Methodology
U.S. News & World Report
Best Children's Hospitals 2013-14

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To Whom It May Concern:

Summary

U.S. News & World Report published the first Best Hospitals rankings in 1990 to identify the best medical centers for the most difficult patients—those whose illness poses unusual challenges because of an underlying condition, the particular procedure, or other medical issues that add risk. Often more than one factor may apply.

The rankings have been published annually since their initial appearance. The focus on the most difficult patients has not changed.

Pediatric patients present special challenges. Their small size relative to adults complicates every facet of care from intubation to drug dosages, they are more vulnerable to infection, they depend on adults to manage and administer their medications and they are born with congenital diseases such as spina bifida and cystic fibrosis.

Recognizing the unique care needed for pediatric patients, *U.S. News* launched the Best Children's Hospitals rankings in 2007. The rankings are based on an extensive analysis using (1) a methodology that combines clinical and operational data collected directly from a survey of children's hospitals, (2) results from a reputational survey of board-certified pediatric specialists, and (3) supplemental information from resources such as the National Cancer Institute.

The initial rankings listed the top 30 children's centers in general pediatrics. They have since expanded to rank the top 50 children's centers in 10 specialties: Cancer, Cardiology & Heart Surgery, Diabetes & Endocrinology, Gastroenterology & GI Surgery, Neonatology, Nephrology, Neurology & Neurosurgery, Orthopedics, Pulmonology, and Urology.

Most of the 179 facilities surveyed for the 2013-14 Best Children's Hospitals rankings are either a freestanding children's hospital or a "hospital within a hospital" (a large, essentially autonomous multidisciplinary pediatric department within a major medical center). Almost all are members of the Children's Hospital Association (CHA).*

RTI International,† which developed the methodology for *U.S. News,* collects and analyzes the data for the "Best Children's Hospitals" rankings. The methodology reflects the level and quality of *hospital resources* directly related to patient care, such as staffing, technology, and special services; *delivery of healthcare*, such as reputation among pediatric specialists, programs that prevent infections, and adherence to best practices; and *clinical outcomes*, such as patient survival, infection rates, and complications.

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* The National Association for Children's Hospitals and Related Institutions (NACHRI) changed its name to the Children's Hospital Association in 2012. For more information, please visit: http://www.childrenshospitals.net.

† RTI International is the trade name of Research Triangle Institute.

In the 2013-14 rankings, 87 of the 179 surveyed hospitals ranked in at least one specialty. The Honor Roll recognizes hospitals with high scores in at least three specialties; there are 10 such hospitals on the 2013-14 Honor Roll.

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I. Introduction

U.S. News ranked hospitals in pediatrics when the annual "Best Hospitals" rankings were first launched in 1990. Those rankings, however, were based until 2007 solely on reputational surveys of board-certified pediatricians and adolescent-medicine specialists. The reason was that quantitative measures comparable to those used to rank most other Best Hospitals specialties were absent. A large, rich database comparable to MedPAR (Medicare Provider Analysis and Review), used to determine mortality in 12 adult specialties, was unavailable in pediatrics. (A relatively small number of children, under narrow eligibility definitions, do receive care under Medicare because of legislatively mandated changes in coverage over time.) Reliable structural measures were likewise nonexistent. Available data sources generally reported hospitalwide volume, advanced technologies, and patient services and did not break out pediatric-specific information.

Continuing to rank this important specialty on reputation alone for several years or more while experts worked out definitions of performance data and how best to collect and verify the data was untenable. *U.S. News* therefore asked RTI to develop a methodology for ranking hospitals in pediatrics that would incorporate data obtained directly from pediatric hospitals through a Pediatric Hospital Survey.

Rankings incorporating such data appeared in the Sept. 3, 2007, issue of the magazine, apart from that year's Best Hospitals issue, as "Best Children's Hospitals." Separating the pediatric and adult rankings highlighted the change and minimized the potential confusion created by using similar methodologies in both sets of rankings.

In 2008, both the Pediatric Hospital Survey and the survey of physicians were expanded, permitting pediatric hospitals to be ranked in general pediatrics and in six pediatric specialties.[§] In 2009, general pediatrics was dropped, and the number of specialties was further expanded to the 10 listed below:

- Cancer
- Cardiology & Heart Surgery
- Diabetes & Endocrinology
- Gastroenterology
- Neonatology
- Nephrology
- Neurology & Neurosurgery
- Orthopedics
- Pulmonology
- Urology

[§] Previous methodology reports are available online at www.rti.org/besthospitals.

Like Best Hospitals, the Best Children's Hospitals rankings reflect the interrelationship among *structure*, *process*, and *outcomes*, the three components of the Donabedian paradigm.[1–5] The specific measures, weights, and scoring, however, are quite different in the pediatric rankings, partly because of constraints on the available data. The three Donabedian components are described in more detail below:

- *Structure* refers to hospital resources directly related to patient care. Examples include the ratio of nurses to patients, specialized clinics and programs, and certification by recognized external organizations.
- The *process* of healthcare delivery encompasses overall rendering of diagnosis, treatment, prevention, and patient education. In both the pediatric and adult rankings, process is represented primarily by a reputational score based on the annual survey of board-certified physicians cited above. Starting with the 2012–13 rankings, compliance with best practices and activities to prevent infections, and other patient safety issues were added.
- *Outcomes* most obviously include survival but can also include functional success, such as in children with cystic fibrosis, and adverse events, such as bloodstream infections and failure of transplanted organs.

The specific mission of the Best Children's Hospitals rankings is to identify hospitals that provide the highest quality of care for children with the most serious or complicated medical conditions, using the most robust and sensitive measures available to represent the three Donabedian components. ***Section IV*** describes the data and the construction of each component.

As in previous years, most structure and outcomes data were obtained directly from children's hospitals through the Pediatric Hospital Survey (***Section III***). The methodology also incorporates nominations of hospitals from board-certified pediatric specialists in each of the 10 specialties through the Pediatric Physician Survey (***Section VI***). Three external organizations supplied data for three measures: the American Nurse Credentialing Center (Nurse Magnet Recognition), the Foundation for the Accreditation of Cellular Therapy (Accredited for BMT and Tissue Transplant), and National Association of Epilepsy Centers (Commitment to Best Practices in Neurology and Neurosurgery).

II. Eligibility

A. General Eligibility

To be considered for the pediatric rankings, hospitals had to provide extensive data about their services and capabilities on the 2013-14 Pediatric Hospital Survey submission form. The selection of hospitals asked to submit data was based largely on standing in the Children's Hospital Association (CHA).[**] With a few exceptions, the hospitals in the surveyed universe had to fit one of three CHA membership categories: I-A, a freestanding children's hospital; I-C, a "hospital within a hospital" (a pediatric service that functions autonomously but is not physically separate); or II, an associate member (a pediatric hospital that is affiliated with a medical school but is not the medical school's primary pediatric teaching hospital). Several hospitals in CHA classification I-B, specialty hospitals (such as orthopedics), were included as well.

Certain non-CHA member hospitals were added because they had appeared previously in the Best Children's Hospitals rankings or because of recommendations from expert advisory panels convened to review pediatric hospital quality measures in the summer and fall of 2012.

Of 179 hospitals that qualified for inclusion, 110 submitted sufficient data to be considered for ranking in at least one specialty, a response rate of 61 percent.

B. Specialty-Specific Eligibility

Two additional eligibility requirements had to be met within each specialty:

- To be ranked in pediatric specialties other than Neonatology, hospitals had to indicate in the Pediatric Hospital Survey that they do in fact have such programs. In Neonatology, hospitals had to indicate that they have a Level IV neonatal intensive care unit. We accepted hospitals that either have been granted Level IV status by their state or meet the eligibility requirements for a Level IV NICU as specified by the American Academy of Pediatrics guidelines.[††]
- A full-time equivalent (FTE) of at least 1.0 attending physicians in certain medical fields related to the specialty was required. The physician categories are shown in ***Table 1***.

[**] More information about CHA and its member hospitals can be found at www.childrenshospitals.net.

[††] AAP guidelines, Pediatrics, 2012, 130:587-597.

Table 1. Specialty-Specific Eligibility Requirements

Specialty	Must have at least 1.0 FTE attending staff in the following categories:
Cancer	Pediatric hematologist/oncologist
Cardiology & Heart Surgery	Pediatric cardiothoracic surgeon AND Pediatric cardiac intensivist (from training in cardiology, pediatric intensive care, or anesthesiology) OR Other pediatric cardiac specialist (pediatric cardiac interventionalist, pediatric cardiac electrophysiologist, or pediatric anesthesiologist with specialty cardiac training)
Diabetes & Endocrinology	Pediatric endocrinologist
Gastroenterology & GI Surgery	Pediatric gastroenterologist
Neonatology	Pediatric neonatologist
Nephrology	Pediatric nephrologist
Neurology & Neurosurgery	Pediatric neurologist or Pediatric neurosurgeon
Orthopedics	Pediatric orthopedic surgeon
Pulmonary	Pediatric pulmonologist OR Pediatric sleep medicine physician
Urology	Pediatric urologist OR Urologist

FTE = full-time equivalent.

III. Pediatric Hospital Survey

As in previous years, advisory panels were convened to inform and improve the hospital survey before finalizing and sending it to hospitals. Panel members were recruited in cooperation with the CHA, which issued a request to the pediatric hospital community to propose candidates with broad expertise in both general and specialty pediatric medical care and familiarity with current research on hospital quality. Ultimately, the panels comprised pediatric physicians, nurses, hospital quality experts, health information systems/coding experts, and other healthcare professionals. A panel in infection control worked with all 10 specialty panels to address infection control and prevention issues.

Through conference calls, ad hoc phone discussions, and emails during the summer and fall of 2012, panel members proposed, reviewed, and discussed revisions to the previous survey, including prospective new measures.

The RTI project team created a draft set of measures and a survey instrument. A smaller group of advisors reviewed both the broad content and specific information, such as individual

ICD-9-CM (*International Classification of Diseases, Ninth Revision, Clinical Modification*) codes that identify diagnoses and treatments.[6] In addition, experts at several children's hospitals extensively reviewed the survey to ensure that the questions were appropriate and answerable. The final result was a slightly expanded and refined version of the 2012 survey.

The survey was provided in document form to hospitals in mid-December 2012. The data submission form was provided to hospitals in early January 2013 and administered through March via a dedicated Web page.

Some measures were ultimately excluded because the results failed to demonstrate meaningful variability. The remaining items defined the majority of the structural, process and outcomes measures. The items are described in detail below. As has been the case to date, the Pediatric Hospital Survey data submission form will be updated and modified in subsequent years to reflect the quality of care provided by U.S. pediatric facilities and the evolution of the discipline of quality improvement.

IV. Structure

The structural component is represented by volume, technology, clinical services, and other characteristic features of a high-quality pediatric hospital. In the Best Hospitals adult specialty rankings, most structural measures and their associated data derive from the American Hospital Association (AHA) annual survey. Because the AHA survey focuses primarily on overall hospital measures, however, pediatric data from the survey lack specificity. Structural data were therefore collected through the Pediatric Hospital Survey.

All measures used in the rankings are described in the following sections. The print version of the rankings displays a subset of the online measures.

A. Structural Measures

The structural measures in the rankings were selected because they represent fundamental elements of high-quality, hospital-based pediatric care. Descriptions of the measures and the specialties to which they are applied are listed alphabetically. The relative weight of each measure within a specialty is provided in ***Section IV.B. Normalization and Weighting***.

Accredited for BMT and Tissue Transplant Program (Cancer)

Accreditation indicates that as of March 1, 2013, a hospital met standards set by FACT for transplanting cells to treat pediatric cancer, an indication of a high degree of care in handling and

using cellular tissue. Programs can be certified as an adult or as a pediatric service provider and as offering two types of transplant services: autologous and allogeneic. For the Cancer specialty, a hospital was awarded 1 point if it was accredited by FACT as a pediatric service provider for allogeneic transplants. Currently accredited facilities are listed at http://www.factwebsite.org.

Adoption of Health Information Technology (All Specialties)

In each specialty, hospitals received up to 10 points for incorporating and using a computerized physician order entry (CPOE) system and electronic medical records (EMRs). Hospitals received up to 6 points for CPOE: 1 point for implementing a CPOE system, 1 point for documenting 95% or more of inpatient medication orders, 1 point for identifying medication orders if an allergy to the medication is documented, 1 point for including alerts for dosing errors for high-risk medications, and up to 2 points for providing details on two or more current projects using CPOE that focus on dosing errors for high-risk medications. Hospitals received up to 4 points for EMR: 1 point for implementation, 1 point if the EMR identifies and reports potential adverse events for patients, and up to 2 points for providing details on two current projects with the EMR system that identify potential adverse events.

Adult Congenital Heart Program (Cardiology & Heart Surgery)

In Cardiology & Heart Surgery, hospitals received up to 10 points for having an adult congenital heart program. Hospitals received 1 point for providing an organized adult congenital heart program. Hospitals could also receive 1 additional point if the program was listed with the Adult Congenital Heart Association. These programs are often provided by pediatric heart centers, which often have the most expertise in inherited or congenital heart disorders.

Up to 6 additional points were awarded if the adult congenital heart program provided the following: a formal plan to transition patients from the pediatric to adult congenital heart program; joint participation from adult and pediatric cardiologists; participation from cardiothoracic surgeons, cardiothoracic interventionalists, and cardiothoracic electrophysiologists who have specialty expertise in the care of adults with congenital heart disease; and specialty care for high-risk obstetrics for patients with congenital heart disease.

Hospitals received 1 point for performing from 1 to 49 cardiac surgical encounters on patients age 18 and above in the last 4 calendar years and 2 points for performing 50 or more.

Advanced Clinical Services (All Specialties)

Hospitals frequently offer clinical services and organize teams or programs to address special needs of specific groups of patients. These services or programs may be organized around a particular diagnosis, need, or age group. The structure of the services or programs ensures that a range of resources is available. Specialized skills of a multidisciplinary staff improve overall quality of care and, presumably, outcomes. The clinical services recognized in each specialty are described in ***Table 2***. One point was awarded for each service offered in a specialty.

Table 2. Advanced Clinical Services Offered, by Specialty

Cancer (19 services)	
Service	**Description**
Pediatric trauma center	Level 1 or 2 pediatric trauma center certified by American College of Surgeons or state licensing board
Cancer care coordination	Primary oncologist is involved in more than 50% of the evaluations and management visits with pediatric patient on active cancer therapy
Support staff	Offers the following: • Consultation program with experts in complementary/holistic health • Pediatric child-life specialists • School programs for hospitalized patients • Psychosocial support program • Social work support • Neuropsychological evaluation focused on school re-entry issues • Formal fertility consult program
Chemotherapy support services	Offers the following: • Dedicated pediatric chemotherapy pharmacy • Pediatric oncology pharmacist • Pharmacists specifically assigned to participate in daily inpatient rounds with the pediatric cancer treatment team • Outpatient pediatric chemotherapy facility • Formal annual training in chemotherapy order writing • Formal chemotherapy safety program with standardized procedures and event tracking • Designated pediatric oncology faculty leader for the chemotherapy safety program • Reporting system capturing chemotherapy order misses/near misses
Chemotherapy orders	1 point for handwritten chemotherapy orders without a template; 2 points for orders written using word processing, spreadsheet software, or as part of a computerized physician order entry program

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Table 2. Advanced Clinical Services Offered, by Specialty (continued)

Cardiology & Heart Surgery (17 services)	
Service	**Description**
Pediatric trauma center	Level 1 or 2 pediatric trauma center certified by American College of Surgeons or state licensing board
ECMO	ECMO program designated as a center of excellence by the Extracorporeal Life Support Organization (ELSO)
Echocardiography laboratory	Offers certified echocardiography laboratory in: • Transthoracic echocardiographic testing • Transesophageal echocardiographic testing • Fetal echocardiographic testing
Cardiovascular services	Offers these diagnostic and treatment services: • Inpatient cardiology consultation • Dedicated cardiac surgical operating room • Cardiac intensive care unit • Remote monitoring capability • Cardiac diagnostic catheterization laboratory • Cardiac interventional catheterization laboratory • Electrophysiology laboratory • Ventricular assist program • 24/7 ECMO • Cardiovascular genetics clinic
Heart failure program	Provides heart failure program with a designated medical director and nursing coordinator
Circulatory support	Offers ventricular assist devices (other than ECMO) for patients in the last 4 years

Diabetes & Endocrinology (19 services)	
Service	**Description**
Pediatric trauma center	Level 1 or 2 pediatric trauma center certified by American College of Surgeons or state licensing board

Diabetes support staff	Has following personnel available for consultation:
	• With certified diabetes educators (CDE) certification
	  ○ Social workers
	  ○ Dieticians
	  ○ Diabetes educators
	• Other staff
	  ○ Genetic counselors
	  ○ Exercise physiologists
	  ○ Psychologists

Remote access to records	1 point for providing physicians with remote access (e.g., electronic health records) to patient records; 2 points for providing remote access for both inpatients and outpatients

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Table 2. Advanced Clinical Services Offered, by Specialty (continued)

Diabetes & Endocrinology (19 services)	
Service	**Description**
Diabetes patient services	Offers following: • Written educational protocol used to evaluate and prepare patients for use of an insulin pump • Certified pump educators to provide pump training to patient families • Written education program used to evaluate and prepare patients for use of continuous glucose monitors (CGMs) • Certified CGM trainers to provide CGM training to patient families • Written educational program for families of new-onset diabetes patients • Formal educational program for school nurses through either a yearly school nurse education conference or written materials distributed each school year to the school nurses to ensure appropriate care of patients • Dedicated school liaison who is a registered nurse or CDE in hospital's pediatric diabetes program
Support services	Offers following programs or services: • Providing, encouraging or supporting diabetes-specific support group for parents and families • Taking a leadership role in organizing or supporting family-support groups for special populations (e.g., Turner syndrome)
Off-site clinics	Offers off-site locations with regularly scheduled clinics for endocrinology and diabetes patients

Gastroenterology & GI Surgery (9 services)	
Service	**Description**
Pediatric trauma center	Level 1 or 2 pediatric trauma center certified by American College of Surgeons or state licensing board
Gastrointestinal (GI) specialists	Has following specialists available for consultation 7 days a week: • Pediatric gastroenterology/liver-specialized pathologists • Pediatric interventional radiologists
GI support groups	Provides support groups for: • Inflammatory bowel disease • Celiac disease • Liver disease • Cystic fibrosis • Eosinophilic esophagitis • Chronic intestinal failure

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Table 2. Advanced Clinical Services Offered, by Specialty (continued)

Neonatology (5 services)	
Service	**Description**
Pediatric trauma center	Level 1 or 2 pediatric trauma center certified by American College of Surgeons or state licensing board
NICU support staff	Offers following: • Neonatal intensive care unit (NICU)-specific pharmacist onsite who attends rounds with clinical team • NICU-dedicated respiratory therapy team who attends rounds with clinical team • NICU-designated nutritionist who supports clinical team • NICU-dedicated social workers

Nephrology (8 services)	
Service	**Description**
Pediatric trauma center	Level 1 or 2 pediatric trauma center certified by American College of Surgeons or state licensing board
Maintenance dialysis staff	Has following staff dedicated to maintenance dialysis: • Clinical nurses • Social workers • Dieticians
Dialysis treatment	Provides following dialysis options for acute kidney insufficiency: • Hemodialysis • Peritoneal dialysis • Continuous renal replacement therapy
Kidney transplant	Has a United Network for Organ Sharing (UNOS) recognized kidney transplant program

Neurology & Neurosurgery (16 services)	
Service	**Description**
Pediatric trauma center	Level 1 or 2 pediatric trauma center certified by American College of Surgeons or state licensing board
Neurology & neurosurgery support services and technology	Offers following: • Ketogenic diet evaluation and management program • Neuroradiology interventionalists • Neuroanesthesia program • Neurocritical care program • Coordinated discharge plan for former critical care patients • Neurological rehabilitation program • Neurological rehabilitation program certified by Commission on Accreditation of Rehabilitation Facilities • Psychologists who specialize in neuropsychological testing

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Table 2. Advanced Clinical Services Offered, by Specialty (continued)

Neurology & Neurosurgery (16 services)	
Service	**Description**
Epilepsy treatment	Offers following: • Neurosurgery treatment for epilepsy • Electroencephalography (EEG) lab accredited by the EEG technologists, evoked potential technologists • Epilepsy monitoring unit with emergency management of seizures protocols
Headache clinic	Dedicated headache clinic that offers following: • Designated medical director and nursing coordinator • Psychologists who specialize in headache treatment • Biofeedback treatment • Abortive/preventive therapy for headache episodes

Orthopedics (6 services)	
Service	**Description**
Pediatric trauma center	Level 1 or 2 pediatric trauma center certified by American College of Surgeons or state licensing board
Advanced care services	Comprehensive pediatric orthopedic program with: • Designated inpatient unit for pediatric orthopedic patients • Dedicated pediatric imaging center • Imaging center staffed by a radiologist • Multidisciplinary musculoskeletal oncology program • Motion laboratory (gait laboratory)

Pulmonology (10 services)	
Service	**Description**
Pediatric trauma center	Level 1 or 2 pediatric trauma center certified by American College of Surgeons or state licensing board
Asthma care specialists	At least 1 full-time equivalent (FTE) staff with clinical responsibilities: • Respiratory therapists • Certified asthma educators
Dedicated staff	Following cystic fibrosis center staff who attend clinic or participate in patient care conferences: • Gastroenterologist • Endocrinologist Following staff who support patients with neuromuscular weakness disorders: • Pulmonologist • Physiatrist • Orthopedist

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Table 2. Advanced Clinical Services Offered, by Specialty (continued)

Pulmonology (10 services)	
Service	**Description**
Support services	Offers following: • Cystic fibrosis center accredited by Cystic Fibrosis Foundation • Sleep center accredited by American Academy of Sleep Medicine

Urology (5 services)	
Service	**Description**
Pediatric trauma center	Level 1 or 2 pediatric trauma center certified by American College of Surgeons or state licensing board
Treatment options	Offers following: • Stone treatment including shock wave lithotripsy • Laparoscopic orchiopexy/orchidectomy • Robotic-assisted laparoscopic pediatric surgery • Robotic-assisted laparoscopic surgery including cyst ablation, pyeloplasty, nephrectomy, and partial nephrectomy

Advanced Technologies (All Specialties)

Hospitals provide access to key diagnostic and treatment technologies directly, through the hospital's health system or a local community network or through a contractual arrangement or joint venture with another community provider. On- and off-site services received equal credit. Data are from the Pediatric Hospital Survey. The values for this measure were based on specialty-specific mixes of technology, as listed in ***Table 3***. Definitions can be found in the glossary in ***Appendix A***.

Asthma Management Success (Pulmonology)

In Pulmonology, hospitals received up to 10 points for management of asthma patients, based on the percentage of patients following specific protocols. Hospitals received 1 point for having a severe-asthma clinic. Hospitals received points based on the percentage of asthma patients following specific protocols. The protocols evaluated were the following: (1) providing inpatients with documentation of a personalized asthma management plan, (2) providing outpatients in subspecialty care clinics with documentation of a personalized asthma management plan, and (3) percentage of outpatients in subspecialty care clinics with a documented assessment of asthma control (e.g., ACT, ATAQ). For each protocol, up to 3 points were awarded for the percentage of patients following the protocol: 1 point for ≥ 50% and < 75%, 2 points for ≥ 75% and < 90%, 3 points for ≥ 90%.

Table 3. Advanced Technologies, by Specialty

Specialty	Technologies
Cancer (14 technologies)	• Positron emission tomography (PET) or positron emission tomography and computerized tomography (PET/CT) scanning • Intraoperative magnetic resonance imaging (ioMRI) • 3-Tesla magnetic resonance imaging (3T MRI) • Image-guided radiation therapy (IGRT) • Intensity-modulated radiation therapy (IMRT) • Bone scan • Linear accelerator (LINAC) or other linear particle accelerator, gamma knife, CyberKnife, or other shaped-beam stereotactic radiation therapies • Magnetic resonance spectroscopy (MRS) • Therapeutic/diagnostic meta-iodine-benzyl-guanidine with I-131 radionuclide (I-131 MIBG) • Functional magnetic resonance (fMR) • Intraoperative ultrasound for vascular access procedures • Stereotactic radiosurgery • Dedicated pediatric anesthesiology for radiation therapy • Pediatric interventional radiology equipment and room
Cardiology & Heart Surgery (5)	• CT angiography • Cardiac MRI • Transcatheter arrhythmia ablation methodologies (three-dimensional mapping, cryo- or radiofrequency ablation) • ECMO program available 24/7 • Transesophageal echocardiographic testing
Diabetes & Endocrinology (10)	• PET or PET/CT scanning • Diagnostic radioisotope scan • Therapeutic radioiodine treatment for Graves disease • Therapeutic radioiodine treatment for thyroid cancer • Fine needle aspiration of thyroid nodule • Thyroidectomy • Dual-energy x-ray absorptiometry (DXA) scans using pediatric software and normative data • Continuous glucose monitoring • Radiation isolation room • Endocrine testing and infusion studies
Gastroenterology & GI Surgery (11)	• PET or PET/CT scanning • Magnetic resonance cholangiopancreatography • Magnetic resonance enterography • DXA scan • Capsule endoscopy • Endoscopic band ligation • Esophageal impedance monitoring • Endoscopic retrograde cholangiopancreatography • Antroduodenal and full colonic motility studies • Esophageal dilation, either bougie or pneumatic • Alternative hemostatis therapies

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Table 3. Advanced Technologies, by Specialty (continued)

Specialty	Technologies
Neonatology (5)	• PET or PET/CT scanning • Continuous Electroencephalography (EEG) monitoring with pediatric neurology support • Unsedated MRI • Molecular diagnostic/virology laboratory • Specialized chemistry laboratory with tandem mass spectroscopy
Nephrology (1)	• PET or PET/CT scanning
Neurology & Neurosurgery (7)	• PET or PET/CT scanning • 3T MRI • Neurophysiological intraoperative monitoring • Magnetoencephalography • EEG source localization • Functional MRI • Availability of 24/7 EEG monitoring in pediatric intensive care unit (PICU)/neonatal intensive care unit (NICU)
Orthopedics (3)	• PET or PET/CT scanning • Bone scan • Remote retrieval of test results, images, and medical records
Pulmonology (1)	• PET or PET/CT scanning
Urology (3)	• PET or PET/CT scanning • Urodynamic equipment onsite • Video pediatric urodynamic fluoroscopy

Availability of Subspecialists (All Specialties)

This measure evaluates the presence of a variety of physician specialists, surgeons, and dedicated full-time medical staff who are critical to the delivery of appropriate care by pediatric hospitals. ***Table 4*** identifies the relevant specialists, surgeons, and other medical staff for each pediatric specialty. Hospitals received 1 point for each appropriate specialist or surgeon and 1 point for having at least 1.0 FTE of the other medical staff relevant to the specialty.

Table 4. Subspecialists, by Specialty

Cancer (14 points)	
Physician specialists	At least one of the following staff: • Pediatric anesthesiologist • Pediatric critical care specialist • Pediatric radiologist specializing in diagnostic radiology • Pediatric radiologist specializing in interventional radiology • Pediatric infectious disease specialist
Pediatric surgeons	At least one of the following staff: • Pediatric head and neck surgeon • Pediatric general surgeon • Pediatric neurosurgeon • Pediatric ophthalmology surgeon • Pediatric orthopedic surgeon • Pediatric urology surgeon
Other medical staff	At least 1.0 FTE of the following staff: • Pediatric hematologists/oncologists • Other attending on-staff physicians with specific involvement in pediatric cancer program • Nurse practitioner and/or physician assistant
Cardiology & Heart Surgery (12 points)	
Physician specialists	At least one of the following staff: • Pediatric anesthesiologist • Pediatric critical care specialist • Pediatric radiologist specializing in diagnostic radiology • Pediatric radiologist specializing in interventional radiology • Pediatric infectious disease specialist
Pediatric surgeons	At least 1.0 FTE of the following staff: • Pediatric cardiothoracic surgeon
Other medical staff	At least 2.0 FTE of the following staff: • Pediatric cardiothoracic surgeon • Pediatric cardiac intensivists (cardiologists, pediatric critical care, OR anesthesiologists) • Pediatric cardiac interventionalists At least 1.0 FTE of the following staff: • Pediatric cardiac electrophysiologist • Nurse practitioner and/or physician assistant • Cardiology fellow and/or cardiac surgery fellow

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Table 4. Subspecialists, by Specialty (continued)

Diabetes & Endocrinology (12 points)	
Physician specialists	At least one of the following staff: • Pediatric anesthesiologist • Pediatric critical care specialist • Pediatric radiologist specializing in diagnostic radiology • Pediatric radiologist specializing in interventional radiology • Pediatric rheumatologist • Pediatric infectious disease specialist
Pediatric surgeons	At least one of the following staff: • Pediatric head and neck surgeon • Pediatric general surgeon • Pediatric neurosurgeon
Other medical staff	At least 1.0 FTE of the following staff: • Pediatric endocrinologist • Nurse practitioner and/or physician assistant • Clinical registered nurse

Gastroenterology & GI Surgery (8 points)	
Physician specialists	At least one of the following staff: • Pediatric anesthesiologist • Pediatric critical care specialist • Pediatric radiologist specializing in diagnostic radiology • Pediatric radiologist specializing in interventional radiology • Pediatric infectious disease specialist
Pediatric surgeons	At least one of the following staff: • Pediatric general surgeon
Other medical staff	At least 1.0 FTE of the following staff: • Pediatric gastroenterologist • Nurse practitioner and/or physician assistant

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Table 4. Subspecialists, by Specialty (continued)

Neonatology (16 points)	
Physician specialists	At least one of the following staff: • Pediatric anesthesiologist • Pediatric critical care specialist • Pediatric radiologist specializing in diagnostic radiology • Pediatric radiologist specializing in interventional radiology • Pediatric infectious disease specialist
Pediatric surgeons	At least one of the following staff: • Pediatric head and neck surgeon • Pediatric cardiothoracic surgeon • Pediatric general surgeon • Pediatric neurosurgeon • Pediatric ophthalmology surgeon • Pediatric orthopedic surgeon • Pediatric urology surgeon
Other medical staff	At least 1.0 FTE of the following staff: • Pediatric neonatologist • Nurse practitioner and/or physician assistant • Hospitalist • Clinical care registered nurse certified in neonatal intensive care

Nephrology (8 points)	
Physician specialists	At least one of the following staff: • Pediatric anesthesiologist • Pediatric critical care specialist • Pediatric radiologist specializing in diagnostic radiology • Pediatric radiologist specializing in interventional Radiology • Pediatric infectious disease specialist
Pediatric surgeons	At least one of the following staff: • Pediatric general surgeon
Other medical staff	At least 1.0 FTE of the following staff: • Pediatric nephrologist • Nurse practitioner and/or physician assistant

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Table 4. Subspecialists, by Specialty (continued)

Neurology & Neurosurgery (11 points)	
Physician specialists	At least one of the following staff: • Pediatric anesthesiologist • Pediatric critical care specialist • Pediatric radiologist specializing in diagnostic radiology • Pediatric radiologist specializing in interventional radiology • Pediatric infectious disease specialist
Pediatric surgeons	At least one of the following staff: • Pediatric general surgeon • Pediatric neurosurgeon
Other medical staff	At least 1.0 FTE of the following staff: • Pediatric neurologist • Pediatric neurosurgeon • Nurse practitioner and/or physician assistant • Certified neuroscience nurse

Orthopedics (16 points)	
Physician specialists	At least one of the following staff: • Pediatric anesthesiologist • Pediatric critical care specialist • Pediatric radiologist specializing in diagnostic radiology • Pediatric radiologist specializing in interventional radiology • Pediatric rheumatologist • Pediatric infectious disease specialist

Orthopedics (16 points)	
Pediatric surgeons	At least one of the following staff: • Pediatric general surgeon • Pediatric orthopedic surgeon • Hand surgery fellow • Spinal surgery fellow • Musculoskeletal oncology surgical fellow • Sports medicine surgical fellow
Other medical staff	At least 1.0 FTE of the following staff: • Pediatric orthopedic surgeon • General orthopedist • Nurse practitioner and/or physician assistant • Clinical registered nurses

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Table 4. Subspecialists, by Specialty (continued)

Pulmonology (10 points)	
Physician specialists	At least one of the following staff: • Pediatric anesthesiologist • Pediatric critical care specialist • Pediatric radiologist specializing in diagnostic radiology • Pediatric radiologist specializing in interventional radiology • Pediatric infectious disease specialist
Pediatric surgeons	At least one of the following staff: • Pediatric general surgeon
Other medical staff	At least 1.0 FTE of the following staff: • Pediatric pulmonologist • Pediatric sleep medicine physician • Nurse practitioner and/or physician assistant • Clinical registered nurse

Urology (12 points)	
Physician specialists	At least one of the following staff: • Pediatric anesthesiologist • Pediatric critical care specialist • Pediatric radiologist specializing in diagnostic radiology • Pediatric radiologist specializing in interventional radiology • Pediatric infectious disease specialist
Pediatric surgeons	At least one of the following staff: • Pediatric general surgeon • Pediatric urology surgeon
Other medical staff	At least 1.0 FTE of the following staff: • Pediatric urologist (worth 2 points) • Urologist • Nurse practitioner and/or physician assistant • Clinical registered nurse

Bone Marrow Transplant Services (Cancer)

In Cancer, hospitals could receive up to 16 points for having a stem cell transplant program. Stem cell transplants are critical in treating a variety of cancers:

- Hospitals received 1 point for having a stem cell transplant unit with specially trained pediatric nurses and physicians.

- Hospitals received up to 4 points for offering various stem cell transplant services: cord blood cell transplantation, autologous stem cell transplantation, allogeneic (unrelated donor) transplantation, and allogeneic (related donor) transplantation.
- Hospitals received up to 8 points based on the volume of transplants. For each of the four types of transplantation listed above, hospitals received points as follows: 1 point for conducting from 2 to 10 transplants in the past 3 years; 2 points for conducting 11 or more transplants in the last 3 years.
- Hospitals received up to 3 points for recognition as an accredited allogeneic stem cell transplant facility by the Foundation for the Accreditation of Cellular Therapy (FACT), a transplant center by the National Marrow Donor Program, and for membership in the Pediatric Blood and Marrow Transplant Consortium.

Clinical Support Services (All Specialties)

Many hospitals provide access to medical and surgical clinical support services through the hospital's health system, a local community network, or a contractual arrangement or joint venture with another provider in the community. On- and off-site services received equal credit. Up to 10 services are included in the clinical support services, depending on the specialty. Data came from the Pediatric Hospital Survey. For eligible hospitals, specialty-specific mixes of medical and surgical services are used in computing the points for this measure. ***Table 5*** presents the complete list of medical and surgical services considered for each specialty in 2013. Definitions can be found in the glossary in ***Appendix A***.

Commitment to Clinical Research (All Specialties)

Networks, clinical trials, and other research activities advance the ability of the field to treat pediatric patients and also enhance care by making new or novel treatments available at centers that participate in such research.

Cancer (12 points). Hospitals received up to 12 total points for participating in clinical research activities such as clinical trials or other translational research activities. Hospitals received up to 4 points for participating in cancer research networks such as the Children's Oncology Group, National Cancer Institute (NCI) Phase 1/Pilot Consortium, NCI-Designated Cancer Center, or another cancer-related organized clinical research network. Hospitals received 1 point each for opening at least one new Phase I or Phase II clinical trial (translational research) to enrollment during the past two years. Hospitals received up to 5 points for engaging in clinical trials in these specific areas: leukemia, brain tumors, sarcomas, neuroblastomas, or trials for biologically targeted

novel agents that are not disease specific (e.g., tyrosine kinase inhibitors). Hospitals could receive an additional 1 point by demonstrating the depth of their involvement in any of the clinical trials.

Table 5. Clinical Support Services, by Specialty

Clinical Support Service	Cancer	Cardiology & Heart Surgery	Diabetes & Endocrinology	Gastroenterology & GI Surgery	Neonatology	Nephrology	Neurology & Neurosurgery	Orthopedics	Pulmonology	Urology
Neonatal intensive care unit (NICU)	●	●	●	●		●	●	●	●	●
Pediatric intensive care unit (PICU)	●	●	●	●		●	●	●	●	●
Dedicated surgical intensive care unit (SICU) or beds	●	●	●	●		●	●	●	●	●
Protective environment (infection control facilities)	●	●	●	●	●	●	●	●	●	●
Genetic testing/counseling	●		●	●	●					
Rapid response team (available onsite 24/7)	●	●	●	●	●	●	●	●	●	●
Pediatric anesthesia program (available onsite 24 hours a day)	●	●	●	●	●	●	●	●	●	●
Pediatric pain management program (available onsite 24/7)	●	●	●	●	●	●	●	●	●	●
Pediatric infectious disease program (available onsite 24/7)	●	●	●	●	●	●	●	●	●	●
Multidisciplinary pediatric acute pain/sedation service (available onsite 24/7) hours a day)	●	●		●	●	●	●	●	●	●
Total Elements	**10**	**9**	**9**	**10**	**7**	**9**	**9**	**9**	**9**	**9**

Cardiology & Heart Surgery (12 points). Hospitals received points for participating in externally audited, national quality-improvement research networks. Hospitals received 1 point for being an auxiliary clinical center and 2 points for being a primary clinical center for the Pediatric Heart Research Network (PHRN), and tracking at least one protocol. Hospitals received up to an additional 10 points for participating and contributing data to the following organizations:

- Society of Thoracic Surgeons
- Congenital Heart Surgeons' Society
- National Pediatric Cardiology Quality Improvement Collaborative

- Congenital Cardiovascular Interventional Study Consortium
- National Cardiovascular Disease Registry—Improving pediatric and adult congenital treatment
- Virtual Pediatric ICU system
- Congenital Cardiac Anesthesia Society
- National Cardiovascular Disease Registry—Implantable Cardioverter Defibrillator
- Pediatric Cardiac Critical Care Consortium
- Other externally audited national quality-improvement initiatives

Diabetes & Endocrinology (1 point). Hospitals received 1 point for participating in specialty-specific clinical research activities such as clinical trials or other translational research activities.

Gastroenterology & GI Surgery (4 points). Hospitals received up to 4 points for participating in externally audited, national quality-improvement research networks. Hospitals received 1 point each for participating in prospective research activities: randomized clinical trials, observational studies, or clinical databases on patient care. Hospitals received 1 point for having at least one Institutional Review Board (IRB) approved study being led by the Pediatric Gastroenterology & GI Surgery program.

Neonatology (4 points). Hospitals received up to 4 total points for participation in externally audited, national neonatal intensive care unit (NICU) treatment and quality-improvement research networks. Hospitals received 1 point for participating in clinical research activities that allow patients access to novel medications or experimental treatment options. Hospitals received up to 3 additional points for participation in the following organizations:

- The Vermont Oxford Network, Children's Hospitals Neonatal Consortium, or Child Health Corporation of America database
- Extracorporeal Life Support Organization (ELSO) data exchange network/registry
- Other clinical research or data exchange program

Nephrology (10 points). Hospitals received points for participation in externally audited, national quality-improvement research networks. Hospitals received 1 point for participating in specialty-specific clinical research activities that allow patients access to novel medications or experimental treatment options. Hospitals received up to 9 additional points for participation in the following research collaboratives:

- Clinical Trials in Organ Transplantation in Children
- Midwest Pediatric Nephrology Consortium
- International Pediatric Dialysis Network
- North American Pediatric Renal Trials and Collaborative Studies
- Prospective Pediatric Acute Kidney Injury Research Group
- Pediatric Trials Network
- Chronic Kidney Disease in Children cohort study
- Nephrotic Syndrome Study Network
- SCOPE Peritonitis and Exit-Site Infection Quality Collaborative

Neurology & Neurosurgery (4 points). Hospitals received 1 point for belonging to a neuro-oncology clinical research consortium and up to 3 additional points for participating in the following prospective research activities: randomized clinical trials, observational studies, or clinical databases on patient care.

Orthopedics (1 point). Hospitals received 1 point for participating in 1 or more IRB-approved trials, studies, or databases such as prospective randomized clinical trials, prospective observational studies, or prospective clinical database on patient care.

Pulmonology (1 point). Hospitals received 1 point for participating in 1 or more IRB-approved trials, studies, or databases such as prospective randomized clinical trials, prospective observational studies, or prospective clinical database on patient care.

Urology (3 points). Hospitals received up to 3 total points for participating in the following prospective research activities: randomized clinical trials, observational studies, or clinical databases on patient care.

Commitment to Quality Improvement (All Specialties)

Hospitals received points in all specialties for participation in quality-improvement activities. Such activities promote internal review and improvement programs and procedures that often lead to improvements in care. In all specialties, hospitals received up to 3 points for participating in an external review process for measuring patient/parent satisfaction, for publicly reporting performance data on one or more quality metrics, and for having quality improvement projects approved by the American Board of Pediatrics.

In all specialties except Neonatology, hospitals received up to 7 additional points for implementing specialty-specific quality measures. These include 1 point each for implementing a formal program review plan, determining appropriate performance-based metrics, regularly tracking patient data, regularly presenting results of clinical quality performance metrics to clinical staff, and encouraging staff to conduct mini-root cause analyses meetings or other quality improvement teams; 2 points were awarded for participating in one or more national quality initiatives. In Neonatology, hospitals received only 1 point for participating in one or more national quality initiatives.

In Gastroenterology & GI Surgery, hospitals received up to 5 additional points (15 points total) for participating in the following formal quality initiatives: studies in pediatric liver transplantation, pediatric acute liver failure, cystic fibrosis liver disease, Improve Care Now, or other formal multicenter quality initiatives.

In Neonatology, hospitals received up to 2 additional points (11 points total) if the quality initiatives included having a specified quality-improvement or safety leader. Hospitals received 1 point for having safety leader with less than 0.5 full-time equivalent (FTE) of his or her time devoted to quality improvement or safety, and 2 points for 0.5 FTE or more.

Congenital Heart Program (Cardiology & Heart Surgery)

In Cardiology & Heart Surgery, hospitals received up to 24 points for having a congenital heart program. Hospitals were rewarded for tracking and reporting data for their congenital heart surgery program and for the volume and type of congenital heart surgeries offered:

- Hospitals received 1 point for having at least one congenital heart surgeon who performed 100 or more congenital heart procedures in the last calendar year and 2 points for having two or more surgeons.
- Hospitals received up to 4 points for performing one or more hybrid procedures in each of the last four reporting periods.
- Hospitals could receive up to 8 points based on the mechanism for determining and reporting volume and outcomes measures. For each of the past four reporting years, hospitals received 2 points each year for reporting to the Society of Thoracic Surgeons (STS) Congenital Heart Surgery Database, and 1 point for reporting to another organization.
- Hospitals received up to 1 point for treating 1 to 4 patients with a Berlin Heart or other ventricular assist device and 2 points for treating 5 or more patients.

- Hospitals received up to 8 points based on the number of cardiac surgical procedures performed in the operating room in the four reporting years: 1 point for 100–249 surgeries/year and 2 points for 250 or more surgeries/year.

Diabetes Care Options (Diabetes & Endocrinology)

In Diabetes & Endocrinology, hospitals received up to 4 points for providing certain treatment options for patients in their pediatric diabetes program. One point was awarded for each of the following: insulin pump for children ≥ 5 years of age, insulin pump for children < 5 years of age, insulin pump plus basal insulin injection, and basal insulin injection with rapid-acting insulin analog.

Efforts to Involve Families (All Specialties)

This measure reflects the extent to which a hospital involves parents and families in care. It applied to all pediatric specialties and was worth up to 7 points: 1 point for having a parent advisory committee that meets one to three times a year and 2 points for having a committee that meets at least four or more times a year. Hospitals received up to 4 additional points if the hospital met all of the following requirements: at least one parent or family member is an active member of the strategic or facility committee; at least one parent or family member is an active member of one or more standing committees (e.g., quality improvement, patient safety, ethics); parents or family members are regularly involved in clinical decisionmaking in ways such as family-centered rounds, care conferences, or other participatory programs; and parents or family members can participate in family-centered rounds. Hospitals received 1 additional point for describing the impact of having patients' family members serve on advisory committees.

In Neonatology, hospitals could receive 1 additional point (for a total of 8 points) for having an NICU-specific parent advisory committee.

Fellowship Programs (All Specialties)

Participation in fellowship training programs represents a commitment by hospitals to provide high-quality care in a specialty area and assure that the program meets standards of quality. Hospitals that offer fellowship programs accredited by the Accreditation Council for Graduate Medical Education were awarded 1 point for each fellowship program that had at least one active fellow in the program in the past academic year. ***Table 6*** indicates fellowships credited.

Table 6. Fellowship Programs, by Specialty

Fellowship Program	Cancer	Cardiology & Heart Surgery	Diabetes & Endocrinology	Gastroenterology & GI Surgery	Neonatology	Nephrology	Neurology & Neurosurgery	Orthopedics	Pulmonology	Urology
Child neurology					●		●			
Congenital cardiac surgery		●			●					
Neonatal-perinatal medicine					●					
Neurosurgery (with focus on pediatrics)					●		●			
Pediatric cardiology		●			●					
Pediatric endocrinology			●		●					
Pediatric gastroenterology				●	●					
Pediatric hematology-oncology	●				●					
Pediatric nephrology					●	●				
Pediatric orthopedics					●			●		
Neuroradiology or interventional radiology (with training in pediatrics)	●				●					
Pediatric pulmonology					●				●	
Pediatric urology					●					●
Thoracic surgery (with focus on pediatric cardiothoracic surgery)		●			●					
Pediatric infectious diseases					●					
Total Elements	**2**	**3**	**1**	**1**	**15**	**1**	**2**	**1**	**1**	**1**

Heart Transplant Program (Cardiology & Heart Surgery)

In Cardiology & Heart Surgery, hospitals received up to 4 points for having a heart transplant program. Hospitals received 1 point for having an on-site heart or heart-lung transplant program recognized by the United Network for Organ Sharing (UNOS). Hospitals received up to 3 additional points based on the number of unique patients who received heart transplants in the past 4 years combined: 1 point for 1–7 transplants, 2 points for 8–15 transplants, and 3 points for 16 or more transplants.

Heart-Lung Machine for Newborns (ECMO) (Neonatology)

Extracorporeal membrane oxygenation (ECMO) technology involves a pump that circulates blood through an artificial lung back into the bloodstream of a very ill neonate, essentially providing heart-lung bypass support outside the child's body. In Neonatology, hospitals received up to 5 points for ECMO services. Hospitals received 1 point for having a specialized, multidisciplinary ECMO team; 1 point if the ECMO program was available 24 hours a day; 1 point if the ECMO program is designated as a Center for Excellence by the Extracorporeal Life Support Organization (ELSO). Hospitals also received 1 point for having a neonatal-specific transport team capable of transporting high-risk pre-ECMO patients between hospitals, and 1 additional point if the neonatal-specific transport team has monthly case reviews.

Liver Transplant Program (Gastroenterology & GI Surgery)

In Gastroenterology & GI Surgery, hospitals received up to 4 points for having a liver transplant program. Hospitals received 1 point for having a UNOS-recognized liver transplant program and up to 3 additional points based on the number of unique patients who received a liver transplant in the past 2 years: 1 point for 1–9 patients, 2 points for 10–19 patients, and 3 points for 20 or more patients.

Lung Transplant Program (Pulmonology)

In Pulmonology, hospitals received up to 6 points for having a lung transplant program. Hospitals received 1 point for offering a UNOS-recognized lung transplant program. Hospitals received 1 point for performing one lung transplant in the past 2 years or 2 points for performing two or more lung transplants in the past 2 years. Hospitals received up to 3 points based on the most recent 3-year Scientific Registry of Transplant Recipients (SRTR)/UNOS patient survival percentage for pediatric lung transplant patients. Points were awarded as follows: 1 point for a survival rate $\geq$ 50% and < 80%, 2 points for a survival rate $\geq$ 80% and < 90%, and 3 points for a survival rate $\geq$ 90%.

Management of Lung Disease of Prematurity (Pulmonology)

In Pulmonology, hospitals received up to 7 points for management of lung disease of prematurity. Hospitals received up to 6 points based on the percentage of patients diagnosed with chronic lung disease or prematurity who received respiratory syncytial virus (RSV) prophylaxis and the percentage of patients who received all of their recommend doses for the most recent RSV prophylaxis season. Hospitals received up to 3 points for each item as follows: 1 point for $\geq$ 50% and < 75%, 2 points for $\geq$ 75% and < 90%, and 3 points for $\geq$ 90%. Hospitals received 1 additional

point for having a protocol for advising families of infants with lung disease of prematurity regarding RSV prophylaxis.

Management of Neuromuscular Weakness Disorder (Pulmonology)

In Pulmonology, hospitals received up to 6 points for muscular dystrophy management. This measure is composed of two items: the percentage of muscular dystrophy patients who had pulmonary function testing in the last calendar year, and the percentage of muscular dystrophy patients undergoing general anesthesia who had pulmonary function testing within 90 days prior to the procedure. Hospitals received up to 3 points for each item based on the percentage of patients as follows: 1 point for ≥ 50% and < 75%, 2 points for ≥ 75% and < 90%, and 3 points for ≥ 90%.

Nurse Magnet Recognition (All Specialties)

Nurse magnet recognition is a formal designation by the Magnet Recognition Program, developed by the American Nurses Credentialing Center to recognize hospitals that meet specific standards of nursing excellence. The list of Nurse Magnet hospitals is updated throughout the year as hospitals apply for designation and redesignation. Hospitals with Magnet Recognition Program status as of March 1, 2013, received 1 point in all specialties. The current list of all Nurse Magnet hospitals is at http://www.nursecredentialing.org/FindaMagnetHospital.aspx.

Nurse-Patient Ratio (All Specialties)

This measure is a relative ratio of the number of nurses to the average daily patient census. The numerator is the number of on-staff registered nurses (RNs) devoted to inpatient clinical care, expressed as FTEs. Nurses are included only if they have an RN degree from an approved nursing school and hold a current state license. The denominator is the average daily number of pediatric inpatients. The source was the Pediatric Hospital Survey. This measure was used in all specialties. For Neonatology, the measure used an equivalent for nurses dedicated specifically to the NICU and the average daily census of NICU patients. For scoring purposes, nurse-patient values above 4.0 were capped at 4.0 in all specialties to prevent skewness in this measure.

Palliative Care (Cancer)

In Cancer, hospitals received up to 6 points for palliative care. Hospitals received 1 point for offering a qualified palliative care program onsite. A qualified program is organized and staffed for children nearing the end of life or living with conditions that limit lifespan or quality of life; its purpose is to minimize pain and discomfort, provide emotional and spiritual support for children and their families, assist with financial guidance and social services, and support decisionmaking; it

must include at least one physician providing direct patient care as well as a nurse coordinator and either a social worker, certified child life specialist, or pastoral counselor; and all staff must have training in palliative care.

Hospitals could receive up to 3 points for offering the following pain control programs: patient controlled analgesia, nurse controlled analgesia, and pediatric pain service consults.

Hospitals could receive up to 2 points based on the percentage of patients with advanced and refractory cancer who were referred to the palliative care program, as follows: 1 point for $\geq 50\%$ and $< 75\%$, and 2 points for $\geq 75\%$.

Patient and Family Services (All Specialties)

The Patient and Family Services measure evaluates the access that patients and their families have to medical specialists and services. Data for this measure came from the Pediatric Hospital Survey. A core set of submeasures for all specialties was worth up to 8 points, which included providing direct access to a family resource center, sleep rooms for parents/siblings, a school intervention program, a Ronald McDonald House (or other residential facility), certified child life specialists, family-support specialists, pediatric psychologists or psychiatrists, and interpreter services.

In Neonatology, hospitals could receive up to 7 additional points (for a total of 15 points). Hospitals received points for offering the following patient and family services: NICU-specific family support program, breast pumping rooms, lactation specialists, parental visitation 24/7, sibling visitation, NICU-specific parent advisory committee that meets regularly, and NICU-specific parent-to-parent support groups.

In Nephrology, hospitals could receive up to 4 additional points (for a total of 12 points). Hospitals received 1 point for offering summer camp for kidney transplant patients. Hospitals received up to an additional 3 points for offering the following programs to support patients in a pediatric maintenance dialysis program: teachers dedicated to working with patients, a standard review of school performance and patient's Individualized Education Program, and/or summer camp.

Specialized Clinics and Programs (Cancer, Cardiology & Heart Surgery, Diabetes & Endocrinology, Gastroenterology & GI Surgery, Neonatology, Neurology & Neurosurgery, Orthopedics, Urology)

Cancer (9 points). Hospitals received up to 9 points for specialized treatment programs for cancer patients, with 1 point for each of the following: clinical brain tumor program, clinical bone and soft tissue sarcomas program, clinical leukemia/lymphoma program, comprehensive longer-term survivors program, pediatric limb-sparing surgery program, fertility preservation program, cancer genetics/hereditary program, bone marrow failure program, or histiocytosis program.

Cardiology & Heart Surgery (11 points). Hospitals received 1 point for each of the following catheter procedures offered to at least one patient in the past calendar year: balloon angioplasty; balloon valvuloplasty; stent implantation; transcatheter occlusion of cardiac shunts; transcatheter placement (or attempted placement) of stented pulmonary valves (e.g. Melody); aortic and pulmonary catheter-based valvuloplasty; transcatheter arrhythmia ablations; ablations for atrial tachycardia, supraventricular tachycardia; ventricular tachycardia; and implantation of permanent transvenous pacing/cardioversion/defibrillation or event recording devices.

Diabetes & Endocrinology (8 points). Hospitals received up to 6 points for specialized treatment programs for endocrine patients with 1 point for each of the following: lipid disorders, hypertension, comprehensive weight management, Turner syndrome, Cystic fibrosis–related diabetes clinic, and multidisciplinary endocrinology/oncology brain tumor clinic. Hospitals received up to 2 points for specialized clinics for diabetes patients, with 1 point for each of the following: outpatients with type 2 diabetes and adolescents and young adults with diabetes.

Gastroenterology & GI Surgery (9 points). Hospitals received up to 9 points for offering various interdisciplinary treatment programs for gastrointestinal disorders. One point was awarded for each of the following programs: intestinal rehabilitation, cystic fibrosis treatment, total parenteral nutrition (TPN), pediatric intensive feeding, multidisciplinary childhood obesity management, inflammatory bowel disease, multidisciplinary allergic disease program, chronic liver disease program, and neurogastrointestinal/motility program.

Neonatology (16 points). Hospitals received 1 point for having a cardiac ICU to care for patients needing specialized care for heart conditions with up to 15 additional points for providing specialized treatment teams/clinics to deal with particularly challenging conditions. Hospitals received 1 point for each of the following: craniofacial team, spina bifida team, comprehensive retinopathy of prematurity program, extracorporeal membrane oxygenation team, neonatal-neurointensive care program, NCIU specific palliative care program, chronic lung disease team, congenital diaphragmatic hernia team, chronic pulmonary hypertension team, neonatal dialysis team,

metabolic team, bowel rehabilitation team, home ventilator management team, neurodevelopmental follow-up clinic for premature/high-risk NICU patients, and neurodevelopmental clinic for high-risk congenital heart NICU patients.

Neurology & Neurosurgery (16 points). Hospitals received up to 16 points for access to specialized treatment clinics or programs for pediatric neurological disorders. To receive credit, a hospital had to have an organized program that included a medical director and nursing coordinator. One point was awarded for each of the following clinics or programs: cerebral palsy/spasticity clinic, cerebrovascular accident, craniofacial surgical, movement disorders, neurofibromatosis, neuromuscular, neuro-oncology, spina bifida, tuberous sclerosis, brachial plexus, metabolic/white matter, neonatal neurology, multidisciplinary spine, head trauma/post-concussion, new-onset seizures, and neuro-fetal program.

Orthopedics (9 points). Hospitals received up to 9 points for providing specialized treatment clinics or programs to treat significant conditions. To receive credit, the clinic had to be attended regularly by the pediatric orthopedic service. Hospitals received 1 point for each of the following clinics or programs: spina bifida, spasticity, skeletal dysplasia, brachial plexus, neurofibromatosis, muscle disease, pain, sports medicine, and sports concussion program.

Urology (6 points). Hospitals received up to 6 points for each of the following specialized treatment clinics or programs to treat significant urological conditions: spina bifida, voiding dysfunction, comprehensive stone program, prenatal intervention, disorders of sexual differentiation, and genitourinary reconstructive surgery/exstrophy.

Transplants to Dialysis Patients (Nephrology)

Hospitals received up to 12 points in Nephrology based on the percentage of patients receiving maintenance dialysis who received kidney transplants within the past 2 years. In the Nephrology specialty, four groups of patients were evaluated separately: children under 5 receiving hemodialysis, children aged 5–19 receiving hemodialysis, children under 5 receiving peritoneal dialysis, and children aged 5–19 receiving peritoneal dialysis. For each type of patient, hospitals received up to 3 points for having a higher percentage of patients receiving transplants as follows: 1 point if $\geq 25\%$ and $< 50\%$, 2 points if $\geq 50\%$ and $< 75\%$, and 3 points if 3 if $\geq 75\%$.

Volume of Patients (All Specialties)

Unless noted otherwise, volume measures indicate the number of unique patients in the past calendar year who had the specified diagnoses or conditions or who received the specified

procedures or treatments. If data were unavailable for the most recent calendar year, hospitals were instructed to use data from the most recent 12 months that data were available.

Points were assigned based on the distribution of volume across all hospitals. Hospitals with no volume or that did not respond received 0 points. Hospitals with volume in the lowest one-third of the distribution for all hospitals received 1 point; hospitals with volume in the middle one-third received 2 points, and hospitals with volume in the highest one-third received 3 points. The points at the high end of the range were used to cap these measures to ensure that outliers did not significantly affect scoring. For items with extremely low volume, such as cardiac hybrid procedures, the measure was divided into low and high only for a maximum of 2 points. ***Table 7*** identifies the volume measures used by specialty and the points assigned to volume scores within a certain range.

Table 7. Specialty-Specific Volume Measures

Cancer Volume Measures	Low Volume (1 point)	Medium Volume (2 points)	High Volume (3 points)
New-patient volume, 2 years (max points = 3)	1–99	100–399	400+
Patient volume (max points = 9)			
• Leukemia	1–199	200–399	400+
• Brain tumors	1–149	150–299	300+
• Solid tumors	1–299	300–599	600+
Surgery volume* (max points = 6)			
• Brain tumors	1–149	150–299	300+
• Solid tumors	1–299	300–599	600+

Cardiology & Heart Surgery Volume Measures	Low Volume (1 point)	Medium Volume (2 points)	High Volume (3 points)
Catheter procedure volume* (max points = 30)			
• Balloon angioplasty procedures	1–29	30-59	60+
• Balloon valvuloplasty procedures	1–19	20–39	40+
• Stent implantation procedures	1–34	35-69	70+
• Transcatheter occlusion of cardiac shunt procedures	1–59	60–119	120+
• Transcatheter placement of stented pulmonary valve	1–14	15–29	30+
• Aortic/pulmonary catheter-based valvuloplasty	1–6	7–13	14+
• Atrial tachycardia procedures	1–19	20–39	40+

(continued)

Table 7. Specialty-Specific Volume Measures (continued)

Cardiology & Heart Surgery Volume Measures	Low Volume (1 point)	Medium Volume (2 points)	High Volume (3 points)
• Supraventricular tachycardia procedures	1–39	40–79	80+
• Ventricular tachycardia procedures	1–4	5–8	9+
• Placement of permanent transvenous pacing	1–19	20–39	40+
Norwood surgery volume (max points = 12)			
• Patients receiving Norwood Stage 1, year 1	1–6	7–13	14+
• Patients receiving Norwood Stage 1, year 2	1–6	7–13	14+
• Patients receiving Norwood Stage 1, year 3	1–6	7–13	14+
• Patients receiving Norwood Stage 1, year 4	1–6	7–13	14+
Surgery volume (max points = 12)			
• STAT[‡‡] Level 2: Years 1-4	1–299	300–599	600+
• STAT Level 3: Years 1-4	1–249	250-499	500+
• STAT Level 4: Years 1-4	1–149	150–299	300+
• STAT Level 5: Years 1-4	1–59	60–119	120+

Diabetes & Endocrinology Volume Measures	Low Volume (1 point)	Medium Volume (2 points)	High Volume (3 points)
Patient volume (max points = 36)			
• Type 1 primary care diabetes outpatients	1–299	300–799	800+
• Type 2 primary care diabetes outpatients	1–74	75–149	150+
• Type 1 primary care diabetes inpatients	1–149	150–299	300+
• Type 2 primary care diabetes inpatients	1–19	20–39	40+
• Congenital adrenal hyperplasia	1–39	40–79	80+
• CNS and endocrine tumors	1-99	100-199	200+
• Diabetes insipidus	1–24	25–49	50+
• Hypopituitarism	1–99	100–199	200+
• Turner Syndrome	1–24	25–49	50+
• Newly diagnosed growth hormone deficiency	1–24	25–49	50+
• Nondiabetes endocrine disorders outpatients	1–1,999	2,000–3,999	4,000+
• Nondiabetes endocrine disorders inpatients	1–124	125–249	250+

(continued)

[‡‡] Society of Thoracic Surgery & European Association for Cardio-Thoracic Surgery Congenital Heart Surgery Mortality Categories (STAT)

Table 7. Specialty-Specific Volume Measures (continued)

Diabetes & Endocrinology Volume Measures	Low Volume (1 point)	Medium Volume (2 points)	High Volume (3 points)
Procedure volume* (max points = 30)			
• Diagnostic radioisotope	1–19	20–39	40+
• Therapeutic radioiodine for Graves disease	1–5	6–10	11+
• Therapeutic radioiodine for thyroid cancer	1–3	4–7	8+
• Fine needle aspiration of thyroid nodule	1–4	5–9	10+
• Thyroidectomy	1–4	5–9	10+
• Dual-energy x-ray absorptiometry (DXA) scans	1–39	40–79	80+
• Continuous glucose monitoring	1–39	40–79	80+
• Brain or pituitary MRI	1–29	30–59	60+
• Growth hormone therapy	1–29	30–59	60+
• Serum IGF-1 measurement	1–29	30–59	60+

Gastroenterology & GI Surgery Volume Measures	Low Volume (1 point)	Medium Volume (2 points)	High Volume (3 points)
Nonsurgical procedure volume* (max points = 21)			
• Capsule endoscopy	1–19	20–39	40+
• Endoscopic band ligation	1–9	10–19	20+
• Esophageal impedance monitoring	1–49	50–99	100+
• Endoscopic retrograde cholangiopancreatography	1–29	30–59	60+
• Antroduodenal and full colonic motility studies	1–14	15–29	30+
• Esophageal dilation	1–49	50–99	100+
• Alternative Hemostasis Therapies	1-7	8-15	16+
Patient volume (max points = 60)			
• Intestinal rehabilitation program	1–44	45–89	90+
• Cystic fibrosis treatment program	1–99	100–199	200+
• Total parenteral nutrition support program	1–299	300–599	600+
• Pediatric intensive feeding program	1–299	300–599	600+
• Multidisciplinary childhood obesity program	1–299	300–599	600+
• Inflammatory bowel program	1–299	300–599	600+
• Multidisciplinary allergic disease program	1–149	150–300	300+
• Chronic liver disease program	1–199	200–399	400+
• Neurogastrointestinal/motility program	1–99	100–199	200+

(continued)

Table 7. Specialty-Specific Volume Measures (continued)

Gastroenterology & GI Surgery Volume Measures	Low Volume (1 point)	Medium Volume (2 points)	High Volume (3 points)
• Foreign body	1–49	50–99	100+
• Gastrointestinal bleeding	1–149	150–299	300+
• Pseudo-obstruction	1–12	13–24	25+
• Chronic intestinal failure	1–29	30–59	60+
• Chronic liver disease	1–69	70–139	140+
• Chronic pancreatitis	1–34	35–69	70+
• Biliary atresia	1–19	20–39	40+
• Portal hypertension	1–19	20–39	40+
• Celiac disease	1–149	150–299	300+
• Crohn's disease	1–249	250–499	500+
• Eosinophilic esophagitis	1–74	75–149	150+
Surgery volume (max points = 8)			
• Hepatoportoenterostomy or Kasai procedure	1–3	4+	—
• Bowel lengthening	1	2+	—
• Laparoscopic gastrointestinal surgeries	1–19	20+	—
• Bariatric surgery	1–3	4+	—

Neonatology Volume Measures	Low Volume (1 point)	Medium Volume (2 points)	High Volume (3 points)
Patient volume (max points = 21)			
• Congenital diaphragmatic hernia	1–5	6–11	12+
• Hirschsprung's disease treatment	1–4	5–9	10+
• Hypothermia treatment	1–8	9–17	18+
• Spina bifida treatment	1–7	8–15	16+
• Surgical care of gastroschisis	1–8	9–17	18+
• Repair of tracheoesophageal fistula	1–4	5–9	10+
• Cardiac surgeries	1–44	45–89	90+

(continued)

Table 7. Specialty-Specific Volume Measures (continued)

Nephrology Volume Measures	Low Volume (1 point)	Medium Volume (2 points)	High Volume (3 points)
Catheter procedure volume*, 2 years (max points = 15)			
• Permanent hemodialysis vascular central venous catheters placed in children < 5 years of age)	1–2	3-6	7+
• Permanent hemodialysis vascular central venous catheters placed in children, 5–19 years of age	1–9	10-17	18+
• Hemodialysis AV fistula/graft access placements in children, 5–19 years of age	1–3	4-7	8+
• Peritoneal dialysis catheters placed in children < 5	1–3	4-7	8+
• Peritoneal dialysis catheters placed in children and adolescents, 5–19	1–3	4-7	8+
Dialysis volume, 2 years (max points = 18)			
• Hemodialysis with children < 5 years of age	1–2	3-4	5+
• Hemodialysis with children 5–19 years of age	1–10	11-26	27+
• Peritoneal dialysis with children < 5 years of age	1–3	4–8	9+
• Peritoneal dialysis with children 5–19 years of age	1–6	7-20	21+
• Dialysis treatment volume in days (previous year)	1–249	250–499	500+
• Dialysis treatment volume in days (current year)	1–249	250–499	500+
Kidney biopsy volume, 2 years (max points = 9)			
• Native kidney percutaneous biopsies	1–50	51–99	100+
• Nonprotocol kidney transplant biopsies	1–20	21-54	55+
• Protocol kidney transplant biopsies	1–10	11–20	21+
Kidney transplant volume, 2 years (max points = 6)			
• Deceased-donor kidney transplant patients	1–8	9-17	18+
• Living-donor kidney transplant patients	1–7	8-16	17+
Patient volume, 2 years (max points = 36)			
• Acute kidney insufficiency	1–99	100–249	250+
• Primary nephrotic syndrome	1–29	30–59	60+
• Henoch-Schönlein purpura	1–10	11-47	48+
• Hemolytic uremic syndrome	1–10	11–23	24+

(continued)

Table 7. Specialty-Specific Volume Measures (continued)

Nephrology Volume Measures	Low Volume (1 point)	Medium Volume (2 points)	High Volume (3 points)
• Chronic kidney disease (nontransplant) Stages II–IV	1–39	40–79	80+
• Primary or essential hypertension	1–50	51–99	100+
• Polycistic kidney disease	1–19	20-45	46+
• Membranoproliferative glomerulonephritis	1–5	6-12	13+
• IgA nephropathy	1–10	11-36	37+
• Systemic lupus erythematosus with renal involvement	1–8	9-24	25+
• Membraneous nephropathy	1–5	6-15	16+
• Focal segmental glomerulosclerosis	1-5	6-12	13+

Neurology & Neurosurgery Volume Measures	Low Volume (1 point)	Medium Volume (2 points)	High Volume (3 points)
Epilepsy work up and care volume* (max points = 18)			
• Initial medical evaluations for epilepsy	1–599	600–1,199	1,200+
• Number of standard EEG evaluations	1–999	1,000–1,999	2,000+
• Number of long-term video EEG (vEEG) evaluations	1–599	600–1,199	1,200+
• Evaluations for surgery related to epilepsy	1–79	80–159	160+
• Number of first-time surgical procedures for epilepsy	1–24	25–49	50+
• VNS procedures for epilepsy	1–24	25–49	50+
Clinic patient volume (max points = 48)			
• Cerebal palsy/spasticity clinic	1–249	250–499	500+
• Cerebrovascular accident (stroke) program	1–49	50–99	100+
• Craniofacial surgical program	1–249	250–499	500+
• Movement disorders program	1–199	200–399	400+
• Neurofibromatosis clinic	1–69	70–139	140+
• Neuromuscular clinic	1–199	200–399	400+
• Neuro-oncology program	1–99	100–199	200+
• Spina bifida program	1-149	150-299	300+
• Tuberous sclerosis clinic	1–39	40–79	80+
• Brachial plexus clinic	1–49	50–99	100+
• Metabolic/white matter clinic	1-79	80-159	160+
• Neonatal neurology clinic	1–149	150–299	300+

(continued)

Table 7. Specialty-Specific Volume Measures (continued)

Neurology & Neurosurgery Volume Measures	Low Volume (1 point)	Medium Volume (2 points)	High Volume (3 points)
• Multidisciplinary spine program	1–199	200–399	400+
• Head trauma/post-concussion	1–199	200–399	400+
• New-onset seizures	1–299	300–599	600+
• Neuro-fetal program	1-29	30-59	60+
Surgical volume (max points = 33)			
• Brain tumors (benign/malignant)	1–34	35–69	70+
• Craniosynostosis	1–29	30–59	60+
• Hydrocephalus patient shunt procedures	1–49	50–99	100+
• Implantation of ICP monitors for head trauma	1–19	20–39	40+
• Medically intractable epilepsy	1–24	25–49	50+
• Spinal dysraphism	1–19	20–39	40+
• Chiari I malformation/syringomyelia	1–19	20–39	40+
• Endoscopic third ventriculostomy	1–24	25–49	50+
• Brachial plexus exploration/reconstruction	1-7	8-15	16+
• Spasticity	1–19	20–39	40+
• Vascular cases including endovascular procedures	1–24	25–49	50+

Orthopedics Volume Measures	Low Volume (1 point)	Medium Volume (2 points)	High Volume (3 points)
Patient volume (max points = 30)			
• Spina bifida clinic	1–149	150–299	300+
• Spasticity or cerebral palsy clinic	1–299	300–599	600+
• Skeletal dysplasia clinic	1–99	100–199	200+
• Brachial plexus clinic	1–59	60–119	120+
• Neurofibromatosis clinic	1–59	60–119	120+
• Muscular dystrophy clinic	1–149	150–299	300+
• Pain clinic	1–149	150–299	300+
• Sports medicine clinic	1–1,499	1,500–2,999	3,000+
• Sports concussion program	1-349	350-699	700+
• Scoliosis correction patients	1–74	75–149	150+

(continued)

Table 7. Specialty-Specific Volume Measures (continued)

Orthopedics Volume Measures	Low Volume (1 point)	Medium Volume (2 points)	High Volume (3 points)
Procedure volume* (max points = 48)			
• Motion laboratory evaluations	1–24	25–49	50+
• Developmental dysplasia of the hip	1–29	30–59	60+
• Perthes disease	1–9	10–19	20+
• Slip capital femoral epiphysis	1–24	25–49	50+
• Complex hip surgery, children ages 12–18	1–14	15–29	30+
• Clubfeet—minimally invasive treatment	1–9	10–19	20+
• Clubfeet—more extensive open procedure	1–14	15–29	30+
• Knee injury—anterior cruciate ligament repair	1–39	40–79	80+
• Brachial plexus injury—primary repair with patients < 1 years of age	1	2–3	4+
• Brachial plexus injury—secondary procedure with patients ≥ 1 years of age)	1–29	30–59	60+
• Operative reduction and fixation of the supracondylar fracture of the humerus	1–124	125–249	250+
• Operative reduction and fixation of the femur fractures with patients 6–12 years of age	1–19	20–39	40+
• Osteoarticular infections, including methicillin-resistant Staphylococcus (MRSA)	1–49	50–99	100+
• Operative reduction and fixation of both bone fractures of the forearm	1–34	35–69	70+
• Limb salvage for malignant tumors	1–19	20–39	40+
• Implantation of a Vertical Expandable Prosthetic Titanium Rib	1–7	8–15	16+

Pulmonology Volume Measures	Low Volume (1 point)	Medium Volume (2 points)	High Volume (3 points)
Nonsurgical procedure volume* (max points = 15)			
• 12 channel polysomnographic studies	1–699	700–1,399	1,400+
• Multiple sleep latency test (MSLT) studies	1–29	30–59	60+
• Non-invasive positive pressure ventilation support	1–99	100–199	200+
• Infant pulmonary function testing	1–19	20–39	40+
• Bronchoscopy	1–249	250–499	500+

(continued)

Table 7. Specialty-Specific Volume Measures (continued)

Pulmonology Volume Measures	Low Volume (1 point)	Medium Volume (2 points)	High Volume (3 points)
Patient volume (max points = 21)			
• Asthma inpatients	1–399	400–799	800+
• Asthma outpatients in subspecialty care clinics	1–1,499	1,500–2,999	3,000+
• Asthma outpatients in primary care clinics	1–1,499	1,500–2,999	3,000+
• CF patients	1–124	125–249	250+
• Chronic lung disease prematurity	1–59	60–119	120+
• Muscular dystrophy	1–39	40–79	80+
• Ventilator dependent patients	1–29	30–59	60+

Urology Volume Measures	Low Volume (1 point)	Medium Volume (2 points)	High Volume (3 points)
Minimally invasive procedure volume (max points = 12)			
• Shock wave lithotripsy	1–7	8-15	16+
• Laparoscopic orchiopexy	1-24	25-49	50+
• Robotic laparoscopic pediatric surgery	1-9	10-19	20+
• Laparoscopic pyeloplasty, nephrectomy, and partial nephrectomy	1-11	12-23	24+
Patient volume (max points = 24)			
• Pediatric urology outpatient visits (2 years)	1–7,999	8,000–15,999	16,000+
• Pediatric urology surgical patients	1–999	1,000–1999	2,000+
• Spina bifida program	1–124	125–249	250+
• Voiding dysfunction program	1–599	600–1,199	1,200+
• Comprehensive stone program	1–99	100–199	200+
• Prenatal program	1–99	100–199	200+
• Disorders of sexual differentiation program	1–49	50–99	100+
• Exstrophy/cloaca/GU sinus program	1–49	50–99	100+
Surgery volume (max points = 20)			
• Open pyeloplasty	1–19	20+	n/a
• Radical nephrectomy	1–4	5+	n/a
• Open heminephrectomy, ureteral reimplantation, or ureteroureterostomy for patients with duplication anomalies of the kidney	1–19	20+	n/a

(continued)

Table 7. Specialty-Specific Volume Measures (continued)

Urology Volume Measures	Low Volume (1 point)	Medium Volume (2 points)	High Volume (3 points)
• Laparoscopic heminephrectomy, ureteral reimplantation, or ureteroureterostomy for patients with duplication anomalies of the kidney	1–4	5+	n/a
• Newborn exstrophy closures	1–2	3+	n/a
• Reconstructive procedures for incontinence or hostile bladder - open	1–39	40+	n/a
• Reconstructive procedures for incontinence or hostile bladder- laparascopic	1-9	10+	n/a
• Posterior urethral valve ablation	1–8	9+	n/a
• Proximal urethroplasty for hypospadias	1–44	45+	n/a
• Female reconstructive procedures	1–5	6+	n/a

n/a = not applicable.
* Volume represents procedures, not patients.
[a] Jenkins KJ, Gauvreau K, Newburger JW, Spray TL, Moller JH, & Iezzoni LI. Consensus-based method for risk adjustment for surgery for congenital heart disease. *Journal of Thoracic Cardiovascular Surgery.* 2002; 123:110–118.
[b] Jenkins KJ. Risk adjustment for congenital heart surgery: The RACHS-1 method. *Seminar in Thoracic Cardiovascular Surgery Pediatric Cardiology Surgery Annual.* 2004; 7:180–184.

B. Normalization

Starting with the 2012-13 rankings, all structural measures underwent normalization prior to weighting. Normalization transforms index values into a distribution between 0 and 1 based on the range of possible values for a given measure. The formula for normalization is provided in Equation (1):

Equation (1) $$Normalized\ Value = X_i)/Maximum_i,$$

where

X_i = the value for measure *i*, and

$Maximum_i$ = the highest *possible* value for measure *i*.

For example, the Urology patient volume measure is worth a maximum of 24 points. If a given hospital received 18 out of 24 points, the normalized value for Urology patient volume would be (18/24) = 0.75. For nurse-patient ratio, without an absolute maximum, we capped the maximum value at 4.0 to reduce skewness in the data.

C. Weighting

For the 2012-13 rankings, we convened a special panel to provide feedback on the weighting of each measure within the three major rankings components. This evaluation was conducted both across specialties, to build in a degree of consistency in weighting, and within specialties, to identify keys to quality in a particular specialty. Overall, the weights were determined using input from the project team and working groups based on how important each measure was in defining the Donabedian components of quality of care within hospitals. The weights were revised slightly for the 2013-14 rankings based on changes to the measures used in each specialty.

Table 8 shows the actual weight for each of the measures that make up the structural component of the rankings, by specialty. The sum of the structural weights is 33.3% of the overall score for all specialties.

Table 8. Weight, in %, of Structural Measures by Specialty

Measure	Cancer	Cardiology & Heart Surgery	Diabetes & Endocrinology	Gastroenterology & GI Surgery	Neonatology	Nephrology	Neurology & Neurosurgery	Orthopedics	Pulmonology	Urology
Accredited for BMT and tissue transplant	2.2									
Adoption of health information technology	1.4	1.4	1.8	1.7	1.9	1.6	1.8	1.9	1.5	1.8
Adult congenital heart program		1.8								
Advanced clinical services	1.4	1.4	1.8	1.7	1.9	1.6	1.8	1.9	1.5	1.8
Advanced technologies	1.4	1.4	1.8	1.7	1.9	1.6	1.8	1.9	1.5	1.8
Asthma management success									1.9	
Availability of subspecialists	1.4	1.4	1.8	1.7	1.9	1.6	1.8	1.9	1.5	1.8
Bone marrow transplant services	1.4									
Catheter procedure volume		1.4				1.6				
Clinical support services	1.4	1.4	1.8	1.7	1.9	1.6	1.8	1.9	1.5	1.8

(continued)

Table 8. Weight, in %, of Structural Measures by Specialty (continued)

Measure	Cancer	Cardiology & Heart Surgery	Diabetes & Endocrinology	Gastroenterology & GI Surgery	Neonatology	Nephrology	Neurology & Neurosurgery	Orthopedics	Pulmonology	Urology
Commitment to clinical research	1.8	1.8	2.2	2.1	2.3	2.0	2.2	2.3	2.2	2.6
Commitment to quality improvement	2.2	2.2	2.7	2.5	2.8	2.4	2.7	2.8	2.2	2.6
Congenital heart program		1.8								
Diabetes care options			1.8							
Dialysis volume						1.6				
Efforts to involve families	1.8	1.8	2.2	2.1	2.3	2.0	2.2	2.3	1.9	2.2
Epilepsy workup and care volume							1.8			
Fellowship programs	1.8	1.8	2.2	2.1	2.3	2.0	2.2	2.3	2.2	2.2
Heart transplant program		1.8								
Heart-lung machine for newborns (ECMO)					1.9					
Kidney biopsy volume						1.6				
Kidney transplant volume						1.6				
Liver transplant program				1.7						
Lung transplant program									1.9	
Management of lung disease of prematurity									1.9	
Management of neuro-muscular weakness disorder									1.9	
New-patient/clinic volume	1.4						1.8			
Norwood surgery volume		1.4								
Nurse Magnet recognition	2.9	2.2	2.7	2.5	2.8	2.4	2.7	2.8	2.2	2.6
Nurse-patient ratio	2.9	2.9	3.6	3.4	3.8	3.2	3.6	3.8	3.0	3.5
Palliative care program	2.2									
Patient and family services	1.4	1.4	1.8	1.7	1.9	1.6	1.8	1.9	1.5	1.8
Patient volume	1.4		1.8	1.7	1.9	1.6		1.9	1.5	1.8

(continued)

Table 8. Weight, in %, of Structural Measures by Specialty (continued)

Measure	Cancer	Cardiology & Heart Surgery	Diabetes & Endocrinology	Gastroenterology & GI Surgery	Neonatology	Nephrology	Neurology & Neurosurgery	Orthopedics	Pulmonology	Urology
Procedure volume			1.8	1.7				1.9	1.5	1.8
Specialized clinics and programs	1.4	1.4	1.8	1.7	1.9		1.8	1.9		1.8
Surgery volume	1.4	2.2		1.7			1.8			1.8
Transplants to dialysis patients						2.0				
Total*	**33.3**	**33.3**	**33.3**	**33.3**	**33.3**	**33.3**	**33.3**	**33.3**	**33.3**	**33.3**

* The sum of individual measures may not equal 33.3 due to rounding.

V. Process

The process component in Best Children's Hospitals is represented by three measures—commitment to best practices, a specified infection-prevention program, and reputation with pediatric specialists. Together, they are worth one-third of the overall score.

A. Commitment to Best Practices

This measure evaluates hospitals' commitment to following and implementing best practices. Best practices were identified for all specialties. ***Table 9*** identifies the best practices identified for each specialty and the number of points awarded.

Table 9. Commitment to Best Practices, by Specialty

Cancer (22 points)	Points
Participating in regular morbidity and mortality conferences	1 point
Having multidisciplinary tumor boards that meet at least quarterly to discuss the following patient populations in active treatment:	
• Hematologic malignancy • Solid tumor • Brain tumor	Up to 3 points
Promoting ease of access through the following mechanisms:	
• Satellite offices and/or outreach clinics • Affiliate programs to assist patients facing barriers to care/community-based follow-up care • Multidisciplinary clinics allowing patients to see multiple care providers in a single visit	Up to 3 points
Percentage of patients presenting with febrile neutropenia who receive intravenous antibiotics within one hour of initial triage	1 pt: ≥ 50% & < 75% 2 pt: ≥ 75% & < 90% 3 pt: ≥ 90%
Having case managers (comprising nurse practitioners, physician assistants, or clinical nurses) spend 25% or more of their time in care for the following patient populations:	
• Hematologic malignancies • Solid tumors • Brain tumors • Stem cell transplants	Up to 4 points
Percentage of patients who were seen by the cancer program staff in a formally structured late effects of off-therapy clinic within 5 years after the cessation of active treatment	1 pt: ≥ 50% & < 75% 2 pt: ≥ 75%
Engaging in activities designed to ensure high reliability:	
• All clinical staff are trained in code response using simulations or other team trainings • Team trainings include clear instructions and demonstration of roles and lines of communication • Team trainings are videotaped to allow for review of performance and needs for improvement • Team trainings include critical event debriefing or team discussions that focus on identifying what worked well and where improvement is needed • All team trainings end with the development of an action plan to address problems identified during the training or simulation	Up to 5 points
Offering an on-site code team to address emergencies in outpatient cancer treatment clinics	1 point

(continued)

Table 9. Commitment to Best Practices, by Specialty (continued)

Cardiology & Heart Surgery (27 points)	Points
Offering the following conferences/programs:	
• Multidisciplinary morbidity and mortality conferences • Multidisciplinary maternal/fetal medicine conferences • Active home surveillance program for infants after Stage 1 palliation for hypoplastic left heart syndrome • A follow-up program for children with complex congenital heart disease or at risk for adverse neurodevelopmental outcomes	Up to 4 points
Engaging in the following surgical safety procedures:	
• Conventional pre-procedural "time-out" • Pre-procedural briefings • Post-procedural debriefings • Implementation of a hand-off protocol or briefing	Up to 4 points
Using clinical practice guidelines to manage perioperative and postoperative care for the following patient populations:	
• Single ventricle/shunt management • Two ventricle repairs • Infant feeding • Anticoagulation with Coumadin	Up to 4 points
Routinely tracking and reporting the following surgical admission outcomes parameters:	
• Unplanned reoperation during the same hospital admission • Re-exploration for bleeding • Deep sternal wound infection/mediastinitis requiring debridement • Atrioventricular block requiring placement of a permanent pacemaker	Up to 4 points
Number of pediatric cardiothoracic surgeons with subspecialty certification in congenital heart surgery	1 pt: 1 surgeon 2 pt: 2+ surgeons
Percent of Norwood Stage 1 surgery patients in the last 4 years alive 1 year after surgery who had a neurodevelopment evaluation between 9 and 15 months of age:	
• At least 75% of patients with evaluation (Year 1) • At least 75% of patients with evaluation (Year 2) • At least 75% of patients with evaluation (Year 3) • At least 75% of patients with evaluation (Year 4)	4 points

(continued)

Table 9. Commitment to Best Practices, by Specialty (continued)

Cardiology & Heart Surgery (27 points)	Points
Engaging in activities designed to ensure high reliability:	
• All clinical staff are trained in code response using simulations or other team trainings • Team trainings include clear instructions and demonstration of roles and lines of communication • Team trainings are videotaped to allow for review of performance and needs for improvement • Team trainings include critical event debriefing or team discussions that focus on identifying what worked well and where improvement is needed • All team trainings end with the development of an action plan addressing problems identified during training or simulation	Up to 5 points

Diabetes & Endocrinology (63 points)	Points
Having a mechanism to take urgent phone calls from pediatric patients' families that provides them with access to healthcare providers 24 hours a day	1 point
Percent of diabetes inpatients (treated with insulin) admitted to other services, but seen by providers in the pediatric diabetes program	Up to 3 points: 1pt: ≥ 50% & < 75% 2pt: ≥ 75% & < 90% 3pt: ≥ 90%
Having a formal written transition program to prepare pediatric patients for the transition to adult endocrinology	1 point
Percentage of diabetes patients receiving a written (or electronic) report of their diagnosis/findings and a treatment plan at the conclusion of their most recent visit:	
• Inpatients • Outpatients	Up to 6 points: 1pt: ≥ 50% & < 75% 2pt: ≥ 75% & < 90% 3pt: ≥ 90%
Having a clinical database of attributes of current, active diabetes patients that is used for quality assessment and improvement	1 point
Having a written plan to review inpatient incidents of insulin-related hypoglycemia requiring IV glucose treatment	1 point

(continued)

Table 9. Commitment to Best Practices, by Specialty (continued)

Diabetes & Endocrinology (63 points)	Points
Having written consensus protocols for management of the following patient populations:	
• Inpatient management of diabetic ketoacidosis • Glucagon minidose for families • Insulin therapy during illness for families • Periodic screening for complications of diabetes in the outpatient clinic • Prompting evaluation of hyperglycemia in critically ill inpatients • Outpatient management of type 2 diabetes patients • Outpatient management of pre-diabetes patients who typically have obesity and insulin resistance	Up to 7 points
Performing care review for all inpatients with diabetes at an interdisciplinary team prior to discharge	1 point
Having regularly scheduled interdisciplinary care conferences to discuss diabetes patients with poor control	1pt: 1–11 times/year 2pt: 12+ times/year
Point of care testing for:	
• Hemoglobin A1c • Blood glucose • Blood or urine ketones	Up to 3 points
Percentage of primary diabetes care patients with documentation of the following results:	
• Blood pressure measurement at each visit • Hemoglobin A1c measurement, 3 or more times in the past c12 months • Height and weight at each visit	Up to 9 points: 1pt: ≥ 50% & < 75% 2pt: ≥ 75% & < 90% 3pt: ≥ 90%
Points were awarded based on the percentage of patients meeting each condition:	
• Percentage of primary diabetes care patients treated in the past 12 months attending four or more diabetes outpatient clinic visits • Percentage of type 1 diabetes outpatients with daily glucose blood glucose measurements available for review for the past 2 weeks. • Percentage of diabetes patients over age 10 with documentation of microalbumin screening • Percentage of diabetes patients over age 10 with documentation of non-mydriatic camera examination	Up to 12 points: 1pt: ≥ 50% & < 75% 2pt: ≥ 75% & < 90% 3pt: ≥ 90%
Providing patient education materials on various conditions in written form or on the hospital website	1 point
Discussing thyroid cancer patient cases in active treatment at a tumor board at least once a quarter	1 point
Diabetes staff taking a leadership role in organizing and running a diabetes camp	1 point

(continued)

Table 9. Commitment to Best Practices, by Specialty (continued)

Diabetes & Endocrinology (63 points)	Points
Using a clinical database used by the program to evaluate performance	1 point
Percentage of patients admitted to the hospital in the past year with an endocrine disorder that were seen by a physician in the pediatric endocrinology program	Up to 2 points: 1pt: ≤50% 2pt: >50%
Recognition by American Diabetes Association or American Association of Diabetes Educators as of Dec. 31, 2012	1 point
Using Harpenden (or wall-mounted) Stadiometers at clinic sites	1 point
Having a written plan for formal transition for Type 1 diabetes patients from pediatric to adult endocrinology care	1 point
Having regularly scheduled conferences with a neuroradiologist to review all brain and pituitary MRIs	1 point
Implementing a policy where all bone age films ordered by Pediatric Endocrinologists are personally viewed, interpreted, and documented by a member of the program	1 point
Engaging in activities designed to ensure high reliability:	
• All clinical staff are trained in code response using simulations or other team trainings • Team trainings include clear instructions and demonstration of roles and lines of communication • Team trainings are videotaped to allow for review of performance and needs for improvement • Team trainings include critical event debriefing or team discussions that focus on identifying what worked well and where improvement is needed • All team trainings end with the development of an action plan to address problems identified during the training or simulation	Up to 5 points

Gastroenterology & GI Surgery (4 points)	Points
Having regular, multidisciplinary morbidity and mortality conferences for pediatric GI patients	1 point
Having a standard mechanism to determine if complications have occurred in patients who underwent outpatient GI procedures	1 point
Having 1 or more IRB-approved protocols that provide GI patients access to drugs or devices through compassionate use	1 point
Providing patient education material for various disease-specific GI conditions in written form or on the hospital website	1 point

(continued)

Table 9. Commitment to Best Practices, by Specialty (continued)

Neonatology (49 points)	Points
Patient load per staff person:	
• Nurse practitioners or physician assistants	Up to 2 points: 1 pt: ≥ 9 2 pt: < 9
• Neonatologists • Nutritionists • Licensed independent contractor (attending, fellow, resident, or NNP/PA) on the night shift • Social workers	Up to 4 points: 1 pt: ≥ 20 2 pt: < 20
	Up to 4 points: 1 pt: ≥ 15 2 pt: < 15
Percent of direct clinical care RNs who are nationally certified in neonatal intensive care	Up to 2 points: 1 pt: ≥ 50% & <75% 2 pt: ≥ 75%
Engaging in the following interaction with hospital's NICU:	
• All high-risk newborn cardiac patients receiving a neonatology consult • All preterm patients receiving a neonatology consult • Neonatology fellows rotating through NICU	Up to 3 points
Providing a percutaneous intravenous central catheter (PICC) team with specialized training to place and maintain PICC lines in NICU patients	1 point
Availability of providing PICC line placement services	Up to 2 points 1 point: day shift or other 2 points: 24/7 coverage
Offering at least one training on the following protocols for NICU procedures in the simulation/training lab:	
• Neonatal code response • Chest tube placement • Intubation • Neonatal resuscitation • ECMO simulation training • Exchange transfusion simulation training • Other training	Up to 7 points

(continued)

Table 9. Commitment to Best Practices, by Specialty (continued)

Neonatology (49 points)	Points
Having at least 75% of neonatal fellows complete training in the following procedure protocols:	
• Chest tube placement • Intubation • Neonatal resuscitation program	Up to 3 points
Having at least 75% of neonatal nurse practitioners, physician assistants and hospitalist team members complete training in the following procedure protocols:	
Chest tube placement	Up to 3 points
Intubation	
Neonatal resuscitation program	
Number of standardized hand-off tools used by physicians and physician extenders to inform clinical staff during shift transitions	Up to 2 points: 1 point: 1-2 tools 2 points: 3-4 tools
Number of standardized hand-off tools used by nurses to inform clinical staff during shift transitions	Up to 2 points: 1 point: 1 tool 2 points: 2-3 tools
Engaging in activities designed to ensure high reliability:	
• All clinical staff are trained in code response using simulations or other team trainings • Team trainings include clear instructions and demonstration of roles and lines of communication • Team trainings are videotaped to allow for review of performance and needs for improvement • Team trainings include critical event debriefing or team discussions that focus on identifying what worked well and where improvement is needed • All team trainings end with the development of an action plan to address problems identified during the training or simulation	Up to 5 points
Recording the first temperature on return to the NICU after OR procedure	1 point
Percentage of temperatures under 36°C	Up to 2 points: 1 point: 15-20% 2 points: <15%
Having a multidisciplinary quality review process to evaluate unintended extubation of NICU patients	1 point
Frequency of quality review process; • 1 points for a multidisciplinary review at some regular interval • 2 point for a Mini-Root Cause Analsyes review within 12 hours	Up to 3 points

(continued)

Table 9. Commitment to Best Practices, by Specialty (continued)

Neonatology (49 points)	Points
Tracking the 48- or 72-hour readmission rate for NICU	1 point
Conducting multidisciplinary review of readmissions to determine if preventable	1 point

Nephrology (27 points)	Points
Engaging in activities designed to ensure high reliability:	
• All clinical staff are trained in code response using simulations or other team trainings • Team trainings include clear instructions and demonstration of roles and lines of communication	Up to 5 points
• Team trainings are video-taped to allow for review of performance and needs for improvement	
• Team trainings include critical event debriefing or team discussions that focus on identifying what worked well and where improvement is needed	
• All team trainings end with the development of an action plan to address problems identified during the training or simulation	
Percentage of school-age pediatric dialysis patients enrolled in a school or vocational rehabilitation program	Up to 2 points 1 point: <50% 2 points: ≥ 50%
Participating in regular interdisciplinary clinical conferences to review and coordinate the care of patients in the following specialties:	
• Urology/Uroradiology • Renal pathology • Rheumatology	Up to 3 points
Providing the following services in support of the pediatric dialysis unit:	
• Designated medical director board-certified in pediatric nephrology • Continuous Quality Improvement activities discussed independently from the adult dialysis service • Pediatric maintenance dialysis patients receive treatment in a unit independent from adult patients • Dedicated nursing staff with formal training in pediatric dialysis • At-home maintenance hemodialysis program for adolescents • Ambulatory blood pressure monitoring • At-home maintenance peritoneal dialysis program • Plasmapharesis program	Up to 8 points

(continued)

Table 9. Commitment to Best Practices, by Specialty (continued)

Nephrology (50 points)	Points
Offering a formal transition program for kidney transplant patients from pediatric to adult care when needed	1 point
Offering a formal transition program for dialysis patients into adult care when needed	1 point
Percentage of living donor nephrectomies conducted via laparoscopic procedure	1 point: ≤ 50% 2 points: > 50%
Reviewing the care of all kidney transplant inpatients at an interdisciplinary care conference	1 point
Maintaining a database of current kidney transplant patients with clinical data to allow for quality assessment and improvement of care	1 point
Offering the following programs to support pediatric patients undergoing kidney transplant:	
• Quality of life assessment • Child life program for kidney transplant patients • Transplant pharmacist	Up to 3 points

Neurology & Neurosurgery (17 points)	Points
Conducting pre- and postsurgical neuropsychological evaluations for surgical patients with the following diagnoses:	
• Benign or malignant brain tumors • Traumatic brain injury/concussion • Medically intractable epilepsy • Craniofacial disorders	Up to 4 points
Participating in the Hydrocephalus Clinical Research Network or the Pediatric National Surgical Quality Improvement Program	1 point
Participating in the National Healthcare Safety Network	1 point
Having an epilepsy program designated Level IV by National Association of Epilepsy Centers	1 point
Engaging in the following activities	
• Maintaining a surgical mortality database • Holding regular mortality and morbidity conferences • Regularly holding interdisciplinary care conferences	Up to 3 points
Having ≥ 75% of EEG tests incorporated into the patients' medical chart within 36 hours:	
• Standard EEG medical evaluations for epilepsy within 36 hours • Long-term vEEG evaluations for epilepsy within 5 days from discharge	Up to 2 points

(continued)

Table 9. Commitment to Best Practices, by Specialty (continued)

Neurology & Neurosurgery (17 points)	Points
Engaging in activities designed to ensure high reliability:	
• All clinical staff are trained in code response using simulations or other team trainings • Team trainings include clear instructions and demonstration of roles and lines of communication • Team trainings are videotaped to allow for review of performance and needs for improvement • Team trainings include critical event debriefing or team discussions that focus on identifying what worked well and where improvement is needed • All team trainings end with the development of an action plan to address problems identified during the training or simulation	Up to 5 points

Orthopedics (21 points)	Points
Number of pediatric orthopedic surgeons who are active or candidate members of the Pediatric Orthopaedic Society of North America	1 point: 1–2 2 points: 3+
Providing a pediatric imaging center with the following services:	
• Pediatric protocols to reduce radiation exposure	Up to 5 points
• Ultrasonographers with specialized training to perform hip exams • Remote retrieval of test results, images, and medical records from locations off-site or away from the hospital • Intraoperative navigation system • Upright whole body low dose radiography system for evaluating scoliosis	
Participating in a Tumor Board	1 point
Participating in regular multidisciplinary morbidity and mortality conferences	1 point
Using SRS-22 questionnaire with patients pre- and postoperatively	1 point
Percent compliance with written checklists and/or evidence based guidelines for patients with the following orthopedic injuries:	
• Neurological injury associated with surgery for idiopathic scoliosis • Neurovascular injuries associated with supracondylar fractures or dislocation of the knee • Acute spine injury	Up to 6 points: 1 point: ≥70 and <85% 2 points: ≥ 85%

(continued)

Table 9. Commitment to Best Practices, by Specialty (continued)

Orthopedics (21 points)	Points
Engaging in activities designed to ensure high reliability:	
• All clinical staff are trained in code response using simulations or other team trainings • Team trainings include clear instructions and demonstration of roles and lines of communication • Team trainings are videotaped to allow for review of performance and needs for improvement • Team trainings include critical event debriefing or team discussions that focus on identifying what worked well and where improvement is needed • All team trainings end with the development of an action plan to address problems identified during the training or simulation	Up to 5 points

Pulmonology (24 points)	Points
Having written consensus protocols for the following conditions:	
• Asthma exacerbations • Bronchiolitis • Croup • Cystic fibrosis • Pneumonia • Tracheostomy or ventilator-dependent patients	Up to 6 points
Routinely involve pulmonologists in outpatient management of pediatric patients with the following conditions:	
• Sickle cell anemia • Primary immunodeficiency and/or post–bone marrow transplantation • Rheumatologic disorders	Up to 3 points
Engaging in activities designed to ensure high reliability:	
• All clinical staff are trained in code response using simulations or other team trainings • Team trainings include clear instructions and demonstration of roles and lines of communication • Team trainings are videotaped to allow for review of performance and needs for improvement • Team trainings include critical event debriefing or team discussions that focus on identifying what worked well and where improvement is needed • All team trainings end with the development of an action plan to address problems identified during the training or simulation	Up to 5 points

(continued)

Table 9. Commitment to Best Practices, by Specialty (continued)

Pulmonology (24 points)	Points
Offering an asthma clinic that routinely engages in the following practices:	
• Track medication refill rates of asthma controller and rescue medications • Utilize case management to coordinate visits and transportation and to ensure that medications are available • Perform home visits to assess patient's environment • Ask families about use and exposure of the patient to tobacco smoke • Actively counsel (or refer) family members who smoke to tobacco cessation programs or treatment • Assess for cataract formation in patients on frequent systemic corticosteroids • Assess bone density in patients on frequent systemic corticosteroids and/or high dose inhaled corticosteroids • Assess for adrenal suppression in patients on frequent systemic corticosteroids and/or high dose inhaled corticosteroids • Assess height velocity at each visit	Up to 9 points
Evaluate the adherence of patients on nocturnal non-invasive positive pressure ventilation treatment	1 point

Urology (9 points)	Points
Engaging in activities designed to ensure high reliability:	
• All clinical staff are trained in code response using simulations or other team trainings • Team trainings include clear instructions and demonstration of roles and lines of communication • Team trainings are videotaped to allow for review of performance and needs for improvement • Team trainings include critical event debriefing or team discussions that focus on identifying what worked well and where improvement is needed • All team trainings end with development of action plan to address problems identified during the training or simulation	Up to 5 points
Having regular morbidity and mortality conferences to discuss pediatric urology patients	1 point
Having regular case conferences to discuss surgical management of complex cases	1 point
Having a formal program for tracking surgical site infections for major urological procedures	Up to 2 points

B. Use of Infection-Preventing Measures

Incorporating infection-preventing measures captures the commitment of a hospital to reducing the risk of infection to a child.

All-Specialty Infection-Preventing Measures

A core set of submeasures for all specialties was worth up to 19 points, as shown in ***Table 10***. Specialty-specific measures in all specialties except Neonatology and Urology allowed an additional 4–30 points, depending on the specialty.

Specialty-Specific Infection Prevention Measures

Cancer (4 additional points). Hospitals received 1 point for actively tracking seasonal influenza vaccinations in leukemia patients. Up to 3 additional points were awarded for the percentage vaccinated as follows: 1 point for ≥ 50% and < 75%; 2 points for ≥ 75% and < 90%; 3 points for ≥ 90%.

Cardiology & Heart Surgery (5 additional points). Hospitals received 2 points for formally monitoring surgical site infections (SSIs) for major cardiothoracic procedures. Hospitals also received 1 point for actively tracking preoperative antibiotic prophylaxis. Up to 2 additional points were awarded for the percentage of compliance as follows: 1 point if ≥ 75% and < 90%; 2 points if ≥ 90%.

Diabetes & Endocrinology (4 additional points). Hospitals received 1 point for actively tracking seasonal influenza vaccinations in diabetes outpatients. Up to 3 additional points were awarded for the percentage vaccinated as follows: 1 point for ≥ 50% and < 75%, 2 points for ≥ 75% and < 90%, and 3 points for ≥ 90%.

Gastroenterology & GI Surgery (8 additional points). Hospitals received 1 point each (up to 2 points) for actively tracking seasonal influenza vaccinations for short-gut patients and/or liver-transplant patients. Up to 3 additional points were awarded for each of the 2 groups (up to 6 points) for the percentage vaccinated as follows: 1 point for ≥ 50% and < 75%, 2 points for ≥ 75% and < 90%, and 3 points for ≥ 90%.

Neonatology (0 additional points). There are currently no additional infection prevention measures in Neonatology.

Nephrology (25 additional points). Hospitals received 1 point each (up to 6 points) for actively tracking seasonal influenza and pneumococcal vaccinations for hemodialysis patients, peritoneal patients, and kidney transplant patients. Up to 3 additional points were awarded for each of the 6 groups (up to 18 points) for the percentage vaccinated as follows: 1 point for ≥ 50% and < 75%, 2 points for ≥ 75% and < 90%, and 3 points for ≥ 90%. One additional point was awarded

for tracking dialysis catheter associated BSI rates using NHSN guidelines for pediatric outpatients on maintenance dialysis.

Table 10. Core Infection Prevention Measures—All Specialties (19 services)

All Specialties (19 points)	Points
Percentage of compliant hand hygiene observations in the past 12 months	1 pt: ≥ 80% & < 90% 2 pt: ≥ 90%
Providing at least .50 full-time equivalent (FTE) financial support for a pediatric infectious disease specialist to serve as a dedicated director of the infection prevention program	1 point
Having at least 1.0 FTE infection preventionists	1 point
Receiving certification from the Certification Board in Infection Control of at least 75% of the hospital's infection preventionists	1 point
Ensuring that at least 75% of the following staff received an influenza vaccination: • Physicians (including attendings, fellows, residents) • Nursing staff and mid-level providers • All other employees	Up to 3 points
Ensuring that at least 50% of the following staff received an Tdap vaccination: • Physicians (including attending, fellows, residents) • Nursing staff and mid-level providers	Up to 2 points
Having the following elements of antimicrobial stewardship program: • Publishing a yearly antimicrobial susceptibility summary that is readily available to clinicians • Restricting pharmacy use of selected antimicrobial agents to prevent resistance patterns that may develop from overuse • Implementing prospective audit and feedback • Providing a dedicated pharmacist to the antimicrobial stewardship program (ASP) • FTE support for the role of medical director of the pediatric ASP program • Microbiology laboratory that restricts reporting of susceptibilities to some antimicrobials to prevent overuse • Conducting intravenous (IV) to oral (PO) conversions	Up to 7 points
Performing surveillance for 1 or more respiratory viruses	1 point
Having a formal program to prevent hospital-acquired pressure ulcers	1 point

Neurology &Neurosurgery (7 additional points). Hospitals received 1 point for actively tracking preoperative antibiotic prophylaxis. Up to 2 additional points were awarded for the percentage of compliance as follows: 1 point if ≥ 75% and < 90%; 2 points if ≥ 90%. Hospitals received 1 point for actively tracking SSIs for ventricular shunt surgeries. Up to 3 additional points were awarded for evaluating the percentage of SSIs for shunt placements and revision surgeries for

shunt placements occurring within 90 days as follows: 1 point if > 9% and ≤ 15%; 2 points if > 3% and ≤ 9%; 3 points if ≤ 3%.

Orthopedics (4 additional points). Hospitals received 1 point for actively tracking preoperative antibiotic prophylaxis. Up to 2 additional points were awarded for the percentage of compliance as follows: 1 point if ≥ 75% and < 90%; 2 points if ≥ 90%. Hospitals received 1 point for actively monitoring SSIs using NHSN criteria.

Pulmonology (21 additional points). Hospitals received 1 point each (up to 4 points) for actively tracking seasonal influenza vaccinations for asthma patients, cystic fibrosis patients, neuromuscular weakness disorder patients or ventilator-dependent patients. Hospitals received 1 point for tracking pneumococcal vaccinations for ventilator-dependent patients. Up to 3 additional points were awarded for each of the 5 groups (up to 15 points) for the percentage vaccinated as follows: 1 point for ≥ 50% and < 75%; 2 points for ≥ 75% and < 90%; 3 points for ≥ 90%. Hospitals received 1 additional point for implementing infection control guidelines recommended by the Cystic Fibrosis Foundation.

Urology (0 additional points). There are currently no additional infection prevention measures in Urology.

C. Reputation With Pediatric Specialists

Reputation can be viewed as a form of peer review of the hospital's capabilities across a wide variety of processes related to quality of care. For all specialties, reputational scores were based on responses to the physician surveys in 2011, 2012, and 2013.

The 2013 survey sample consisted of 1,500 board-certified pediatric specialists selected from the American Board of Medical Specialties (ABMS).[§§] Stratifying by census region (http://www.census.gov/geo/www/us_regdiv.pdf) and by specialty within region, we selected a probability (i.e., random) sample of 150 specialists for each of the 10 specialty areas. The final sample included federal and nonfederal medical and osteopathic physicians in all 50 states and the District of Columbia.

Eligibility Requirements

To define a probability sample of physicians who properly represented the 10 specialty groupings, we used (1) a mapping between the 10 *U.S. News* specialties and the 23 ABMS member

[§§] For details on the 2010 and 2011 surveys, please see the 2010 and 2011 methodology reports, which are available from www.rti.org/besthospitals.

boards, and (2) a mapping between the ABMS specialty and specialty boards. For two subspecialties that were not available from the ABMS, physicians were selected from the American Medical Association Physician Masterfile. Physicians who designated a primary specialty in one of the areas listed were eligible for the survey. ***Table 11*** displays the association among the specialty listed in Best Children's Hospitals and the corresponding member board.

Table 11. Physician Sample Mapping

Best Hospitals Specialty	American Board of	Subspecialties
Cancer	Pediatrics	Pediatric Hematology-Oncology
Cardiology & Heart Surgery	Pediatrics	Pediatric Cardiology
	Congenital Heart Surgery	Congenital Heart Surgeon Society*
Gastroenterology & GI Surgery	Pediatrics	Pediatric Gastroenterology
Diabetes & Endocrinology	Pediatrics	Pediatric Endocrinology
Neonatology	Pediatrics	Neonatal-Perinatal Medicine
Nephrology	Pediatrics	Pediatric Nephrology
Neurology & Neurosurgery	Pediatrics	Neuro-developmental Disabilities
	Psychiatry and Neurology	Child Neurology
	Pediatric Neurological Surgery	Pediatric Neurological Surgery
Orthopedics	Orthopedics	Pediatric Orthopedics**
Pulmonology	Pediatrics	Pediatric Pulmonary
Urology	Urology	Pediatric Urology

* These specialists were selected from the Congenital Heart Surgeons Society membership list.
** These specialists were selected from the American Medical Association Physician Masterfile as self-designated specialists.

Survey Procedure

Materials

Each year, sampled physicians in each specialty were mailed a one-page, single-sided questionnaire containing a single nomination element. Respondents were asked to supply the names of up to ten hospitals in their specialty that provide the best care to patients with serious conditions, without considering location or expense (see ***Appendix B***). Along with the questionnaire, physicians were sent a cover letter, a business reply envelope, and a $2 bill (an incentive since the first Best Hospitals rankings in 1990).

Mailings

The physician survey mailings were conducted in stages over several weeks starting at the beginning of 2013. For 2013, we conducted an experiment where 60% of the sample was assigned to a mail-only data collection approach and the remaining 40% of the sample received a web/mail mixed-mode data collection approach. The purpose of the experiment was to explore the effectiveness of emailing physicians to complete the survey on the web. Of those in the web/mail mixed mode group, half of the sample received a $2 incentive with the prenotification letter and the remaining half received no incentive. The purpose of the second experiment was to determine whether incentives were effective in increasing web response rates. Table 12 and Table 13 show the mailing schedule and approach for the two experimental groups. Results of the two experiments were presented in May, 2013 at the annual conference of the American Association for Public Opinion Research (AAPOR) in Boston, MA.

Table 12. Physician Survey Mailing Schedule (Mail Only)

Materials Mailed	Sent via	Materials included	Date
1st copy of physician survey	USPS, First Class mail	Cover letter, survey, return envelope, $2 incentive	January 2, 2013
2nd copy of physician survey	USPS, First Class mail	Cover letter, survey, return envelope	January 15, 2013
3rd copy of physician survey	USPS, Priority mail	Cover letter, survey, return envelope	January 29, 2013
4th copy of physician survey	Federal Express	Cover letter, survey, return envelope	February 11, 2013

Table 13. Physician Survey Mailing Schedule (Web/Mail)

Materials Mailed	Sent via	Materials included	Date
Prenotification Letter	USPS, First Class mail	Cover letter, $2 incentive	January 2, 2013
Initial email invitation	Email	Email with link to web survey	January 9, 2013
Email reminder	Email	Email with link to web survey	January 15, 2013

2013 Response Rates

Of the 1,500 physicians sampled for this year's report, 83 were deemed ineligible after determining that they were no longer actively practicing. Of the remaining 1,417 physicians, more than one-half (741) returned the completed questionnaire by the deadline of April 1, 2013. The final

response rate was 52.3%, using AAPOR standard response rate 6***, which treats undeliverables as ineligible cases. ***Table 14*** shows the response rate for 2013 by region and specialty.

Table 14. Response Rates (%), by Region and Specialty, 2013

Specialty	Midwest	Northeast	South	West	Total
Cancer	72.7	36.1	59.4	35.1	**50.0**
Cardiology & Heart Surgery	82.4	68.6	63.9	63.9	**69.5**
Diabetes & Endocrinology	40.0	52.9	56.8	32.4	**45.5**
Gastroenterology & GI Surgery	68.4	50.0	54.1	48.5	**55.7**
Neonatology	38.7	45.9	25.7	31.4	**35.5**
Nephrology	51.4	51.4	38.9	35.3	**44.4**
Neurology & Neurosurgery	45.7	48.6	37.5	55.6	**47.1**
Orthopedics	58.3	62.9	43.2	45.7	**52.4**
Pulmonology	55.6	60.5	40.5	43.2	**50.0**
Urology	75.7	77.8	65.8	68.6	**71.9**
Total	**59.1**	**55.5**	**48.7**	**45.9**	**52.3**

Survey Response Weighting

The physician survey was stratified by specialty and census region (Midwest, Northeast, South, and West). Weights were constructed and applied to each physician's survey response to make nominations representative at the national level. Weights were based on probability of selection within each unique specialty-region combination, adjusting to account for nonresponders.

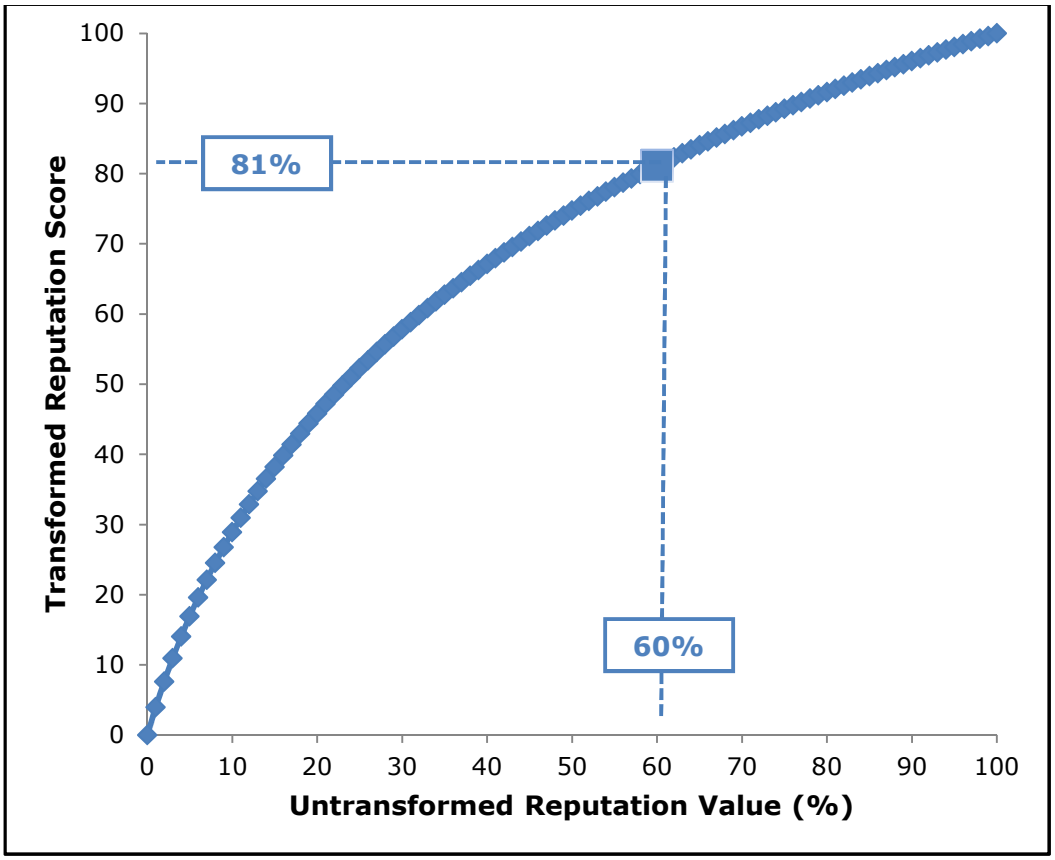
Log Transformation

The weighted reputation values are displayed in the ranking tables. However, before being combined into the Index of Hospital Quality (IHQ), we implemented a log transformation of the reputation data to adjust for the skewed distribution of values. By its nature, a survey that solicits recommendations for "best hospitals" will result in data that do not follow a normal distribution—relatively few hospitals will receive even one "best" recommendation, and of the hospitals recommended, a small number will receive many nominations, producing a highly skewed distribution. Since other ranking components such as structural measures and mortality are not skewed to this degree, reputation can have an impact somewhat larger than intended on the final rankings if left unadjusted.

*** Standard definitions are located on the Web at: http://www.aapor.org/Content/aapor/AdvocacyandInitiatives/StandardsandEthics/StandardDefinitions/StandardDefinitions2011.pdf

Log transformation reshapes the distribution to more closely match the reputation data to those of the other components in the rankings. The transformation is applied to the weighted reputation data. The transformed data are then normalized and multiplied by 100 to provide a score that ranges from 0 to 100. ***Figure 1*** demonstrates the impact of this step on reputation data. As is evident, the transformed reputation scores are mostly higher than the untransformed reputation score. However, the degree of inflation is greater for low scores than for high ones. For example, a hospital with a reputation value of 1% has a transformed score of 4 (4 times greater), a hospital with a reputation value of 10% has a transformed score of 29 (2.9 times greater), and a hospital with a reputation value of 60% has a transformed score of 81 (1.35 times greater). Skewness is thus reduced, and the impact of the reputation score on hospitals' final standing in the rankings is slightly diminished.

Figure 1. Impact of Log Transformation on Reputation Data



D. Normalization and Weighting

The process component in each specialty is worth one-third (33.3%) of the overall score. For all specialties, commitment to best practices and having an infection-prevention program were

each worth 12.5% of the process score (4.2% of the overall score). Reputation is worth 75% of the process score (25% of the overall score).

As with the other components, individual process measures were normalized before being combined in the Index of Hospital Quality (IHQ). Normalization, as described in **Section IV.B**, transforms index values into a distribution between 0 and 1 based on a measure's range of *possible* values. The possible values for reputation score range from 0% (no surveyed physicians nominated the hospital) to 100% (every surveyed physician nominated the hospital). The normalized reputation score determined the number of points hospitals received for reputation. If the highest reputation score (after log transformation) in a given specialty was 80, for example, the hospital with that score received a normalized score of 0.80, and since reputation was worth 25% of the overall score, the hospital received 0.80 x 25, or 20 points, for reputation. This marks a significant difference from previous years, when the hospital with highest reputation score received the full point total (i.e., 25 points).

VI. Outcomes

For the Best Hospitals adult specialty rankings, risk-adjusted mortality 30 days after admission is a key outcome measure. Other measures now used by healthcare researchers as quality indicators include readmissions following surgical or hospital discharge, patient functional status (or improvement), infection rates, and medical complications.[†††]

Because of the absence of comprehensive national sources of pediatric outcomes data comparable to the Medicare Provider Analysis and Review (MedPAR) data used in the adult rankings, outcomes-related data were obtained directly from pediatric hospitals through the Pediatric Hospital Survey. Such data included bloodstream infection (BSI) rates, transplant survival rates, mitigation of adverse events, and surgical outcomes. Other outcomes measures will be added over time to address the need for relevant outcomes and provide a more complete picture of pediatric hospital care. Measures for the 2013-14 rankings were developed from recommendations by expert advisory panels, as previously described. Details on specific outcomes measures, how they were calculated, and how they were scored are provided below.

††† For more information on hospital quality measures and updates on national quality of hospital care initiatives, please see reports from the Agency for Healthcare Research and Quality (AHRQ) at http://www.qualitymeasures.ahrq.gov/ and the Joint Commission at http://www.jointcommission.org/.

A. Outcome Measures

Outcome measures are listed below, by specialty. Scoring rules used to assign points to hospitals for these outcomes are also described below. For all outcomes measures, a higher number of points indicates better outcomes (e.g., higher survival, lower mortality, fewer complications).

Cancer

Bone Marrow Transplant Survival (3 points). This measure assessed the percentage of pediatric patients aged 16 years or younger receiving allogeneic blood marrow (including cord blood and stem cell) transplants (BMTs) in the past three years who survived for at least 100 days following the transplant. Hospitals could receive up to 3 points as follows: 1 point for ≥ 80% and < 90% 100-day survivors, 2 points for ≥ 90% and < 95% 100-day survivors, and 3 points for ≥ 95% 100-day survivors.

Three-year Survival (9 points). This measure evaluated the percentage of pediatric patients with standard risk acute lymphoblastic leukemia (ALL), acute myeloid leukemia (AML), and Stage IV neuroblastoma (at least 18 months old) who were alive after 5 years of treatment in the pediatric cancer program. For each of the three measures, hospitals could receive up to 3 points for having a high percentage of 3-year survivors. For ALL, points were awarded as follows: 1 point for ≥ 70% and < 85% survivors, 2 points for ≥ 85 and < 95% survivors, and 3 points for ≥ 95% survivors. For AML, points were awarded as follows: 1 point for ≥ 35% and < 50% survivors, 2 points for ≥ 50 and < 60% survivors, and 3 points for ≥ 60% survivors. For Stage IV Neuroblastomas, points were awarded as follows: 1 point for ≥ 35% and < 50% survivors, 2 points for ≥ 50 and < 70% survivors, and 3 points for ≥ 70% survivors.

Prevention of ICU Infections (9 points). The rate of infections in intensive care units (ICUs) is considered a good benchmark of patient safety and outcome because such infections in hospital-based care should be minimal. Rates for two types of infections were tracked: central line-associated blood-stream infections (CLABSIs), and catheter-associated urinary tract infections (CAUTIs). CLABSI rates were calculated as the number of BSIs per 1,000 central-line days during the previous 12 months, and CAUTI rates were calculated as the number of infections per 1,000 catheter days during the previous 12 months.

CLABSI and CAUTI rates were tracked for critical care patients (average across patients in PICU, SICU, medical/surgical critical care unit). CLABSI rates were also tracked for all oncology/stem cell transplant patients. Hospitals were rewarded for lower rates of infections. For each of the three categories/patient populations, hospitals received up to 3 points per group as

follows: 1 point for > 3.0 and ≤ 6.0 infections per 1,000 days, 2 points for > 1.0 and ≤ 3.0 infections, and 3 points for ≤ 1.0 infections.

Prevention of Pressure Ulcers (3 points). New for the 2013-14 rankings, hospitals received up to 3 points for having lower rates of *stage III*, *stage IV*, and *unstageable* hospital-acquired pressure ulcers. For each of the three categories, hospitals received 1 point for having a pressure ulcer rate of ≤ 1 per 1,000 patient admissions.

Cardiology & Heart Surgery

Prevention of ICU Infections (6 points). The rate was calculated as the number of CLABSI and CAUTI infections per 1,000 device-days (i.e., central-line days and catheter-days) in critical care patients (average across patients in PICU, SICU, medical/surgical critical care unit) during the previous 12 months. Hospitals were rewarded for lower rates of infections. For each of the three types of infections, hospitals received up to 3 points, as follows: 1 point for > 3.0 and ≤ 6.0 infections per 1,000 central-line days, 2 points for > 1.0 and ≤ 3.0 infections, and 3 points for ≤ 1.0 infections.

Prevention of Pressure Ulcers (3 points). New for the 2013-14 rankings, hospitals received up to 3 points for having lower rates of *stage III*, *stage IV*, and *unstageable* hospital-acquired pressure ulcers. For each of the three categories, hospitals received 1 point for having a pressure ulcer rate of ≤ 1 ulcer per 1,000 patient admissions.

Survival After Complex Surgery (40 points). This measure represents the rate of patient deaths following moderately complex to very difficult heart surgery procedures (STAT levels 1-5) at pediatric hospitals in the four most recent reporting periods. For each STAT level 1-5 in each of the past 4 years, a survival rate was computed. In each of the 20 conditions, hospitals received greater points for having a higher survival rate following surgery as follows: 1 point for survival rates ≥ 80% and ≤ 90%; and 2 points for survival rates >90%.

Survival After Heart Transplant (6 points). Hospitals received up to 3 points for higher 1-year and 3-year survival rates for patients who received heart transplants from the pediatric heart transplant program. Both 1- and 3-year survival are used here because they provide somewhat different information about short-term and longer-term survival. Points were awarded as follows: 1 point for survival rates ≥ 70% and < 80%, 2 points for survival rates ≥ 80% and < 90%, and 3 points for survival rates ≥ 90%.

Survival After Norwood Surgery (24 points). Hospitals received up to 24 points based on survival rate of patients who received the Norwood Stage 1 procedure. To receive points, hospitals

had to report data for each of the four most recent reporting periods for both surgical survival and 1-year survival. Up to 3 points were awarded for each of the four reporting years for surgical survival ratios approaching one (i.e., fewer deaths following surgery) as follows: 1 point for surgical survival rates ≥ 65% and < 80%, 2 points for survival rates ≥ 80% and < 90%, and 3 points for survival rates ≥ 90%.

Up to 3 points were awarded for each of the four reporting years 1-year survival rates as well. Points were awarded as follows: 1 point for survival rates ≥ 25% and < 50%, 2 points for survival rates ≥ 50% and < 75%, and 3 points for survival rates ≥ 75%.

Diabetes & Endocrinology

Diabetic Patient Management (20 points). This measure evaluated the adverse events, mean hemoglobin A1c levels in primary care type 1 diabetes outpatients, and visits/admissions for Type 1 and Type 2 primary care diabetes patients . Diabetes-related adverse events can result from lapse of care. Such events included calls to the emergency department for diabetes-related reasons, inpatient admissions for diabetes-related reasons, serious diabetes-related morbidity, severe hypoglycemic events, and diabetes-related mortality. Hospitals received up to 2 points in each of the five conditions, with more points for better performance (i.e., lower levels of adverse events). Points were awarded as follows: 1 point for > 10% and ≤ 25% of patients with adverse events; 2 points for having ≤ 10% of patients with adverse events.

Median hemoglobin A1c percentages were evaluated for three sets of patients: 0–5 years of age, 6–12 years of age, and 13–19 years of age. Increases in A1c values increase the risk of microvascular complications in patients. Hospitals received up to 2 points in each of the three conditions for maintaining lower median A1c values. Points were awarded as follows: 1 point for median hemoglobin A1c values that were > 8% and ≤ 10%; 2 points for values ≥ 4% and ≤ 8%.

Successful management of Type 1 and Type 2 diabetes patients is reflected by the type of primary care these patients receive. Hospitals were rewarded for higher numbers of outpatient visits for established Type 1 and Type 2 primary care diabetes patients. Hospitals received up to 2 points for each group of patients. Points were awarded as follows: 1 point for ≥ 1 and < 2 average visits per patient per year, and 2 points for ≥ 2 average visits per year.

Hypothyroid Patient Management (4 points). Hospitals received up to 4 points based on two indicators of hypothyroid management: the percentage of treated hypothyroid patients receiving thyroid-stimulating hormone (TSH) lab measurements whose most recent TSH measurement fell between the normal range of 1.0 and 3.0 mcIU/ml, and the percentage of congenital hypothyroidism patients less than 3 months of age who began thyroid hormone therapy before

21 days of age. For hypothyroid patients with TSH measurements in the normal range, points were awarded as follows: 1 point for ≥ 40% and < 70% of patients in each condition; 2 points for ≥ 70% of patients in each condition. For congenital hypothyroidism patients beginning hormone therapy, points were awarded as follows: 1 point for ≥ 50% and < 75% of patients in each condition; 2 points for ≥ 75% of patients in each condition.

Gastroenterology & GI Surgery

Prevention of ICU Infections (6 points). The rate was calculated as the number of CLABSI and CAUTI infections per 1,000 device-days (i.e., central-line days and catheter-days) in critical care patients (average across patients in PICU, SICU, medical/surgical critical care unit) during the previous 12 months. Hospitals were rewarded for lower rates of infections. For each of the two types of infections, hospitals received up to 3 points, as follows: 1 point for > 3.0 and ≤ 6.0 infections per 1,000 central-line days, 2 points for > 1.0 and ≤ 3.0 infections, and 3 points for ≤ 1.0 infections.

Prevention of Pressure Ulcers (3 points). New for the 2013-14 rankings, hospitals received up to 3 points for having lower rates of *stage III*, *stage IV*, and *unstageable* hospital-acquired pressure ulcers. For each of the three categories, hospitals received 1 point for having a pressure ulcer rate of ≤ 1 ulcer per 1,000 patient admissions.

Three-Year Liver Transplant Survival (3 points). Hospitals received up to 3 points each for higher 3-year survival rates for patients who received liver transplants from the pediatric liver transplant program. Points were awarded as follows: 1 point for survival rates ≥ 50% and < 80%, 2 points for survival rates ≥ 80% and < 90%, and 3 points for survival rates ≥ 90%.

Neonatology

Prevention of ICU Infections (3 points). The rate was calculated as the number of BSIs per 1,000 central-line days during the previous 12 months. Hospitals were rewarded for lower rates. Hospitals received up to 3 points for overall central line infection rates as follows: 1 point for > 3.0 and ≤ 6.0 infections per 1,000 central-line days, 2 points for > 1.0 and ≤ 3.0 infections, and 3 points for ≤ 1.0 infections.

Nephrology

Managing Dialysis Patients (20 points). This measure evaluates outcomes for patients on maintenance dialysis during the past 2 calendar years. Hospitals received up to 12 points for higher percentage of patients with these favorable outcomes: monthly Kt/V values of > 1.2 for patients

who received hemodialysis three times a week, percentage of total Kt/V values of ≥ 1.8 for patients receiving peritoneal dialysis, and percentage of patients who had an average Hb between 10g/dl and 13g/dl at least once on record in the past 12 months. Points are awarded separately for the two most recent years for each of the three outcomes, as follows: 1 point for desirable outcome rates ≥ 80% and < 90%; 2 points for desirable outcome rates ≥ 90%.

Hospitals received up to an additional 8 points based on the percentage of patients receiving maintenance dialysis for at least 3 consecutive months who survived. Rates were divided into four submeasures, including hemodialysis with infants and children under 5 years of age, hemodialysis in children and adolescents aged 5–19, peritoneal dialysis with infants and children under 5 years of age, and peritoneal dialysis in children and adolescents aged 5–19. Up to 2 points per item were awarded as follows: 1 point for survival rates ≥ 80% and < 90%; 2 points for survival rates ≥ 90%.

Preventing Biopsy Complications (3 points). This item measures the percentage of patients receiving kidney biopsy procedures who had to stay longer or be readmitted after discharge because of a complication. Hospitals receive more points for having lower complication rates, as follows: 1 point for complication rates > 5% and ≤ 10%, 2 points for complication rates > 2% and ≤ 5%, and 3 points for ≤ 2%.

Prevention of Dialysis-Related Infections (12 points). Hospitals received 6 points based on having a lower peritonitis rate (months of dialyses/cases of peritonitis) for patients on chronic peritoneal dialysis for the last 2 calendar years. In each year, up to 3 points were awarded, as follows: 1 point for a peritonitis rate of < 10 months between cases, 2 points for a rate of ≥ 10 and < 20 months between cases, and 3 points for a rate of ≥ 20 months between peritonitis cases. Hospitals could receive an additional 6 points for having lower hemodialysis catheter associated BSIs for outpatients on maintenance hemodialysis in each of the last 2 years. Hospitals received points for each year as follows: 1 point for > 3.0 and ≤ 6.0 infections per 1000 central line days; 2 points for > 1.0 and ≤ 3.0 infections, and 3 points for ≤ 1.0 infections.

Prevention of ICU Infections (6 points). The rate was calculated as the number of CLASBI and CAUTI infections per 1,000 device-days (i.e., central-line days and catheter-days) in critical care patients (average across patients in PICU, SICU, medical/surgical critical care unit) during the previous 12 months. Hospitals were rewarded for lower rates of infections. To receive points, hospitals had to report data for both CLASBI and CAUTI infections. For each of the two types of infections, hospitals received up to 3 points, as follows: 1 point for > 3.0 and ≤ 6.0 infections per 1,000 central-line days, 2 points for > 1.0 and ≤ 3.0 infections, and 3 points for ≤ 1.0 infections.

Prevention of Pressure Ulcers (3 points). New for the 2013-14 rankings, hospitals received up to 3 points for having lower rates of *stage III*, *stage IV*, and *unstageable* hospital-acquired pressure ulcers. For each of the three categories, hospitals received 1 point for having a pressure ulcer rate of ≤ 1 ulcer per 1,000 patient admissions.

Survival After Kidney Transplant (24 points). Hospitals received up to 24 points for higher 1- and 3-year survival rates for tissue grafts and for patients who received kidney transplants from the pediatric kidney transplant program. A total of eight sets of rates, each worth up to 3 points, were included: 1- and 3-year graft survival rates (deceased donor), 1- and 3-year graft survival rates (living donor), 1- and 3-year patient survival rates (deceased donor), and 1- and 3-year patient survival rates (living donor). Both 1- and 3-year survival rates were used because they provide somewhat different information about short-term and longer-term survival. Points were awarded as follows: 1 point for survival rates ≥ 50% and < 80%, 2 points for survival rates ≥ 80% and < 90%, and 3 points for survival rates ≥ 90%.

Neurology & Neurosurgery

Management of Epilepsy Patients(8 points). Hospitals received up to 6 points for the percentage of patients receiving three specific treatments for epilepsy (temporal lobe epilepsy surgery, extra-temporal lobe epilepsy surgery, and functional hemispherectomy surgery) who were seizure-free after twelve months. Hospitals were rewarded for higher rates, as follows: 1 point for seizure-free rates ≥ 50% and < 80%; 2 points for seizure-free rates ≥ 80%.

Hospitals received up to 2 points for the percentage of patients admitted to the Epilepsy Monitoring Unit who developed convulsive seizures that persisted longer than 30 minutes despite the use of antiseizure medicine. Hospitals were rewarded lower rates, as follows: 1 point for > 3% and ≤ 10% of patients having an adverse event; 2 points for ≤ 3% of patients having an adverse event.

Prevention of Surgical Complications (16 points). This measure rewards hospitals for having lower readmission rates for surgical complications. Hospitals received up to 8 points total for having a lower percentage of patients readmitted for cerebrospinal fluid leaks within 90 days of the following four surgical procedures: craniotomy, spinal surgery for dysraphism, Chiari decompression, or shunt placement. Points were awarded in each group as follows: 1 point for > 5% and ≤ 15% readmission rate; 2 points for ≤ 5% readmission rate.

Hospitals received up to 2 points for having a lower 90-day readmission rates for patients receiving an intrathecal baclofen pump insertion procedure. Points were awarded, as follows: 1 point for > 5% and ≤ 15% readmission rate; 2 points for ≤ 5% readmission rate.

Hospitals received up to 3 points for having lower 90-day readmission rates for patients receiving new/initial neurosurgical shunt placements. Points were awarded as follows: 1 point for > 5% and ≤ 15% readmission rate, 2 points for > 3% and ≤ 5%, and 3 points for ≤ 3% readmission rate.

Hospitals received up to 3 points for having a lower percentage of unplanned returns to the OR within two weeks of receiving a craniotomy. Points were awarded, as follows: 1 point for > 5% and ≤ 15% readmission rate, 2 points for > 3% and ≤ 5% readmission rate, and 3 points for ≤ 3% readmission rate.

Surgical Survival (12 points). Hospitals received up to 12 points for surgical survival rates for six significant neurological disorders or procedures, including: brain tumors, craniosynostosis, hydrocephalus patient shunts, medically intractable epilepsy, spinal dysraphism, and Chiari I malformation/syringomyelia. Lower mortality rates indicate better performance (i.e., a lower rate of death following surgery) and were awarded more points as follows: 1 point for survival rates ≥ 95% and <99%; 2 points for survival rates ≥ 99%.

Orthopedics

Preventing Surgical Complications (12 points). Hospitals received up to 12 points based on the rate of adverse outcomes for patients who received surgical correction for two types of scoliosis: idiopathic scoliosis, and neuromuscular scoliosis. Two adverse outcomes were measured for each type of scoliosis: unplanned admissions within 30 days of procedure, and returns to the operating room for equipment or mechanical issues with 90 days. Hospitals received up to 3 points for each of the four categories, with more points for better performance (i.e., lower levels of adverse events), as follows: 1 point for a complication rate > 7% and ≤ 10%, 2 points for a complication rate > 3% and ≤ 7%, and 3 points for a complication rate ≤ 3%.

Pulmonology

Management of Cystic Fibrosis Patients(12 points). This measure is comprised of six items representing better outcomes for patients with cystic fibrosis. Hospitals could receive up to 6 points for improving the functional status of cystic fibrosis patients' mean body mass index (BMI) and mean forced expiratory volume (FEV_1). Higher points indicate better outcomes (or better functional status). For BMI, points were awarded for average score, as follows: 1 point for mean BMI percentile ≥ 40 and < 45%, 2 points for mean BMI percentile ≥ 45% and < 50%, and 3 points for mean BMI percentile ≥ 50%. For the FEV_1 measure, points were awarded, as follows: 1 point for mean FEV_1 ≥ 80 and < 90%, 2 points for mean FEV_1 ≥ 90% and < 100%, and 3 points for mean FEV_1 ≥ 100%.

Hospitals received up to 2 additional points for meeting performance benchmarks for cystic fibrosis. One point is awarded for having met the benchmark of < 10% quantity not sufficient for infants (0–3 months of age) tested using the pilocarpine iontophoresis (sweat test) for cystic fibrosis; one additional point is awarded for having met the benchmark of < 5% quantity not sufficient on the same test for children over 3 months.

Hospitals received up to 2 points for having higher rates of patients with cystic fibrosis, over the age of 13 (and not already taking insulin), who completed an oral glucose tolerance test in the previous 12 months. One point was awarded for ≥ 50% and < 75% of patients completing the test; 2 points were awarded for ≥ 75% of patients completing the test.

Median hemoglobin A1c percentages were evaluated for patients with cystic fibrosis–related diabetes. Increases in A1c values increase the risk of microvascular complications in patients. Hospitals received up to 2 points for maintaining lower mean A1c values. Points were awarded as follows: 1 point for median hemoglobin A1c values that were > 8% and ≤ 10%; 2 points for values ≥ 4% and ≤ 8%.

Prevention of ICU Infections (6 points). The rate was calculated as the number of CLABSI and CAUTI infections per 1,000 device-days (i.e., central-line days and catheter-days) in critical care patients (average across patients in PICU, SICU, medical/surgical critical care unit) during the previous 12 months. Hospitals were rewarded for lower rates of infections. For each of the three types of infections, hospitals received up to 3 points, as follows: 1 point for > 3.0 and ≤ 6.0 infections per 1,000 central-line days, 2 points for > 1.0 and ≤ 3.0 infections, and 3 points for ≤ 1.0 infections.

Prevention of Pressure Ulcers (3 points). New for the 2013-14 rankings, hospitals received up to 3 points for having lower rates of *stage III*, *stage IV*, and *unstageable* hospital-acquired pressure ulcers. For each of the three categories, hospitals received 1 point for having a pressure ulcer rate of ≤ 1 ulcer per 1,000 patient admissions.

Success with Asthma Inpatients (8 points). This measure represented care for asthma patients. Up to 2 points are awarded for shorter lengths of stay for asthma inpatients, as follows: 1 point for an average stay > 3 days and ≤ 5 days; 2 points for a stay ≤ 3 days.

Hospitals were awarded up to 6 points based on the percentage of inpatient deaths attributable to asthma and the percentage of asthma inpatients readmitted within 7 days for exacerbation of asthma-related symptoms. Hospitals were rewarded for lower percentages of inpatient deaths and readmissions as follows: 1 point for mortality/readmission rates > 3% and ≤ 5%, 2 points for rates > 1% and ≤ 3%, and 3 points for rates ≤ 1%.

Ventilator Patient Survival (6 points). Hospitals received up to 6 points for lower rates of inpatient deaths and at-home deaths for ventilator-dependent patients due to accidental obstruction, decannulation, or tracheostomy. For both inpatient and at-home, higher survival rates indicate better performance (i.e., a lower rate of death of patients on ventilators) and were awarded more points, as follows: 1 point for survival rates ≥ 95% and < 97%, 2 points for survival rates ≥ 97% and < 99%, and 3 points for survival rates ≥ 99%.

Urology

Prevention of Surgical Complications (18 points). This measure evaluated a number of complications and adverse outcomes in patients who received urologic surgical procedures. Complications included distal hypospadias, proximal hypospadias, and pyeloplasty . Hospitals received up to 9 points total for the three measures, with more points awarded for better performance (i.e., lower complication rates), as follows: 1 point for rates > 3% and ≤ 5%, 2 points for rates > 1% and ≤ 3%, and 3 points for rates ≤ 1%.

Adverse events included unplanned hospital admissions for urologic issue within 30 days of discharge, hospital admission within 30 days following an ambulatory procedure, and unplanned reoperation for a urologic issue within 48 days of surgery. Hospitals received up to 9 points total for the three measures, with more points awarded for better performance (i.e., lower adverse event rates), as follows: 1 point for rates > 5% and ≤ 10%, 2 points for rates > 1% and ≤ 5%, and 3 points for rates ≤ 1%.

Prevention of Urinary Tract Infections (3 points). The rate was calculated as the number of CAUTI infections per 1,000 catheter-days in critical care patients (average across patients in PICU, SICU, medical/surgical critical care unit) during the previous 12 months. Hospitals were rewarded for lower rates of infections. Hospitals received up to 3 points as follows: 1 point for > 3.0 and ≤ 6.0 infections per 1,000 central-line days, 2 points for > 1.0 and ≤ 3.0 infections, and 3 points for ≤ 1.0 infections.

B. Normalization and Weighting

As with structural and process measures, individual outcomes measures were normalized to have a distribution between 0 and 1. The overall outcomes component was worth one-third (33.3%) of the overall score. ***Table 15*** shows the weight of each measure on the total outcomes score for that specialty. The sum of the weights for each specialty is 33.3, which reflects the weight of the outcomes component in the overall score.

Table 15. Weight (%) of Outcomes Measures, by Specialty

Measure	Cancer	Cardiology & Heart Surgery	Diabetes & Endocrinology	Gastroenterology & GI Surgery	Neonatology	Nephrology	Neurology & Neurosurgery	Orthopedics	Pulmonology	Urology
Bone marrow transplant survival	10.2									
Diabetic patient management			25.0							
Three-year survival	10.2									
Hypothyroid patient management			8.3							
Management of cystic fibrosis									11.1	
Management of epilepsy patients							11.1			
Managing dialysis patients						6.3				
Preventing biopsy complications						6.3				
Prevention of dialysis-related infections						6.3				
Prevention of ICU infections	10.2	7.8		14.8	33.3	6.3			5.6	16.7
Prevention of pressure ulcers	2.6	2.0		3.7		1.6			1.4	
Prevention of surgical complications							11.1	33.3		16.7
Success with asthma patients									5.6	
Surgical survival							11.1			
Survival after complex surgery		7.8								
Survival after heart transplant		7.8								
Survival after kidney transplant						6.3				
Survival after Norwood surgery		7.8								
Three-year liver-transplant survival				14.8						
Ventilator patient survival									9.7	
Total*	**33.3**	**33.3**	**33.3**	**33.3**	**33.3**	**33.3**	**33.3**	**33.3**	**33.3**	**33.3**

* The sum of individual measures may not equal 33.3 due to rounding.

VII. *U.S. News* Score

The weight of each major component of the *U.S. News* ranking score—structure, outcomes, and process—was worth exactly one-third of the overall score.

Although each measure represents a specific aspect of quality, a single score provides a result that is easy to use and understand and that portrays overall quality more accurately than any of the three components would individually. The rankings for the top 50 hospitals in each of the pediatric specialties, by *U.S. News* score, are shown in ***Appendix C***. Starting with the 2012–13 rankings, we instituted a new ruling that permits ties for hospitals with the same *U.S. News* score.

The formula for calculating the *U.S. News* score for a given hospital, j, is shown in Equation (2). The score can be thought of as a simple weighted sum of structural, process, and outcome measures as shown below:

Equation (2) $Score_j = \left(\sum_{i=1}^{n_s} wts_i * s_i\right) + \left(\sum_{i=1}^{n_p} wtp_i * p_i\right) + \left(\sum_{i=1}^{n_o} wto_i * o_p\right)$,

where

$Score_j$ = raw score for hospital *j* in a given specialty,

wts_i = weight assigned to structure measure *i*,

wtp_i = weight assigned to process measure *i*,

wto_i = weight assigned to outcomes measure *i*,

s_i = normalized value for structural measure *i,*

p_i = normalized value for process measure *i*, and

o_i = normalized value for outcomes measure *i.*

Please note that the Index of Hospital Quality (IHQ) formula is meant for illustrative purposes only; it *cannot* be used to directly calculate a score for an individual hospital. For presentation purposes, we transformed the raw scores to a scale that assigns a *U.S. News* score of 100 to the top hospital. The formula for the transformation is shown in Equation (3):

Equation (3) $U.S.\ News\ Score_j = (score_j - minimum_j)/range_j$

VIII. Pediatric Honor Roll

This year, 87 different hospitals were ranked in at least one pediatric specialty. The Children's Hospitals Honor Roll, established in 2009, recognizes excellence across a broad range of pediatric specialties. Starting with the 2012-13 rankings, hospitals received 2 points for being ranked amoung the top 5% of all hospitals eligible for ranking in a specialty and 1 point for being ranked in the top 6-10% in a specialty. Hospitals were included in the final Honor Roll only if they received points in at least three specialties. For 2013-14, 10 hospitals qualified, based on points assigned by specialty. ***Appendix D*** lists the 2013-14 Honor Roll hospitals.

IX. Future Improvements

Over the next 3 to 5 years, we will continue refining the measures used in the current pediatric specialties and adding new measures and specialties. We anticipate the following activities:

- **Development of additional outcome measures.** For example, we plan to explore alternatives for collecting additional mortality data, infection rates, patient functional measures, and complications rates.

- **Exploration of risk adjustment.** We will continue to investigate methods for risk-adjusting pediatric mortality data to better reflect hospital-to-hospital differences in patient mix, severity, and comorbidities. These efforts are complicated by the fact that currently there are no national databases that cover all pediatric health care in the United States. However, organizations such as the Child Health Corporation of America, the Children's Hospital Neonatal Consortium, and the Society for Thoracic Surgeons are seeking to make some specialty-specific data available for the majority of pediatric institutions across the country. As these databases are developed and further expanded to include more pediatric facilities, we will explore their possible use in creating risk-adjusted outcomes and performance measures of health care.

- **Identification of additional structural measures.** External certifications of hospital quality, excellence in specialty areas, and awards for high-quality care will be considered for incorporation in the rankings. Additional technologies, teams, and practices that define high-quality pediatric services also will be evaluated.

The project team will continue to work with expert advisory panels of physicians, nurses, hospital quality experts, and other healthcare professionals. RTI and *U.S. News* are grateful to these volunteer experts. Their recommendations and advice have been invaluable contributions.

X. Contact Information

We welcome suggestions and questions. Readers and users of the rankings are encouraged to contact the Best Hospitals research team at BestHospitals@rti.org. This report and methodology reports for the adult rankings can be viewed or downloaded online in their entirety from the RTI International Web site at http://www.rti.org/besthospitals.

XI. References

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Appendix A

Glossary of Terms

Computer tomography (CT) enterography. CT enterography allows for visualization of the small bowel wall and lumen by combining a CT scan with large amounts of ingested contrast material.

Continuous EEG monitoring with pediatric neurology support. EEG is a technology for measuring electrical activity produced by the brain, as recorded from electrodes placed on the scalp. EEG monitoring provides the ability to collect the brain's electrical activity continuously to help detect and diagnose neurological problems.

Cryoablation. This process uses cooled, thermally conductive gases and fluids circulated through hollow needles (cryoprobes) that are inserted adjacent to diseased tissue in order to kill the tissue.

Functional magnetic resonance (fMR). fMR is a specialized type of MRI scan, which measures changes in blood flow related to neural activity.

Genetic testing/counseling. A genetic testing/counseling service is equipped with the appropriate laboratory facilities and is directed by a physician qualified to advise parents and prospective parents on potential problems in cases of genetic defects. A genetic test is the analysis of human DNA, RNA, chromosomes, proteins, and certain metabolites in order to detect heritable disease-related genotypes, mutations, phenotypes, or karyotypes for clinical purposes. Genetic tests can have diverse purposes, including the diagnosis of genetic diseases in newborns, children, and adults; the identification of future health risks; the prediction of drug responses; and the assessment of risks to future children.

Image-guided radiation therapy (IGRT). IGRT is an automated system that produces high-resolution x-ray images to pinpoint tumor sites, adjust patient positioning, and generally make treatment more effective and efficient.

Intensity-modulated radiation therapy (IMRT). IMRT is a three-dimensional radiation therapy that improves the targeting of treatment delivery in a way that is likely to decrease damage to normal tissues and allows for varying intensities.

Intraoperative magnetic resonance imaging (ioMRI). ioMRI uses a uniform magnetic field and radio frequencies to study tissue and structure of the body. It enables visualization of biochemical cellular activity in vivo without the use of ionizing radiation, radioisotopes, or ultrasound.

Magnetic resonance cholangiopancreatography (MRCP). MRCP is a noninvasive approach for imaging the biliary and pancreatic ducts using MRI.

Magnetic resonance spectroscopy (MRS). MRS differs from MRI in that MRS uses a continuous band of radio wave frequencies to analyze the chemical composition of proton (hydrogen)-hydrogen based molecules in a variety of chemical compounds. This technology evaluates the chemical composition and integrity of functioning upper-motor neurons in the brain.

Magnetoencephalography (MEG). MEG is a technique for mapping brain activity by recording magnetic fields produced by electrical currents occurring naturally in the brain using arrays of superconducting quantum interference devices.

Molecular diagnostic/virology laboratory. This is a diagnostic laboratory that supports the NICU by conducting culture and tissue studies to determine the nature of biological and virological conditions.

Multidisciplinary pediatric acute pain/sedation service (available onsite 24 hours a day). This service provides monitored anesthesia care and sedation within the hospital (but not within an operating room or PICU) as well as emergency airway management and acute and chronic pain management for neonates and pediatric patients on a 24-hour basis. A qualified program must have at least an identified medical director (e.g., general pediatrician, pediatric subspecialist, or anesthesiologist) with documented education in conscious sedation and a registered nurse coordinator (or pain management clinical nurse specialist).

Neonatal intensive care unit (NICU). An NICU provides mechanical ventilation, neonatal surgery, and special care for the sickest infants, including those with the lowest birth weights (below 1,500 grams), who are born in the hospital or transferred from another institution. The NICU is separate from the newborn nursery. A full-time neonatologist serves as director.

Neurophysiological intraoperative monitoring. This uses electrophysiological methods, including electroencephalography and electromyography to monitor parts of the brain, spinal cord, and peripheral nerves during surgery.

Non-sedate MRI (e.g. MRI-compatible neonatal transporter). This is an MRI-compatible incubator system with integrated coils to support imaging that includes a trolley to facilitate safe intrahospital transport of neonates.

Pediatric anesthesia program (available onsite 24 hours a day). This team provides anesthesia care for children before, during, and after surgery (or other medical procedures). The team provides 24-hour coverage by board-certified anesthesiologists who specialize in pediatric anesthesia.

Pediatric infectious disease program (available onsite 24 hours a day). This program provides consultation and treatment for children with severe illnesses that are infectious in origin. The team provides 24-hour, on-site coverage by physicians board-certified in pediatric infectious diseases.

Pediatric intensive care unit (PICU). A PICU is staffed with specially trained personnel and has monitoring and specialized support equipment for treating pediatric patients who, because of shock, trauma, or other life-threatening conditions, require intensified, comprehensive observation and care.

Pediatric pain management program (available onsite 24 hours a day). Administered by specially trained physicians and other clinicians, this is a recognized clinical service or program providing specialized medical care, drugs, or therapies for the management of acute or chronic pain and other distressing symptoms among children suffering from an acute illness of diverse causes.

PET/computed tomography (PET/CT) scanning. PET/CT combines the capabilities of PET and CT scanning into a single integrated device, which provides metabolic functional information for monitoring chemotherapy, radiotherapy, and surgical planning.

Positron emission tomography (PET) scanning. PET scanning is a computerized nuclear medicine imaging technology that uses radioactive (positron-emitting) isotopes created in a cyclotron or generator to produce composite images of the brain and heart activity. The scans are sectional images depicting metabolic activity or blood flow rather than anatomy.

Radiation isolation room. This is a room that is designed to isolate the "radioactive" individual (appropriate shielding) with appropriate disposal of radioactive biologics.

Radiofrequency ablation. This procedure involves placing probes that emit radiofrequency energy into the heart using a catheter. The radiofrequency energy is then used to destroy abnormal electrical activity in the heart tissue.

Rapid response team (available onsite, 24 hours a day). A rapid response team, also known as a medical emergency team, is distinct from the hospital "code" team. The team of appropriately trained individuals is available 24 hours a day and has three essential characteristics: (1) the team creates tools and provides staff education for recognizing an acute deterioration in patient condition; (2) the team follows the SBAR (for situation, background, assessment, recommendation) method to communicate such a change in condition effectively and efficiently (i.e., escalation policy); and (3) the team responds to the change in condition with the goal of reducing/eliminating preventable "codes."

Reverse isolation/infection control facilities. Reverse isolation/infection control facilities are controlled environments that protect patients from getting an infection caused by bacteria, viruses, or fungus that may be in the environment or carried by staff and visitors.

Specialized chemistry laboratory with tandem mass spectroscopy. This specialized diagnostic laboratory has the ability to use tandem mass spectroscopy and other advanced techniques to aid in the diagnosis of medical conditions in NICU patients.

Surgical intensive care unit (SICU) or dedicated beds in an NICU or a PICU for surgical patients. A SICU is a specialized unit designed to meet the needs of pediatric surgical patients who require intensive care services following surgery. If you do not have a SICU, having dedicated surgical intensive care beds in your PICU is acceptable.

Therapeutic meta-iodine-benzyl-guanidine (I-131 MIBG). I-131MIBG is a functional imaging agent used to help locate and diagnose tumors of adrenergic tissues, such as neuroblastoma and pheochromocytoma.

Three-dimensional mapping. This includes the use of three-dimensional imaging systems, such as MRI or ultrasound, to guide ablation probes.

3 Tesla magnetic resonance imaging (3T MRI). 3T MRI is a higher-powered version of MRI that offers improved morphological and functional studies of the brain compared with the more common field strength of 1.5T.

Appendix B

2013-14 Sample Physician Questionnaire

Best Children's Hospitals

Your nominations will be reflected in the 2013-14 *U.S. News & World Report* «specialty» rankings.

Please name up to ten hospitals that you believe provide the best care in <<specialty>> for patients who have the most challenging conditions or who need particularly difficult procedures. *Do not consider location or cost. Individual hospitals should be listed, not hospital systems or medical schools.)*

	Hospital	City	State
a.			
b.			
c.			
d.			
e.			
f.			
g.			
h.			
i.			
j.			

Fax response to (800) XXX-XXXX

or return in postpaid envelope.

Appendix C

2013-14 Pediatric Rankings

Pediatric Rankings 2013-14: Cancer

Rank	Hospital	Overall Cancer Score	Reputation with specialists	Three-year survival	Bone marrow transplant survival	Use of infection-preventing measures	Prevention of ICU infections	Prevention of pressure ulcers	Cancer patient volume	New cancer patient volume	Surgery volume	Nurse-patient ratio	Nurse Magnet recognition	Commitment to best practices	Bone marrow transplant services	Accredited for BMT and tissue transplant	Palliative care program	Advanced clinical services	Clinical support services	Advanced technologies	Specialized clinics and programs	Patient and family services	Efforts to involve families	Commitment to quality improvement	Adoption of health information technology	Availability of subspecialists	Fellowship programs	Commitment to clinical research	
1	Cincinnati Children's Hospital Medical Center	100.0	52.6	8	3	21	8	3	8	3	6	3.7	1	22	16	1	6	19	10	14	9	8	7	10	10	14	2	12	
2	Dana-Farber Boston Children's Cancer and Blood Disorders Ctr	99.2	78.5	9	2	23	6	3	9	3	6	3.7	1	22	16	1	6	19	10	14	9	8	7	10	9	14	2	12	
3	Children's Hospital of Philadelphia	95.4	76.8	8	2	23	6	3	9	3	2	3.3	1	21	16	1	6	19	10	14	9	8	7	10	10	14	2	12	
4	Children's Hospital Los Angeles	91.1	33.4	8	3	20	7	3	9	3	5	3.0	1	21	15	1	6	19	10	13	9	7	7	10	10	14	2	12	Top 5%
5	St. Jude Children's Research Hospital	90.7	61.0	7	2	22	8	2	9	3	6	5.2	0	22	15	1	6	18	10	14	9	8	7	10	10	14	2	12	
6	Seattle Children's Hospital	88.0	39.1	8	3	21	4	3	9	3	5	2.8	1	20	16	1	6	16	10	13	9	8	7	10	10	14	2	12	
7	Texas Children's Hospital	83.1	47.4	5	2	22	6	2	9	3	3	2.8	1	22	16	1	6	19	10	14	9	8	7	10	10	14	2	12	
8	Ann and Robert H. Lurie Children's Hospital of Chicago	78.6	11.5	8	2	23	8	3	7	3	4	3.3	1	22	16	1	6	19	10	14	9	8	7	10	10	14	2	12	
9	Children's Hospital Colorado	76.9	19.5	7	2	19	7	2	9	3	4	3.3	1	18	15	1	6	19	10	13	9	8	7	10	10	14	2	12	Top 10%
10	Memorial Sloan-Kettering Cancer Center	76.5	30.0	9	2	16	5	3	4	3	2	3.1	0	22	16	1	5	18	10	14	9	8	7	10	10	14	2	12	
11	Johns Hopkins Children's Center	76.4	27.6	7	1	21	7	3	5	3	3	3.4	1	22	14	1	6	19	10	13	9	8	7	10	7	14	2	11	
12	Duke Children's Hospital and Health Center	76.1	10.0	8	3	21	7	3	5	2	2	2.5	1	19	16	1	6	19	10	13	9	8	7	10	10	14	2	9	
13	Nationwide Children's Hospital	71.3	8.7	9	1	23	7	3	8	3	3	3.2	1	22	15	1	6	19	10	13	9	8	7	10	10	14	2	12	
14	Children's National Medical Center	71.2	19.2	7	1	18	6	3	8	3	2	3.3	1	22	16	1	5	19	10	14	9	8	7	10	10	14	2	12	
15	St. Louis Children's Hospital-Washington University	69.9	6.2	7	3	20	5	3	5	2	4	3.6	1	19	14	1	6	19	10	14	8	8	7	10	10	14	2	12	
16	Children's Healthcare of Atlanta	68.8	13.0	8	1	22	7	3	9	3	5	3.3	0	19	16	1	6	19	10	14	9	8	7	10	10	14	2	12	
17	UCSF Benioff Children's Hospital	68.5	11.8	7	2	21	4	3	6	3	2	3.5	1	19	15	1	6	18	10	14	9	8	7	10	10	14	2	12	
18	Rainbow Babies and Children's Hospital	68.2	3.4	5	3	18	8	3	7	3	3	3.0	1	22	15	1	6	19	10	14	9	8	7	10	10	14	1	11	
19	Doernbecher Children's Hospital at OHSU	67.3	2.2	7	3	22	6	3	5	2	2	3.6	1	20	16	1	6	17	10	14	8	8	7	10	10	14	2	11	
20	Mayo Clinic Children's Center	66.6	2.0	8	3	19	5	3	6	3	3	3.6	1	17	14	1	6	19	10	14	9	8	7	10	9	14	2	11	
21	Lucile Packard Children's Hospital at Stanford	66.5	9.9	9	1	22	6	3	6	3	4	3.5	0	22	16	1	6	19	10	14	9	8	7	10	10	14	2	11	
22	Children's Cancer Hospital-University of Texas M.D. Anderson	66.4	10.6	5	2	21	7	3	7	3	4	3.6	1	15	16	1	5	18	10	14	9	8	7	9	7	14	1	11	
23	Cleveland Clinic Children's Hospital	65.8	0.9	9	3	21	7	3	5	3	4	3.1	1	22	10	0	6	19	10	14	9	8	7	10	10	14	1	5	
24	American Family Children's Hospital	65.6	0.6	8	3	16	6	3	5	2	2	3.8	1	21	14	1	6	19	10	14	9	8	7	10	10	14	2	10	
25	Miami Children's Hospital	64.5	1.7	8	2	22	9	3	3	2	2	3.3	1	17	14	1	5	19	10	14	9	8	7	10	10	14	1	8	
26	Akron Children's Hospital	63.8	0.0	9	3	21	7	3	3	2	2	3.2	1	22	12	0	6	19	10	14	9	8	7	10	10	14	1	9	
27	Helen DeVos Children's Hospital	63.1	1.7	8	3	21	7	3	3	2	2	2.8	1	21	13	0	5	19	9	14	9	8	7	10	10	13	1	9	
28	Children's Medical Center Dallas	62.2	9.1	7	1	21	5	3	8	3	2	3.1	1	20	16	1	4	18	10	13	9	8	7	10	10	14	2	10	
29	Kosair Children's Hospital	61.1	0.8	8	3	21	5	3	5	2	2	2.5	1	22	12	1	6	19	10	13	9	8	7	10	9	14	0	8	
30	University of Iowa Children's Hospital	61.0	0.9	9	3	19	2	3	6	2	2	3.1	1	20	14	1	6	19	10	12	9	8	7	10	10	14	2	10	
31	North Carolina Children's Hospital at UNC	60.5	0.5	5	3	20	7	3	6	2	3	3.0	1	22	13	1	5	17	10	12	7	7	7	8	10	14	2	8	
31	Yale-New Haven Children's Hospital	60.5	0.0	9	3	20	5	3	4	2	2	2.4	1	21	10	0	6	19	9	14	9	8	7	10	10	14	2	10	
33	NY-Presby. Morgan Stanley-Komansky Children's Hospital	60.3	5.0	9	1	19	5	3	6	3	6	3.1	0	22	15	1	6	19	10	14	9	8	7	10	10	14	2	12	
34	Children's Hospital of Orange County	60.2	1.5	6	2	20	8	3	4	2	2	2.5	1	20	16	1	6	18	10	14	9	8	7	10	10	13	1	11	
35	Penn State Hershey Children's Hospital	60.1	1.1	6	3	13	6	3	6	2	2	3.1	1	21	13	1	4	19	10	12	9	8	7	10	10	13	2	9	
36	Monroe Carell Jr. Children's Hospital at Vanderbilt	59.6	0.5	7	2	16	7	3	4	2	3	3.3	1	19	16	1	5	19	10	13	9	8	7	10	10	14	2	11	
37	University of Michigan C.S. Mott Children's Hospital	59.4	2.8	7	2	23	6	2	6	2	2	3.7	0	21	16	1	6	19	10	14	9	8	7	10	10	14	2	12	
38	Cook Children's Medical Center	59.1	2.1	8	1	22	7	3	7	2	2	3.9	1	20	16	1	6	19	10	14	9	8	7	10	10	14	0	10	
39	Mattel Children's Hospital UCLA	58.6	2.4	8	1	20	6	3	3	3	2	3.1	1	22	15	1	6	19	10	13	9	8	7	9	10	14	2	9	
40	Riley Hospital for Children at IU Health	58.4	2.5	8	1	21	4	3	7	3	5	3.4	1	21	16	1	6	17	10	13	8	8	7	10	10	14	2	12	
41	Children's Hospital of Michigan	56.8	2.0	5	2	22	7	3	4	2	2	2.6	1	15	14	1	6	17	10	13	8	8	7	10	10	14	2	7	
42	Children's Hospital of Wisconsin	55.6	2.9	7	1	18	4	3	8	2	6	3.1	1	19	16	1	6	19	10	12	9	8	7	10	10	14	2	11	
42	University of Minnesota Amplatz Children's Hospital	55.6	6.3	5	1	17	7	3	5	3	3	2.9	0	20	16	1	6	18	9	14	9	8	7	10	10	14	2	12	
44	Nemours Alfred I. duPont Hospital for Children	55.3	0.6	6	1	21	7	3	3	2	2	3.5	1	21	14	1	6	19	10	13	9	8	7	10	10	14	2	12	
45	University of Chicago Comer Children's Hospital	55.0	1.7	8	2	14	6	3	3	2	2	2.7	0	17	15	1	6	19	10	14	9	8	5	10	10	14	2	12	
46	Mount Sinai Kravis Children's Hospital	54.5	0.0	8	3	22	5	3	3	1	2	2.2	1	17	10	1	5	15	10	13	8	8	7	9	10	13	0	2	
46	Rady Children's Hospital	54.5	2.7	7	0	22	9	3	8	3	2	3.3	0	22	14	1	6	19	10	14	9	8	7	9	10	14	1	12	
46	Shands Hospital for Children at the University of Florida	54.5	0.0	8	1	19	7	3	3	3	2	2.3	1	18	12	1	6	18	10	12	9	8	7	10	10	12	2	10	
49	Children's Hospital of Pittsburgh of UPMC	54.3	6.1	6	0	18	6	3	7	2	4	3.1	1	18	16	1	6	19	10	14	9	8	7	10	10	14	2	9	
49	Levine Children's Hospital	54.3	0.5	8	2	19	8	3	3	2	2	2.3	0	21	14	1	6	17	10	12	9	8	7	10	7	14	0	6	

Rankings are based on all of the above measures. NA: not applicable. NR: not reported.

Pediatric Rankings 2013-14: Cardiology & Heart Surgery

Rank	Hospital	Overall Cardiology & Heart Surgery Score	Reputation with specialists	Survival after complex surgery	Survival after heart transplant	Survival after Norwood surgery	Prevention of ICU infections	Use of infection-preventing measures	Prevention of pressure ulcers	Surgery volume	Catheter-procedure volume	Norwood surgery volume	Nurse-patient ratio	Nurse Magnet recognition	Commitment to best practices	Congenital heart program	Adult congenital heart program	Heart transplant program	Advanced clinical services	Clinical support services	Advanced technologies	Specialized clinics and programs	Patient and family services	Efforts to involve families	Commitment to quality improvement	Adoption of health information technology	Availability of subspecialists	Fellowship programs	Commitment to clinical research	
1	Boston Children's Hospital	100.0	91.0	38	4	21	4	24	3	12	28	12	3.7	1	23	24	10	4	17	9	5	11	8	7	10	9	12	3	12	
2	Children's Hospital of Philadelphia	96.7	86.1	37	4	18	4	24	3	11	25	12	3.3	1	23	24	10	4	17	9	5	11	8	7	10	10	12	3	11	
3	Texas Children's Hospital	94.6	60.4	38	5	22	4	24	2	10	24	12	2.8	1	23	24	10	4	17	9	5	11	8	7	10	10	12	3	12	
4	Children's Healthcare of Atlanta	86.0	33.3	37	5	19	5	23	3	10	27	12	3.3	0	22	24	10	4	17	9	5	11	8	7	10	10	12	3	12	Top 5%
5	Cincinnati Children's Hospital Medical Center	85.8	39.5	36	4	17	5	22	3	6	19	8	3.7	1	24	23	9	4	17	9	5	11	8	7	10	10	11	3	12	
6	University of Michigan C.S. Mott Children's Hospital	85.1	56.5	35	3	18	4	24	2	10	23	12	3.7	0	23	22	10	4	16	9	5	11	8	7	10	10	12	3	12	
7	Children's Hospital Los Angeles	82.9	18.1	36	5	22	5	22	3	11	22	12	3.0	1	27	23	10	3	17	9	5	11	7	7	10	10	12	3	10	
8	NY-Presby. Morgan Stanley-Komansky Children's Hospital	81.9	31.0	37	6	20	3	20	3	10	17	12	3.1	0	23	23	10	4	17	9	5	11	8	7	10	10	12	3	10	Top 10%
9	Lucile Packard Children's Hospital at Stanford	81.8	44.4	36	5	13	4	23	3	9	22	8	3.5	0	21	22	10	4	17	9	5	11	8	7	10	10	12	3	6	
10	Nationwide Children's Hospital	80.7	25.3	34	4	17	5	24	3	7	24	12	3.2	1	23	24	10	3	17	9	5	11	8	7	10	10	12	3	9	
11	Children's Hospital of Wisconsin	78.5	25.7	37	5	23	2	20	3	9	15	12	3.1	1	23	23	10	4	16	9	5	11	8	7	10	10	12	1	10	
12	Children's Hospital Colorado	77.0	11.1	36	5	20	6	20	2	7	20	9	3.3	1	24	24	10	4	17	9	5	11	8	7	10	10	12	3	9	
13	Children's Hospital of Pittsburgh of UPMC	74.7	14.0	39	5	19	4	19	3	6	18	7	3.1	1	23	24	10	4	17	9	5	11	8	7	10	10	12	3	7	
14	St. Louis Children's Hospital-Washington University	72.2	14.2	36	3	18	4	22	3	7	22	9	3.6	1	23	22	10	4	17	9	5	11	8	7	10	10	12	3	9	
15	Seattle Children's Hospital	72.1	9.7	35	6	20	3	22	3	7	20	11	2.8	1	20	24	9	4	15	9	5	11	8	7	10	10	12	3	9	
16	Ann and Robert H. Lurie Children's Hospital of Chicago	71.6	8.4	37	5	16	5	24	3	6	11	4	3.3	1	25	23	10	4	17	9	5	11	8	7	10	10	12	3	7	
17	Duke Children's Hospital and Health Center	68.7	5.9	35	4	21	4	22	3	5	23	7	2.5	1	27	24	10	4	17	9	5	11	8	7	10	10	12	3	11	
18	UCSF Benioff Children's Hospital	67.9	10.6	38	3	22	3	22	3	6	18	9	3.5	1	22	20	10	1	16	9	5	11	8	7	10	10	11	3	12	
19	Children's Medical Center Dallas	67.8	8.8	37	3	21	3	23	3	8	18	12	3.1	1	22	21	10	4	16	9	5	11	8	7	10	10	12	3	7	
20	Johns Hopkins Children's Center	67.7	4.7	34	5	19	5	22	3	6	10	4	3.4	1	23	20	10	4	17	9	5	11	8	7	10	7	12	3	10	
21	MUSC Children's Heart Program of South Carolina	67.3	8.8	38	4	22	4	22	3	7	15	11	3.1	0	23	20	10	4	16	9	5	11	7	7	10	10	12	1	11	
22	Primary Children's Medical Center	66.6	4.5	37	5	22	3	22	3	8	21	10	4.3	0	23	23	10	4	17	9	5	11	8	7	10	10	12	3	9	
23	Monroe Carell Jr. Children's Hospital at Vanderbilt	66.3	6.3	35	4	11	5	18	3	9	23	12	3.3	1	23	22	10	4	17	9	5	11	8	7	10	10	12	3	8	
24	Mayo Clinic Children's Center	66.1	9.9	36	3	18	3	22	3	6	19	4	3.6	1	27	18	10	3	17	9	5	11	8	7	10	9	12	3	10	
25	Riley Hospital for Children at IU Health	64.9	3.2	35	6	16	3	22	3	7	16	8	3.4	1	24	22	10	3	17	9	5	11	8	7	10	10	11	3	10	
26	Mattel Children's Hospital UCLA	64.1	6.5	33	4	17	4	21	3	5	23	6	3.1	1	23	22	10	4	14	9	5	11	8	7	9	10	11	3	6	
27	Miami Children's Hospital	62.5	7.4	36	NA	21	6	24	3	6	14	6	3.3	1	25	24	10	0	17	9	5	11	8	7	10	10	12	1	10	
28	Children's Hospital of Michigan	60.6	3.1	31	4	16	5	24	3	6	22	5	2.6	1	21	24	10	4	16	9	5	11	8	7	10	10	11	1	7	
29	Cleveland Clinic Children's Hospital	60.2	3.1	35	3	17	5	22	3	4	13	5	3.1	1	25	16	10	3	17	9	5	11	8	7	10	10	12	2	9	
30	Children's National Medical Center	58.3	8.3	33	0	18	4	20	3	7	24	11	3.3	1	22	18	10	1	16	9	5	11	8	7	10	10	12	2	10	
31	Nemours Alfred I. duPont Hospital for Children	58.2	1.4	33	4	20	4	22	3	5	11	6	3.5	1	26	21	9	3	15	9	5	11	8	7	10	10	10	0	10	
32	Shands Hospital for Children at the University of Florida	57.9	0.0	37	6	17	4	20	3	5	7	5	2.3	1	23	17	10	4	17	9	5	10	8	7	10	10	8	3	2	
33	Rady Children's Hospital	57.8	3.4	38	NA	22	6	23	3	7	18	9	3.3	0	23	22	9	0	15	9	5	11	8	7	9	10	12	3	10	
34	Phoenix Children's Hospital	54.5	1.6	35	3	19	5	19	3	6	24	8	3.0	0	22	18	10	4	16	9	5	11	8	7	10	10	11	0	4	
34	University of Iowa Children's Hospital	54.5	0.7	37	4	20	2	22	3	4	16	5	3.1	1	27	15	9	2	17	9	5	11	8	7	10	10	11	2	6	
36	Advocate Children's Hospital	53.5	1.2	36	NA	19	5	18	3	8	16	12	2.8	1	27	20	9	0	13	9	5	11	8	7	10	10	11	3	8	
37	Levine Children's Hospital	53.0	0.1	34	5	17	5	20	3	5	11	9	2.3	0	20	21	10	3	15	9	5	11	8	7	10	7	10	0	9	
38	All Children's Hospital	51.5	2.3	35	5	16	2	17	3	6	13	8	3.0	0	23	21	10	4	17	9	5	10	7	6	10	10	10	0	8	
39	Children's Hospital of Alabama at UAB	51.2	0.5	34	6	14	3	16	3	8	14	8	2.7	0	20	21	9	4	13	9	5	11	8	7	9	10	10	1	6	
40	Holtz Children's Hospital at UM-Jackson Memorial Medical Center	51.1	0.0	22	5	22	6	15	3	4	8	4	2.1	0	23	18	10	2	16	9	5	9	8	7	9	10	10	2	3	
41	Children's Hospital at Montefiore	50.7	1.0	36	3	9	4	21	3	4	20	3	3.3	0	25	19	9	4	17	9	5	11	8	7	10	9	12	3	8	
42	Doernbecher Children's Hospital at OHSU	50.2	1.6	29	3	11	4	23	3	4	14	8	3.6	1	22	19	10	2	16	9	5	11	8	7	10	10	9	1	4	
43	Arkansas Children's Hospital	50.1	5.8	30	3	10	4	21	3	6	14	8	3.4	0	16	24	10	4	17	9	5	10	8	6	10	0	10	1	7	
44	Penn State Hershey Children's Hospital	49.3	0.2	36	3	15	4	14	3	4	14	3	3.1	1	26	17	10	1	14	9	5	11	8	7	10	10	8	1	9	
45	Children's Hospital and Medical Center	47.2	0.8	36	NR	22	2	20	3	6	14	7	3.7	1	24	21	9	3	11	9	5	11	8	7	10	10	10	0	8	
46	Children's Hospitals and Clinics of Minnesota	46.1	1.1	40	NA	24	2	17	3	7	13	10	3.6	0	23	19	10	0	13	9	5	11	8	7	10	10	11	1	10	
46	SSM Cardinal Glennon Children's Medical Center	46.1	0.8	35	6	12	3	19	3	4	11	2	3.2	0	18	16	9	3	16	8	5	11	3	6	10	10	8	0	6	
48	Le Bonheur Children's Hospital	46.0	0.1	34	NR	16	5	20	3	6	16	3	2.6	0	24	21	10	1	17	9	5	11	8	7	10	10	12	3	6	
49	Kosair Children's Hospital	44.8	0.1	33	0	12	4	23	3	5	10	7	2.5	1	27	22	10	2	15	9	5	10	8	7	10	9	11	1	7	
50	Mount Sinai Kravis Children's Hospital	44.1	1.1	28	4	2	4	23	3	4	14	4	2.2	1	18	12	8	4	15	9	5	11	8	7	9	10	10	1	5	

Rankings are based on all of the above measures. NA: not applicable. NR: not reported.

Pediatric Rankings 2013-14: Diabetes & Endocrinology

Rank	Hospital	Overall Diabetes & Endocrinology Score	Reputation with specialists	Diabetic patient management	Hypothyroid patient management	Use of infection-preventing measures	Diabetes & endocrinology patient volume	Procedure volume	Nurse-patient ratio	Nurse Magnet recognition	Commitment to best practices	Diabetes care options	Advanced clinical services	Clinical support services	Advanced technologies	Specialized clinics and programs	Patient and family services	Efforts to involve families	Commitment to quality improvement	Adoption of health information technology	Availability of subspecialists	Fellowship program	Commitment to clinical research	
1	Boston Children's Hospital	100.0	68.0	20	4	23	29	24	3.7	1	56	4	18	9	10	8	8	7	10	9	12	1	1	
2	Children's Hospital of Philadelphia	96.3	76.7	18	3	23	35	29	3.3	1	61	4	19	9	10	8	8	7	10	10	12	1	1	
3	Children's Hospital of Pittsburgh of UPMC	88.5	34.6	19	4	18	26	26	3.1	1	60	4	18	9	10	7	8	7	10	10	12	1	1	
4	Yale-New Haven Children's Hospital	86.2	24.6	20	4	20	23	24	2.4	1	62	4	19	8	10	8	8	7	10	10	12	1	1	Top 5%
5	Children's Hospital Los Angeles	84.4	27.4	19	4	19	32	14	3.0	1	55	4	17	9	9	7	7	7	10	10	12	1	1	
6	Cincinnati Children's Hospital Medical Center	83.7	24.1	18	4	20	24	18	3.7	1	60	4	18	9	10	8	8	7	10	10	12	1	1	
7	Johns Hopkins Children's Center	82.5	19.0	20	4	21	21	13	3.4	1	61	4	17	9	9	7	8	7	10	7	11	1	1	
8	Children's Hospital Colorado	81.3	39.4	17	2	18	30	24	3.3	1	57	4	19	9	10	8	8	7	10	10	12	1	1	
9	Riley Hospital for Children at IU Health	77.1	16.0	17	4	19	28	17	3.4	1	54	4	18	9	10	8	8	7	10	10	12	1	1	Top 10%
10	NY-Presby. Morgan Stanley-Komansky Children's Hospital	76.4	17.3	20	3	18	28	20	3.1	0	58	4	18	9	10	8	8	7	10	10	12	1	1	
11	Texas Children's Hospital	75.4	19.5	20	1	20	34	18	2.8	1	54	4	18	9	10	8	8	7	10	10	12	1	1	
12	Mattel Children's Hospital UCLA	74.7	12.3	17	4	20	17	24	3.1	1	60	4	18	9	10	8	8	7	9	10	12	1	1	
13	Rainbow Babies and Children's Hospital	73.3	10.7	17	4	18	22	18	3.0	1	62	4	18	9	10	8	8	7	10	10	11	1	1	
14	UCSF Benioff Children's Hospital	72.9	15.8	19	2	21	14	18	3.5	1	46	4	17	9	10	6	8	7	10	10	12	1	1	
15	Lucile Packard Children's Hospital at Stanford	72.4	19.2	20	2	21	18	16	3.5	0	53	4	18	9	10	2	8	7	10	10	12	1	1	
16	Rady Children's Hospital	70.7	4.9	20	4	21	28	22	3.3	0	58	4	18	9	10	6	8	7	9	10	12	1	1	
17	Shands Hospital for Children at the University of Florida	69.9	13.6	15	4	19	17	13	2.3	1	58	4	18	9	10	8	8	7	10	10	11	1	1	
18	Seattle Children's Hospital	68.1	9.5	18	2	19	26	21	2.8	1	52	4	17	9	10	8	8	7	10	10	12	1	1	
19	Ann and Robert H. Lurie Children's Hospital of Chicago	68.0	5.6	17	3	23	29	22	3.3	1	56	4	17	9	10	7	8	7	10	10	12	1	1	
19	Winthrop-University Hospital Children's Medical Center	68.0	2.2	20	4	22	22	14	3.7	0	63	4	17	9	10	6	8	7	10	9	12	1	1	
21	University of Michigan C.S. Mott Children's Hospital	67.5	8.0	16	4	23	24	21	3.7	0	60	3	18	9	10	7	8	7	10	10	12	1	1	
22	Nationwide Children's Hospital	67.1	5.4	17	3	21	30	24	3.2	1	55	4	18	9	10	6	8	7	10	10	12	1	1	
22	St. Louis Children's Hospital-Washington University	67.1	11.4	17	2	17	24	15	3.6	1	52	4	16	9	10	7	8	7	10	10	12	1	1	
24	Miami Children's Hospital	67.0	5.2	18	4	23	20	13	3.3	1	60	3	18	9	7	8	8	7	10	10	11	0	1	
25	Mount Sinai Kravis Children's Hospital	65.9	2.2	18	4	22	20	17	2.2	1	62	4	16	9	10	6	8	7	9	10	11	1	1	
26	Duke Children's Hospital and Health Center	65.6	6.0	17	3	19	24	16	2.5	1	52	4	18	9	10	8	8	7	10	10	12	1	1	
27	Children's Healthcare of Atlanta	64.1	3.3	20	2	20	34	22	3.3	0	54	4	18	9	10	8	8	7	10	10	12	1	1	
27	Children's Medical Center Dallas	64.1	9.2	17	1	20	34	24	3.1	1	52	4	18	9	10	6	8	7	10	10	12	1	1	
29	Monroe Carell Jr. Children's Hospital at Vanderbilt	63.7	5.6	17	2	16	27	26	3.3	1	53	4	18	9	10	8	8	7	10	10	12	1	1	
30	Doernbecher Children's Hospital at OHSU	63.2	5.3	16	3	22	19	13	3.6	1	53	4	18	9	10	4	8	7	10	10	10	1	1	
31	Cook Children's Medical Center	63.1	2.6	19	2	20	29	24	3.9	1	58	4	18	9	10	8	8	7	10	10	12	0	1	
32	Akron Children's Hospital	62.6	0.8	17	4	21	29	21	3.2	1	61	4	18	9	10	8	8	7	10	10	12	0	1	
33	Wolfson Children's Hospital	62.5	2.6	19	2	13	20	25	3.5	1	59	4	16	9	10	8	8	6	10	10	10	1	1	
34	Baystate Children's Hospital	62.2	0.0	20	4	16	17	13	1.7	1	46	4	16	9	10	6	8	7	9	10	10	1	1	
35	Connecticut Children's Medical Center	62.0	2.4	19	4	16	19	18	2.5	0	50	4	17	9	10	4	8	7	10	10	12	1	1	
36	Steven and Alexandra Cohen Children's Medical Center	61.8	2.5	17	3	23	26	25	3.5	0	61	4	17	9	10	7	8	7	10	10	12	1	1	
37	Mayo Clinic Children's Center	61.4	3.6	17	2	19	20	18	3.6	1	55	4	18	9	10	8	8	7	10	9	11	1	1	
38	Massachusetts General Hospital for Children	61.0	8.2	17	1	21	19	15	1.9	1	56	4	17	9	10	8	8	7	10	10	11	1	1	
39	Children's National Medical Center	60.5	3.0	16	3	16	26	14	3.3	1	52	4	17	9	9	8	8	7	10	10	11	1	1	
40	University of Chicago Comer Children's Hospital	59.8	2.7	18	4	11	12	15	2.7	0	60	4	17	9	9	8	8	5	10	10	11	1	1	
41	North Carolina Children's Hospital at UNC	59.7	1.2	15	4	20	19	14	3.0	1	59	4	16	9	10	7	7	7	10	10	11	1	1	
42	Children's Hospital of Alabama at UAB	59.6	1.3	17	4	15	28	21	2.7	0	59	4	17	9	10	7	8	7	9	10	12	1	1	
43	University of Iowa Children's Hospital	59.2	0.9	18	3	21	19	17	3.1	1	51	4	15	9	10	8	8	7	10	10	12	0	1	
44	Children's Hospital of Orange County	58.6	3.3	19	2	16	31	23	2.5	1	51	4	17	9	10	4	8	7	9	10	11	0	1	
45	Holtz Children's Hospital at UM-Jackson Memorial Medical Center	57.7	1.5	19	3	10	22	20	2.1	0	57	4	17	9	10	7	8	7	9	10	12	1	1	
46	Nemours Alfred I. duPont Hospital for Children	57.6	0.0	19	2	21	20	15	3.5	1	60	4	18	9	8	7	8	7	10	10	12	0	1	
47	American Family Children's Hospital	57.2	1.7	18	2	15	18	15	3.8	1	44	4	14	9	10	5	8	7	9	10	11	1	1	
48	Cleveland Clinic Children's Hospital	56.9	3.3	16	2	21	27	18	3.1	1	57	4	17	9	10	7	8	7	10	10	12	0	1	
49	Children's Hospital of Wisconsin	56.3	1.1	17	2	15	24	14	3.1	1	59	4	17	9	9	5	8	7	10	10	12	1	1	
50	Children's Mercy Hospitals and Clinics	55.8	2.0	17	0	20	30	20	3.9	1	54	4	19	9	10	8	8	7	10	10	12	1	1	

Rankings are based on all of the above measures. NA: not applicable. NR: not reported.

Pediatric Rankings 2013-14: Gastroenterology & GI Surgery

Rank	Hospital	Overall Gastroenterology & GI Surgery Score	Reputation with specialists	Three-year liver transplant survival	Prevention of pressure ulcers	Use of infection-preventing measures	Prevention of ICU infections	Gastroenterology & GI surgery patient volume	Surgery volume	Nonsurgical procedure volume	Nurse-patient ratio	Nurse Magnet recognition	Commitment to best practices	Liver transplant program	Advanced clinical services	Clinical support services	Advanced technologies	Specialized clinics and programs	Patient and family services	Efforts to involve families	Commitment to quality improvement	Adoption of health information technology	Availability of subspecialists	Fellowship program	Commitment to clinical research	
1	Boston Children's Hospital	100.0	77.1	3	3	27	4	60	8	20	3.7	1	4	4	9	10	11	9	8	7	14	9	8	1	4	
2	Children's Hospital of Philadelphia	98.9	81.1	3	3	27	4	59	4	17	3.3	1	4	4	9	10	11	9	8	7	14	10	8	1	4	
3	Cincinnati Children's Hospital Medical Center	97.0	81.6	2	3	25	5	53	8	16	3.7	1	4	4	9	10	11	9	8	7	15	10	8	1	4	
4	Texas Children's Hospital	91.4	48.4	3	2	25	4	46	8	18	2.8	1	4	4	8	10	11	9	8	7	15	10	8	1	4	Top 5%
5	Children's Hospital Colorado	90.3	52.3	2	2	23	6	46	4	14	3.3	1	4	3	9	10	10	8	8	7	15	10	8	1	4	
6	Children's Hospital of Pittsburgh of UPMC	88.5	40.1	3	3	21	4	53	6	8	3.1	1	4	4	7	10	10	9	8	7	13	10	8	1	4	
7	Ann and Robert H. Lurie Children's Hospital of Chicago	87.6	19.1	3	3	27	5	53	6	17	3.3	1	4	4	9	10	11	9	8	7	14	10	8	1	4	
8	Children's Hospital Los Angeles	84.5	16.1	3	3	22	5	52	6	18	3.0	1	4	4	9	10	11	9	7	7	13	10	8	1	4	
9	Johns Hopkins Children's Center	83.3	15.1	3	3	25	5	56	5	14	3.4	1	4	2	9	10	11	9	8	7	14	7	8	1	4	Top 10%
10	Cleveland Clinic Children's Hospital	80.2	9.5	3	3	25	5	41	5	15	3.1	1	4	3	9	10	11	9	8	7	14	10	7	1	4	
11	Mattel Children's Hospital UCLA	79.5	16.5	3	3	24	4	33	6	6	3.1	1	4	4	9	10	11	9	8	7	11	10	8	1	3	
12	Children's Healthcare of Atlanta	78.2	9.0	3	3	21	5	54	8	17	3.3	0	4	4	8	10	11	8	8	7	15	10	8	1	4	
12	Lucile Packard Children's Hospital at Stanford	78.2	14.6	3	3	26	4	41	8	11	3.5	0	4	4	9	10	11	9	8	7	14	10	8	1	3	
14	Nationwide Children's Hospital	76.1	49.9	NA	3	27	5	57	7	14	3.2	1	4	NA	9	10	11	9	8	7	12	10	8	1	4	
15	Seattle Children's Hospital	75.2	12.0	3	3	23	3	53	4	13	2.8	1	4	4	6	10	11	9	8	7	15	10	8	1	4	
16	Children's Medical Center Dallas	72.1	5.8	3	3	21	3	47	7	15	3.1	1	4	4	9	10	11	9	8	7	14	10	8	1	4	
17	Massachusetts General Hospital for Children	71.8	3.9	3	3	21	5	41	5	11	1.9	1	4	2	6	10	10	8	8	7	13	10	8	1	4	
18	St. Louis Children's Hospital-Washington University	69.0	9.0	2	3	23	4	34	6	10	3.6	1	3	3	9	10	11	8	8	7	14	10	8	1	4	
19	UCSF Benioff Children's Hospital	68.8	10.9	2	3	25	3	30	5	6	3.5	1	4	4	8	10	11	9	8	7	15	10	8	1	4	
20	Children's National Medical Center	68.1	5.2	2	3	23	4	41	8	16	3.3	1	3	4	9	10	11	9	8	7	15	10	8	1	4	
21	Nemours Alfred I. duPont Hospital for Children	67.4	5.3	2	3	25	4	39	5	13	3.5	1	4	3	8	10	11	9	8	7	14	10	8	1	3	
22	Holtz Children's Hospital at UM-Jackson Memorial Medical Center	66.4	0.0	3	3	18	6	27	6	8	2.1	0	3	4	8	10	11	9	8	7	9	10	8	1	4	
23	Riley Hospital for Children at IU Health	66.2	5.5	2	3	24	3	51	8	16	3.4	1	4	3	7	10	11	9	8	7	14	10	8	1	4	
24	North Carolina Children's Hospital at UNC	63.1	0.5	3	3	24	4	35	5	12	3.0	1	4	1	5	10	11	9	7	7	11	10	8	0	4	
25	Mount Sinai Kravis Children's Hospital	62.4	3.8	2	3	26	4	34	8	6	2.2	1	3	3	5	10	9	8	8	7	12	10	8	1	4	
25	Yale-New Haven Children's Hospital	62.4	0.9	3	3	22	3	19	2	6	2.4	1	4	3	9	9	11	6	8	7	15	10	8	1	4	
27	NY-Presby. Morgan Stanley-Komansky Children's Hospital	62.2	12.4	1	3	23	3	54	8	18	3.1	0	4	4	8	10	11	9	8	7	14	10	8	1	4	
28	Rady Children's Hospital	61.2	2.3	1	3	26	6	42	7	12	3.3	0	4	2	8	10	11	9	8	7	10	10	8	1	4	
29	Duke Children's Hospital and Health Center	61.0	0.5	3	3	21	4	27	8	8	2.5	1	4	4	6	10	11	7	8	7	4	10	8	0	2	
30	University of Michigan C.S. Mott Children's Hospital	60.8	1.9	2	2	27	4	47	7	11	3.7	0	3	4	9	10	11	9	8	7	14	10	8	1	4	
31	Children's Hospital of Alabama at UAB	60.6	0.8	3	3	19	3	30	6	11	2.7	0	4	2	9	10	10	9	8	7	13	10	8	1	4	
32	Monroe Carell Jr. Children's Hospital at Vanderbilt	59.5	1.3	1	3	21	5	45	6	12	3.3	1	4	1	9	10	11	9	8	7	13	10	8	1	4	
32	University of Minnesota Amplatz Children's Hospital	59.5	0.5	3	3	18	4	28	5	12	2.9	0	4	3	6	9	11	8	8	7	11	10	8	0	4	
34	Shands Hospital for Children at the University of Florida	58.6	1.0	2	3	21	4	26	4	11	2.3	1	4	2	5	10	11	9	8	7	10	10	7	1	4	
35	Children's Hospital of Wisconsin	57.9	9.1	1	3	20	2	45	7	19	3.1	1	4	2	9	10	11	9	8	7	12	10	8	1	4	
36	University of Chicago Comer Children's Hospital	57.7	2.1	3	3	14	3	28	5	6	2.7	0	4	3	6	10	10	5	8	5	11	10	7	1	4	
37	American Family Children's Hospital	57.5	0.2	3	3	19	4	17	2	8	3.8	1	2	2	7	10	11	6	8	7	11	10	8	0	2	
37	Primary Children's Medical Center	57.5	1.6	2	3	19	3	42	5	9	4.3	0	4	4	9	10	10	9	8	7	12	10	8	1	4	
39	Medical University of South Carolina Children's Hospital	56.5	0.4	3	3	21	4	30	3	10	3.1	0	3	3	6	10	11	6	7	7	11	10	8	0	2	
40	Rush Children's Hospital	56.4	0.0	3	3	20	5	22	2	3	2.5	1	2	2	8	10	9	9	8	5	6	9	7	0	1	
41	Levine Children's Hospital	56.0	0.5	2	3	23	5	23	6	10	2.3	0	4	2	6	10	11	7	8	7	13	7	8	0	4	
42	Miami Children's Hospital	55.7	3.8	NA	3	27	6	34	5	11	3.3	1	4	NA	9	10	11	9	8	7	12	10	7	0	4	
43	Mayo Clinic Children's Center	54.4	2.7	1	3	19	3	40	4	17	3.6	1	4	3	7	10	11	8	8	7	12	9	8	1	4	
44	Maria Fareri Children's Hospital at Westchester Medical Center	53.4	1.0	3	3	24	2	23	3	10	2.5	0	3	2	6	10	10	4	7	7	12	10	7	1	4	
45	Children's Hospital and Medical Center	51.8	0.5	2	3	15	2	29	2	6	3.7	1	4	1	7	10	11	9	8	7	12	10	8	1	4	
46	Rainbow Babies and Children's Hospital	51.2	2.9	NA	3	22	5	28	5	12	3.0	1	3	NA	8	10	11	8	8	7	13	10	8	1	3	
46	Steven and Alexandra Cohen Children's Medical Center	51.2	2.3	NA	3	27	5	42	6	9	3.5	0	4	NA	9	10	11	9	8	7	11	10	8	1	4	
48	Children's Mercy Hospitals and Clinics	50.6	0.5	1	3	23	2	47	4	15	3.9	1	4	2	9	10	11	9	8	7	13	10	8	1	4	
49	Connecticut Children's Medical Center	49.1	2.7	NA	3	23	5	35	7	6	2.5	0	4	NA	8	10	10	9	8	7	11	10	8	1	4	
50	Children's Memorial Hermann Hospital	48.9	0.0	2	3	6	4	23	3	5	6.1	0	3	2	7	10	10	5	8	7	10	9	8	1	2	

Rankings are based on all of the above measures. NA: not applicable. NR: not reported.

Pediatric Rankings2013-14: Neonatology

Rank	Hospital	Overall Neonatology Score	Reputation with specialists	Use of infection-preventing measures	Prevention of ICU infections	Neonatal patient volume	Nurse-patient ratio	Nurse Magnet recognition	Commitment to best practices	Heart-lung machine for newborns (ECMO)	Advanced clinical services	Clinical support services	Advanced technologies	Specialized clinics and programs	Patient and family services	Efforts to involve families	Commitment to quality improvement	Adoption of health information technology	Availability of subspecialists	Fellowship programs	Commitment to clinical research	
1	Boston Children's Hospital	100.0	62.6	19	3	20	3.3	1	47	5	5	7	5	16	15	8	11	9	15	15	4	
2	Rainbow Babies and Children's Hospital	85.0	33.9	14	3	9	3.0	1	44	5	5	7	5	16	15	8	11	10	15	10	4	
3	St. Louis Children's Hospital-Washington University	82.2	20.7	17	3	16	3.2	1	43	5	5	7	5	16	15	8	11	10	15	15	4	
4	Children's Hospital of Philadelphia	81.9	67.5	19	2	21	3.5	1	45	5	5	7	5	14	15	8	11	10	16	15	4	Top 5%
5	Nationwide Children's Hospital	79.8	17.1	19	3	19	2.6	1	39	5	5	7	5	16	15	8	11	10	16	15	4	
6	NY-Presby. Morgan Stanley-Komansky Children's Hospital	79.7	29.6	15	3	17	2.5	0	42	5	5	7	5	16	15	8	11	10	16	13	4	
7	Lucile Packard Children's Hospital at Stanford	79.4	24.8	18	3	15	3.4	0	40	5	5	7	5	15	15	8	11	10	16	14	4	
8	Children's Hospital Los Angeles	79.2	14.6	17	3	18	3.9	1	42	5	5	7	5	16	14	8	11	10	16	14	4	
9	Children's Hospital Colorado	78.5	15.8	15	3	17	3.3	1	44	5	5	7	5	16	15	8	11	10	15	14	4	Top 10%
10	Children's National Medical Center	78.3	16.5	15	3	19	3.0	1	42	5	5	7	5	16	15	8	11	10	15	13	4	
11	Seattle Children's Hospital	77.9	17.2	17	3	15	3.8	1	42	5	4	7	5	16	13	7	11	10	16	14	3	
12	Johns Hopkins Children's Center	75.9	18.5	17	3	10	2.9	1	30	5	5	7	5	15	14	8	10	7	16	15	4	
13	Children's Hospital of Pittsburgh of UPMC	75.5	12.3	14	3	15	3.2	1	45	5	5	7	5	16	15	8	11	10	16	15	4	
14	Cincinnati Children's Hospital Medical Center	74.1	44.6	17	2	19	3.5	1	42	5	5	7	5	16	15	8	11	10	15	15	4	
15	Ann and Robert H. Lurie Children's Hospital of Chicago	72.9	11.1	19	3	13	2.9	1	32	5	5	7	5	16	14	7	11	10	16	15	4	
16	Monroe Carell Jr. Children's Hospital at Vanderbilt	72.6	9.1	13	3	19	3.5	1	43	5	5	7	5	16	15	8	11	10	16	13	4	
17	Texas Children's Hospital	71.1	36.2	19	2	18	3.1	1	43	5	5	7	5	16	15	8	11	10	15	15	4	
18	Duke Children's Hospital and Health Center	67.8	6.1	17	3	13	2.8	1	41	5	5	7	5	16	15	8	11	10	15	11	4	
19	Children's Hospital of Wisconsin	65.1	4.2	15	3	18	2.8	1	40	5	5	7	5	16	15	8	11	10	15	10	4	
20	Rady Children's Hospital	63.0	3.3	18	3	17	4.4	0	43	5	5	7	5	16	15	8	10	10	15	14	4	
21	Miami Children's Hospital	61.8	3.4	19	3	11	3.4	1	38	5	5	7	5	16	14	8	11	10	15	6	2	
22	Children's Healthcare of Atlanta	61.1	4.2	18	3	17	2.8	0	39	5	5	7	5	16	15	8	11	10	15	14	3	
23	Mayo Clinic Children's Center	60.2	0.4	17	3	9	4.6	1	42	5	5	7	5	16	15	8	11	9	16	11	3	
24	Cook Children's Medical Center	58.2	2.5	18	3	13	2.9	1	30	5	5	7	5	15	15	8	10	10	15	0	4	
24	Massachusetts General Hospital for Children	58.2	0.9	17	3	6	3.5	1	39	4	5	7	5	15	13	7	11	10	16	9	4	
26	UCSF Benioff Children's Hospital	57.5	13.6	17	2	17	3.2	1	46	5	4	7	5	16	15	8	11	10	15	14	4	
27	Children's Hospitals and Clinics of Minnesota	57.4	5.5	12	3	18	3.2	0	33	5	4	7	4	15	15	8	11	10	14	6	4	
28	North Carolina Children's Hospital at UNC	56.8	1.9	16	3	12	2.8	1	33	5	4	7	5	14	14	8	10	10	15	8	3	
29	Children's Hospital of Orange County	56.6	0.9	16	3	14	2.7	1	42	4	4	7	5	16	15	8	11	10	14	3	4	
30	Steven and Alexandra Cohen Children's Medical Center	55.8	0.8	19	3	16	2.3	0	44	5	5	7	5	15	15	8	11	10	16	9	4	
31	University of Minnesota Amplatz Children's Hospital	55.4	3.1	13	3	12	2.6	0	38	5	4	7	5	16	15	8	11	10	15	9	4	
32	Holtz Children's Hospital at UM-Jackson Memorial Medical Center	54.4	3.9	10	3	6	2.0	0	41	4	5	7	5	16	15	8	10	10	16	12	4	
33	Mattel Children's Hospital UCLA	54.3	9.8	16	2	12	4.5	1	43	5	5	7	5	16	15	8	10	10	15	15	4	
34	Advocate Children's Hospital	53.6	0.4	13	3	9	2.4	1	37	5	4	7	5	15	15	8	11	10	14	5	4	
35	Inova Fairfax Hospital for Children	52.8	0.4	11	3	12	2.3	1	39	4	5	7	5	16	15	8	11	6	15	6	4	
36	Brenner Children's Hospital and Health Services	51.7	1.2	16	3	12	2.3	1	34	5	3	6	5	7	13	6	10	10	15	6	4	
37	St. Christopher's Hospital for Children	51.5	2.1	19	3	5	2.1	1	35	5	5	7	4	16	13	6	10	0	15	9	2	
38	Maria Fareri Children's Hospital at Westchester Medical Center	51.4	0.5	16	3	18	2.4	0	43	4	5	7	5	16	14	8	11	10	15	5	3	
39	Phoenix Children's Hospital	51.2	0.6	14	3	17	3.0	0	39	5	5	7	4	16	14	7	11	10	15	4	4	
40	University of Chicago Comer Children's Hospital	50.2	1.6	10	3	10	2.7	0	36	4	5	7	5	16	15	6	10	10	15	10	4	
41	Children's Medical Center Dallas-Parkland Memorial Hospital	50.1	6.9	18	2	16	2.4	1	41	5	5	7	5	15	15	8	11	10	15	15	4	
42	University of Michigan C.S. Mott Children's Hospital	49.0	8.9	19	2	15	3.1	0	41	5	5	7	5	16	15	8	11	10	16	15	4	
43	Connecticut Children's Medical Center	48.6	0.5	15	3	10	2.4	0	32	4	5	7	5	13	15	8	10	10	16	5	4	
44	Riley Hospital for Children at IU Health	47.8	4.1	17	2	18	3.7	1	45	5	5	7	5	15	15	8	11	10	15	13	3	
45	SSM Cardinal Glennon Children's Medical Center	47.2	1.7	14	3	12	2.4	0	37	4	4	6	5	15	9	6	11	10	14	2	4	
46	Levine Children's Hospital	46.4	0.8	15	3	15	2.5	0	37	5	3	7	5	13	15	8	10	7	15	0	3	
47	Children's Mercy Hospitals and Clinics	45.9	3.0	18	2	17	3.1	1	42	5	5	7	5	14	15	8	11	10	16	12	4	
48	Bristol-Myers Squibb Children's Hospital at RWJ Univ. Hosp.	45.7	0.5	12	3	5	3.0	1	38	2	5	7	5	14	13	7	8	4	13	1	3	
49	Wolfson Children's Hospital	45.4	0.0	9	3	8	1.9	1	35	5	4	7	3	13	13	6	9	10	14	7	3	
50	Arkansas Children's Hospital	45.0	0.0	16	3	14	2.6	0	28	5	5	7	4	16	14	6	10	0	16	7	4	

Rankings are based on all of the above measures. NA: not applicable. NR: not reported.

Pediatric Rankings 2013-14: Nephrology

Rank	Hospital	Overall Nephrology Score	Reputation with specialists	Survival after kidney transplant	Managing dialysis patients	Preventing biopsy complications	Use of infection-preventing measures	Prevention of ICU infections	Prevention of dialysis-related infections	Prevention of pressure ulcers	Nephrology patient volume	Catheter procedure volume	Dialysis volume	Kidney biopsy volume	Kidney transplant volume	Nurse-patient ratio	Nurse Magnet recognition	Commitment to best practices	Transplants to dialysis patients	Advanced clinical services	Clinical support services	Advanced technologies	Patient and family services	Efforts to involve families	Commitment to quality improvement	Adoption of health information technology	Availability of subspecialists	Fellowship program	Commitment to clinical research	
1	Boston Children's Hospital	100.0	72.0	21	18	3	41	4	11	3	32	9	13	4	6	3.7	1	27	7	8	9	1	12	7	10	9	8	1	9	
2	Cincinnati Children's Hospital Medical Center	98.8	63.9	23	20	2	41	5	12	3	24	12	13	5	5	3.7	1	26	5	8	9	1	12	7	10	10	8	1	10	
3	Children's Hospital of Philadelphia	94.6	55.8	23	18	3	44	4	9	3	34	9	9	7	4	3.3	1	26	6	8	9	1	11	7	10	10	8	1	10	
4	Seattle Children's Hospital	93.1	68.9	23	16	3	40	3	7	3	24	11	14	9	6	2.8	1	26	6	6	9	1	12	7	10	10	8	1	9	Top 5%
5	Lucile Packard Children's Hospital at Stanford	85.2	38.1	24	13	3	39	4	9	3	30	11	17	9	6	3.5	0	26	7	7	9	1	12	7	10	10	8	1	9	
6	Children's Mercy Hospitals and Clinics	84.7	27.7	23	20	3	43	2	11	3	28	7	10	8	4	3.9	1	27	7	8	9	1	12	7	10	10	8	1	8	
7	Texas Children's Hospital	81.8	37.0	24	14	2	43	4	8	2	25	14	17	8	5	2.8	1	27	4	8	9	1	12	7	10	10	8	1	6	
8	Mattel Children's Hospital UCLA	78.7	25.8	24	15	3	39	4	7	3	19	9	17	7	5	3.1	1	27	2	8	9	1	12	7	9	10	7	1	8	Top 10%
9	Ann and Robert H. Lurie Children's Hospital of Chicago	77.8	15.5	22	18	3	44	5	7	3	32	14	12	6	4	3.3	1	27	2	8	9	1	12	7	10	10	8	1	9	
10	Nationwide Children's Hospital	77.7	22.4	22	16	3	44	5	7	3	26	11	14	4	2	3.2	1	26	3	8	9	1	12	7	10	10	7	1	7	
11	Children's Hospital of Pittsburgh of UPMC	72.2	15.9	21	18	3	36	4	9	3	24	5	8	5	4	3.1	1	26	8	8	9	1	12	7	10	10	7	1	3	
12	Children's Healthcare of Atlanta	71.9	17.3	21	11	3	36	5	8	3	33	10	13	9	6	3.3	0	24	5	7	9	1	12	7	10	10	8	1	10	
13	Johns Hopkins Children's Center	71.1	19.9	21	18	2	40	5	10	3	15	7	10	2	2	3.4	1	24	4	6	9	1	11	7	10	7	8	1	6	
14	Children's Medical Center Dallas	70.9	12.0	23	16	3	40	3	7	3	35	15	18	6	6	3.1	1	26	1	8	9	1	12	7	10	10	8	1	6	
15	UCSF Benioff Children's Hospital	63.5	5.5	23	13	3	41	3	9	3	25	7	12	7	5	3.5	1	27	8	5	9	1	12	7	10	10	8	1	5	
16	Children's National Medical Center	62.8	8.3	21	15	3	35	4	6	3	22	9	15	5	3	3.3	1	27	2	7	9	1	12	7	10	10	8	1	6	
16	Riley Hospital for Children at IU Health	62.8	4.5	22	14	3	40	3	10	3	29	10	16	4	5	3.4	1	25	6	6	9	1	12	7	10	10	8	1	5	
18	Children's Hospital Los Angeles	62.0	7.8	23	11	3	36	5	10	3	24	14	15	4	4	3.0	1	26	2	6	9	1	10	7	10	10	8	0	3	
19	University of Minnesota Amplatz Children's Hospital	61.9	9.0	22	20	2	33	4	11	3	31	10	13	6	5	2.9	0	26	12	7	8	1	10	7	10	10	8	0	3	
20	University of Michigan C.S. Mott Children's Hospital	61.6	11.2	21	11	3	41	4	7	2	18	9	16	5	4	3.7	0	26	5	6	9	1	12	7	10	10	8	1	7	
21	St. Louis Children's Hospital-Washington University	60.2	4.5	22	12	3	40	4	9	3	19	8	7	4	3	3.6	1	27	3	6	9	1	12	7	10	10	8	1	8	
22	Holtz Children's Hospital at UM-Jackson Memorial Medical Center	59.9	3.6	23	17	3	32	6	10	3	18	10	14	3	3	2.1	0	27	5	8	9	1	12	7	9	10	7	1	5	
23	Children's Hospital at Montefiore	58.5	14.8	20	8	3	41	4	6	3	19	8	9	3	2	3.3	0	25	2	8	9	1	12	7	10	9	8	1	7	
24	Rady Children's Hospital	58.0	2.3	19	17	3	42	6	8	3	24	9	12	5	3	3.3	0	27	5	8	9	1	12	7	9	10	7	1	4	
25	University of Iowa Children's Hospital	57.7	6.6	20	13	3	41	2	9	3	24	4	9	3	2	3.1	1	27	4	7	9	1	12	7	9	10	8	1	8	
26	Mount Sinai Kravis Children's Hospital	57.1	3.0	22	16	3	43	4	9	3	23	3	4	3	4	2.2	1	26	6	7	9	1	12	7	9	10	7	1	4	
26	Shands Hospital for Children at the University of Florida	57.1	2.6	22	16	3	29	4	11	3	21	11	10	4	2	2.3	1	24	4	8	9	1	12	7	10	10	6	1	4	
28	Doernbecher Children's Hospital at OHSU	56.8	1.1	19	19	3	39	4	9	3	35	8	10	9	3	3.6	1	25	5	8	9	1	12	7	10	10	7	0	4	
29	Rainbow Babies and Children's Hospital	56.2	4.6	22	14	3	39	5	7	3	18	6	7	2	2	3.0	1	23	2	6	9	1	11	7	10	10	7	1	5	
30	Cook Children's Medical Center	55.8	2.8	21	13	3	34	5	11	3	18	13	13	3	3	3.9	1	22	1	8	9	1	12	7	10	10	8	0	1	
31	Medical University of South Carolina Children's Hospital	55.2	2.0	24	18	3	42	4	10	3	21	8	11	5	4	3.1	0	26	5	8	9	1	11	7	10	10	7	0	5	
32	Children's Memorial Hermann Hospital	55.0	2.1	18	18	3	30	4	11	3	32	13	11	3	2	6.1	0	26	1	8	9	1	11	7	10	9	7	1	5	
33	Phoenix Children's Hospital	54.8	2.5	24	15	3	39	5	10	3	29	12	14	0	4	3.0	0	25	3	8	9	1	12	7	10	10	7	0	4	
34	NY-Presby. Morgan Stanley-Komansky Children's Hospital	53.4	2.3	23	20	3	35	3	11	3	20	5	9	4	4	3.1	0	27	3	8	9	1	12	7	10	10	8	0	5	
35	Children's Hospital of Alabama at UAB	52.9	1.8	22	14	3	36	3	5	3	28	14	15	8	5	2.7	0	26	6	8	9	1	12	7	9	10	8	1	9	
36	Levine Children's Hospital	52.4	2.1	17	19	3	34	5	11	3	20	11	15	6	3	2.3	0	25	4	5	9	1	11	7	10	7	8	0	6	
37	Akron Children's Hospital	52.3	1.4	24	14	3	43	5	10	3	13	6	6	2	2	3.2	1	23	5	5	9	1	12	7	10	10	7	0	2	
38	Children's Hospital of Wisconsin	51.7	3.5	22	11	3	38	2	6	3	24	10	11	3	4	3.1	1	24	5	7	9	1	11	7	10	10	8	1	5	
38	Duke Children's Hospital and Health Center	51.7	2.5	24	20	2	42	4	12	3	18	5	6	4	2	2.5	1	21	3	5	9	1	12	7	8	10	8	0	2	
40	Le Bonheur Children's Hospital	51.5	2.7	24	13	3	40	5	7	3	16	6	10	3	2	2.6	0	25	2	8	9	1	12	7	10	10	8	1	3	
41	Children's Hospital of Michigan	50.7	3.4	16	16	3	41	5	3	3	24	12	8	3	1	2.6	1	24	1	6	9	1	10	7	10	10	7	1	5	
42	Mayo Clinic Children's Center	50.0	0.3	23	18	3	33	3	8	3	34	1	7	6	3	3.6	1	26	6	6	9	1	12	7	10	9	7	0	4	
43	Miami Children's Hospital	49.8	1.7	NR	20	3	44	6	8	3	27	11	16	4	2	3.3	1	26	1	7	9	1	10	7	10	10	8	0	2	
44	Helen DeVos Children's Hospital	48.8	1.1	24	12	3	36	5	6	3	27	7	9	5	2	2.8	1	25	3	6	8	1	12	7	10	10	7	0	4	
45	North Carolina Children's Hospital at UNC	48.5	1.1	23	10	3	37	4	5	3	18	6	11	5	3	3.0	1	23	3	5	9	1	11	7	10	10	8	1	6	
46	Children's Hospital Colorado	46.3	1.5	22	14	2	33	6	5	2	25	11	9	2	4	3.3	1	24	1	8	9	1	12	7	10	10	7	0	2	
47	Steven and Alexandra Cohen Children's Medical Center	45.6	1.7	NR	18	3	44	5	11	3	20	10	7	2	0	3.5	0	23	10	7	9	1	12	7	10	10	8	0	5	
48	American Family Children's Hospital	44.9	0.9	24	9	3	36	4	6	3	21	2	6	7	2	3.8	1	23	3	5	9	1	10	7	10	10	8	0	5	
48	Nemours Alfred I. duPont Hospital for Children	44.9	0.4	22	15	2	38	4	8	3	18	5	10	2	2	3.5	1	26	4	6	9	1	12	7	10	10	8	0	2	
50	Children's Hospital of Richmond at VCU	44.8	0.5	24	20	2	39	4	5	2	17	6	8	2	2	3.5	1	22	5	8	8	1	11	5	9	10	8	0	7	

Rankings are based on all of the above measures. NA: not applicable. NR: not reported.

Pediatric Rankings 2013-14: Neurology & Neurosurgery

Rank	Hospital	Overall Neurology & Neurosurgery Score	Reputation with specialists	Use of infection-preventing measures	Surgical survival	Prevention of surgical complications	Management of epilepsy patients	Clinic patient volume	Surgery volume	Epilepsy workup and care volume	Nurse-patient ratio	Nurse Magnet recognition	Commitment to best practices	Advanced clinical services	Clinical support services	Advanced technologies	Specialized clinics and programs	Patient and family services	Efforts to involve families	Commitment to quality improvement	Adoption of health information technology	Availability of subspecialists	Fellowship programs	Commitment to clinical research	
1	Boston Children's Hospital	100.0	78.9	26	12	13	6	45	30	16	3.7	1	17	16	9	7	16	8	7	10	9	11	2	4	
2	St. Louis Children's Hospital-Washington University	91.9	34.2	24	12	14	8	38	18	11	3.6	1	17	15	9	6	16	8	7	10	10	11	2	4	
3	Children's Hospital of Philadelphia	91.7	60.8	26	12	12	5	43	30	13	3.3	1	16	11	9	7	15	8	7	10	10	11	2	4	
4	Cincinnati Children's Hospital Medical Center	91.0	36.8	23	12	15	6	38	21	15	3.7	1	17	16	9	7	16	8	7	10	10	11	2	4	Top 5%
5	Ann and Robert H. Lurie Children's Hospital of Chicago	89.6	18.2	26	12	16	8	47	31	15	3.3	1	16	16	9	7	16	8	7	10	10	11	2	4	
6	Johns Hopkins Children's Center	87.9	51.7	24	12	12	5	22	24	10	3.4	1	17	15	9	7	16	8	7	10	7	11	2	4	
7	Texas Children's Hospital	87.0	38.1	25	11	11	7	35	22	14	2.8	1	16	16	9	7	16	8	7	10	10	11	2	4	
8	Cleveland Clinic Children's Hospital	85.4	29.3	24	12	14	5	45	22	14	3.1	1	17	16	9	7	16	8	7	10	10	11	2	4	
9	Children's National Medical Center	82.6	26.6	22	12	11	7	36	22	14	3.3	1	16	15	9	7	16	8	7	10	10	11	1	4	Top 10%
10	Miami Children's Hospital	81.5	16.3	26	12	16	5	39	24	15	3.3	1	17	15	9	6	15	8	7	10	10	11	2	4	
11	Children's Hospital of Pittsburgh of UPMC	80.7	19.0	21	12	13	6	34	26	14	3.1	1	17	15	9	7	15	8	7	10	10	11	2	4	
12	Seattle Children's Hospital	80.4	18.9	24	11	13	7	34	24	10	2.8	1	16	14	9	7	15	8	7	10	10	11	2	4	
13	Rainbow Babies and Children's Hospital	77.4	9.8	21	12	15	8	25	13	12	3.0	1	16	15	9	7	16	8	7	10	10	11	2	2	
14	Nationwide Children's Hospital	77.2	10.8	26	12	15	5	44	19	14	3.2	1	17	16	9	6	16	8	7	10	10	11	2	4	
15	Children's Hospital Los Angeles	76.9	12.7	24	12	16	5	34	30	11	3.0	1	16	14	9	6	13	7	7	10	10	10	2	4	
16	Primary Children's Medical Center	75.3	11.1	23	12	14	6	42	26	13	4.3	0	17	15	9	7	16	8	7	10	10	11	2	4	
17	NY-Presby. Morgan Stanley-Komansky Children's Hospital	74.9	18.2	22	12	12	6	31	19	10	3.1	0	17	16	9	7	16	8	7	10	10	11	2	4	
18	Children's Hospital Colorado	74.5	13.0	21	12	12	5	31	24	16	3.3	1	16	15	9	7	16	8	7	10	10	11	2	4	
19	Riley Hospital for Children at IU Health	72.4	1.5	24	12	14	8	36	29	13	3.4	1	17	15	9	6	16	8	7	10	10	11	2	3	
20	Rady Children's Hospital	71.9	2.0	25	12	16	8	33	33	15	3.3	0	16	14	9	7	16	8	7	9	10	11	2	4	
21	Children's Medical Center Dallas	71.6	4.8	24	12	14	6	31	26	11	3.1	1	17	15	9	6	15	8	7	10	10	11	2	4	
22	UCSF Benioff Children's Hospital	71.5	21.7	24	10	9	5	27	14	6	3.5	1	16	11	9	7	15	8	7	10	10	11	2	4	
23	Children's Hospital of Michigan	68.6	0.8	25	12	15	7	33	23	17	2.6	1	15	16	9	7	16	8	7	10	10	10	1	4	
24	Mattel Children's Hospital UCLA	67.8	8.6	23	10	14	5	21	17	10	3.1	1	15	14	9	6	16	8	7	9	10	11	2	4	
25	Mayo Clinic Children's Center	67.7	13.4	23	11	14	2	31	18	8	3.6	1	17	16	9	6	16	8	7	10	9	10	2	3	
26	Children's Hospital of Alabama at UAB	67.0	13.0	16	11	12	6	27	20	12	2.7	0	16	10	9	7	15	8	7	9	10	10	2	4	
26	Steven and Alexandra Cohen Children's Medical Center	67.0	0.8	26	12	16	7	23	26	15	3.5	0	17	16	9	7	13	8	7	10	10	11	2	2	
28	Akron Children's Hospital	66.3	0.9	25	12	12	8	40	17	11	3.2	1	15	16	9	7	16	8	7	10	10	11	0	4	
29	Joseph M. Sanzari Children's Hospital	66.1	0.3	18	12	14	7	17	19	11	7.8	1	15	16	9	7	16	8	7	10	10	11	2	3	
30	University of Iowa Children's Hospital	66.0	0.5	24	12	14	7	22	14	6	3.1	1	17	12	9	6	16	8	7	10	10	10	2	4	
30	University of Michigan C.S. Mott Children's Hospital	66.0	4.3	26	12	15	5	26	17	7	3.7	0	17	15	9	6	15	8	7	10	10	10	2	4	
32	Phoenix Children's Hospital	65.3	3.3	20	12	16	6	34	22	14	3.0	0	16	14	9	6	14	8	7	10	10	11	1	4	
33	Lucile Packard Children's Hospital at Stanford	63.0	6.6	25	12	11	5	25	17	6	3.5	0	16	15	9	6	13	8	7	10	10	10	2	4	
34	Children's Healthcare of Atlanta	62.3	3.4	25	12	13	5	34	30	14	3.3	0	15	11	9	7	14	8	7	10	10	11	1	4	
35	Penn State Hershey Children's Hospital	61.8	0.3	16	10	16	8	16	13	4	3.1	1	16	13	9	6	9	8	7	10	10	10	1	4	
36	Children's Hospital of Wisconsin	60.3	2.0	22	11	11	5	35	21	10	3.1	1	16	15	9	7	16	8	7	10	10	11	1	4	
37	Children's Hospital of Orange County	59.6	2.8	23	10	7	8	26	19	16	2.5	1	14	14	9	7	14	8	7	10	10	10	1	3	
38	Le Bonheur Children's Hospital	59.5	7.6	22	12	8	4	30	19	12	2.6	0	16	15	9	7	16	8	7	10	10	11	2	4	
39	Kosair Children's Hospital	59.2	0.9	24	12	13	5	19	18	11	2.5	1	14	15	9	7	15	8	7	10	9	11	1	3	
40	Doernbecher Children's Hospital at OHSU	58.8	1.7	24	12	12	3	21	18	8	3.6	1	16	15	9	6	13	8	7	10	10	10	2	4	
41	Children's Mercy Hospitals and Clinics	58.0	1.4	23	12	13	2	31	16	11	3.9	1	16	16	9	7	13	8	7	10	10	10	2	3	
42	Duke Children's Hospital and Health Center	57.9	2.4	23	12	10	4	24	22	7	2.5	1	14	14	9	7	12	8	7	10	10	11	2	4	
43	Monroe Carell Jr. Children's Hospital at Vanderbilt	57.8	1.6	19	9	12	5	29	17	11	3.3	1	17	15	9	7	16	8	7	10	10	11	1	4	
44	Nemours Alfred I. duPont Hospital for Children	56.9	0.5	24	12	15	3	21	12	11	3.5	1	15	13	9	6	16	8	7	10	10	11	1	2	
45	Children's Hospital at Montefiore	56.5	3.4	21	12	13	3	25	12	7	3.3	0	15	16	9	6	15	8	7	10	9	10	2	4	
46	Cook Children's Medical Center	55.5	1.4	23	12	6	5	27	20	13	3.9	1	16	15	9	7	15	8	7	10	10	11	0	4	
47	Children's Memorial Hermann Hospital	55.3	3.1	12	10	14	5	18	12	12	6.1	0	17	16	9	7	14	8	7	10	9	10	1	2	
48	Massachusetts General Hospital for Children	53.4	6.2	21	12	8	2	22	15	8	1.9	1	15	12	9	7	16	8	7	10	10	11	1	4	
49	Women and Children's Hospital of Buffalo	52.9	0.0	18	12	13	5	30	17	10	2.9	0	14	12	8	7	15	8	7	9	1	11	2	4	
50	Gillette Children's Specialty Healthcare	52.0	1.3	23	11	15	2	35	23	6	4.9	0	15	16	9	7	16	8	7	9	10	11	0	3	

Rankings are based on all of the above measures. NA: not applicable. NR: not reported.

Pediatric Rankings 2013-14: Orthopedics

Rank	Hospital	Overall Orthopedics Score	Reputation with specialists	Preventing surgical complications	Use of infection-preventing measures	Orthopedics patient volume	Procedure volume	Nurse-patient ratio	Nurse Magnet recognition	Commitment to best practices	Advanced clinical services	Clinical support services	Advanced technologies	Specialized clinics and programs	Patient and family services	Efforts to involve families	Commitment to quality improvement	Adoption of health information technology	Availability of subspecialists	Fellowship program	Commitment to clinical research	
1	Children's Medical Center-Texas Scottish Rite Hospital for Children	100.0	67.0	12	22	23	42	3.1	1	21	6	9	3	9	8	7	10	10	15	1	1	
2	Children's Hospital of Philadelphia	94.1	69.8	10	23	26	44	3.3	1	21	6	9	3	9	8	7	10	10	16	1	1	
3	Cincinnati Children's Hospital Medical Center	93.2	39.5	12	21	18	39	3.7	1	18	6	9	3	9	8	7	10	10	16	1	1	
4	Children's Hospital Los Angeles	93.0	39.1	12	21	23	40	3.0	1	21	6	9	3	9	7	7	10	10	15	1	1	Top 5%
5	Nemours Alfred I. duPont Hospital for Children	91.6	32.5	12	21	23	34	3.5	1	21	6	9	3	9	8	7	10	10	15	1	1	
6	St. Louis Children's-Washington University-Shriners Hospital	88.8	24.0	12	21	20	38	3.6	1	21	6	9	3	9	8	7	10	10	16	1	1	
7	Rady Children's Hospital	88.0	62.5	10	22	23	40	3.3	0	21	6	9	3	9	8	7	9	10	16	1	1	
8	Boston Children's Hospital	87.9	77.6	8	23	30	37	3.7	1	20	6	9	3	9	8	7	10	9	15	1	1	Top 10%
9	Children's Hospital Colorado	84.9	18.5	12	19	27	41	3.3	1	16	6	9	3	9	8	7	10	10	16	1	1	
10	Children's Healthcare of Atlanta	83.9	28.6	11	22	28	48	3.3	0	20	6	9	3	9	8	7	10	10	16	1	1	
11	Ann and Robert H. Lurie Children's Hospital of Chicago	82.1	11.6	12	23	27	31	3.3	1	18	6	9	3	9	8	7	10	10	16	1	1	
12	Nationwide Children's Hospital	77.4	4.7	12	23	26	37	3.2	1	20	6	9	3	9	8	7	10	10	16	1	1	
13	NY-Presby. Morgan Stanley-Komansky Children's Hospital	76.1	10.4	12	19	17	31	3.1	0	20	6	9	3	9	8	7	10	10	16	1	1	
14	Rainbow Babies and Children's Hospital	75.7	15.0	11	18	17	36	3.0	1	20	6	9	3	9	8	7	10	10	16	0	1	
15	Children's National Medical Center	75.3	4.2	12	19	25	29	3.3	1	19	6	9	3	9	8	7	10	10	16	1	1	
16	Texas Children's Hospital	74.5	7.9	11	23	13	26	2.8	1	21	6	9	3	9	8	7	10	10	16	1	1	
17	Mattel Children's Hospital UCLA	74.2	5.4	12	20	11	22	3.1	1	21	6	9	3	6	8	7	9	10	16	1	1	
18	Gillette Children's Specialty Healthcare	74.0	6.0	12	20	26	32	4.9	0	20	5	9	3	9	8	7	9	10	16	1	1	
19	Riley Hospital for Children at IU Health	73.8	5.0	12	21	21	34	3.4	1	20	6	9	3	9	8	7	10	10	16	0	1	
20	Miami Children's Hospital	71.5	0.8	12	23	16	27	3.3	1	20	6	9	3	8	8	7	10	10	16	1	1	
21	Wolfson Children's Hospital	70.7	6.5	12	13	3	29	3.5	1	19	4	9	3	2	8	6	10	10	13	1	1	
22	Akron Children's Hospital	70.5	1.7	12	22	24	27	3.2	1	21	6	9	3	9	8	7	10	10	16	0	1	
23	Children's Mercy Hospitals and Clinics	70.4	1.6	11	22	21	35	3.9	1	20	6	9	3	9	8	7	10	10	15	1	1	
24	Johns Hopkins Children's Center	69.1	12.7	9	21	21	28	3.4	1	15	6	9	3	9	8	7	10	7	16	1	1	
25	Mayo Clinic Children's Center	68.9	4.9	11	21	13	23	3.6	1	21	6	9	3	9	8	7	10	9	16	0	1	
25	Primary Children's Medical Center	68.9	9.5	10	21	20	30	4.3	0	18	6	9	3	9	8	7	10	10	14	1	1	
27	Children's Hospital of Wisconsin	68.8	2.6	12	19	23	32	3.1	1	15	5	9	3	9	8	7	10	10	16	0	1	
27	University of Iowa Children's Hospital	68.8	5.2	11	21	14	20	3.1	1	21	6	9	3	9	8	7	10	10	16	0	1	
29	Duke Children's Hospital and Health Center	68.3	0.7	12	21	11	23	2.5	1	18	5	9	3	8	8	7	10	10	15	1	1	
30	Kosair Children's Hospital	68.2	1.5	12	22	16	24	2.5	1	21	6	9	3	9	8	7	10	9	16	0	1	
31	Helen DeVos Children's Hospital	66.6	0.4	12	21	15	34	2.8	1	20	6	8	3	8	8	7	10	10	15	0	1	
32	Massachusetts General Hospital for Children	66.0	1.1	12	21	13	11	1.9	1	14	5	9	3	6	8	7	10	10	15	1	1	
33	University of Michigan C.S. Mott Children's Hospital	65.6	4.4	10	23	18	35	3.7	0	20	6	9	3	9	8	7	10	10	15	1	1	
34	Monroe Carell Jr. Children's Hospital at Vanderbilt	65.5	3.0	10	17	19	39	3.3	1	19	5	9	3	8	8	7	10	10	16	1	1	
35	North Carolina Children's Hospital at UNC	65.3	0.0	12	20	12	28	3.0	1	19	5	9	3	9	7	7	10	10	16	0	1	
36	American Family Children's Hospital	65.1	0.0	12	17	13	23	3.8	1	18	5	9	3	8	8	7	10	10	16	0	1	
37	Children's Hospital of Michigan	64.3	0.0	12	23	18	20	2.6	1	13	6	9	3	8	8	7	10	10	15	0	1	
38	Arnold Palmer Medical Center	63.6	9.3	11	15	12	23	1.8	0	16	5	9	3	4	8	7	8	7	15	1	1	
39	Penn State Hershey Children's Hospital	63.4	0.5	12	13	11	19	3.1	1	19	6	9	3	5	8	7	10	10	15	0	1	
40	Seattle Children's Hospital	63.3	14.5	8	21	17	30	2.8	1	17	5	9	3	9	8	7	10	10	16	0	1	
41	Connecticut Children's Medical Center	63.1	1.6	12	19	14	23	2.5	0	20	6	9	3	8	8	7	10	10	15	0	1	
41	UC Davis Children's Hospital-Shriners Hospitals for Children	63.1	1.4	11	17	16	36	4.3	0	16	5	9	3	7	8	7	10	10	16	1	1	
43	Steven and Alexandra Cohen Children's Medical Center	62.9	0.0	12	23	12	22	3.5	0	20	5	9	3	8	8	7	10	10	16	0	1	
44	Brenner Children's Hospital and Health Services	62.7	0.0	12	20	3	18	3.0	1	16	6	8	3	7	8	6	10	10	16	0	1	
45	University of Rochester-Golisano Children's Hospital	62.3	0.6	12	14	12	22	2.8	1	19	5	8	3	8	5	7	10	7	16	0	1	
46	St. Christopher's Hospital for Children	61.7	1.6	11	23	13	17	2.5	1	18	5	9	2	9	7	5	10	0	14	1	1	
47	Children's Hospital at OU Medical Center	60.4	0.8	12	16	12	19	3.3	0	21	5	9	3	7	6	6	9	10	16	0	1	
48	Children's Hospital of Pittsburgh of UPMC	60.1	3.9	8	18	23	35	3.1	1	21	6	9	3	9	8	7	9	10	16	1	1	
49	Doernbecher Children's Hospital at OHSU	60.0	0.9	11	21	13	17	3.6	1	20	5	9	3	8	8	7	10	10	13	0	0	
50	Joe DiMaggio Children's Hospital at Memorial Regional Hospital	59.9	1.4	12	19	12	30	2.7	0	21	5	9	3	7	8	7	10	10	15	0	0	

Rankings are based on all of the above measures. NA: not applicable. NR: not reported.

Pediatric Rankings 2013-14: Pulmonology

Rank	Hospital	Overall Pulmonology Score	Reputation with specialists	Success with asthma inpatients	Asthma-management success	Management of cystic fibrosis patients	Management of lung disease of prematurity	Management of neuromuscular weakness	Ventilator patient survival	Prevention of ICU infections	Use of infection-preventing measures	Prevention of pressure ulcers	Pulmonology patient volume	Nonsurgical procedure volume	Nurse-patient ratio	Nurse Magnet recognition	Commitment to best practices	Lung transplant program	Advanced clinical services	Clinical support services	Advanced technologies	Patient and family services	Efforts to involve families	Commitment to quality improvement	Adoption of health information technology	Availability of subspecialists	Fellowship program	Commitment to clinical research	
1	Children's Hospital of Philadelphia	100.0	69.4	8	7	11	6	6	6	4	40	3	19	14	3.3	1	23	5	10	9	1	8	7	10	10	10	1	1	
2	Cincinnati Children's Hospital Medical Center	96.8	66.8	8	10	10	5	5	6	5	36	3	19	14	3.7	1	23	NA	10	9	1	8	7	10	10	10	1	1	
3	Texas Children's Hospital	90.3	48.6	8	7	11	4	4	6	4	38	2	18	11	2.8	1	23	4	9	9	1	8	7	10	10	10	1	1	
4	Boston Children's Hospital	89.7	58.7	7	7	8	4	6	6	4	34	3	19	9	3.7	1	24	4	10	9	1	8	7	10	9	10	1	1	Top 5%
5	Children's Hospital Colorado	89.1	56.1	8	8	8	6	4	6	6	32	2	15	12	3.3	1	22	NA	10	9	1	8	7	10	10	9	1	1	
6	Children's Hospital of Pittsburgh of UPMC	82.8	32.0	8	9	8	7	6	6	4	26	3	19	11	3.1	1	23	5	9	9	1	8	7	10	10	9	1	1	
7	Rainbow Babies and Children's Hospital	82.5	27.4	8	10	9	7	6	6	5	35	3	15	6	3.0	1	24	NA	10	9	1	8	7	10	10	10	1	1	
8	St. Louis Children's Hospital-Washington University	82.2	36.3	8	10	7	7	3	6	4	35	3	14	9	3.6	1	22	4	8	9	1	8	7	10	10	10	1	1	Top 10%
9	Johns Hopkins Children's Center	82.0	34.3	8	7	8	4	6	6	5	37	3	13	7	3.4	1	24	1	10	9	1	8	7	10	7	9	1	1	
10	Nationwide Children's Hospital	81.6	12.1	8	10	11	7	6	6	5	40	3	21	13	3.2	1	24	4	10	9	1	8	7	10	10	10	1	1	
11	North Carolina Children's Hospital at UNC	78.8	26.8	8	8	9	7	5	6	4	35	3	9	9	3.0	1	19	4	7	9	1	7	7	10	10	9	1	1	
12	Lucile Packard Children's Hospital at Stanford	75.0	17.3	7	6	10	7	6	6	4	38	3	13	13	3.5	0	24	3	10	9	1	8	7	10	10	10	1	1	
13	Seattle Children's Hospital	73.6	33.1	8	5	9	1	0	6	3	29	3	12	10	2.8	1	23	NA	9	9	1	8	7	10	10	10	1	1	
14	Children's Hospital Los Angeles	72.6	15.3	8	7	9	6	4	6	5	38	3	15	8	3.0	1	22	NA	7	9	1	7	7	10	10	8	1	1	
15	Riley Hospital for Children at IU Health	70.1	13.0	7	7	8	7	6	6	3	37	3	17	14	3.4	1	24	NA	8	9	1	8	7	10	10	10	1	1	
16	NY-Presby. Morgan Stanley-Komansky Children's Hospital	67.9	11.9	8	10	9	6	4	6	3	32	3	16	5	3.1	0	24	5	10	9	1	8	7	10	10	10	1	1	
17	Ann and Robert H. Lurie Children's Hospital of Chicago	65.5	8.8	7	5	11	1	0	6	5	39	3	15	11	3.3	1	15	NA	10	9	1	8	7	10	10	10	1	1	
18	Miami Children's Hospital	65.2	3.1	8	10	10	7	6	6	6	39	3	15	5	3.3	1	23	NA	10	9	1	8	7	10	10	10	0	1	
19	Monroe Carell Jr. Children's Hospital at Vanderbilt	64.6	3.0	8	6	11	6	5	6	5	27	3	12	7	3.3	1	24	NA	10	9	1	8	7	10	10	9	1	1	
20	Children's Healthcare of Atlanta	64.2	3.1	8	10	11	5	6	6	5	36	3	19	7	3.3	0	21	NA	10	9	1	8	7	10	10	10	1	1	
21	Rady Children's Hospital	62.8	2.9	8	10	10	7	4	6	6	36	3	13	6	3.3	0	24	NA	9	9	1	8	7	9	10	9	1	1	
22	University of Michigan C.S. Mott Children's Hospital	61.9	4.5	8	6	11	2	6	6	4	37	2	12	10	3.7	0	22	NA	10	9	1	8	7	10	10	10	1	1	
23	Children's Hospital of Wisconsin	59.9	3.7	8	5	11	1	6	6	2	30	3	14	10	3.1	1	23	NA	9	9	1	8	7	10	10	10	1	1	
24	Children's National Medical Center	58.6	3.2	8	5	8	5	5	6	4	30	3	18	5	3.3	1	22	NA	9	9	1	8	7	10	10	10	1	1	
25	American Family Children's Hospital	58.0	2.2	7	4	9	7	6	6	4	31	3	10	6	3.8	1	20	NA	8	9	1	8	7	10	10	10	1	1	
25	Children's Mercy Hospitals and Clinics	58.0	0.0	8	7	10	7	6	6	2	30	3	14	11	3.9	1	24	NA	10	9	1	8	7	10	10	10	1	1	
27	Children's Hospital of Alabama at UAB	57.5	2.8	8	9	11	7	4	6	3	23	3	16	12	2.7	0	21	NA	9	9	1	8	7	9	10	10	1	1	
28	Le Bonheur Children's Hospital	56.8	1.3	8	10	9	1	6	6	5	35	3	12	10	2.6	0	24	NA	10	9	1	8	7	10	10	10	1	1	
29	Akron Children's Hospital	56.7	2.0	8	8	8	7	6	6	5	35	3	15	4	3.2	1	20	NA	9	9	1	8	7	10	10	9	0	1	
29	Cleveland Clinic Children's Hospital	56.7	2.7	8	10	5	7	4	6	5	38	3	11	7	3.1	1	23	5	9	9	1	8	7	10	10	10	0	1	
31	Massachusetts General Hospital for Children	56.4	1.4	7	6	9	1	6	6	5	38	3	9	8	1.9	1	24	NA	8	9	1	8	7	10	10	9	1	1	
32	Children's Medical Center Dallas	56.1	3.2	7	7	8	5	4	6	3	30	3	14	10	3.1	1	20	NA	10	9	1	8	7	10	10	10	1	1	
33	Children's Hospital of Orange County	55.6	0.0	6	10	10	7	6	6	5	37	3	17	7	2.5	1	23	NA	7	9	1	8	7	10	10	9	0	1	
34	Winthrop-University Hospital Children's Medical Center	55.2	0.4	8	10	8	7	0	6	6	39	3	10	4	3.7	0	24	NA	9	9	1	8	7	10	9	10	1	1	
35	UCSF Benioff Children's Hospital	55.1	1.2	8	9	8	7	6	6	3	28	3	7	4	3.5	1	20	1	8	9	1	8	7	10	10	9	1	1	
36	Mount Sinai Kravis Children's Hospital	55.0	0.0	8	9	10	7	6	6	4	39	3	7	4	2.2	1	23	1	9	9	1	8	7	9	10	9	0	1	
37	Nemours Alfred I. duPont Hospital for Children	54.9	1.0	5	10	8	3	4	6	4	38	3	16	6	3.5	1	24	NA	10	9	1	8	7	10	10	10	1	1	
38	Children's Hospital of Michigan	53.9	0.0	8	10	9	2	6	6	5	39	3	15	8	2.6	1	19	NA	9	9	1	8	7	10	10	9	0	1	
39	Connecticut Children's Medical Center	53.6	1.9	8	6	11	4	5	6	5	24	3	6	3	2.5	0	20	NA	5	9	1	8	7	10	10	8	1	1	
40	Shands Hospital for Children at the University of Florida	53.5	0.7	8	7	7	2	6	6	4	36	3	7	8	2.3	1	23	2	8	9	1	8	7	10	10	9	1	1	
41	Children's Hospitals and Clinics of Minnesota	53.2	1.3	8	9	10	7	3	6	2	29	3	13	7	3.6	0	23	NA	6	9	1	8	7	10	10	10	1	1	
42	Helen DeVos Children's Hospital	52.9	0.6	8	10	9	1	4	6	5	33	3	10	7	2.8	1	23	NA	9	8	1	8	7	10	10	9	0	1	
43	Kosair Children's Hospital	52.8	0.7	7	7	9	4	6	6	4	39	3	13	11	2.5	1	19	NA	10	9	1	8	7	10	9	10	0	1	
44	Mattel Children's Hospital UCLA	52.6	2.0	8	10	4	5	6	6	4	37	3	12	5	3.1	1	22	1	8	9	1	8	7	7	10	10	1	1	
44	Yale-New Haven Children's Hospital	52.6	1.9	8	8	10	7	6	4	3	29	3	8	6	2.4	1	21	NA	9	8	1	8	7	10	10	9	1	1	
46	Duke Children's Hospital and Health Center	52.5	4.7	7	6	9	3	6	5	4	32	3	12	7	2.5	1	22	NA	6	9	1	8	7	9	10	9	0	1	
47	University of Iowa Children's Hospital	52.1	1.5	7	10	10	7	2	6	2	32	3	10	5	3.1	1	23	NA	10	9	1	8	7	10	10	9	0	1	
47	Wolfson Children's Hospital	52.1	0.3	8	10	7	6	6	6	5	29	3	12	5	3.5	1	22	NA	9	9	1	8	6	10	10	8	0	1	
49	Mayo Clinic Children's Center	51.2	1.3	8	5	10	2	3	6	3	30	3	8	5	3.6	1	23	1	9	9	1	8	7	10	9	9	0	1	
50	Doernbecher Children's Hospital at OHSU	50.9	0.0	8	5	9	7	5	6	4	37	3	9	8	3.6	1	13	NA	8	9	1	8	7	10	10	9	0	1	

Rankings are based on all of the above measures. NA: not applicable. NR: not reported.

Pediatric Rankings 2013-14: Urology

Rank	Hospital	Overall Urology Score	Reputation with specialists	Prevention of surgical complications	Prevention of urinary tract infections	Use of infection-preventing measures	Urology patient volume	Surgery volume	Minimally invasive procedure volume	Nurse-patient ratio	Nurse Magnet recognition	Commitment to best practices	Advanced clinical services	Clinical support services	Advanced technologies	Specialized clinics and programs	Patient and family services	Efforts to involve families	Commitment to quality improvement	Adoption of health information technology	Availability of subspecialists	Fellowship program	Commitment to clinical research	
1	Boston Children's Hospital	100.0	88.2	10	2	19	21	17	11	3.7	1	9	5	9	3	6	8	7	10	9	11	1	3	
1	Children's Hospital of Philadelphia	100.0	84.5	11	2	19	24	13	10	3.3	1	9	5	9	3	6	8	7	10	10	11	1	3	
3	Cincinnati Children's Hospital Medical Center	95.0	52.0	13	2	17	19	13	10	3.7	1	9	5	9	3	6	8	7	10	10	11	1	3	
4	Monroe Carell Jr. Children's Hospital at Vanderbilt	91.1	43.5	13	2	13	23	13	11	3.3	1	9	5	9	3	6	8	7	10	10	11	1	3	Top 5%
5	Riley Hospital for Children at IU Health	90.4	66.0	14	1	17	20	14	8	3.4	1	9	5	9	3	6	8	7	10	10	12	1	3	
6	Ann and Robert H. Lurie Children's Hospital of Chicago	86.3	34.7	11	2	19	22	13	8	3.3	1	9	5	9	3	6	8	7	10	10	12	1	3	
7	Johns Hopkins Children's Center	82.2	29.4	14	2	17	11	10	4	3.4	1	9	5	9	2	6	8	7	8	7	10	1	3	
8	Children's Healthcare of Atlanta	77.2	15.8	16	2	18	18	17	10	3.3	0	8	5	9	1	6	8	7	10	10	11	1	3	Top 10%
9	Children's National Medical Center	75.1	17.5	12	2	15	15	9	8	3.3	1	9	5	9	2	6	8	7	10	10	11	1	3	
10	Rady Children's Hospital	74.8	5.5	15	3	18	15	11	4	3.3	0	9	5	9	2	6	8	7	9	10	12	1	3	
11	Texas Children's Hospital	73.5	37.9	12	1	19	15	17	5	2.8	1	9	3	9	3	6	8	7	10	10	11	1	1	
12	Nationwide Children's Hospital	73.3	11.7	11	2	19	22	10	10	3.2	1	9	5	9	3	6	8	7	10	10	11	1	3	
13	Children's Hospital Colorado	73.2	3.9	13	3	15	13	12	9	3.3	1	8	5	9	3	6	8	7	10	10	11	1	2	
13	Steven and Alexandra Cohen Children's Medical Center	73.2	6.2	16	2	19	19	18	12	3.5	0	9	5	9	3	6	8	7	10	10	11	1	3	
15	Children's Hospital of Pittsburgh of UPMC	72.9	10.2	13	2	14	16	14	10	3.1	1	9	5	9	3	6	8	7	10	10	11	1	3	
16	Children's Medical Center Dallas	70.7	21.5	11	1	18	18	16	12	3.1	1	9	5	9	3	6	8	7	10	10	11	1	3	
17	Children's Hospital of Michigan	69.4	5.2	11	3	19	11	9	10	2.6	1	8	5	9	3	6	8	7	10	10	11	0	3	
18	Children's Hospital Los Angeles	69.0	6.5	12	2	17	15	18	11	3.0	1	9	5	9	3	6	7	7	10	10	11	1	3	
18	Seattle Children's Hospital	69.0	34.0	10	1	17	13	11	8	2.8	1	6	4	9	3	6	8	7	10	10	11	1	3	
20	University of Michigan C.S. Mott Children's Hospital	67.8	7.6	13	2	19	13	13	10	3.7	0	9	5	9	3	5	8	7	10	10	11	1	3	
21	Cleveland Clinic Children's Hospital	67.7	0.0	18	3	17	13	3	6	3.1	1	9	5	9	3	6	8	7	10	10	11	0	0	
22	St. Louis Children's Hospital-Washington University	67.6	5.6	13	2	17	14	9	4	3.6	1	9	5	9	3	6	8	7	10	10	11	1	3	
23	Miami Children's Hospital	66.7	2.6	11	3	19	13	11	3	3.3	1	9	3	9	2	6	8	7	10	10	11	1	2	
24	Lucile Packard Children's Hospital at Stanford	64.2	8.0	12	2	18	13	10	5	3.5	0	9	5	9	3	5	8	7	10	10	11	1	3	
25	Connecticut Children's Medical Center	63.1	2.2	16	2	15	17	11	9	2.5	0	9	5	9	3	6	8	7	10	10	11	1	3	
26	Doernbecher Children's Hospital at OHSU	61.4	1.8	15	2	18	7	10	8	3.6	1	9	5	9	3	3	8	7	10	10	11	0	3	
26	Wolfson Children's Hospital	61.4	1.0	14	3	9	13	9	7	3.5	1	9	3	9	2	5	8	6	10	10	10	0	2	
28	Mount Sinai Kravis Children's Hospital	58.0	1.2	14	3	18	6	5	5	2.2	1	7	4	9	3	4	8	7	9	10	11	0	0	
28	UCSF Benioff Children's Hospital	58.0	12.1	11	1	17	11	9	3	3.5	1	7	3	9	3	6	8	7	10	10	12	1	3	
30	Helen DeVos Children's Hospital	56.9	0.3	15	2	17	12	7	7	2.8	1	9	5	8	3	6	8	7	10	10	11	0	2	
31	Akron Children's Hospital	56.7	1.2	12	2	18	17	9	4	3.2	1	9	5	9	3	6	8	7	10	10	11	0	3	
31	Children's Hospital at OU Medical Center	56.7	6.9	14	1	12	19	14	12	3.3	0	9	5	9	3	6	6	6	10	10	12	1	3	
33	Brenner Children's Hospital and Health Services	56.5	0.9	13	3	16	2	12	5	3.0	1	8	5	8	3	2	8	6	9	10	11	0	0	
34	Bristol-Myers Squibb Children's Hospital at RWJ Univ. Hosp.	55.6	1.1	16	2	12	10	11	7	2.2	1	8	5	9	3	6	8	7	8	4	10	0	3	
35	Le Bonheur Children's Hospital	54.8	1.8	14	2	15	13	10	4	2.6	0	9	3	9	3	5	8	7	10	10	12	1	2	
35	Penn State Hershey Children's Hospital	54.8	0.3	15	2	9	10	9	6	3.1	1	9	5	9	3	4	8	7	10	10	10	0	3	
37	Yale-New Haven Children's Hospital	54.6	1.7	14	2	16	9	8	6	2.4	1	9	5	8	3	5	8	7	10	10	12	0	1	
38	Holtz Children's Hospital at UM-Jackson Memorial Medical Center	53.6	0.5	11	3	10	15	11	3	2.1	0	9	3	9	2	6	8	7	9	10	10	1	2	
38	Mayo Clinic Children's Center	53.6	3.2	15	1	17	16	9	6	3.6	1	9	5	9	3	6	8	7	10	9	11	0	2	
40	Mattel Children's Hospital UCLA	53.5	3.6	8	2	16	10	8	3	3.1	1	9	5	9	3	6	8	7	9	10	11	1	2	
41	Dell Children's Medical Center of Central Texas	52.0	0.0	16	2	18	6	8	8	2.5	1	9	5	7	3	3	7	7	10	9	10	0	0	
42	Duke Children's Hospital and Health Center	51.5	1.3	11	2	17	11	8	6	2.5	1	9	5	9	3	5	8	7	10	10	11	0	2	
43	Kosair Children's Hospital	50.5	0.0	11	2	18	10	8	9	2.5	1	9	5	9	3	6	8	7	10	9	11	0	2	
44	Winthrop-University Hospital Children's Medical Center	50.3	0.0	15	3	18	4	5	1	3.7	0	8	5	9	2	1	8	7	4	9	10	0	0	
45	NY-Presby. Morgan Stanley-Komansky Children's Hospital	50.2	6.2	13	1	15	14	15	9	3.1	0	9	5	9	3	6	8	7	10	10	12	0	2	
46	Rainbow Babies and Children's Hospital	49.8	2.1	12	2	14	9	6	6	3.0	1	7	5	9	2	6	8	7	10	10	11	0	1	
47	Children's Hospital of Orange County	49.5	1.0	9	2	16	17	14	6	2.5	1	8	4	9	3	6	8	7	10	10	10	0	3	
48	Primary Children's Medical Center	48.7	3.5	10	1	17	13	14	8	4.3	0	9	5	9	3	6	8	7	10	10	11	1	3	
49	Phoenix Children's Hospital	47.0	1.8	12	2	14	16	11	6	3.0	0	9	5	9	3	5	8	7	10	10	11	0	0	
50	Children's Mercy Hospitals and Clinics	46.8	0.6	15	0	18	17	14	5	3.9	1	9	4	9	3	6	8	7	10	10	11	1	3	

Rankings are based on all of the above measures. NA: not applicable. NR: not reported.

Appendix D

2013-14 Pediatric Honor Roll

Pediatric Honor Roll 2013-14

Rank	Hospital	Points	Specialties
1	Children's Hospital of Philadelphia	20	10
2	Boston Children's Hospital	19	10
3	Cincinnati Children's Hospital Medical Center	16	9
4	Texas Children's Hospital, Houston	9	6
5	Children's Hospital Los Angeles	8	6
6	St. Louis Children's Hospital-Washington University	6	4
7	Children's Hospital Colorado, Aurora	5	5
8	Ann and Robert H. Lurie Children's Hospital of Chicago	4	4
8	Johns Hopkins Children's Center, Baltimore	4	4
10	Children's Hospital of Pittsburgh of UPMC	4	3