's Hospital*	Miami, Florida
Monroe Carell Jr. Children's Hospital at Vanderbilt*	Nashville, Tennessee
Nationwide Children's Hospital*	Columbus, Ohio
New York-Presbyterian/Morgan Stanley Children's Hospital*	New York, New York
Phoenix Children's Hospital	Phoenix, Arizona
Primary Children's Medical Center	Salt Lake City, Utah
Rady Children's Hospital San Diego*	San Diego, California
Riley Hospital for Children at Indiana University Health*	Indianapolis, Indiana
Seattle Children's Hospital*	Seattle, Washington
St. Louis Children's Hospital*	St. Louis, Missouri
Texas Children's Hospital*	Houston, Texas
The Children's Hospital of Philadelphia*	Philadelphia, Pennsylvania
The Children's Medical Center of Dayton	Dayton, Ohio
Women and Children's Hospital of Buffalo	Buffalo, New York

*denotes hospital with continuous data utilized for trend analysis

Supplemental Table 2. Angus criteria ICD-9 codes (adapted from Weiss et al.)[1]

Code ^a	Description
001	Cholera
002	Typhoid/paratyphoid fever
003	Other salmonella infection
004	Shigellosis
005	Other food poisoning
008	Intestinal infection not otherwise classified
009	Ill-defined intestinal infection
010	Primary tuberculosis infection
011	Pulmonary tuberculosis
012	Other respiratory tuberculosis
013	Central nervous system tuberculosis
014	Intestinal tuberculosis
015	Tuberculosis of bone and joint
016	Genitourinary tuberculosis
017	Tuberculosis not otherwise classified
018	Miliary tuberculosis
020	Plague
021	Tularemia
022	Anthrax
023	Brucellosis
024	Glanders
025	Melioidosis
026	Rat-bite fever
027	Other bacterial zoonoses
030	Leprosy
031	Other mycobacterial disease
032	Diphtheria
033	Whooping cough
034	Streptococcal throat/scarlet fever
035	Erysipelas
036	Meningococcal infection
037	Tetanus
038	Septicemia
039	Actinomycotic infections
040	Other bacterial diseases
041	Bacterial infection in other diseases not otherwise specified
090	Congenital syphilis
091	Early symptomatic syphilis
092	Early syphilis latent
093	Cardiovascular syphilis
094	Neurosyphilis
095	Other late symptomatic syphilis
096	Late syphilis latent
117	Other mycoses
119	Opportunistic mycoses
320	Bacterial meningitis
322	Meningitis, unspecified
324	Central nervous system abscess
325	Phlebitis of intracranial sinus
420	Acute pericarditis
421	Acute or subacute endocarditis
451	Thrombophlebitis
461	Acute sinusitis
462	Acute pharyngitis
463	Acute tonsillitis
464	Acute laryngitis/tracheitis
465	Acute upper respiratory infection of multiple sites/not otherwise specified
481	Pneumococcal pneumonia
482	Other bacterial pneumonia
485	Bronchopneumonia with organism not otherwise specified
486	Pneumonia, organism not otherwise specified
491.21	Acute exacerbation of obstructive chronic bronchitis
494	Bronchiectasis
510	Empyema
513	Lung/mediastinum abscess
540	Acute appendicitis
541	Appendicitis not otherwise specified
542	Other appendicitis
562.01	Diverticulitis of small intestine without hemorrhage
562.03	Diverticulitis of small intestine with hemorrhage
562.11	Diverticulitis of colon without hemorrhage
562.13	Diverticulitis of colon with hemorrhage
556	Anal and rectal abscess
567	Peritonitis
569.5	Intestinal abscess
569.83	Perforation of intestine
572	Abscess of liver
572.1	Portal pyemia
575.0	Acute cholecystitis
590	Kidney infection
597	Urethritis/urethral syndrome
599.0	Urinary tract infection not otherwise specified
601	Prostatic inflammation
614	Female pelvic inflammation disease
615	Uterine inflammatory disease
616	Other female genital inflammation

Code^a	Description
097	Other and unspecified syphilis
098	Gonococcal infections
100	Leptospirosis
101	Vincent's angina
102	Yaws
103	Plnta
104	Other spirochetal infection
110	Dermatophytoiss
111	Dermatomycosis not otherwise classified or specified
	681 Cellulitis, finger/toe
	682 Other cellulitis/abscess
	683 Acute lymphadenitis
	686 Other local skin infection
	711.0 Pyogenic arthritis
	730 Osteomyelitis
	790.7 Bacteremia
	996.6 Infection or inflammation device/graft
	998.5 Postoperative infection
	999.3 Infectious complication of medical care not otherwise classified

^aWhere 3 or 4 digit codes are listed, all associated subcodes were included.

Supplemental Table 3. Categories of Pediatric Chronic Complex Conditions and Specific ICD-9 Codes (adapted from Feudtner et al.) [2]

CCC Categories	Subcategories	ICD-9Codes
Neuromuscular	Brain and spinal cord malformations	740.0–742.9
	Mental retardation	318.0–319.0
	Central nervous system degeneration and disease	330.0–337.9
	Infantile cerebral palsy	343.0–343.9
	Epilepsy	345.0–345.9
	Muscular dystrophies and myopathies	359.0–359.3
	Heart and great vessel malformations	745.0–747.4
Cardiovascular	Cardiomyopathies	425.0–425.4, 429.1
	Conduction disorders and dysrhythmias	426.0–427.4, 427.6–427.9
	Respiratory malformations	748.0–748.9
Respiratory	Chronic respiratory disease	770.7
	Cystic fibrosis	277.0
	Congenital anomalies	753.0–753.9
Renal	Chronic renal failure	585
	Gastrointestinal	
Gastrointestinal	Congenital anomalies	750.3, 751.1–751.3, 751.6–751.9
	Chronic liver disease and cirrhosis	571.4–571.9
	Inflammatory bowel disease	555.0–556.9
Hematology and immunodeficiency	Sickle cell disease	282.5–282.6
	Hereditary anemias	282.0–282.4
	Hereditary immunodeficiency	279.0–279.9, 288.1–288.2, 446.1
	Human immunodeficiency virus disease	042
Metabolic	Amino acid metabolism	270.0–270.9
	Carbohydrate metabolism	271.0–271.9
	Lipid metabolism	272.0–272.9
	Storage disorders	277.3, 277.5
	Other metabolic disorders	275.0–275.3, 277.2, 277.4, 277.6, 277.8, 277.9
Other congenital or genetic defect	Chromosomal anomalies	758.0–758.9
	Bone and joint anomalies	259.4, 737.3, 756.0–756.5
	Diaphragm and abdominal wall	553.3, 756.6–756.7
	Other congenital anomalies	759.7–759.9
Malignancy		140.0–239.9

References

1. Weiss, S.L., et al., *Defining pediatric sepsis by different criteria: discrepancies in populations and implications for clinical practice*. *Pediatr Crit Care Med*, 2012. **13**(4): p. e219-26.
2. Feudtner, C., D.A. Christakis, and F.A. Connell, *Pediatric deaths attributable to complex chronic conditions: a population-based study of Washington State, 1980-1997*. *Pediatrics*, 2000. **106**(1 Pt 2): p. 205-9.