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Methodology:
U.S. News & World Report
Best Hospitals 2013-14

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Executive Summary

U.S. News & World Report began publishing the Best Hospitals rankings in 1990 to identify the best medical centers for the most difficult patients—those whose illnesses pose unusual challenges because of underlying conditions, procedure difficulty, or other medical issues that add risk. More than one factor can be in play for particular patients. The rankings have appeared annually from the start. Their focus on the most difficult patients is unchanged.

U.S. News ranks the top hospitals in 16 different specialties from Cancer to Urology. For 12 of the 16 specialties, the rankings are based on an extensive analysis that combines measures of performance in three primary dimensions of healthcare: structure, process, and outcomes. Rankings in the other four specialties are based on hospital reputation as determined by a physician survey.

Structural measures include hospital volume, technology and other resources that define the hospital environment. The source of the majority of structural measures is the American Hospital Association (AHA) annual survey, supplemented by additional resources such as the National Cancer Institute's list of designated cancer centers.

Process is represented mostly by a hospital's reputation for developing and sustaining a system that delivers high-quality care, determined by a survey of board-certified physicians. It also shares with the outcomes dimension an indicator of patient safety; the extent to which patients are safe is largely a function of process. The rationale is that harm to patients reflects both process performance and an outcomes result.

Outcomes performance relies mostly on survival, i.e. risk-adjusted mortality. These data come from the Medicare Provider Analysis and Review (MedPAR) database maintained by the Centers for Medicare & Medicaid Services (CMS). As noted above, patient safety is included in both outcomes and in process.

All community hospitals included in the AHA universe are automatically considered for ranking. Applying, submitting a request, or taking other action is unnecessary. Initial eligibility requires that a hospital must meet at least one of the following four requirements: to be a teaching hospital, to be affiliated with a medical school, to have at least 200 beds, or to have 1) at least 100 beds and 2) at least four technologies (such as a PET/CT scanner and certain advanced varieties of radiation therapy) from a predefined list of eight considered to be significant for this patient population.

To be eligible in a particular specialty, hospitals must satisfy a specialty-dependent volume/discharge requirement. Setting discharge minimums ensures that ranking-eligible hospitals

have demonstrable experience in treating a set number of complex cases in a given specialty. A hospital that does not meet the minimum requirement in a specialty is still eligible if nominated by at least 1% of the physicians who responded to the survey.

Rankings in four specialties do not depend on hard data. In Ophthalmology, Psychiatry, Rehabilitation, and Rheumatology, hospitals are ranked solely on reputation, as determined by the physician survey cited above.

For the 2013-14 rankings, 147 of the approximately 5,000 U.S. hospitals evaluated were ranked in at least one specialty. Eighteen of the 147 qualified for the Honor Roll by ranking very high in six or more specialties—in the top 20 hospitals in the 12 data-driven specialties or the top 10 hospitals in Ophthalmology, Psychiatry, Rehabilitation, and Rheumatology.

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I. Introduction

For families facing a serious or complex medical problem, the choice of hospital can be critical. Yet until 1990, when *U.S. News & World Report* introduced “America’s Best Hospitals,” few tools or resources were available to inform their decision beyond a doctor’s recommendation. The first assessment took the form of alphabetical lists of “rated” hospitals in 12 specialties. Hospitals were ranked starting in 1991.

The 2013-14 Best Hospitals rankings are drawn from a universe of 4,806 medical facilities.* “Hospital,” for the purpose of the rankings, derives from information in the American Hospital Association (AHA)’s annual survey, which also provides some data used in the rankings. Under rare circumstances, we combine two or more AHA hospitals for ranking purposes when they function as one but report separately to the AHA for specific, meaningful, and verifiable reasons.

In 12 of the 16 adult specialty rankings, hospitals received a composite score based on data from multiple sources. (Best Children’s Hospitals,[†] which ranks hospitals in 10 pediatric specialties, is a separate project.) Both ranked and unranked hospitals, with substantial data, are published online at www.usnews.com/besthospitals. Ranked hospitals and a lesser amount of data are published in a print edition.

Central to understanding the rankings is that they were developed and the specialties chosen to help consumers determine which hospitals provide the best care for the *most serious or complicated* medical conditions and procedures—pancreatic cancer, for example, or replacement of a heart valve in an elderly patient with comorbidities. Medical centers that excel in relatively commonplace conditions and procedures, such as noninvasive breast cancer or uncomplicated knee replacement, are not the focus.

The underlying methodology for the Best Hospitals rankings was created by the National Opinion Research Center (NORC) at the University of Chicago in the early 1990s. NORC collected the data and compiled the rankings from 1993 to 2004. In 2005, RTI International[‡] in Research Triangle Park, N.C., began producing the rankings. The methodology has been refined and extended, and larger-scale enhancements are always under consideration. In 2009, for example, patient safety data were introduced. The basic eligibility requirements also were modified, potentially increasing the number of rankable hospitals.

* Military installations, federal institutions, rehabilitation and acute long-term care facilities, and institutional hospital units (e.g., prison hospitals, college infirmaries) are excluded from the data-driven specialties.

[†] Full report available at www.rti.org/besthospitals

[‡] RTI International is a trade name of Research Triangle Institute.

The roster of specialties has been revised over the years. AIDS was dropped in 1998, for example, because it was clear that most AIDS care had shifted to an outpatient setting. Pediatrics was moved out of the Best Hospitals universe in 2007 to establish separate pediatric rankings. No specialties were added or removed from the 2013-14[§] rankings.

For 2013-14, hospitals are ranked in 16 adult specialties:

- Cancer
- Cardiology & Heart Surgery
- Diabetes & Endocrinology
- Ear, Nose, & Throat
- Gastroenterology & GI Surgery
- Geriatrics
- Gynecology
- Nephrology
- Neurology & Neurosurgery
- Ophthalmology
- Orthopedics
- Pulmonology
- Psychiatry
- Rehabilitation
- Rheumatology
- Urology

A. Index of Hospital Quality

Rankings in 12 of the 16 specialties are based largely on hard data. The other four rankings are based solely on a reputational survey of physicians.

The data-driven rankings assign a score—the Index of Hospital Quality (IHQ)—to hospitals in 12 specialties: Cancer, Cardiology & Heart Surgery, Diabetes & Endocrinology, Ear, Nose & Throat, Gastroenterology & GI Surgery, Geriatrics, Gynecology, Nephrology, Neurology & Neurosurgery, Orthopedics, Pulmonology, and Urology.

The IHQ reflects performance in three interlocked dimensions of healthcare: structure, process, and outcomes.¹⁻⁵ Their relationship was described by Avedis Donabedian in 1966 in a model that became widely accepted.

Within the hospital environment, *structure* refers to resources that relate directly to patient care. Examples factored into the Best Hospitals rankings include intensity of nurse staffing, availability of desirable technologies and patient services, and special status conferred by a recognized external organization, such as designation as a Nurse Magnet hospital by the American Nurse Credentialing Center (ANCC) or as a National Cancer Institute (NCI) cancer center.

[§] Because the rankings are released in the middle of the year, *U.S. News* includes that year and the one following when referring to them. This applies to Best Children's Hospitals as well.

Excellent healthcare also is shaped by the *process* of delivering care, encompassing diagnosis, treatment, prevention, and patient education. Process is represented by a hospital's reputation for developing and sustaining a system that delivers high-quality care.

Structure and process are related to *outcomes*, the most obvious of which is whether patients live or die. Outcomes are typically measured by risk-adjusted mortality rates (i.e., the likelihood of mortality given the complexity of the case) and, increasingly, related indicators such as complications, readmissions, patient safety, and infection rates.

Such indicators do not always fit neatly into one of the three dimensions. As cited above, for example, complications of care that compromise patient safety are outcomes, but they also reflect a flaw in the process of delivering care, and also may be affected by structural elements.

Many of the measures that make up the IHQ come from secondary data sources. The AHA Annual Survey Database, for example, provides information regarding various structural hospital characteristics.

The three components of the IHQ rankings are described briefly below and in more detail later in the following pages.

Structure

These specialty-specific elements represent volume (i.e., discharges), technology, and other features that characterize the hospital environment. The source for many of these data elements in the 2013-14 rankings is the most recent AHA Annual Survey Database from fiscal year (FY) 2011. Volume data are taken from the Medicare Provider Analysis and Review (MedPAR) database maintained by the Centers for Medicare & Medicaid Services (CMS). This database contains information on all fee-for-service Medicare beneficiaries who use hospital inpatient services.

Process

The process component of the IHQ score is represented by two elements: reputation and patient safety.

A hospital's reputation, in the context of these rankings, is based on the institutional ability to develop and sustain a system that delivers high-quality care to especially challenging patients. It can be seen as a form of peer review. A hospital's reputational score is based on the average of responses from the three most recent surveys of board-certified physicians conducted for the Best Hospitals rankings in 2011, 2012, and 2013. The surveyed physicians were asked to nominate the

hospitals in their specific field of care, irrespective of expense or location, they consider best for patients with serious or difficult conditions. Up to five hospitals could be listed. (The 2013-14 questionnaire is shown in *Appendix A*.) Each year, a random sample of 200 board-certified physicians is selected in each specialty from the American Medical Association (AMA) Physician Masterfile, a database of more than 850,000 physicians.**

The physician sample is stratified by census region: West, Northeast, South, and Midwest (www.census.gov/geo/www/us_regdiv.pdf) and by specialty to ensure appropriate representation. The final aggregated sample includes both federal and nonfederal medical and osteopathic physicians in all 50 states and the District of Columbia.

Patient safety is related to the process of healthcare delivery and is used to determine instances where patients may be harmed or put at risk, but do not die. The patient safety index was developed by RTI using the framework described in the *Patient Safety Quality Indicators Composite Measure Workshop Final Report*,⁴¹ with project-specific modifications. This report summarizes the steps to take to construct an index to be reported in the annual *National Healthcare Quality Report*⁴² and *National Healthcare Disparities Report*,⁴³ part of the HCUP initiative.

Outcomes

The primary outcomes measure is mortality 30 days after admission for all IHQ-driven specialties. Like the volume indicator, the mortality measure is based on MedPAR data. For each hospital and specialty, Truven Health Analytics (formerly the Healthcare Division of Thomson Reuters) computes an adjusted mortality rate based on observed and expected mortality rates using the All Patient Refined Diagnosis Related Group (APR-DRG) and MS Grouper software created by 3M Health Information Systems.⁶ APR-DRGs and MS-DRGs adjust the value for expected deaths by severity of illness, using the patient's principal and secondary diagnoses. The method is applied to the 3 most recent fiscal years (FY2009, FY2010, and FY2011) of Medicare reimbursement claims submitted by hospitals to CMS.

In addition to being a process measure, patient safety describes the results of care and therefore is also considered an outcomes measure. Consequently, its weight is equally divided between the outcomes and process components.

** The database does not include medical students, residents, retirees, or deceased physicians.

B. Reputation-Only Rankings

Rankings in four of the 16 specialties—Ophthalmology, Psychiatry, Rehabilitation, and Rheumatology—reflect the results of the reputational survey alone. Many structural and outcomes measures are not applicable to these specialties because procedures are performed largely on an outpatient basis and pose a very small risk of death. For this report, these specialties are referred to as reputation-only specialties and the associated rankings as reputation-only rankings.

C. Report Outline

The remainder of this report is structured as follows:

- *Section II* describes the IHQ components in detail. (For a more detailed review of the foundation, development, and use of the individual measures and the composite index, see “Best Hospitals: A Description of the Methodology for the Index of Hospital Quality.”⁷)
- *Section III* describes the process used to develop the rankings for the four reputation-only specialties.
- *Section IV* presents the Honor Roll, an additional classification that denotes excellence across a broad range of specialties.
- *Section V* summarizes changes in the methodology from 2005 on.
- *Section VI* describes improvements under consideration.

II. Index of Hospital Quality

This section describes hospital eligibility criteria and the procedures used to derive the IHQ for the 12 IHQ-driven specialties. Hospitals ranked in 2013-14 as a result of new or merged corporate entities in the AHA database are treated as single units and are listed as such in this report.

A. Eligibility

All 4,806^{††} community hospitals included in the FY2011 AHA universe were automatically considered for ranking; no request, application or other action was necessary. For the IHQ-driven

^{††} We excluded military installations, federal institutions, rehabilitation and acute long-term care facilities, and institutional hospital units (e.g., prison hospitals, college infirmaries).

specialties, the methodology involves two stages of eligibility criteria; hospitals must satisfy the requirements of each stage to be eligible in a given specialty.

Stage 1. A hospital is initially eligible if it meets *any* of the following criteria:

- Membership in the Council of Teaching Hospitals (COTH);
- Medical school affiliation (American Medical Association or American Osteopathic Association);
- At least 200 hospital beds set up and staffed;
- At least four of eight important key technologies available (see *Technology*) and at least 100 hospital beds set up and staffed.

Hospitals that met the initial eligibility requirement but did not respond to the 2011 AHA Annual Survey remained eligible in our database. For hospitals that were responders for 2009 and 2010 but did not respond for 2011, we used survey data from the 2010 survey. Nonresponders lacking data from both the current survey and from one of the previous two surveys were evaluated without any AHA data.

A total of 2,262 hospitals successfully passed the first stage of the eligibility process. Two hospitals were subsequently excluded, reducing the total to 2,260, because the AHA reported the hospitals were closed as of May 1, 2013.

Stage 2. To be eligible for ranking in a particular specialty, hospitals needed a specified number of discharges across a defined list of specialty-specific diagnoses submitted for CMS reimbursement in FY2009, FY2010, and FY2011 combined. If the calculated minimum total discharge value for a specialty was lower than 25, then 25 was set as the minimum for that specialty to ensure a sufficient number of discharges.^{##} Through 2002, the threshold for determining eligibility included all discharges, regardless of the balance of medical to surgical discharges.^{§§} Since 2002, medical-surgical proportions have been specified for Cancer, Gastroenterology & GI Surgery, Ear, Nose, & Throat, Gynecology, Neurology & Neurosurgery, Orthopedics, and Urology. For these specialties, we calculated the median ratio of surgical to total discharges for hospitals meeting the total discharge threshold. In each specialty, the median ratio was multiplied by the calculated

^{##} Prior to RTP's involvement in the rankings in 2005, the minimum number of surgical discharges in Cardiology & Heart Surgery was set to 500. For hospitals meeting the minimum, a ratio of total to surgical discharges was calculated. The median of this ratio was then multiplied by 500 to determine a minimum number for all discharges.

^{§§} The exception was Cardiology & Heart Surgery, where surgical discharges alone determined the threshold for eligibility.

minimum total discharge threshold to determine the minimum surgical discharges needed to be considered eligible.

Setting discharge minimums involving complex care ensures that ranking-eligible hospitals have demonstrable experience in treating a set number of challenging cases in a given specialty. As in past years, the discharge minimums this year include only cases that meet the minimum severity of illness thresholds set by the project using APR-DRGs. Minimums for all specialties will be reviewed for future rankings and adjusted as needed.

A hospital with below-minimum volume was considered eligible for a specialty if it had a reputation score of 1% or greater. **Table 1** presents discharge volumes and numbers of hospitals meeting the volume criteria for the IHQ-driven specialties. Table 1 also shows the total number of hospitals in each specialty that did not meet the volume eligibility but became eligible because they had a reputation score that was 1% or higher.

Table 1. Minimum Discharges by Specialty

Specialty	Minimum Discharges, Total (Surgical)	Number of Eligible Hospitals Based on Minimum Discharges	Additional Hospitals with $\geq 1\%$ Reputation Score	Final Total Eligible
Cancer	251 (48)	897	6	903
Cardiology & Heart Surgery ^a	1,321 (500)	720	0	720
Diabetes & Endocrinology	163 (0)	1,118	11	1,129
Ear, Nose, & Throat	25 (3)	691	2	693
Gastroenterology & GI Surgery	561 (151)	1,569	2	1,571
Geriatrics ^b	2,463 (0)	1,536	17	1,553
Gynecology	25 (9)	1,111	13	1,124
Nephrology	183 (0)	1,668	2	1,670
Neurology & Neurosurgery	322 (46)	1,369	1	1,370
Orthopedics	320 (291)	1,643	7	1,650
Pulmonology	968 (0)	1,671	5	1,676
Urology	77 (22)	1,505	3	1,508
Total (unique hospitals) ^c	NA	1,885	9	1,894

^a In addition to discharge or reputation-based eligibility, a hospital must offer cardiac intensive care, adult interventional cardiac catheterization, and adult cardiac surgery to be considered in this specialty.

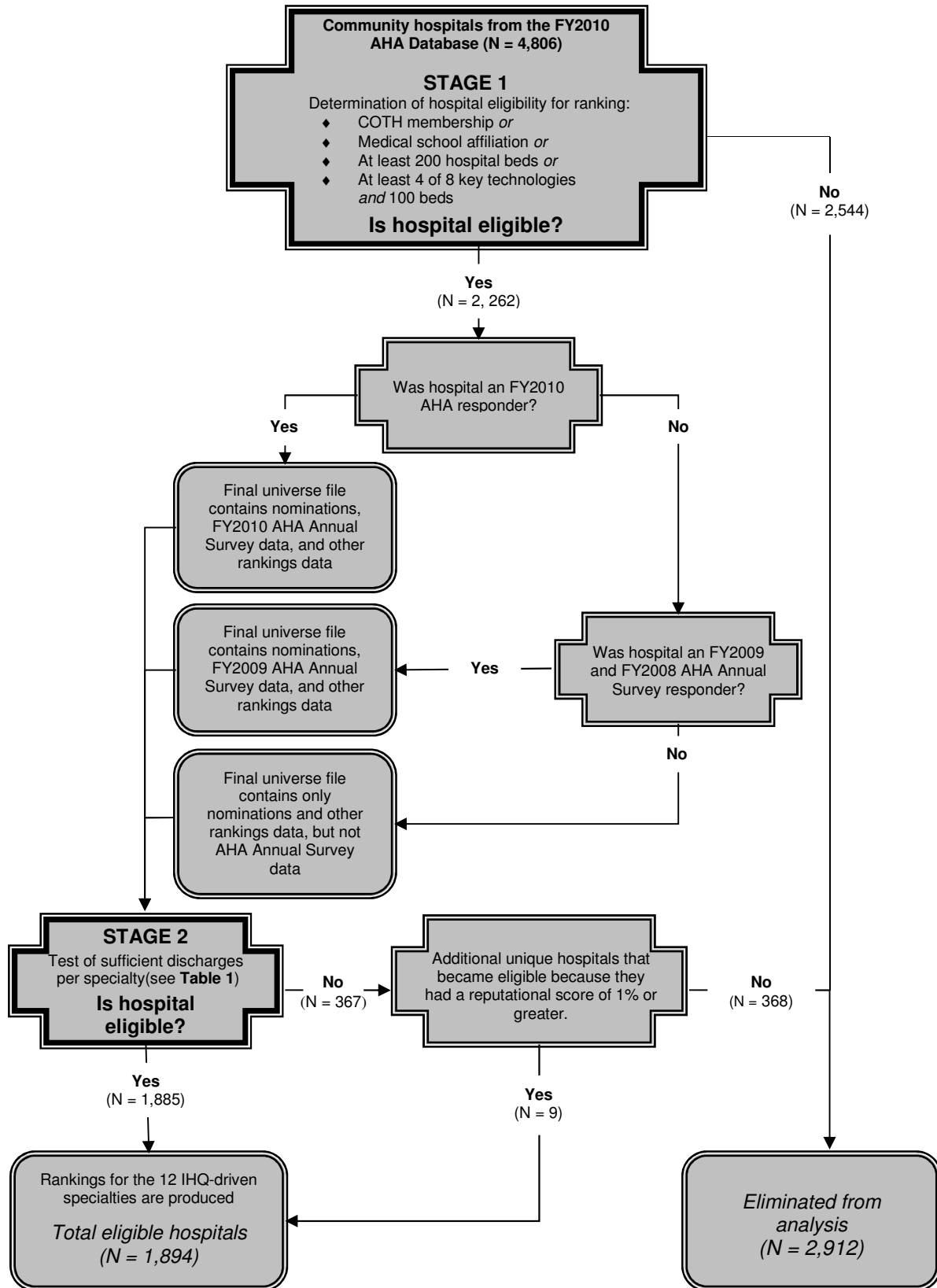
^b In addition to discharge- or reputation-based eligibility, a hospital must offer at least one of the following services to be considered in this specialty: arthritis treatment center, adult day care program, patient representative services, geriatric services, meals on wheels, assisted living, transportation to health facility, or Alzheimer's center service.

^c The total values are not sums. The same hospitals may be eligible for multiple specialties. This line represents the total unique hospitals in each category across all specialties.

A total of 1,885 hospitals met the volume criteria in at least one specialty. Nine others that did not meet volume requirements were added because they had a 1% or higher reputation score in one or more specialties. In all, 1,894 unique hospitals were deemed eligible for at least one of the 12 IHQ-driven specialties under the full criteria.

We then conducted separate analyses for each specialty. The top 50 hospitals in each IHQ specialty are published in a special Best Hospitals print issue each summer. *Figure 1* illustrates the eligibility and analysis process for the IHQ-driven specialties, as described in the steps above.

Figure 1. Eligibility and Analysis Process for the IHQ-Driven Specialties



B. Structure

The structural dimension defines the tools, human and otherwise, available at hospitals for treating patients. Healthcare research overwhelmingly supports the use of a structural measure to assess quality of care. However, no prior research has identified a structural indicator that summarizes all others or that adequately represents the structural dimension construct on its own. Therefore, the structural component is represented by a composite variable consisting of different specialty-specific measures with different weights.

For the 2013-14 rankings, most structural elements were derived from the FY2011 AHA Annual Survey Database. Additional components came from external organizations including NCI, ANCC, the Foundation for the Accreditation of Cellular Therapy (FACT), the National Institute on Aging (NIA), the National Association of Epilepsy Centers (NAEC), and CMS.

AHA Annual Survey

The AHA has surveyed hospitals annually since 1946. The survey is the most comprehensive and dependable database of information on institutional healthcare,⁸ with an average annual response rate of 85%. The database contains hospital-specific data items for more than 6,000 hospitals and healthcare systems. More than 700 data fields cover organizational structure, personnel, hospital facilities and services, and financial performance. (For specific mapping of variables to the AHA data elements, see *Appendix B*.) The following items taken from the AHA Annual Survey Database are used to develop the majority of the structural score for the IHQ.

Technology

The elements in this structural index are reviewed every year in each specialty to remain consistent with the key technologies and advanced care expected from a “best hospital.” In 1996, it was decided to award partial credit to hospitals for a key technology or advanced service available off-site. Many hospitals provide such access through their hospital’s health system, a local community network, or a contractual arrangement or joint venture with another provider in the community. In 2008, the provision was changed again to award full credit to all hospitals that provide a specified service on- or off-site either by the hospital or a subsidiary or through formal arrangements with other institutions.

Of the 15 technologies that are relevant in one or more specialties, 8 comprise the Technology index that is one of the eligibility doorways: hospitals that provide at least 4 of the 8 and have 100 beds or more are eligible for ranking (see *Section II.A. Eligibility*).

Brief descriptions of the technologies in the 2013-14 index follow. The definitions are taken largely from the AHA Annual Survey, expanded if needed:

- **Ablation of Barrett’s esophagus.** A premalignant condition that can lead to adenocarcinoma of the esophagus. The nonsurgical ablation of premalignant tissue in Barrett’s esophagus is done by the application of thermal energy or light through an endoscope passed from the mouth into the esophagus.
- **Cardiac intensive care unit (ICU).** A part of the hospital in which support and treatment equipment are provided for patients who, because of congestive heart failure, open-heart surgery, or other serious cardiovascular conditions, require intense, comprehensive observation and care.
- **Computer-assisted orthopedic surgery (CAOS).** A group of orthopedic devices that produce three-dimensional images to assist in surgical procedures.
- **Diagnostic radioisotope services.** A procedure that uses radioactive isotopes (radiopharmaceuticals) as tracers to detect abnormal conditions or diseases.
- **Endoscopic retrograde cholangiopancreatography (ERCP).** A procedure in which a catheter is introduced through an endoscope into the bile and pancreatic ducts. Injection of contrast material permits detailed x-ray of these structures. The procedure is used diagnostically as well as therapeutically to relieve obstruction or remove stones.
- **Endoscopic ultrasound.** A specially designed endoscope that incorporates an ultrasound transducer to obtain detailed images of organs in the chest and abdomen. The endoscope can be passed through the mouth or the anus. Combined with needle biopsy, the procedure can assist in diagnosis of disease and staging of cancer.
- **Full-field digital mammography (FFDM).** A procedure that combines x-ray generators and tubes used in analog screen-film mammography with a detector plate that converts the x-rays into a digital signal to help diagnose breast cancer.
- **Image-guided radiation therapy (IGRT).** An automated system that provides high-resolution x-ray images to pinpoint tumor sites, adjust patient positioning as necessary, and complete treatment within the standard treatment time slot, allowing for more effective cancer treatments.

- **Multislice spiral computed tomography (CT).** A procedure that uses x-rays and data processing to produce multiple narrow slices that can be recombined into detailed three-dimensional pictures of the internal anatomy.^{***}
- **PET/CT scanner.** A machine that combines PET and CT capabilities in one device to provide metabolic functional information and images of physical structures in the body for diagnostics and monitoring chemotherapy, radiotherapy, and surgical planning.
- **Robotic surgery.** The use of computer-guided imaging and manipulative devices to perform surgery without the surgeon's direct intervention.
- **Shaped-beam radiation.** A noninvasive procedure that delivers a therapeutic dose of radiation to a defined area of a tumor to shrink or destroy cancerous cells.
- **Single-photon-emission CT.** A nuclear medicine imaging technology that combines radioactive material with CT imaging to highlight blood flow to tissues and organs.
- **Stereotactic radiosurgery.** A radiotherapy modality that delivers a high dosage of radiation to a discrete treatment area in as few as one treatment session. Variants include Gamma knife and Cyberknife.
- **Transplant services.** Medicare-approved organ transplant programs in heart, liver, lung, or kidney transplant. In addition, hospitals listed as bone marrow and tissue transplant centers by the AHA are recognized. Transplant services are specific to the specialty. In the Cancer specialty, transplant services include bone marrow and other tissue transplants; Gastroenterology & GI Surgery includes liver transplant; Cardiology & Heart Surgery includes heart transplant and tissue transplant; Nephrology includes kidney transplant; Pulmonology includes lung transplant; Orthopedics includes tissue transplant.

For eligible hospitals, specialty-specific mixes of key technologies are used in computing the *U.S. News* scores (see **Section II.F. Calculation of the Index of Hospital Quality**). **Table 2** presents the complete list of key technologies considered for each specialty in 2013-14.

^{***} The indicator for multislice spiral CT includes both standard (less than 64 slices) and advanced (64 or more slices) versions of the technology. Hospitals can receive credit for either version.

Table 2. Technology by Specialty

Technology	Technology Index	Cancer	Cardiology & Heart Surgery ^{†††}	Diabetes & Endocrinology	Ear, Nose, & Throat	Gastroenterology & GI Surgery	Geriatrics	Gynecology	Nephrology	Neurology & Neurosurgery	Orthopedics	Pulmonology	Urology
1. Ablation of Barrett’s esophagus						•							
2. Cardiac intensive care unit			•										
3. Computer-assisted orthopedic surgery											•		
4. Diagnostic radioisotope services	•			•		•			•	•		•	•
5. Endoscopic retrograde cholangiopancreatography						•							
6. Endoscopic ultrasound						•							
7. Full-field digital mammography	•	•						•					
8. Image-guided radiation therapy	•	•		•		•		•	•	•		•	•
9. Multislice spiral CT	•		•						•			•	
10. PET/CT scanner	•	•	•	•				•	•	•		•	•
11. Robotic surgery	•	•	•					•	•				•
12. Shaped-beam radiation		•											
13. Single-photon-emission CT	•		•							•			
14. Stereotactic radiosurgery	•	•		•	•	•		•	•	•		•	•
15. Transplant services		•	•			•			•		•	•	
Total Elements	8	7	7	4	1	7	0	5	7	5	2	6	5

• Included in the index for the specialty.

††† While only six measures are listed, hospitals can receive up to seven points in Cardiology & Heart Surgery because two points are possible for transplants—one point for heart transplant services and one point for tissue transplant services.

Volume

The volume measure reflects medical and surgical discharges in indicated specialty-specific MS-DRG groupings submitted for CMS reimbursement in FY2009, FY2010, and FY2011 combined. The list of MS-DRGs in each specialty is displayed in *Appendix E*. Volume is part of the structural score in all 12 IHQ-driven specialties. The volume used in the structural score includes all cases, including transfers, that appear in MedPAR for the specified MS-DRGs that meet the minimum severity thresholds (see *Appendix E*). To reduce the effect of extreme values, or outliers, we adjusted the observed volume used in the IHQ. Hospitals with a volume at or above the 75th percentile in each specialty (see *Table 3*), were assigned an adjusted volume, created from a weighted average of the hospital's observed volume and the volume for all hospitals at or above the 75th percentile. The weight placed on the all-hospital volume varies from 0 to 0.25; each increase in the volume percentile of 1 percentage point increases the all-hospital volume weight by 1 percentage point. For example, a hospital with volume in the 76th percentile has an all-hospital volume weight of 0.01. A hospital with a volume in the 80th percentile has an all-hospital volume weight of 0.05. The maximum weight for all-hospital volume under this adjustment is 0.25.

Table 3. Discharge Distribution by Specialty

Specialty	Minimum Volume	75 th Percentile Volume	Maximum Volume
Cancer	169	813	5,529
Cardiology & Heart Surgery	1,373	4,815	18,026
Diabetes & Endocrinology	59	386	1,700
Ear, Nose, & Throat	18	67	532
Gastroenterology & GI Surgery	91	2,022	11,495
Geriatrics	213	9,110	44,441
Gynecology	5	127	722
Nephrology	149	748	4,906
Neurology & Neurosurgery	329	1,679	8,120
Orthopedics	46	1,592	9,279
Pulmonology	599	3,207	13,892
Urology	60	356	2,305

Nurse Staffing

The nurse staffing index is a ratio that reflects the intensity of both inpatient and outpatient nursing. The numerator is the total number of on-staff registered nurses (RNs), expressed as full-time equivalents (FTEs) (e.g., two half-time nurses equal one FTE). Only nurses with an RN degree

from an approved nursing school and current state registration are considered. The patient measure in the denominator is the adjusted average daily census of patients. The measure estimates the total amount of care devoted to both inpatients and outpatients by reflecting the number of days of inpatient care plus the estimated volume of outpatient services. This index gives more weight to inpatient care, while recognizing that outpatient care represents most hospital visits. The components of this index are derived from the AHA database. As with volume, extreme values (i.e., the top 25%) were adjusted to reduce the influence of wide variation.

Trauma Center

In a *U.S. News & World Report* survey of board-certified physicians, the presence of an emergency room and a hospital's status as a Level 1 or Level 2 trauma care provider were ranked high by respondents on a list of hospital quality indicators. Physicians in nine specialties ranked trauma center status as one of the top five indicators of quality. Their recommendations and resulting high factor loadings support inclusion of these data in Ear, Nose, & Throat; Gastroenterology & GI Surgery; Cardiology & Heart Surgery; Nephrology; Neurology & Neurosurgery; Orthopedics; Pulmonology; and Urology.

The trauma center indicator is derived from two variables in the AHA Annual Survey Database: (1) presence of a state-certified trauma center in the hospital (as opposed to trauma services provided only as part of a health system, network, or joint venture), and (2) trauma center level. The trauma center indicator is dichotomous: To receive credit of one point, a hospital must be a Level 1 or Level 2 trauma center. The AHA defines Level 1 as “a regional resource trauma center, which is capable of providing total care for every aspect of injury and plays a leadership role in trauma research and education.”⁸ Level 2 is “a community trauma center, which is capable of providing trauma care to all but the most severely injured patients who require highly specialized care.”⁸

Patient Services

Patient services encompass major conveniences for patients, such as translators; advanced or especially sophisticated care; a service considered essential in a comprehensive, high-quality hospital, such as cardiac rehabilitation; or a service that reflects forward thinking and sensitivity to community needs, such as genetic testing or counseling. All items are taken from the AHA Annual Survey.

Brief descriptions of patient services included in the 2013-14 index follow. The definitions are taken from the AHA Annual Survey, expanded as needed.

- **Alzheimer’s center.** A facility that offers care to persons with Alzheimer’s disease and their families through an integrated program of clinical services, research, and education. As with all items in this survey, each hospital determines whether the service is offered, based on the AHA’s description. This index differs from designation of a hospital by NIA as an Alzheimer’s Center. Such designation represents a higher order of service and is treated as a separate structural measure in Geriatrics and Neurology & Neurosurgery.
- **Arthritis treatment center.** A center specifically equipped and staffed for diagnosing and treating arthritis and other joint disorders.
- **Cardiac rehabilitation.** A medically supervised program to help heart patients recover quickly and improve their overall physical and mental functioning in order to reduce risk of another cardiac event or to keep current heart conditions from worsening.
- **Fertility clinic.** A specialized program set in an infertility center that provides counseling and education, as well as advanced reproductive techniques.
- **Genetic testing/counseling.** A service equipped with adequate laboratory facilities and directed by a qualified physician to advise parents and prospective parents on potential problems in cases of genetic defects.
- **Hospice.** A program that provides care (including pain relief) and supportive services for the terminally ill and their families.
- **Infection isolation room.** A single-occupancy room designed to minimize the possibility of infectious transmission, typically through the use of controlled ventilation, air pressure, and filtration.
- **Pain-management program.** A program that provides specialized care, medications, or therapies for the management of acute or chronic pain.
- **Palliative care.** A program that provides care by specially trained physicians and other clinicians for relief of acute or chronic pain or to control symptoms of illness.
- **Patient-controlled analgesia.** A system that allows the patient to control intravenously administered pain medicine.
- **Psychiatry–geriatric service.** A psychiatric service that specializes in the diagnosis and treatment of geriatric medical patients.
- **Translators.** A service provided by the hospital to assist non-English–speaking patients.
- **Wound-management services.** Services for patients with chronic wounds and nonhealing wounds often resulting from diabetes, poor circulation, improper seating, and immunocompromising conditions. The goals are to progress chronic wounds through stages of healing, reduce and eliminate infections, increase physical function to minimize complications from current wounds, and prevent future chronic wounds. Wound-management services are provided on an inpatient or outpatient basis, depending on the intensity of service needed.

From seven to nine services are included in each specialty. Hospitals receive one point for each specified service provided on- or off-site by the hospital or by another institution through some formal arrangement. *Table 4* presents the list of patient services by specialty.

Table 4. Patient Services by Specialty

Service	Cancer	Cardiology & Heart Surgery	Diabetes & Endocrinology	Ear, Nose, & Throat	Gastroenterology & GI Surgery	Geriatrics	Gynecology	Nephrology	Neurology & Neurosurgery	Orthopedics	Pulmonology	Urology
1. Alzheimer's center						•			•			
2. Arthritis treatment center						•				•		
3. Cardiac rehabilitation		•										
4. Fertility clinic							•					•
5. Genetic testing/counseling	•		•	•	•		•	•	•		•	•
6. Hospice	•	•	•	•	•	•	•	•	•	•	•	•
7. Infection isolation room	•		•	•	•		•	•	•		•	•
8. Pain-management program	•	•	•	•	•	•	•	•	•	•	•	•
9. Palliative care	•	•	•	•	•	•	•	•	•	•	•	•
10. Patient-controlled analgesia	•	•	•	•	•	•	•	•	•	•	•	•
11. Psychiatry-geriatric service						•						
12. Translators	•	•	•	•	•	•	•	•	•	•	•	•
13. Wound-management services	•	•	•	•	•	•	•	•	•	•	•	•
Total Elements	8	7	8	8	8	9	9	8	9	7	8	9

• Included in the index for the specialty.

Intensivists^{##}

Intensivists are board-certified physicians with subspecialty or fellowship training in critical-care medicine. They specialize in managing critically ill patients in hospital ICUs. Recent research indicates better outcomes are associated with the presence of intensivists.^{9,10} The intensivists measure was added in 2009. Hospitals receive one point for having at least one full-time equivalent intensivist assigned to medical-surgical intensive care, cardiac intensive care, or other intensive care (excluding neonatal and pediatric intensive care). This measure is derived from the AHA Annual Survey.

External Organizations

Additional structural measures are based on data provided by sources and organizations besides AHA and CMS.

National Cancer Institute Cancer Center

This indicator was added in 2002. NCI, an arm of the National Institutes of Health (NIH), is the principal federal agency tasked with conducting and sponsoring cancer research and training and promoting research and standards of care by various means, including certification as an NCI-designated cancer center. Such a center is committed to advancing cancer research and, ultimately, reducing cancer incidence and increasing the effectiveness of treatment.¹¹

NCI-designated centers have three classifications: (1) cancer center, the lowest level, denotes a facility that conducts a high volume of advanced laboratory research with federal funding; (2) clinical cancer center, the middle level, also conducts clinical (“bench to bedside”) research; (3) comprehensive cancer center, the highest level, adds prevention research, community outreach, and service activities.¹¹

Hospitals designated as NCI clinical or comprehensive cancer centers as of March 1, 2013, were awarded one point. NCI updates the list throughout the year. The current list is provided in *Appendix C*.

^{##} Variable used in ranking calculations but not displayed in print or online.

Nurse Magnet

The Nurse Magnet measure, added to all specialties in 2004, is a formal designation by the Magnet Recognition Program[®]. The Magnet Recognition Program was developed by the American Nurses Credentialing Center (ANCC) to recognize healthcare organizations that meet certain quality indicators on specific standards of nursing excellence. The list of Magnet facilities is updated throughout the year as hospitals apply for designation and redesignation status. Hospitals received credit based on status by the Magnet Recognition Program as of March 1, 2013. The current list is shown at <http://www.nursecredentialing.org/Magnet/FindaMagnetFacility>.

Epilepsy Center

This index was added to Neurology & Neurosurgery in 2004. One point was awarded to hospitals designated by the NAEC as Level 4 epilepsy centers as of March 1, 2013. A Level 4 epilepsy center serves as a regional or national referral facility. These centers provide more complex forms of intensive neurodiagnostic monitoring, as well as more extensive medical, neuropsychological, and psychosocial treatment. Level 4 centers also offer a complete evaluation for epilepsy; surgery, including intracranial electrodes; and a broad range of surgical procedures for epilepsy.¹² The list of hospitals is updated throughout the year. The current list is provided in *Appendix D*.

NIA Alzheimer's Center

NIA Alzheimer's center certification was added to Geriatrics in 2007 and to Neurology & Neurosurgery in 2008. Evaluation and certification are conducted by the National Institute on Aging, an arm of the NIH that translates research advances into improved diagnosis and care of Alzheimer's disease and conducts research on prevention and cures. Recognition means that a hospital provides a high level of care for Alzheimer's patients. Hospitals designated as an NIA Alzheimer's center as of March 1, 2013, received one point. Hospitals listed as affiliated centers did not receive credit. The current list of NIA Alzheimer's centers can be accessed at www.nia.nih.gov/Alzheimers/ResearchInformation/ResearchCenters/.

FACT Accreditation

FACT accreditation was added to Cancer in 2007. This designation indicates that as of March 1, 2013, a hospital met standards set by FACT for transplanting bone marrow or other cellular tissue to treat cancer. One point was given if accreditation was only for autologous transplants, in which a patient's own cells are removed and then returned following radiation therapy. Two points were given if accreditation was for allogeneic transplants, in which cells are

donated by another person (allowing for a greater number and more kinds of cell transplants) or for both autologous and allogeneic transplantation. The current list of FACT-accredited hospitals can be accessed at www.factwebsite.org.

Normalization

Starting with the 2012-2013 rankings, all structural measure values were normalized prior to weighting. Normalization is the process of transforming 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):

$$\text{Equation (1)} \quad \text{Normalized Value} = X_i / \text{Maximum}_i$$

where

X_i = the value provided for a measure i , and

Maximum_i = the highest possible value for i .

For example, the Technology index for Cancer is worth a maximum of 7 points. If a given hospital received 5 out of 7 points, the normalized value for the Technology index in Cancer would be $(5/7) = 0.71$.

Weighting

For the 2013-14 rankings, we revised the weights for the individual measures. In previous years, factor analysis assigned the relative weights. Our analyses and other healthcare quality research led us to believe, however, that measures of high quality are often correlated—improvement in one area often leads to improvement in another. We sought to develop a new approach to construct ranking weights that reflect the relative significance of each measure on its own rather than its association (or lack of one) with other measures within structure or another structural measure.

To address this question, we convened an expert panel to determine how much weight each of the measures should receive. The evaluation was done both across specialties for consistency in weighting and within specialties to identify key measures of quality in a particular specialty. Overall, the weights were determined based on how important each measure was in defining the structural measure of quality of care within hospitals. **Table 5** shows the relative weight for each of the measures that make up the structural component of the rankings, by specialty. For all specialties, the sum of the weights is 30%, which is the overall weight for the structural component in the IHQ.

Table 5. Structural Elements and Percentages (%) of Total Score by Specialty

Item	Cancer	Cardiology & Heart Surgery	Diabetes & Endocrinology	Ear, Nose, & Throat	Gastroenterology & GI Surgery	Geriatrics	Gynecology	Nephrology	Neurology & Neurosurgery	Orthopedics	Pulmonology	Urology
Advanced technology	4.3	5.0	5.3	5.0	5.0		5.3	5.0	4.1	5.0	4.7	5.0
Epilepsy center									2.7			
Intensivists	2.9	3.3	3.5	3.3	3.3	5.0	3.5	3.3	2.7	3.3	3.2	3.3
NCI cancer center	2.9											
NIA Alzheimer's center						5.0			2.7			
Nurse Magnet hospital	2.9	3.3	3.5	3.3	3.3	5.0	3.5	3.3	2.7	3.3	3.2	3.3
Nurse staffing	5.7	6.7	7.1	6.7	6.7	10.0	7.1	6.7	5.5	6.7	6.3	6.7
Patient services	2.9	3.3	3.5	3.3	3.3	5.0	3.5	3.3	2.7	3.3	4.7	3.3
Patient volume	5.7	6.7	7.1	6.7	6.7		7.1	6.7	5.5	6.7	6.3	6.7
Transplant accreditation	2.9											
Trauma center		1.7		1.7	1.7			1.7	1.4	1.7	1.6	1.7

*Percentages may not sum to 30 due to rounding.

C. Outcomes

The correlation between quality of care and risk-adjusted mortality is both self-evident and supported in the literature.¹³⁻²² Using risk adjustment to take volume of cases and severity of illness into account, we calculate specialty-specific risk-adjusted mortality rates for each hospital as an outcomes measure for the IHQ. Mortality is worth 32.5% of the overall IHQ score.

A patient's medical condition (both the principal condition for which the patient is being treated and other comorbidities) strongly affect the chance of death while in the hospital. For a given condition, therefore, using raw mortality rates would unfairly penalize hospitals that treat patients who have a high mortality risk.

Ideally, we would compare the mortality rate of the same set of patients in all hospitals in the Best Hospitals universe. This is unfeasible, however, because hospitals vary in the mix of conditions, both principal and comorbid, for which they treat their patients. Instead, we construct an “expected” mortality rate. It is what the hospital’s mortality rate would be if all patients with the same diagnoses had the mortality risk of the Best Hospitals universe instead of their hospital’s mortality risk for those patients. Hospitals with observed mortality rates below the expected, case-mix-adjusted rate would, on this metric, be gauged to have higher-than-average quality, and those with observed mortality rates above the expected rate would be gauged to have lower-than-average quality.

Observed and expected mortality rates were provided by Truven Health Analytics using the pooled FY2009, FY2010, and FY2011 MedPAR data sets, the latest available for analysis. MedPAR data are derived from reimbursement claims submitted by hospitals to Medicare. The MedPAR file contains information on all Medicare patients’ diagnoses, procedures, lengths of stay in the hospital, and discharge status. These data were “grouped” using the 3M Health Information Systems APR-DRGs and MS Grouper software version 27.0, which aggregates tens of thousands of possible diagnosis and procedure combinations into roughly 1,000 clinically coherent groups. These groups, defined by the APR-DRGs, severity-of-illness level, and mortality risk, take into account the severity of the patient’s illness, risk of death, and hospital resources used.^{6, 23-24}

The MedPAR record includes the CMS DRG assigned to each case for Medicare payment. Each MedPAR record is based on the patient’s diagnosis, surgery (or other medical procedure), age, sex, and discharge destination.²⁵ DRGs classify the more than 10,000 *International Classification of Diseases, Ninth Revision, Clinical Modification* (ICD-9-CM) diagnosis codes into more meaningful patient groups based on clinical and cost similarity. The ICD-9-CM is the official system used by the National Center for Health Statistics and CMS to assign codes to diagnoses and procedures associated with hospital utilization in the United States.²⁶

Because MS-DRGs are generally relatively homogeneous groups of diagnoses and procedures, we use MS-DRGs as the basic unit for defining cases to be included in each specialty’s mortality and volume measures. The MS-DRG groupings developed are based on the DRG groupings used in previous years of the study. We reviewed the CMS DRG to CMS MS-DRG crosswalk available from the CMS website to identify all of the different mappings of DRGs to MS-DRGs. Upon reviewing the APR-DRG threshold assignments for CMS DRGs in the 2010 Methodology Report and examining how this mapped to the MS-DRGs, we assigned thresholds to the MS-DRGs based on the assumption that the MS-DRG system is a more refined measure of severity (see **Appendix E** for the MS-DRGs used for 2013-14). The MS-DRG groupings are applied to each year of data included in the analysis.

For the purposes of the Best Hospitals rankings, only MS-DRGs that represent challenging and critical procedures are included. For example, most inguinal hernia repairs pose relatively low risk and demand modest expertise, so all but the most serious cases are excluded. The process used to identify MS-DRGs is outlined below.^{§§§}

1. Exclude MS-DRGs for very-low-intensity cases.
2. Exclude MS-DRGs that generally do not apply to a Medicare or elderly population.
 - Evaluate excluded and included MS-DRGs on their embedded diagnoses.
 - Refine the excluded and included categorizations based on the within-MS-DRG variation in diagnostic complexity.
 - Evaluate MS-DRGs not assigned to a specific specialty to determine whether they should be categorized more specifically.
 - Perform a final evaluation for clinical consistency.
3. Attribute MS-DRGs to more than one specialty if they are commonly treated by physicians in multiple specialties or assign specific diagnoses or procedures to different specialties based on principal diagnosis or procedures.
4. Include the APR-DRG severity measure to further refine cases assigned to specialties to take into account severity of illness, as measured by comorbidities and interaction with the principal diagnosis.

Mortality Methodology

Changes have been introduced over the years to address specific issues in mortality calculation. These changes have addressed either specialty-specific issues (such as the definition of a specific population to use in Geriatrics as opposed to simply using all cases) or more general issues that can affect mortality outcomes (such as exclusion of transfers and switching from inpatient to 30-day mortality). Brief descriptions of these special considerations are provided below.

1. Definition of the Geriatrics patient population. Rankings in Geriatrics were not included in 2006. They were reintroduced in 2007, using a new approach to identify the target population and account for their mortality rates. Rather than using a small subset of MS-DRGs typical of geriatric patients, we elected to focus on how well hospitals treat older patients across a wider range of MS-DRGs. Therefore, the Geriatrics specialty includes all MS-DRGs used in the

^{§§§} For a more detailed review of these procedures, see the 2005 methodology report at www.rti.org/besthospitals.

specialty rankings that are generally appropriate for a Medicare or elderly population. The sample for the mortality analysis for the Geriatrics specialty, starting in 2007, also is limited to patients who are at least 75 years old. This allows more-accurate reflection of the quality of inpatient hospital care received by older patients across different diagnoses. The basic mortality analyses of the data for this group followed the same procedures as for the other IHQ-driven specialties.

2. Exclusion of transfers from mortality calculations. Starting in 2007, all patient transfers into the hospital have been excluded from mortality calculations. This was done to help avoid mortality rates that might be inflated by transfers of severely ill patients (relative to their MS-DRG and APR-DRG severity level) to tertiary care hospitals. Research has shown that because of their location, some tertiary care hospitals are particularly vulnerable to “dumping.”²⁷ This change in methodology means that patients legitimately transferred for appropriate care are lost, but it is more important to ensure that each hospital’s mortality numbers are not affected by transfers of very sick patients from hospitals unable to properly care for them. Transfers were identified using the claim source of inpatient admission variable on the MedPAR files. Variable values of “4” (transfer from a hospital) or “A” (transfer from a critical access hospital) were used to identify transfers from acute hospitals or critical access hospitals.

3. Adjustment for hospitals in the top or bottom quartile of transfer-in rates. Based on review of hospital-level transfer data, we identified several “outlier” hospitals with respect to the proportion of cases labeled as transfers in to the facility. These cases may be due to misclassification or coding error, but the presence of potentially misclassified transfers reduces confidence in the observed “transfer-free” mortality measure. Consistent with the adjustments made for mortality rates for low-volume hospitals, we define the top and bottom quartiles of transfer-in rates as being extreme and appropriate for adjustment.

For hospitals with transfer-in rates in the top quartile of transfer-in rates (see *Table 6*), we adjust the observed transfer-free mortality rate by averaging the all-case mortality rate with a weight based on our confidence in the observed transfer-in rate. The weight placed on the all-case mortality rate will vary from 0 to 0.5, with each increase of one percentage point in the transfer-in rate percentile increasing the weight by 2 percentage points. The maximum weight on the all-case mortality is 0.5 so that, for most hospitals, the adjusted mortality rate has the observed transfer-free mortality rate as a majority component.

For hospitals with a transfer-in rate in the bottom quartile of transfer-in rates (see *Table 6*), we use the specialty average transfer-free mortality rate as the blending rate. We apply the same algorithm as for the top quartile transfer-in hospitals. However, to avoid unduly penalizing hospitals with lower-than-average mortality rates (or unduly helping those with above-average mortality rates), the maximum weight on the specialty average is 0.25.

Table 6. Transfer Rate Distribution by Specialty

Specialty	Minimum	25 th Percentile	75 th Percentile	Maximum
Cancer	0.00	0.82	7.26	38.91
Cardiology & Heart Surgery	0.00	1.72	13.40	63.43
Diabetes & Endocrinology	0.00	0.06	3.49	26.51
Ear, Nose, & Throat	0.00	0.47	6.00	34.53
Gastroenterology & GI Surgery	0.00	0.25	4.60	39.26
Geriatrics	0.00	0.41	6.24	67.14
Gynecology	0.00	0.00	2.75	16.91
Nephrology	0.00	0.19	4.08	47.90
Neurology & Neurosurgery	0.00	0.61	8.21	59.43
Orthopedics	0.00	0.23	2.96	30.20
Pulmonology	0.00	0.24	4.65	43.49
Urology	0.00	0.13	2.83	33.33

4. 30-day mortality. Prior to 2007, the rankings defined mortality as inpatient deaths (i.e., occurring from admission to discharge). As inpatient hospital length of stay has decreased, inpatient mortality has generally decreased as well. Mortality over longer periods of time posthospital discharge, however, has not declined markedly.²⁸ Quality of care provided in the inpatient hospital setting can have spillover effects on the patient’s health and functional status for many weeks following discharge. The Agency for Healthcare Research and Quality (AHRQ) states in its *Refinements of the HCUP Quality Indicators Technical Summary* (2001) that “without 30-day mortality data (ascertained from death certificates), hospitals that have short lengths of stay may appear to have better patient outcomes than other hospitals with equivalent 30-day mortality.”²⁹

Thirty-day mortality may reflect factors unrelated to care provided in the hospital (e.g., quality of postacute care, lack of patient compliance with treatment regimen). However, inpatient mortality omits factors that tend to manifest their full effect after patients have been discharged from the hospital. Inpatient mortality also does not account for hospital-to-hospital differences in length of stay for comparable patients and conditions.

To address these concerns, the 2007 rankings introduced 30-day mortality (i.e., 30 days postadmission) for all specialties except Cancer. This exception was out of concern that 30-day mortality might penalize hospitals that see cancer patients at the end of life—thus, artificially inflating their mortality numbers. After further review of available data and research, however, we

concluded that 30-day mortality should be consistent. Starting in 2008, 30-day mortality has been used for all IHQ-driven specialties.****

5. Adjustment of mortality values for low-volume hospitals. To address instances in which a low-volume hospital with relatively few discharges during the last 3 years of available data had an inordinately low or high mortality score because of the low frequency of applicable cases associated with that hospital, we adjust mortality for low-volume hospitals. For instance, a hospital treating only 75 Medicare patients in the last 3 years in a particular specialty might have an observed-versus-expected mortality ratio of zero or close to zero. With so few cases to examine, we are not confident that the mortality numbers for this hospital reflect a real measure of outcomes rather than an extreme value based on too few cases.

For hospitals with a discharge volume below the 25th percentile (see *Table 7*), we adjust the observed transfer-free mortality rate by averaging the all-hospital mortality rate (for hospitals at or above the 25th percentile) with a weight based on our confidence in the hospital's observed mortality weight. The weight placed on the all-hospital mortality rate will vary from 0 to 0.25, with each one-percentage point decrease in the volume percentile increasing the all-case mortality weight by 1 percentage points. For example, a hospital with volume in the 24th percentile has an all-hospital mortality rate of 0.01. A hospital with a volume in the 20th percentile has an all-hospital weight of 0.05. The maximum weight on the all-hospital mortality is 0.25.

6. Adjustment of MedPAR data to improve representativeness. The MedPAR data represent the frequency of diagnoses among Medicare beneficiaries, and these data are the source of mortality and volume calculations. However, the distribution of conditions and procedures among Medicare patients differs somewhat from the distribution among all patients treated at U.S. hospitals. By relying on the distribution of diagnoses observed in the MedPAR data alone, the rankings would be somewhat biased toward providing readers with information on outcomes for Medicare patients, not for all patients needing care in the particular specialty.

To address this discrepancy, starting in 2007 weights were applied to the MedPAR data based on the relative over- or underrepresentation of the MS-DRGs among all patients. Ideally, we would use data on all patients to estimate case–mix–adjusted mortality outcomes. Unfortunately, no comprehensive national database of all-payer claims data exists. As a substitute, we instead used data from the AHRQ Healthcare Cost and Utilization Project (HCUP) to produce adjustment factors (i.e., weights) for each diagnosis. The HCUP data set comes from a variety of sources and is the

**** Note that the mortality methodology does not exclude palliative care (V66.5) or hospice cases due to significant inconsistencies in the way in which palliative and hospice care services are documented, defined, and coded across providers.

largest collection of all-payer hospital care data in the United States.³⁰ For the 2013-14 rankings, weights were calculated based on the most recently available HCUP National Inpatient Sample data sets. The MS-DRG-specific weights are equal to the relative frequency of the MS-DRG among all patients nationally versus among Medicare patients, applying the case restrictions described above. The weighted observed-versus-expected mortality rate was then calculated for each hospital in all specialties.

Table 7. Discharges Excluding Transfers and Distribution by Specialty

Specialty	Minimum Volume	25 th Percentile Volume	Maximum Volume
Cancer	146	380	5,016
Cardiology & Heart Surgery	1,045	2,165	17,739
Diabetes & Endocrinology	59	204	1,699
Ear, Nose, & Throat	17	49	500
Gastroenterology & GI Surgery	72	947	11,421
Geriatrics	212	3,961	43,949
Gynecology	5	49	689
Nephrology	135	308	4,894
Neurology & Neurosurgery	228	693	6,883
Orthopedics	46	614	9,194
Pulmonology	574	1,538	13,790
Urology	57	149	2,214

Risk-adjusted mortality ratios were computed by dividing the observed transfer-free mortality rate (including the adjustments for hospitals in the top or bottom quartile of transfer-in rates outlined above) by the expected transfer-free mortality rate after adjusting for case complexity using APR-DRG severity of illness and risk of mortality. The expected transfer-free mortality was an estimate of the hospital's mortality rate if its death rate for patients in each APR-DRG and severity level was equal to the national average for each specialty.

Mortality ratios greater than 1 suggest that more patients died than expected; mortality ratios less than 1 suggest that fewer died than expected. For calculating the IHQ, mortality ratios were transformed into survival ratios by subtracting each specialty-specific mortality ratio from 1 to create a survival ratio. A mortality ratio of 0.25 produced a survival ratio of 0.75, a mortality ratio of 0.05 produced a survival ratio of 0.95, and so on. This reverse scoring maintained the magnitude of the differences between scores. To lessen the effect of year-to-year fluctuations, we use 3 years of pooled data to compute the survival ratios.

Survival Score

For display purposes in the rankings tables, the mortality ratio is transformed into a survival score representing survival of patients at 30 days after admission to the hospital. The survival scores are based on the percentile distribution of the most recent 3-year mortality ratio for all hospitals. Hospitals with the best mortality ratio (closest to 0) receive a higher survival score. The survival score provides an alternative format for presenting information about hospital performance with regard to patient mortality. The mortality ratio cut-offs used to determine the survival score are shown in **Table 8**. Hospitals were assigned points based on the lowest cut-off value the mortality ratio was below. For example a mortality ratio of 0.78 in Cancer would be assigned a survival score of 8 because it is lower than the cut-off value of 0.81.

Table 8. Survival Scores Based on Mortality Ratios

Specialty	Survival Score									
	1	2	3	4	5	6	7	8	9	10
	if \geq	if $<$	if $<$	if $<$	if $<$	if $<$	if $<$	if $<$	if $<$	if $<$
Cancer	1.38	1.38	1.28	1.19	1.09	1.00	0.91	0.81	0.72	0.62
Cardiology & Heart Surgery	1.34	1.34	1.25	1.17	1.08	1.00	0.92	0.83	0.75	0.66
Diabetes & Endocrinology	1.58	1.58	1.43	1.30	1.15	1.00	0.86	0.71	0.57	0.42
Ear, Nose, & Throat	1.60	1.60	1.45	1.30	1.15	1.00	0.85	0.70	0.55	0.40
Gastroenterology & GI Surgery	1.34	1.34	1.26	1.17	1.09	1.00	0.92	0.83	0.75	0.66
Geriatrics	1.35	1.35	1.26	1.17	1.09	1.00	0.91	0.83	0.74	0.65
Gynecology	1.64	1.64	1.48	1.32	1.16	1.00	0.84	0.68	0.52	0.36
Nephrology	1.47	1.47	1.35	1.24	1.12	1.00	0.88	0.77	0.65	0.53
Neurology & Neurosurgery	1.51	1.51	1.38	1.26	1.13	1.00	0.87	0.75	0.62	0.49
Orthopedics	1.54	1.54	1.40	1.27	1.13	1.00	0.87	0.73	0.60	0.47
Pulmonology	1.30	1.30	1.22	1.15	1.07	1.00	0.93	0.85	0.78	0.70
Urology	1.53	1.53	1.40	1.27	1.13	1.00	0.87	0.74	0.60	0.47

D. Process

The process dimension of the Donabedian paradigm reflects physicians' decisions made in the hospital setting, such as choices about admission, diagnostic tests, course of treatment, choice of medication, and length of stay. It is extremely difficult to obtain national measurements of process; therefore, we used a proxy measure. We contend that an appropriately qualified physician who identifies a hospital as among the “best” is, in essence, endorsing the process choices made at that hospital and that nomination of hospitals by board-certified specialists is, therefore, a reasonable process measure.

To collect these nominations, a survey of board-certified physicians across the country is conducted each year. For 2013-14, we used nominations for the three most recent surveys (2011, 2012, and 2013) to arrive at the reputation measure. We treated the IHQ-driven and reputation-only specialties identically for the reputation measure. Therefore, this section presents the methodology and results for both.

Sample for the 2013 Survey

The 2013^{†††} survey sample consisted of 3,200 board-certified physicians selected from the AMA Physician Masterfile. From within the AMA Masterfile of 850,000 physicians, we selected a target population of 202,444 board-certified physicians who met defined eligibility requirements (see below). Stratifying by census region and by specialty within region, we selected a probability (i.e., random) sample of 200 physicians (50 from each region) from each of the 16 specialty areas. For specialties that include multiple subspecialties, we selected the subspecialty samples with a probability proportional to the size of the subspecialty population.^{‡‡‡} The final sample included federal and nonfederal medical and osteopathic physicians practicing in all 50 states and the District of Columbia.

Eligibility Requirements

To define an appropriate probability sample of physicians who represent the 16 specialty groupings, we linked each of the specialties to one or more relevant specialties from the American Board of Medical Specialties (ABMS). Next, we identified a number of subspecialties within each medical specialty in the rankings. Physicians who designated a primary specialty in one of the

^{†††} For information on the 2011 and 2012 samples, please see the respective methodology reports at www.rti.org/besthospitals.

^{‡‡‡} For example, if there are twice as many Diabetes & Endocrinology specialists than Diabetes specialists in the population, then the sample will have twice as many Diabetes & Endocrinology specialists than Diabetes specialists.

specialties (or affiliated subspecialties) were eligible for the survey. **Table 9** displays the association among Best Hospitals specialties, ABMS member boards, and corresponding AMA subspecialties.

Stratification

To compensate for wide variation in the number of eligible physicians across the targeted specialties and the four census regions in the country, we used different probabilities of selection for each grouping. Fifty physicians were selected from each of the 16 specialties in each census regions (www.census.gov/geo/www/us_regdiv.pdf). Equal-size groups allow for adequate representation among regions and specialties.

Survey Procedure

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. Table 10 and Table 11 show the mailing schedule and approach for the two experimental groups.

Materials

For 2011, 2012, and 2013, sampled physicians in each specialty were mailed a one-page, single-sided questionnaire containing a single hospital nomination element. Hospitals were asked to nominate up to five hospitals in their specialty that provide the best care to patients with serious conditions, regardless of location or expense (see **Appendix A**). Along with the questionnaire, physicians were sent a cover letter, a business reply envelope, and a \$2 bill—a token incentive used since the first set of rankings in 1990.

Response Rates

Table 11 shows the response rate by specialty for the three years of survey data used in the 2013-14 rankings. The average response rate for the three years of data collection was

Table 9. Physician Sample Mapping

Best Hospitals Specialty	American Board of	AMA Subspecialty
Cancer	Internal Medicine	Hematology
	Oncology	Hematology/Oncology
		Medical Oncology
		Surgical Oncology
	Orthopedics	Gynecologic Oncology
Radiology	Musculoskeletal Oncology	
		Radiation Oncology
Cardiology & Heart Surgery	Internal Medicine	Cardiovascular Diseases
		Interventional Cardiology
		Cardiac Electrophysiology
	Surgery	Thoracic Surgery
Diabetes & Endocrinology	Internal Medicine	Diabetes & Endocrinology
		Diabetes
Ear, Nose, & Throat	Otolaryngology	Otolaryngology
		Plastic—Head and Neck
		Otology/Neurotology
Gastroenterology & GI Surgery	Internal Medicine	Gastroenterology
		Hepatology
		Proctology
	Surgery	Abdominal Surgery
		Colon and Rectal Surgery
Geriatrics	Internal Medicine	Geriatrics
Gynecology	Obstetrics & Gynecology	Gynecology
		Obstetrics
		Obstetrics and Gynecology
		Maternal and Fetal Medicine
Nephrology	Internal Medicine	Nephrology
Neurology & Neurosurgery	Psychiatry & Neurology	Neurology
		Neurology/Diagnostic Radiology
	Surgery	Neurological Surgery
Ophthalmology	Ophthalmology	Ophthalmology
Orthopedics	Orthopedic Surgery	Orthopedic Surgery
		Sports Medicine—Orthopedics
		Hand Surgery
		Adult Reconstructive Orthopedics
		Foot & Ankle Orthopedics
		Spine Surgery
		Orthopedic Trauma Surgery
Psychiatry	Geriatrics	Geriatric Psychiatry
		Addiction Psychiatry
	Psychiatry & Neurology	Psychiatry
Rehabilitation	Physical Medicine & Rehabilitation	Physical Medicine & Rehabilitation
		Spinal Cord Injury
		Sports Medicine—PMR
		Sports Medicine
Pulmonology	Internal Medicine	Pulmonary Diseases
Rheumatology	Internal Medicine	Rheumatology
Urology	Urology	Urological Surgery

36.6%, using American Association for Public Opinion Research (AAPOR) Response Rate 6,^{§§§§} which treats undeliverables as ineligible cases.

Table 10. 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 11. 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
1 st reminder mailing	USPS, First Class mail	Cover letter, survey, return envelope	January 22, 2013
2 nd reminder mailing	USPS, Priority mail	Cover letter, survey, return envelope	February 5, 2013
3 rd reminder mailing	Federal Express	Cover letter, survey, return envelope	February 19, 2013

*Another experiment was conducted in which half of the physicians received the \$2 incentive with the prenotification letter and the other half received no incentive.

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

Survey Response Weighting

The physician survey was stratified by specialty and census region (West, Northeast, South, and Midwest). Weights were constructed and applied to each physician’s survey response to make nominations representative at the national level. Weights were based on the probability of selection within each unique specialty-region combination, with an adjustment to account for nonresponders. Beginning in 2013-14, we calculated reputation values for each year of the survey independently and averaged the three years, rather than pooling nominations across years. This was done to reduce the year-to-year fluctuation of reputation scores within specialties.

Table 12. Yearly Response Rate by Specialty (2011-2013)

Specialty	2011		2012		2013		3-Year Total	
	n	%	n	%	n	%	n	%
Cancer	74	39.8	75	40.3	57	30.2	206	36.8
Cardiology & Heart Surgery	64	34.6	68	35.8	78	39.6	210	36.7
Diabetes & Endocrinology	76	40.4	67	35.6	62	32.0	205	36.0
Ear, Nose, & Throat	99	50.5	83	43.5	89	46.1	271	46.7
Gastroenterology & GI Surgery	71	39.0	70	40.4	70	36.3	211	38.6
Geriatrics	66	36.1	55	31.4	51	27.3	172	31.6
Gynecology	61	32.3	65	33.7	55	28.9	181	31.6
Nephrology	63	35.2	57	31.0	61	31.3	181	32.5
Neurology & Neurosurgery	86	45.7	74	38.9	70	36.1	230	40.2
Ophthalmology	78	41.1	78	40.4	72	36.9	228	39.5
Orthopedics	83	43.0	62	32.6	68	34.9	213	36.8
Psychiatry	65	35.1	61	31.9	45	23.4	171	30.1
Rehabilitation	75	41.2	77	40.7	77	39.3	229	40.4
Pulmonology	67	36.6	58	32.0	60	31.4	185	33.3
Rheumatology	74	37.6	64	34.2	72	36.7	210	36.2
Urology	82	43.4	72	38.7	64	32.7	218	38.3
Overall Response Rate^a	1,184	39.5	1,086	36.2	1,051	34.0	3,321	36.6

^aThe overall response rate for each year was calculated using AAPOR Response Rate 6.

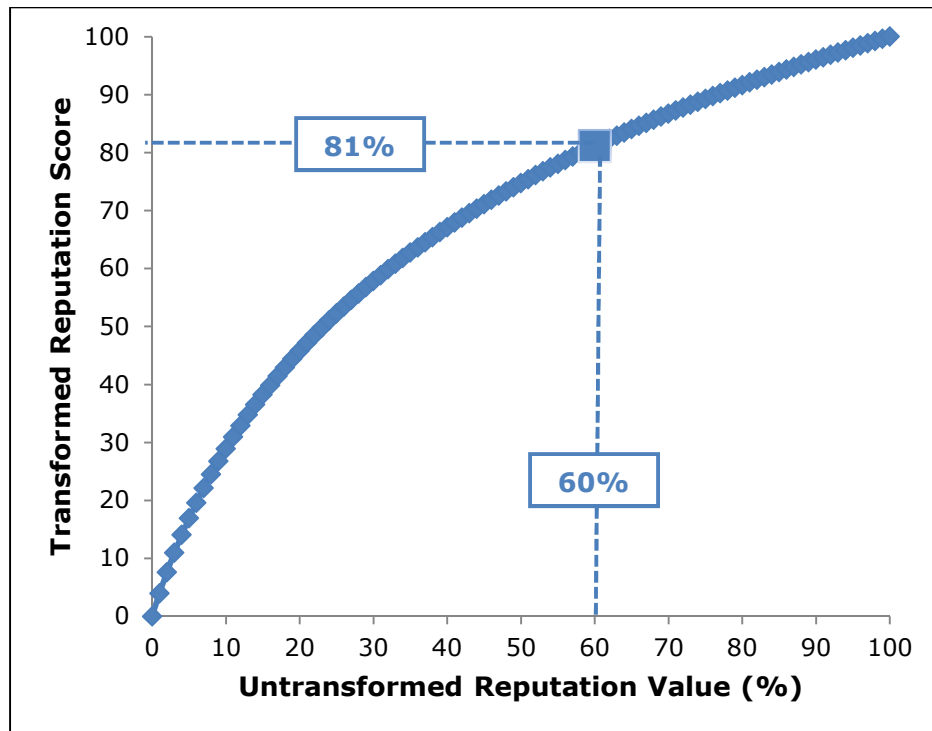
Log Transformation

The weighted reputation values are displayed in the ranking tables. However, before being combined into the Index of Hospital Quality (IHQ) for the 12 data-driven specialties, we implemented a log transformation of the reputation data to adjust for the skewed distribution of values. The log transformation was not applied to the four reputation-only specialties.

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 the other ranking components, such as structural measures and mortality, are not skewed to this degree, reputation can have a somewhat larger than intended impact on the final rankings if left unadjusted.

Log transformation reshapes the distribution to more closely match the reputation data to those of the other components in the data-driven 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 2* 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 thereby reduced, and the overall impact of the reputation score on hospitals’ final standing in the rankings is slightly diminished.

Figure 2. Comparison of Reputation Data Prior to and After Log Transformation



Normalization and Weighting

The reputation measure in each data-driven specialty is worth 32.5% of the overall score. As with the structural measures, the reputation data were normalized before being combined in the Index of Hospital Quality (IHQ). Normalization 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 (after log transformation) determined the number of points hospitals received for reputation. If the highest normalized reputation score in a given specialty was 80, for example, the hospital with that score received 0.80×32.5 , or 26 points, for reputation. This change was put in place in 2012-13, marking a significant difference from previous years when the hospital with highest reputation score received the maximum total points (i.e., 32.5 points).

E. Patient Safety Index

The patient safety index is worth 5% of the total score. It is an important aspect of both outcomes and process. It is a critical component in evaluating and determining the best hospitals.

Background

Prior to the 2009 rankings, mortality was the only outcome measure used to determine the rankings. Although mortality obviously is an important outcome measure, other adverse events befall hospitalized patients that may not result in death. In its 2000 report *To Err is Human*,³¹ the Institute of Medicine (IOM) identified three domains of quality: (1) safety, (2) practice consistent with current medical knowledge, and (3) customization of care to the patient's values and expectations. The first of these domains, patient safety, is defined by the IOM as "freedom from accidental injury." The IOM has identified preventable adverse events as a leading cause of death and injury and the principal challenge to patients' safety. Hospitals with high rates of adverse events are unlikely to be providing high-quality care to all of their patients.

In 2003, AHRQ released the first version of its Patient Safety Indicators (PSIs), a set of 20 provider-level and 7 area-level indicators of potentially adverse events.³² As described below, we use a subset of these indicators to identify adverse outcomes likely associated with less-than-desirable quality of care.

Previous research indicates that PSIs are not strongly associated with other outcome and structural quality measures.³³⁻³⁵ However, we believe that PSIs incorporate important information separate from other measures used in the IHQ. Including PSIs in addition to mortality allows us to measure aspects of quality of care where there may be harm to patients and increased service utilization (for example, to correct a harm), but where the patient may not die. Hospital stays with patient safety events have been found to be more costly and longer in length than stays without patient safety events.³⁶⁻⁴⁰ Patient safety events have also been associated with higher hospital 90-day readmission rates compared to patients without safety events.³⁶

Development of the Patient Safety Index

The patient safety index was developed by RTI using the framework described in the *Patient Safety Quality Indicators Composite Measure Workshop Final Report*,⁴¹ with some project-specific modifications. This report summarizes the steps to take to construct an index to be reported in the annual *National Healthcare Quality Report*⁴² and *National Healthcare Disparities Report*,⁴³ part of the AHRQ initiative. The composite measure final report's framework divides the index creation process into three basic components:

1. Choosing index components,
2. Weighting the index components, and
3. Adjusting hospital-specific PSIs to account for measurement variance.

Choosing Index Components

AHRQ's PSI composite index includes the 11 PSIs checked in the second column of *Table 13*. These PSIs were chosen based on codes likely to be reported, not already part of existing composites, and not related to obstetric care.

Table 13. Comparison of AHRQ and Best Hospitals Patient Safety Indexes

All PSIs	Included in the AHRQ PSI Composite Index	Included in the Best Hospitals Patient Safety Index
PSI 03: Pressure ulcer	✓	
PSI 04: Death among surgical inpatients with serious treatable complications		✓
PSI 06: Iatrogenic pneumothorax	✓	✓
PSI 07: Central Venous Catheter-Related Blood Stream Infections Rate	✓	
PSI 08: Postoperative hip fracture	✓	
PSI 09: Postoperative hemorrhage or hematoma	✓	✓
PSI 10: Postoperative physiological and metabolic derangement	✓	
PSI 11: Postoperative respiratory failure	✓	✓
PSI 12: Postoperative pulmonary embolism or deep vein thrombosis	✓	
PSI 13: Postoperative sepsis	✓	
PSI 14: Postoperative wound dehiscence	✓	✓
PSI 15: Accidental puncture or laceration	✓	✓

The Best Hospitals patient safety index includes five of the constituents of AHRQ's PSI index, as indicated in the third column of Table 13. The five chosen were selected because they have already been endorsed by the National Quality Forum (NQF) or are in the process of becoming endorsed. The Best Hospital's patient safety index also includes PSI 04 (Death among surgical inpatients with serious treatable complications). PSI 04 was included because it identifies deaths that are generally deemed to be avoidable. Note that PSI 02 (Death in Low Mortality DRGs) was dropped from the Best Hospitals patient safety index in 2011 after additional analyses revealed large fluctuations in the observance of this PSI from year to year. Additional indicators may be added to the patient safety index as the measures become more refined.

Weighting the Index Components

An index is generally a weighted sum or mean of its components. The Best Hospitals rankings considered a patient safety index that weighted each PSI equally, as well as one that weighted each PSI by the population at risk of each indicator. In previous years, the Best Hospitals rankings used weights equal to the population at risk to make the PSI index analogous to the mortality measure. With this approach, a hospital's observed-versus-expected mortality rate is a weighted average of the observed-versus-expected mortality rates by MS-DRG, with weights equal to the proportion of patients in each MS-DRG. However, additional analyses revealed significant year-to-year changes in the weights assigned to individual PSIs using this approach. As a result, starting with the 2011-12 rankings, we used an equal-weighting approach: each PSI is assigned an identical weight equal to the reciprocal of the number of PSIs in the index. By using equal weights, there is no variability in weights from year to year, and the approach will make individual PSI values much easier for readers to understand. The weights used for each of the PSI values used in the Best Hospitals patient safety index are shown in *Table 14*.

Table 14. Weights, Best Hospitals Patient Safety Index PSI Components

PSI	Weight in the Best Hospitals Patient Safety Index
PSI 04: Death among surgical inpatients with serious treatable complications	16.7%
PSI 06: Iatrogenic pneumothorax	16.7%
PSI 09: Postoperative hemorrhage or hematoma	16.7%
PSI 11: Postoperative respiratory failure	16.7%
PSI 14: Postoperative wound dehiscence	16.7%
PSI 15: Accidental puncture or laceration	16.7%

Adjusting Hospital-Specific PSIs to Account for PSI Measurement Variance

Similar to the method used in the AHRQ index, the Best Hospitals patient safety index incorporates a feature that adjusts for differences among the PSIs in their reliability, or the variation in PSIs that appears due to random variation instead of real quality differences. Each PSI is adjusted based on the observed variation (specifically, the standard error of the mean) in the PSI within each hospital. To make the adjustment, the PSI value used is set equal to a weighted average of the hospital's own value and that of the population. The greater the in-hospital variation or the fewer the number of cases, the greater the weight on the population value and less on the hospital's own

value. Thus, the less reliable the estimate of a particular PSI relative to the other PSIs for a given hospital, the less weight assigned to that PSI for that hospital.

Controlling for the Influence of Hospital Case-Mix on Measured PSIs

The more complex the medical condition or procedure, the more complex the care. Assuming the same level of quality with every “touch” by a hospital staff person, the more complex the care and the greater the likelihood of an error. As a result, comparing patient safety index values of a hospital with a complex case mix to one with a simple case mix may not be fair; a hospital with a simple case mix might have worse underlying quality but a somewhat better-seeming patient safety index than a hospital with a complex case mix. To control for this possibility, and to conduct a more apples-to-apples comparison, we control for the effect of case mix on the index by estimating a simple linear regression of the patient safety index, computed as described above, on the Medicare case-mix index—the average MS-DRG weight of the Medicare patients treated in each hospital.

The adjusted patient safety index used in the ranking is the actual index less the value predicted in the linear regression. Negative values of the adjusted patient safety index indicate fewer than expected adverse events (higher quality); positive values indicate greater than expected adverse events (lower quality).

For purposes of scoring, the PSI index is coded into three groups; index values < 25th percentile, index values in the 25th to 74th percentile, and index values \geq 75th percentile. Hospitals with index values below the 25th percentile receive a score of 3 indicating highest quality, and hospitals with index values at or above the 75th percentile receive a score of 1 indicating lowest quality. The adjusted patient safety index percentiles relating to these scores are shown in **Table 15**. Note that the rankings also report scores for each PSI included in the index using the same 3-point scale used for reporting the PSI index.

The data source for the Best Hospitals Patient Safety Index is the same 3-year sample from the MedPAR dataset that is used for volume and mortality analyses in the Best Hospitals rankings. For the 2013-14 rankings, the MedPAR files used were the Federal fiscal year 2009, 2010, and 2011 files. Data were analyzed using the AHRQ PSI grouper software version 4.3. This version of the software incorporates the present on admission (POA) data from the claims into the PSI assignment; this was the first year that POA was factored into the calculation of the PSI index. This allows the software to remove cases where POA is indicated so that they do not count against a hospital in the assessment of patient safety events. The impact of this change was that the number of patient safety events identified in hospitals was reduced while the accuracy of the measurement was increased; the PSI grouper is now able to differentiate preexisting conditions from those that develop as a result of hospital care.

Table 15. Percentiles of Patient Safety Index Values

	25 th Percentile	50 th Percentile	75 th Percentile
PSI 04: Death among surgical inpatients with serious treatable complications	-0.07	0.01	0.06
PSI 06: Iatrogenic pneumothorax	-0.44	-0.09	0.37
PSI 09: Postoperative hemorrhage or hematoma	-0.11	0.00	0.09
PSI 11: Postoperative respiratory failure	-0.25	-0.07	0.21
PSI 14: Postoperative wound dehiscence	-0.40	-0.10	0.30
PSI 15: Accidental puncture or laceration	-0.27	-0.04	0.23
PSI Index	-0.12	-0.01	0.11

F. Calculation of the Index of Hospital Quality

Prior to 2009, structure, process, and outcomes each received one-third of the weight in IHQ scores. In 2009, the weights were adjusted to integrate the patient safety index, which is worth 5% of the total score. Conceptually, the patient safety index is tied to both outcomes and process. Therefore the weight is evenly distributed between these two components, giving each a total weight of 32.5% and structure the remaining 30%. Although each of the three measures represents a specific aspect of quality, a single score provides a result that is easy to use and understand and portrays overall quality more accurately than any of the three elements would individually.

The rankings for the top 50 hospitals in each specialty, by *U.S. News* score, are shown in *Appendix F*. The formula for calculating the *U.S. News* score 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:

$$IHQ_i = \{.3(\sum_{i=1}^{n_s} S_i) + .325\sum_{i=1}^{n_p} P_i + .325(\sum_{i=1}^{n_o} O_p) + .05PS_i\}, \quad (2)$$

where

- IHQ_i = index for hospital quality for specialty 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 .
- PS_i = normalized patient safety index score for specialty 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 *U.S. News* scores to a scale that assigns a score of 100 to the top hospital. The formula for the transformation is shown in Equation (3):

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

III. Reputation-Only Specialties

Available data for the four reputation-only specialties are more limited than for the IHQ-driven specialties. Mortality is irrelevant in Ophthalmology, Psychiatry, and Rehabilitation, because life-threatening conditions and procedures are rare. Inpatient volume in Rheumatology is extremely low, making it difficult to calculate reliable mortality measures. Reliable structural measures also are unavailable. Therefore, we used only reputation—the process component—to develop the rankings. This section describes the eligibility and procedures used to develop the rankings for the four reputation-only specialties.

A. Eligibility

Hospitals ranked solely by reputation do not have to meet the same eligibility standards as the IHQ-driven specialties. For these four specialties, a hospital is eligible if it receives one or more physician nominations. In previous years, hospitals representing 3% or more of the total nominations in a specialty were published in print. Starting with the 2011-12 rankings, this has been revised to 5% to be more discerning.

B. Process

The IHQ-driven specialties and the reputation-only specialties share the same process component (see *Section II.D. Process* for more information).

C. Calculation of the Rankings

As mentioned above, scores for the reputation-only specialties of Ophthalmology, Psychiatry, Rehabilitation, and Rheumatology must be calculated differently from scores for the IHQ-driven specialties because of the unavailability of structural and outcomes measures. Thus, we rank hospitals in these specialties solely by reputation (see *Appendix G*).

IV. Honor Roll

This year 147 different hospitals were ranked in at least one specialty. The Honor Roll recognizes excellence across a broad range of specialties. In previous years, the methodology for assigning Honor Roll points was based on the number of standard deviations above the mean, a hospital's score was. Since the number of eligible hospitals varied significantly by specialty, there was variability in the number of hospitals that received points by specialty. In some specialties, twice as many hospitals received points as other hospitals. Starting with the 2012-13 rankings, the methodology has been revised to assign points based on position in the rankings. This allowed an equal number of hospitals to receive points in each of the data-driven specialties and in each of the reputation-only specialties.

For the 12 data-driven specialties, hospitals received 2 points for being ranked in the top 10 hospitals and 1 point for being ranked in the top 11-20 hospitals in a specialty. For the 4 reputation-only specialties, hospitals received 2 points for being ranked in the top 5 hospitals and 1 point for being ranked in the top 6-10 hospitals. Hospitals were included in the final Honor Roll only if they received points in at least six specialties. The Honor Roll also indicates the relative distances between the Best Hospitals, which cannot be determined solely from the rankings. *Appendix H* lists this year's 18 Honor Roll hospitals.

V. History of Methodology Changes by RTI

RTI began working with *U.S. News* on the Best Hospitals rankings in 2005. Below we describe the methodological changes introduced to the rankings for each project year. For complete information on the project, we recommend reviewing the project methodology reports which are available online at www.rti.org/besthospitals.

Summary of 2013-14 Changes

- **Present on Admission data included in patient safety calculations.** Starting with the 2013-14 rankings, patient safety data were analyzed using the AHRQ PSI grouper software version 4.3. This version of the software incorporates the present on admission (POA) data found in Medicare claims. This allows the software to remove cases where POA is indicated so that they do not count against a hospital in the assessment of patient safety events.
- **Neurology & Neurosurgery MS-DRG deletions.** Several spinal procedures involving spinal fusion were removed: MS-DRGs 028, 029, 030, 453, 453, 455, 456, 457, 458, 459, 460, 471, 472, 473, 490, and 491. This decision was made after *U.S. News* received feedback that these MS-DRGs are more appropriately assigned only to

the Orthopedics specialty because the role of neurologists in these procedures, if any, is minimal.

Summary of 2012-13 Changes

- **Surgical volume discharge minimums.** If the minimum total discharge value for a specialty was lower than 25, then 25 was set as the minimum for that specialty to ensure a sufficient number of discharges.
- **Normalization.** Normalization is the process of transforming index values into a distribution between 0 and 1 based on the range of possible values for a given measure. Individual measures were normalized before incorporating into the IHQ. In previous years, standardization was used instead of normalization.
- **New weighting procedures for structural measures.** In previous years, factor analysis determined the relative weights of the structural measures. Starting in 2012-2013, we assigned weights based on the relative significance of each measure.
- **Reputation.** In previous years, the hospital with the highest reputation score received the full point total (i.e., 32.5 points) for the reputation component. Starting in 2012-2013, hospitals received a normalized reputation score. For example, if the highest reputation score in a given specialty is 80%, the hospital will receive a normalized score of 0.80. Since reputation is worth 32.5% of the overall score, the hospital will receive 0.80×32.5 , or 26 points, for reputation instead of the full 32.5 points possible.
- **Survey response weighting.** Beginning in 2012-13, we calculated reputation values for each year of the survey independently and averaged the three years, rather than pooling nominations across years. This was done to reduce the year-to-year fluctuation of reputation scores within specialties.
- **Honor Roll.** The methodology for assigning Honor Roll points was revised. For data-driven specialties, hospitals now receive 2 points for ranking in the top 1-10 hospitals and 1 point for ranking in the top 11-20. For reputation-only specialties, hospitals receive 2 points for ranking in the top 1-5 and 1 point for ranking in the top 6-10.

Summary of 2011-12 Changes

- **Ties allowed.** For 2011-12, we instituted a new rule that allows for ranking ties for hospitals with the same IHQ score. Previously ties were not allowed and were broken by examining the scores out to 3 decimal points.

- **Cutoffs for reputation-only specialties.** In previous years, hospitals representing 3% or more of the total nominations in a specialty were published in print for the reputation-only specialties. For the 2011-12 rankings, this was revised to 5% to be more discerning.
- **Mortality displayed as survival scores.** The values displayed in the rankings tables for mortality were changed from mortality ratios to a decile-based survival scores. The top 10% of hospitals—with the lowest relative mortality and highest 30-day survival—received a survival score value of 10, the next 10% of hospitals received a value of 9, and so. The method for using the mortality scores to calculate the IHQ score did not change from what was used in 2010.
- **Updated scoring for the patient safety index.** The patient safety index has been revised to include 6 rather than 7 PSIs (PSI 02: Death in Low-Mortality DRGs is no longer included). The approach to weighting individual PSIs also changed from the population at risk to equal weighting. The index scoring was also updated from the quintile scoring used in 2009-2010 to a new 3-point scale which represents ≥ 75 th percentile, 25th-74th percentile, and < 25 th percentile.

Summary of 2010-11 Changes

- **Reputation scores transformed.** Implemented a new log transformation of the reputation survey data prior to standardization. This change will allow reputation scores to cluster more, reducing the overall impact of this component on the final hospital ranking.
- **MS-DRGs incorporated.** The 3M Health Information Systems MS Grouper software was run on all 3 years of data included in the analyses, and we revised the assignment of cases to specialties using the MS-DRGs.
- **Change in structural volume measure.** The criteria used to determine volume for the structural variable has now changed to include only those cases meeting the minimum severity of illness thresholds set by the project using APR-DRGs and includes transfers; previously, this measure focused on all discharges for DRGs used by the project and excluded transfers. This change will allow the volume measure to more accurately reflect the actual volume of cases according to the specialty definitions.
- **Codes identifying transfers for mortality calculation revised.** As in previous years, transfers were identified using the claim source of inpatient admission variable on the MedPAR files. In past years, transfers were identified based on the value “4” for transfer from an acute hospital. This year the variable value “A” for transfer from critical access hospital was also used.

- **Low-discharge hospitals adjustment changed.** The method for adjusting the scores for hospitals with low-discharges on both the volume and mortality was revised. In previous years, we used an inverse-logit transformation. Starting in 2010, for hospitals with a discharge volume below the 25th percentile, we adjusted the observed volume score and transfer-free mortality rate by creating an average weight based on the hospitals observed score and the score for all hospitals at or above the 25th percentile in volume.
- **“Outlier” transfer data adjusted.** We adjusted the observed transfer-free mortality rate for hospitals in the top and bottom quartiles of transfer-in rates to account for the fact that some hospitals may have had too many or too few cases included in the mortality calculations due to poor or inaccurate coding of administrative data.

Summary of 2009 Changes

- **Eligibility criteria updated.** Hospitals with a minimum number of hospital beds may now be eligible for the rankings (see *Section II.A*).
- **Key technologies updated.** The elements in this index were updated for a few specialties to remain consistent with the key technologies expected from a best hospital (see *Section II.B*).
- **Intensivists added.** Hospitals now receive credit in all data-driven specialties for having intensivists on staff (see *Section II.B*).
- **Patient safety index added.** A Best Hospitals patient safety index was created and applied to all data-driven specialties (see *Section II.E*).
- **DRG groupings updated.** DRG groupings were updated for all data-driven specialties, consistent with typical year-to-year changes (see *Section II.C*).

Summary of 2008 Changes

- **Advanced technologies updated.** The elements in this index were updated for a few specialties to remain consistent with the advanced technologies expected from a best hospital.
- **Patient services updated.** The elements in these services were updated for a few specialties to remain consistent with the patient services expected from a best hospital.
- **Trauma center certification dropped.** Trauma center certification was dropped from the Gynecology specialty.

- **Alzheimer’s disease center added.** This element was added to the Neurology & Neurosurgery specialty.
- **30-day mortality rates added for Cancer.** Thirty-days-from-admission mortality rates were introduced in all IHQ-driven specialties except Cancer in 2007. For 2010/11, 30-day mortality was used in Cancer as well.

Summary of 2007 Changes

Changes for 2007 were more substantial, but still in keeping with the goal of maintaining consistency and continuity. Many of the changes were discussed at length at a day-long meeting convened by *U.S. News* in the fall of 2006 to solicit the views of a Best Hospitals advisory panel of approximately 40 invitees. The panelists represented top hospitals and brought expertise in areas such as clinical care, healthcare data analyses, and quality research. Several representatives from key trade/industry organizations also participated.

- **External organizations added.** Hospitals in the Cancer specialty now receive points for accreditation by FACT as a Cellular Therapy Facility. Hospitals in Geriatrics now receive points if they are recognized by NIA for having an Alzheimer’s Center.
- **DRG groupings updated.** DRG groupings were updated for all specialties, consistent with typical year-to-year changes.
- **Transfers excluded.** Patients transferred into a hospital from another hospital are excluded from mortality and volume calculations to reduce the likelihood of either benefiting or suffering from “dumping” of patients.
- **30-day mortality introduced.** Thirty-days-from-admission mortality rates were introduced in all IHQ-driven specialties (except Cancer) instead of death-at-discharge mortality rates.
- **Mortality data weighted.** Weights were applied to the MedPAR data based on the relative over- or underrepresentation of the cases’ DRGs among all patients, as identified in the HCUP data.
- **Neonatologists moved.** Neonatologists were removed from the Gynecology sample and included in the Pediatrics sample instead.

Summary of 2005-2006 Changes

To maintain consistency in the previous ranking process, RTI replicated the preexisting methodology in the 2005 rankings and implemented only minor operational improvements in 2006.

VI. Future Improvements

The Best Hospitals methodology is reexamined and refined each year to best measure hospital quality. As always, RTI will closely monitor the potential of new data sources and measures. Several of the methodological improvements being considered follow:

- **Reevaluate process component.** We will continue to evaluate the way in which additional measures of process could be used to enhance the physician survey proxy measure. For example, the Hospital Consumer Assessment of Health Care Providers and Systems (HCAHPS), implemented by CMS in 2008, evaluates patient feedback on the quality of care received during recent hospital care. More recent measures have been introduced by CMS under the Hospital Compare website where performance on process and a limited set of outcomes are provided for comparison. Such programs may offer useful data for evaluation the process of care delivery.
- **Incorporate structural data into reputation-only specialties.** We are examining resources and measures that would add structural data to the current reputation-only specialties to further strengthen and improve the rankings for these specialties.
- **Review external data sources.** We will investigate additional and new sources of data that offer quality measures for all hospitals. Data sources under consideration include quality indicators from AHRQ, AHA, CMS, and the Joint Commission.

Contact Information

We welcome suggestions and questions. Readers and users are encouraged to contact the Best Hospitals research team at the address listed below. This report, as well as those since 2005, can be viewed or downloaded in their entirety from the RTI International website at www.rti.org/BestHospitals. Specific questions or comments about the contents of this report can be sent via e-mail to BestHospitals@rti.org.

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Appendix A

2013-14 Sample Physician Questionnaire



Best Hospitals

Your nominations will be reflected in the 2013-14
U.S. News & World Report <<SPECIALTY>>
rankings.

Please name up to five 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.	<input type="text"/>	<input type="text"/>	<input type="text"/>
b.	<input type="text"/>	<input type="text"/>	<input type="text"/>
c.	<input type="text"/>	<input type="text"/>	<input type="text"/>
d.	<input type="text"/>	<input type="text"/>	<input type="text"/>
e.	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Fax response to (800) XXX-XXXX
or return in postpaid envelope.**

Conducted by:



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Appendix B
Structural Variable Map

The following variables, used to construct structural elements of the 2013-14 IHQ, were taken from the 2010 Annual Survey of Hospitals Database published by the American Hospital Association, unless otherwise specified. Hospitals did not receive more than one point for any one service.

Key Technologies (Total of 8 points possible)

1 point awarded if...
DRADFHOS, DRADFSYS, DRADFNET, or DRADFVEN=1
FFDMHOS, FFDMSYS, FFDMNET, or FFDMVEN=1
IGRTHOS, IGRTSYS, IGRTNET, or IGRTVEN=1
MSCTHOS, MSCTSYS, MSCTNET, MSCTVEN, MSCTGHOS, MSCTGSYS, MSCTGNET, or MSCTGVEN=1
PETCTHOS, PETCTSYS, PETCTNET, or PETCTVEN=1
ROBOHOS, ROBOSYS, ROBONET, or ROBOVEN=1
SPECTHOS, SPECTSYS, SPECTNET, or SPECTVEN=1
SRADHOS, SRADSYS, SRADNET, or SRADVEN=1

Cancer Key Technologies (Total of 7 points possible)

1 point awarded if...
FFDMHOS, FFDMSYS, FFDMNET, or FFDMVEN=1
IGRTHOS, IGRTSYS, IGRTNET, or IGRTVEN=1
ROBOBHOS, ROBOBSYS, ROBOBNET, or ROBOBVEN=1
PETCTHOS, PETCTSYS, PETCTNET, or PETCTVEN=1
BEAMHOS, BEAHMSYS, BEAMNET, or BEAMVEN=1
SRADHOS, SRADSYS, SRADNET, or SRADVEN=1
OTBONHOS, OTBONSYS, OTBONNET, or OTBONVEN=1

Cardiology & Heart Surgery Key Technologies (Total of 7 points possible)

1 point awarded if...
CICHOS, CICSYS, CICNET, or CICVEN=1
MSCTHOS, MSCTSYS, MSCTNET, MSCTVEN, MSCTGHOS, MSCTGSYS, MSCTGNET, or MSCTGVEN=1
PETCTHOS, PETCTSYS, PETCTNET, or PETCTVEN=1
ROBOHOS, ROBOSYS, ROBONET, or ROBOVEN=1
SPECTHOS, SPECTSYS, SPECTNET, SPECTVEN=1
TISUVEN, TISUHOS, TISUSYS, TISUNET=1
CMS Heart Transplant Center=1

Diabetes & Endocrinology Key Technologies (Total of 4 points possible)

1 point awarded if...
DRADFHOS, DRADFSYS, DRADFNET, or DRADFVEN=1
IGRTHOS, IGRTSYS, IGRTNET, or IGRTVEN=1
PETCTHOS, PETCTSYS, PETCTNET, or PETCTVEN=1
SRADHOS, SRADSYS, SRADNET, or SRADVEN=1

Ear, Nose, & Throat Key Technologies (Total of 1 point possible)

1 point awarded if...
SRADHOS, SRADSYS, SRADNET, or SRADVEN=1

Gastroenterology & GI Surgery Key Technologies (Total of 7 points possible)

1 point awarded if...
DRADFHOS, DRADFSYS, DRADFNET, or DRADFVEN=1
ENDOAHOS, ENDOASYS, ENDOANET, or ENDOAVEN=1
ENDORHOS, ENDORSYS, ENDORNET, or ENDORVEN=1
ENDOUHOS, ENDOUSYS, ENDOUNET, or ENDOUVEN=1
IGRTHOS, IGRTSYS, IGRTNET, or IGRTVEN=1
SRADHOS, SRADSYS, SRADNET, or SRADVEN=1
CMS Liver Transplant Center=1

Gynecology Key Technologies (Total of 5 points possible)

1 point awarded if...
FFDMHOS, FFDMSYS, FFDMNET, or FFDMVEN=1
IGRTHOS, IGRTSYS, IGRTNET, or IGRTVEN=1
PETCTHOS, PETCTSYS, PETCTNET, or PETCTVEN=1
ROBOHOS, ROBOSYS, ROBONET, or ROBOVEN=1
SRADHOS, SRADSYS, SRADNET, or SRADVEN=1

Nephrology Key Technologies (Total of 7 points possible)

1 point awarded if...
DRADFHOS, DRADFSYS, DRADFNET, or DRADFVEN=1
IGRTHOS, IGRTSYS, IGRTNET, or IGRTVEN=1
MSCTHOS, MSCTSYS, MSCTNET, MSCTVEN, MSCTGHOS, MSCTGSYS, MSCTGNET, or MSCTGVEN=1
PETCTHOS, PETCTSYS, PETCTNET, or PETCTVEN=1
ROBOHOS, ROBOSYS, ROBONET, or ROBOVEN=1
SRADHOS, SRADSYS, SRADNET, or SRADVEN=1
CMS Kidney Transplant Center=1

Neurology & Neurosurgery Key Technologies (Total of 5 points possible)

1 point awarded if...
DRADFHOS, DRADFSYS, DRADFNET, or DRADFVEN=1
IGRTHOS, IGRTSYS, IGRTNET, or IGRTVEN=1
PETCTHOS, PETCTSYS, PETCTNET, or PETCTVEN=1
SPECTHOS, SPECTSYS, SPECTNET, or SPECTVEN=1
SRADHOS, SRADSYS, SRADNET, or SRADVEN=1

Orthopedics Key Technologies (Total of 2 point possible)

1 point awarded if...
CAOSHOS, CAOSSYS, CAOSNET, or CAOSVEN=1
TISUVEN, TISUHOS, TISUSYS, TISUNET=1

Pulmonology Key Technologies (Total of 6 points possible)

1 point awarded if...
DRADFHOS, DRADFSYS, DRADFNET, or DRADFVEN=1
IGRTHOS, IGRTSYS, IGRTNET, or IGRTVEN=1
MSCTHOS, MSCTSYS, MSCTNET, MSCTVEN, MSCTGHOS, MSCTGSYS, MSCTGNET, or MSCTGVEN=1
PETCTHOS, PETCTSYS, PETCTNET, or PETCTVEN=1
SRADHOS, SRADSYS, SRADNET, or SRADVEN=1
CMS Lung Transplant Center=1

Urology Key Technologies (Total of 5 points possible)

1 point awarded if...
DRADFHOS, DRADFSYS, DRADFNET, or DRADFVEN=1
IGRTHOS, IGRTSYS, IGRTNET, or IGRTVEN=1
PETCTHOS, PETCTSYS, PETCTNET, or PETCTVEN=1
ROBOHOS, ROBOSYS, ROBONET, or ROBOVEN=1
SRADHOS, SRADSYS, SRADNET, or SRADVEN=1

Nurse Staffing

Index equals:
Full-time Equivalent Registered Nurses (FTEN where available, FTERN otherwise) divided by Adjusted Average Daily Census (ADJADC)

Trauma Center

"Yes" if...
TRAUML90=1 or 2 and TRAUMHOS=1

Cancer Patient Services (Total of 8 points possible)

1 point awarded if...
GNTCHOS, SYS, NET, or VEN=1
HOSPCHOS, SYS, NET, or VEN=1
PAINHOS, SYS, NET, or VEN=1
PALHOS, SYS, NET, or VEN=1
PCAHOS, SYS, NET, or VEN=1
LINGHOS, SYS, NET, or VEN=1
AIRBHOS, SYS, NET, or VEN=1
WMGTHOS, SYS, NET, or VEN=1

Cardiology & Heart Surgery Patient Services (Total of 7 points possible)

1 point awarded if...
CHABHOS, SYS, NET, or VEN=1
HOSPCHOS, SYS, NET, or VEN=1
PAINHOS, SYS, NET, or VEN=1
PALHOS, SYS, NET, or VEN=1
PCAHOS, SYS, NET, or VEN=1
LINGHOS, SYS, NET, or VEN=1
WMGTHOS, SYS, NET, or VEN=1

Diabetes & Endocrinology Patient Services (Total of 8 points possible)

1 point awarded if...
GNTCHOS, SYS, NET, or VEN=1
HOSPCHOS, SYS, NET, or VEN=1
PAINHOS, SYS, NET, or VEN=1
PALHOS, SYS, NET, or VEN=1
PCAHOS, SYS, NET, or VEN=1
LINGHOS, SYS, NET, or VEN=1
AIRBHOS, SYS, NET, or VEN=1
WMGTHOS, SYS, NET, or VEN=1

Ear, Nose, & Throat Patient Services (Total of 8 points possible)

1 point awarded if...
GNTCHOS, SYS, NET, or VEN=1
HOSPCHOS, SYS, NET, or VEN=1
PAINHOS, SYS, NET, or VEN=1
PALHOS, SYS, NET, or VEN=1
PCAHOS, SYS, NET, or VEN=1
LINGHOS, SYS, NET, or VEN=1
AIRBHOS, SYS, NET, or VEN=1
WMGTHOS, SYS, NET, or VEN=1

Gastroenterology & GI Surgery Patient Services (Total of 8 points possible)

1 point awarded if...
GNTCHOS, SYS, NET, or VEN=1
HOSPCHOS, SYS, NET, or VEN=1
PAINHOS, SYS, NET, or VEN=1
PALHOS, SYS, NET, or VEN=1
PCAHOS, SYS, NET, or VEN=1
LINGHOS, SYS, NET, or VEN=1
AIRBHOS, SYS, NET, or VEN=1
WMGTHOS, SYS, NET, or VEN=1

Geriatric Care Patient Services (Total of 9 points possible)

1 point awarded if...
ALZHOS, SYS, NET, or VEN=1
ARTHCHOS, SYS, NET, or VEN=1
HOSPCHOS, SYS, NET, or VEN=1
PAINHOS, SYS, NET, or VEN=1
PALHOS, SYS, NET, or VEN=1
PCAHOS, SYS, NET, or VEN=1
PSYGRHOS, SYS, NET, or VEN=1
LINGHOS, SYS, NET, or VEN=1
WMGTHOS, SYS, NET, or VEN=1

Gynecology Patient Services (Total of 9 points possible)

1 point awarded if...
FRTCHOS, SYS, NET, or VEN=1
GNTCHOS, SYS, NET, or VEN=1
HOSPCHOS, SYS, NET, or VEN=1
PAINHOS, SYS, NET, or VEN=1
PALHOS, SYS, NET, or VEN=1
PCAHOS, SYS, NET, or VEN=1
LINGHOS, SYS, NET, or VEN=1
AIRBHOS, SYS, NET, or VEN=1
WMGTHOS, SYS, NET, or VEN=1

Nephrology Patient Services (Total of 8 points possible)

1 point awarded if...
GNTCHOS, SYS, NET, or VEN=1
HOSPCHOS, SYS, NET, or VEN=1
PAINHOS, SYS, NET, or VEN=1
PALHOS, SYS, NET, or VEN=1
PCAHOS, SYS, NET, or VEN=1
LINGHOS, SYS, NET, or VEN=1
AIRBHOS, SYS, NET, or VEN=1
WMGTHOS, SYS, NET, or VEN=1

Neurology & Neurosurgery Patient Services (Total of 9 points possible)

1 point awarded if...
ALZHOS, SYS, NET, or VEN=1
GNTCHOS, SYS, NET, or VEN=1
HOSPCHOS, SYS, NET, or VEN=1
PAINHOS, SYS, NET, or VEN=1
PALHOS, SYS, NET, or VEN=1
PCAHOS, SYS, NET, or VEN=1
LINGHOS, SYS, NET, or VEN=1
AIRBHOS, SYS, NET, or VEN=1
WMGTHOS, SYS, NET, or VEN=1

Orthopedics Patient Services (Total of 7 points possible)

1 point awarded if...
ARTHCHOS, SYS, NET, or VEN=1
HOSPCHOS, SYS, NET, or VEN=1
PAINHOS, SYS, NET, or VEN=1
PALHOS, SYS, NET, or VEN=1
PCAHOS, SYS, NET, or VEN=1
LINGHOS, SYS, NET, or VEN=1
WMGTHOS, SYS, NET, or VEN=1

Pulmonology Patient Services (Total of 8 points possible)

1 point awarded if...
GNTCHOS, SYS, NET, or VEN=1
HOSPCHOS, SYS, NET, or VEN=1
PAINHOS, SYS, NET, or VEN=1
PALHOS, SYS, NET, or VEN=1
PCAHOS, SYS, NET, or VEN=1
LINGHOS, SYS, NET, or VEN=1
AIRBHOS, SYS, NET, or VEN=1
WMGTHOS, SYS, NET, or VEN=1

Urology Patient Services (Total of 9 points possible)

1 point awarded if...
FRTCHOS, SYS, NET, or VEN=1
GNTCHOS, SYS, NET, or VEN=1
HOSPCHOS, SYS, NET, or VEN=1
PAINHOS, SYS, NET, or VEN=1
PALHOS, SYS, NET, or VEN=1
PCAHOS, SYS, NET, or VEN=1
LINGHOS, SYS, NET, or VEN=1
AIRBHOS, SYS, NET, or VEN=1
WMGTHOS, SYS, NET, or VEN=1

Intensivists

1 point awarded if...
FTEMSI, FTECIC, or FTEOIC > 0

Appendix C
NCI Cancer Centers

NCI Cancer Centers (as of March 1, 2013)

Center Name
Abramson Cancer Center of the University of Pennsylvania, Philadelphia
Albert Einstein Cancer Center
Arizona Cancer Center, University of Arizona, Tucson
Cancer Institute of New Jersey, Robert Wood Johnson Med Sch, New Brunswick, NJ
Cancer Therapy and Research Center, University of Texas Health Science Center at San Antonio
Case Comprehensive Cancer Center, Case Western Reserve University
Chao Family Comprehensive Cancer Center, UC Irvine
City of Hope National Medical Center & Beckman Research Institute, Duarte, CA
Dana-Farber/Harvard Cancer Center, Boston
Duke Comprehensive Cancer Center, Duke U, Durham, NC
Duncan (Dan L) Cancer Center, Baylor College of Medicine
Fox Chase Cancer Center, Philadelphia
Fred Hutchinson/University of Washington Cancer Consortium
Georgetown Lombardi Comprehensive Cancer Center
Greenbaum Cancer Center, University of Maryland
H. Lee Moffitt Cancer Center & Research Inst, Univ of South Florida, Tampa
Harold Simmons Cancer Center at UT Southwestern
Holden Comprehensive Cancer Center at U of Iowa, Iowa City
Hollings Cancer Center, Medical University of South Carolina
Huntsman Cancer Institute, U of UT, Salt Lake City
Indiana University Cancer Center, Indianapolis
Irving (Herbert) Comprehensive Cancer Center, Columbia U, NY, NY
Jonsson Comprehensive Cancer Center, UCLA
Karmanos (Barbara Ann) Cancer Institute, Wayne State U, Detroit
Kimmel Cancer Center, Thomas Jefferson U, Philadelphia
M.D. Anderson Cancer Center, University of Texas
Masonic Cancer Center at the University of Minnesota
Massey Cancer Center, Virginia Commonwealth U, Richmond
Mayo Clinic Cancer Center, Rochester, MN
Memorial Sloan-Kettering Cancer Center, NY, NY
Norris Cotton Cancer Center, Dartmouth-Hitchcock Medical Center, Lebanon, NH
NYU Cancer Institute (Kaplan Cancer Center?), NYU Med Ctr, NY, NY
Ohio State University, Comprehensive Cancer Center
OHSU Knight Cancer Institute, Oregon Health & Science University
Robert H Lurie Cancer Center, Northwestern U, Chicago
Roswell Park Cancer Institute, Buffalo, NY
Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins

Center Name
Siteman Cancer Center, Washington University (Barnes Jewish), St. Louis
Stanford Cancer Center
The University of Kansas Cancer Center
UAB Comprehensive Cancer Center, University of Alabama at Birmingham
UC Davis Cancer Center - Sacramento, CA
UC San Diego Moores Cancer Center
UCSF Hellen Diller Family Comprehensive Cancer Center
UNC Lineberger Comprehensive Cancer Center, U NC Chapel Hill
University of Chicago Comprehensive Cancer Center
University of Colorado Cancer Center, U CO Health Science Center, Denver
University of Michigan Comprehensive Cancer Center,
University of New Mexico Cancer Research and Treatment Center
University of Pittsburgh Cancer Institute
UNMC Eppley Cancer Center, University of Nebraska Medical Center, Omaha
USC Norris Comprehensive Cancer Center
UVA Cancer Center, University of Virginia, Health Science Center
UW Paul P. Carbone Comprehensive Cancer Center, Madison
Vanderbilt-Ingram Cancer Center, Vanderbilt U, Nashville, TN
Wake Forest U, Winston-Salem, NC
Winship Cancer Institute, Emory, GA
Yale Cancer Center, New Haven, CT

Appendix D

NAEC Level 4 Epilepsy Centers

NAEC Level 4 Epilepsy Centers (as of March 1, 2013)

Center Name	City	St	Hospital Affiliation
Pediatric Epilepsy Program at Childrens of Alabama UAB Dept of Pediatrics	Birmingham	AL	Children's Hospital of Alabama at UAB, Birmingham
University Of Alabama Epilepsy Center	Birmingham	AL	University of Alabama Hospital at Birmingham
Mayo Clinic Arizona Epilepsy Center	Phoenix	AZ	Mayo Clinic, Phoenix
Barrow Neurological Institute at Phoenix Children's Hospital	Phoenix	AZ	Phoenix Children's Hospital
Barrow Neurological Institute Epilepsy Center	Phoenix	AZ	St. Joseph's Hospital and Medical Center, Phoenix
Arizona University Medical Center Comprehensive Epilepsy Program	Tucson	AZ	University of Arizona Medical Center, Tucson
USC Comprehensive Epilepsy Program	Downey	CA	Rancho Los Amigos National Rehabilitation Center, Downey, Calif.
University of California San Diego Epilepsy Center	La Jolla	CA	UC San Diego Medical Center
Loma Linda University Medical Center Comprehensive Epilepsy Center	Loma Linda	CA	Loma Linda University Medical Center, Loma Linda, Calif.
Cedars-Sinai Epilepsy Program	Los Angeles	CA	Cedars-Sinai Medical Center, Los Angeles
USC Comprehensive Epilepsy Program	Los Angeles	CA	Keck Hospital of USC, Los Angeles
USC Comprehensive Epilepsy Program	Los Angeles	CA	Los Angeles County-USC Medical Center
University Of California Los Angeles Seizure Disorder Center	Los Angeles	CA	UCLA Medical Center, Los Angeles
CHOC Children's Hospital Comprehensive Epilepsy Program	Orange	CA	Children's Hospital of Orange County, Calif.
University Of California Irvine Comprehensive Epilepsy Program	Orange	CA	University of California, Irvine Medical Center, Orange
Stanford Comprehensive Epilepsy Center	Palo Alto	CA	Lucile Packard Children's Hospital at Stanford, Palo Alto, Calif.
The Epilepsy & Brain Mapping Program	Pasadena	CA	Huntington Memorial Hospital, Pasadena, Calif.
Mercy Epilepsy Center	Sacramento	CA	Mercy General Hospital, Sacramento, Calif.
Sutter Comprehensive Epilepsy Program	Sacramento	CA	Sutter Medical Center, Sacramento, Calif.
Sutter Comprehensive Epilepsy Program	Sacramento	CA	Sutter Medical Center, Sacramento, Calif.
University Of California Davis Comprehensive Epilepsy Program	Sacramento	CA	University of California, Davis Medical Center, Sacramento
California Pacific Epilepsy Program	San Francisco	CA	California Pacific Medical Center, San Francisco
University Of California San Francisco Epilepsy Center	San Francisco	CA	UCSF Medical Center, San Francisco
University Of California San Francisco Epilepsy Center	San Francisco	CA	Veterans Affairs Medical Center
Stanford Comprehensive Epilepsy Center	Stanford	CA	Stanford Hospital and Clinics, Stanford, Calif.
Children's Hospital of Colorado	Aurora	CO	Children's Hospital Colorado, Aurora
University Of Colorado Hospital Comprehensive Epilepsy Center	Aurora	CO	University of Colorado Hospital, Aurora
Colorado Neurological Institute Epilepsy Center	Englewood	CO	Swedish Medical Center-HealthOne, Englewood, Colo.
Yale Comprehensive Epilepsy Center	New Haven	CT	Yale-New Haven Hospital, New Haven, Conn.

Center Name	City	St	Hospital Affiliation
Children's National Epilepsy Center	Washington	DC	Children's National Medical Center, Washington, D.C.
MedStar Georgetown University Hospital	Washington	DC	MedStar Georgetown University Hospital, Washington, D.C.
University of Florida & Shands Comprehensive Epilepsy Program	Gainesville	FL	Shands at the University of Florida, Gainesville
Mayo Clinic Comprehensive Epilepsy Center	Jacksonville	FL	Mayo Clinic, Jacksonville, Fla.
UF & Shands Jacksonville Neuroscience Institute's Comprehensive Epilepsy Pr	Jacksonville	FL	Shands Jacksonville Medical Center, Fla.
UF & Shands Jacksonville Neuroscience Institute's Comprehensive Epilepsy Pr	Jacksonville	FL	Wolfson Children's Hospital, Jacksonville, Fla.
Pediatric Epilepsy Center At Wolfson Childrens Hospital	Jacksonville	FL	Wolfson Children's Hospital, Jacksonville, Fla.
Miami Children's Hospital Comprehensive Epilepsy Center	Miami	FL	Miami Children's Hospital
International Center For Epilepsy	Miami	FL	University of Miami Hospital
International Center For Epilepsy	Miami	FL	University of Miami, Jackson Memorial Hospital
Pediatric Epilepsy Center At Arnold Palmer Hospital For Children	Orlando	FL	Arnold Palmer Medical Center, Orlando, Fla.
Comprehensive Pediatric Epilepsy Center At Walt Disney Pavilion	Orlando	FL	Florida Hospital, Orlando
Bayfront Medical Center Comprehensive Epilepsy Program	St. Petersburg	FL	Bayfront Medical Center, St. Petersburg, Fla.
Tampa General Hospital & University Of South Florida	Tampa	FL	Tampa General Hospital
The Children's Epilepsy Center	Atlanta	GA	Children's Healthcare of Atlanta
Emory University Epilepsy Center	Atlanta	GA	Emory University Hospital, Atlanta
Georgia Regents Medical Center Comprehensive Epilepsy Center	Augusta	GA	MCG Health, Augusta, Ga.
The Queen's Epilepsy Center	Honolulu	HI	Kaiser Permanente Moanalua Medical Center, Honolulu
The Queen's Epilepsy Center	Honolulu	HI	Queen's Medical Center, Honolulu
Iowa Comprehensive Epilepsy Program	Iowa City	IA	University of Iowa Hospitals and Clinics, Iowa City
Northwestern University Comprehensive Epilepsy Center	Chicago	IL	Children's Memorial Hospital, Chicago
Ann & Robert H. Lurie Children's Hospital Of Chicago	Chicago	IL	Children's Memorial Hospital, Chicago
Northwestern University Comprehensive Epilepsy Center	Chicago	IL	Northwestern Memorial Hospital, Chicago
Ann & Robert H. Lurie Children's Hospital Of Chicago	Chicago	IL	Northwestern Memorial Hospital, Chicago
Rush Epilepsy Center	Chicago	IL	Rush University Medical Center, Chicago
University of Chicago Pediatric Epilepsy Center	Chicago	IL	University of Chicago Comer Children's Hospital
The University Of Chicago Adult Epilepsy Center	Chicago	IL	University of Chicago Medical Center
Loyola University Medical Center Comprehensive Epilepsy Program	Maywood	IL	Loyola University Medical Center, Maywood, Ill.
Illinois Neurological Institute Epilepsy Center	Peoria	IL	OSF St. Francis Medical Center, Peoria, Ill.

Center Name	City	St	Hospital Affiliation
Cadence Health Epilepsy Program	Winfield	IL	Central DuPage Hospital, Winfield, Ill.
Indiana University Comprehensive Epilepsy Program	Indianapolis	IN	IU Health Academic Health Center, Indianapolis
The University of Kansas Hospital Comprehensive Epilepsy Center	Kansas City	KS	University of Kansas Hospital, Kansas City
University of Kentucky Comprehensive Epilepsy Center	Lexington	KY	University of Kentucky Albert B. Chandler Hospital, Lexington
Children's Comprehensive Epilepsy Center of Kentucky	Louisville	KY	Kosair Children's Hospital, Louisville, Ky.
Norton Brownsboro Hospital Epilepsy Center	Louisville	KY	Norton Brownsboro Hospital
University Of Louisville Comprehensive Epilepsy Center	Louisville	KY	University of Louisville Hospital, Louisville, Ky.
LSU Health Sciences Center Epilepsy Center Of Excellence	Marrero	LA	West Jefferson Medical Center, Marrero, La.
LSU Health Sciences Center Epilepsy Center Of Excellence	New Orleans	LA	Children's Hospital, New Orleans
The International Center for Epilepsy at Ochsner	New Orleans	LA	Ochsner Medical Center, New Orleans
Beth Israel Deaconess Medical Center's Comprehensive Epilepsy Program	Boston	MA	Beth Israel Deaconess Medical Center, Boston
Children's Hospital Boston Comprehensive Epilepsy Center	Boston	MA	Boston Children's Hospital
The Edward B. Bromfield Comprehensive Epilepsy Program	Boston	MA	Brigham and Women's Hospital, Boston
Mass General Hospital Epilepsy Center	Boston	MA	Massachusetts General Hospital, Boston
Johns Hopkins Epilepsy Center	Baltimore	MD	Johns Hopkins Hospital, Baltimore
University Of Maryland Epilepsy Center	Baltimore	MD	University of Maryland Medical Center, Baltimore
University Of Michigan Comprehensive Epilepsy Program	Ann Arbor	MI	University of Michigan Hospitals and Health Centers, Ann Arbor
Wayne State University/Detroit Medical Center Comprehensive Epilepsy Program	Detroit	MI	Harper University Hospital, Detroit
Henry Ford Health System Comprehensive Epilepsy Program	Detroit	MI	Henry Ford Hospital, Detroit
Spectrum Health Comprehensive Epilepsy Program	Grand Rapids	MI	Helen DeVos Children's Hospital, Grand Rapids, Mich.
Spectrum Health Comprehensive Epilepsy Program	Grand Rapids	MI	Spectrum Health, Grand Rapids, Mich.
Saint Mary's Health Care Epilepsy Center	Grand Rapids	MI	St. Mary's Health Care, Grand Rapids, Mich.
Minnesota Epilepsy Group, P.a. Of United And Children's Hospitals & Clinics	Minneapolis	MN	Abbott Northwestern Hospital, Minneapolis
University Of Minnesota Comprehensive Epilepsy Center	Minneapolis	MN	University of Minnesota Medical Center, Fairview
Mayo Clinic Foundation Epilepsy Center	Rochester	MN	Mayo Clinic, Rochester, Minn.
Minnesota Epilepsy Group, P.a. Of United And Children's Hospitals & Clinics	St. Paul	MN	Children's Hospitals and Clinics of Minnesota
Minnesota Epilepsy Group, P.a. Of United And Children's Hospitals & Clinics	St. Paul	MN	United Hospital of St. Paul, St. Paul, Minn.
The Comprehensive Epilepsy Care Center For Children And Adults	Chesterfield	MO	St. Luke's Hospital, Chesterfield, Mo.
University of Missouri Epilepsy Center	Columbia	MO	University of Missouri Health Care, Columbia

Center Name	City	St	Hospital Affiliation
Children's Mercy Comprehensive Epilepsy Program	Kansas City	MO	Children's Mercy Hospitals and Clinics, Kansas City, Mo.
Saint Luke's Neuroscience Institute Comprehensive Epilepsy Center	Kansas City	MO	St. Luke's Hospital, Kansas City, Mo.
Washington University Comprehensive Department Of Epilepsy	St. Louis	MO	Barnes-Jewish Hospital/Washington University, St. Louis
Washington University Pediatric Epilepsy Center at St. Louis Children's Hos	St. Louis	MO	St. Louis Children's Hospital-Washington University
University Of Mississippi Medical Center Epilepsy Program	Jackson	MS	University of Mississippi Health Care, Jackson
University Of North Carolina Epilepsy Center	Chapel Hill	NC	University of North Carolina Hospitals, Chapel Hill
Carolinas Comprehensive Epilepsy Center	Charlotte	NC	Carolinas Medical Center, Charlotte, N.C.
Duke University Hospital Epilepsy Center	Durham	NC	Duke University Medical Center, Durham, N.C.
Wake Forest Baptist Health Comprehensive Epilepsy Center	Winston-Salem	NC	Wake Forest Baptist Medical Center, Winston-Salem, N.C.
Nebraska Epilepsy Center	Omaha	NE	Nebraska Medical Center, Omaha
Epilepsy Program At Dartmouth-Hitchcock Medical Center	Lebanon	NH	Dartmouth-Hitchcock Medical Center, Lebanon, N.H.
New Jersey Neurosciences Institute Comprehensive Epilepsy Center	Edison	NJ	JFK Medical Center, Edison, N.J.
HUMC Comprehensive Epilepsy Center	Hackensack	NJ	Hackensack University Medical Center, Hackensack, N.J.
Saint Barnabas Institute Of Neurology & Neurosurgery	Livingston	NJ	St. Barnabas Medical Center, Livingston, N.J.
RWJ Clinical Neurophysiology Department	New Brunswick	NJ	Robert Wood Johnson University Hospital, New Brunswick, N.J.
Saint Peter's University Hospital	New Brunswick	NJ	St. Peter's University Hospital, New Brunswick, N.J.
Atlantic Neuroscience Institute Epilepsy Center	Summit	NJ	Overlook Medical Center, Summit, N.J.
UNM Comprehensive Epilepsy Center	Albuquerque	NM	University Hospital, Albuquerque, N.M.
Nevada Neurosciences Institute - Epilepsy Center	Las Vegas	NV	Sunrise Hospital and Medical Center, Las Vegas
Albany Medical Center Comprehensive Epilepsy Center	Albany	NY	Albany Medical Center, Albany, N.Y.
Montefiore Comprehensive Epilepsy Management Center	Bronx	NY	Montefiore Medical Center, New York
Kaleida Health Epilepsy Center At Women And Childrens Hospital	Buffalo	NY	Women and Children's Hospital of Buffalo
North Shore Long Island Jewish Comprehensive Epilepsy Center	Manhasset	NY	North Shore University Hospital, Manhasset, N.Y.
Winthrop Comprehensive Epilepsy Center	Mineola	NY	Winthrop-University Hospital, Mineola, N.Y.
North Shore Long Island Jewish Comprehensive Epilepsy Center	New Hyde Park	NY	Long Island Jewish Medical Center, New Hyde Park, N.Y.
The Comprehensive Epilepsy Center	New York	NY	Beth Israel Medical Center, New York
Continuum Comprehensive Epilepsy Center	New York	NY	Beth Israel Medical Center, New York
The Mount Sinai Epilepsy Center	New York	NY	Mount Sinai Medical Center, New York
Columbia Comprehensive Epilepsy Center	New York	NY	New York-Presbyterian University Hospital of Columbia and Cornell, N.Y.

Center Name	City	St	Hospital Affiliation
Weill Cornell Medical Center Comprehensive Epilepsy Center	New York	NY	New York-Presbyterian University Hospital of Columbia and Cornell, N.Y.
New York University Comprehensive Epilepsy Center	New York	NY	NYU Langone Medical Center, New York
The Comprehensive Epilepsy Center	New York	NY	St. Luke's-Roosevelt Hospital Center, New York
Strong Epilepsy Center	Rochester	NY	University of Rochester Medical Center, Rochester, N.Y.
SUNY Upstate Medical University	Syracuse	NY	Upstate University Hospital, Syracuse, N.Y.
Seizure Diagnostic Center At White Plains Hospital	White Plains	NY	White Plains Hospital, White Plains, N.Y.
Pediatric Epilepsy Program	Akron	OH	Akron Children's Hospital, Ohio
Cincinnati Children's Hospital Comprehensive Epilepsy Center	Cincinnati	OH	Cincinnati Children's Hospital Medical Center
University of Cincinnati Neuroscience Institute Epilepsy Center	Cincinnati	OH	University of Cincinnati Medical Center
Cleveland Clinic Pediatric Epilepsy Program	Cleveland	OH	Cleveland Clinic
Cleveland Clinic Epilepsy Center	Cleveland	OH	Cleveland Clinic
Epilepsy Center At University Hospitals Neurological Institute	Cleveland	OH	University Hospitals Case Medical Center, Cleveland
Comprehensive Epilepsy Program At Nationwide Children's Hospital	Columbus	OH	Nationwide Children's Hospital, Columbus, Ohio
Comprehensive Epilepsy Program at Ohio State's Wexner Medical Center	Columbus	OH	Ohio State University Wexner Medical Center, Columbus
OU Medical Center Epilepsy Program	Oklahoma City	OK	OU Medical Center, Oklahoma City
Oregon Health & Science University Comprehensive Epilepsy Center	Portland	OR	Oregon Health and Science University, Portland
Geisinger Medical Center	Danville	PA	Geisinger Medical Center, Danville, Pa.
The Penn State Milton S. Hershey Medical Center Comprehensive Epilepsy Program	Hershey	PA	Penn State Milton S. Hershey Medical Center, Hershey
Pediatric Regional Epilepsy Program	Philadelphia	PA	Children's Hospital of Philadelphia
Penn Epilepsy Center	Philadelphia	PA	Hospital of the University of Pennsylvania, Philadelphia
Jefferson Comprehensive Epilepsy Center	Philadelphia	PA	Thomas Jefferson University Hospital, Philadelphia
Allegheny General Hospital Comprehensive Epilepsy Program	Pittsburgh	PA	Allegheny General Hospital, Pittsburgh
University Of Pittsburgh Comprehensive Epilepsy Center (UPCEC)	Pittsburgh	PA	Children's Hospital of Pittsburgh of UPMC
University Of Pittsburgh Comprehensive Epilepsy Center	Pittsburgh	PA	UPMC-University of Pittsburgh Medical Center
Rhode Island Hospital Comprehensive Epilepsy Program	Providence	RI	Rhode Island Hospital, Providence
Medical University Of South Carolina Comprehensive Epilepsy Center	Charleston	SC	Medical University of South Carolina, Charleston
Greenville Memorial Hospital Adult/pediatric Epilepsy Monitoring Unit	Greenville	SC	Greenville Memorial Hospital, Greenville, S.C.
Greenville Memorial Hospital Adult/pediatric Epilepsy Monitoring Unit	Greenville	SC	Patewood Memorial Hospital
Lebonheur Comprehensive Epilepsy Program	Memphis	TN	Methodist Le Bonheur Healthcare, Memphis

Center Name	City	St	Hospital Affiliation
Vanderbilt University Epilepsy Program	Nashville	TN	Vanderbilt University Medical Center, Nashville
Dell Children's Comprehensive Epilepsy Program	Austin	TX	Dell Children's Medical Center of Central Texas, Austin
Seton Comprehensive Epilepsy Program	Austin	TX	Seton Medical Center, Austin
Baylor University Medical Center	Dallas	TX	Baylor University Medical Center, Dallas
Comprehensive Epilepsy Center - Children's Medical Center Dallas	Dallas	TX	Children's Medical Center Dallas
Medical City Center For Epilepsy	Dallas	TX	Medical City Dallas Hospital
UT Southwestern Epilepsy Center At Parkland	Dallas	TX	Parkland Memorial Hospital, Dallas
UT Southwestern Epilepsy Center At Parkland	Dallas	TX	University of Texas Southwestern Medical Center, Dallas
Cook Children's Comprehensive Epilepsy Program	Fort Worth	TX	Cook Children's Medical Center, Fort Worth
Texas Comprehensive Epilepsy Program	Houston	TX	Memorial Hermann-Texas Medical Center, Houston
The Methodist Neurological Institute Comprehensive Epilepsy Program	Houston	TX	Methodist Hospital, Houston
Baylor Comprehensive Epilepsy Center At St. Luke's Episcopal Hospital	Houston	TX	St. Luke's Episcopal Hospital, Houston
Texas Children's Epilepsy Center	Houston	TX	Texas Children's Hospital, Houston
South Texas Comprehensive Epilepsy Center	San Antonio	TX	University Hospital, San Antonio
Comprehensive Pediatric Epilepsy Program at Primary Children's Medical Cent	Salt Lake City	UT	Primary Children's Medical Center, Salt Lake City
University Of Utah Comprehensive Epilepsy Program	Salt Lake City	UT	University of Utah Health Care, Salt Lake City
F.E. Dreifuss Comprehensive Epilepsy Program	Charlottesville	VA	University of Virginia Medical Center, Charlottesville
Virginia Commonwealth University Epilepsy Institute	Richmond	VA	Virginia Commonwealth University Medical Center, Richmond
Virginia Comprehensive Epilepsy Program	Winchester	VA	Winchester Medical Center, Winchester, Va.
University Of Washington Regional Epilepsy Center	Seattle	WA	Harborview Medical Center, Seattle
Swedish Epilepsy Center	Seattle	WA	Swedish Medical Center-Cherry Hill, Seattle
Swedish Epilepsy Center	Seattle	WA	Swedish Medical Center-First Hill, Seattle
University Of Washington Regional Epilepsy Center	Seattle	WA	University of Washington Medical Center, Seattle
UW Health Comprehensive Epilepsy Program	Madison	WI	University of Wisconsin Hospital and Clinics, Madison
Regional Epilepsy Center	Milwaukee	WI	Aurora St. Luke's Medical Center, Milwaukee
Children's Hospital of Wisconsin Epilepsy Program	Milwaukee	WI	Children's Hospital of Wisconsin, Milwaukee
Medical College Of Wisconsin Pediatric Epilepsy Center	Milwaukee	WI	Froedtert Hospital, Milwaukee
Medical College Of Wisconsin Adult Epilepsy Center	Milwaukee	WI	Froedtert Hospital, Milwaukee
West Virginia University Hospitals Epilepsy Center	Morgantown	WV	West Virginia University Hospitals, Morgantown, W.Va.

Appendix E

2013-14 Diagnosis Related Group (DRG)

Groupings, by Specialty

Cancer

MS-DRG	Medical/Surgical	DRG_Title	ICD-9-CM	Severity	Weight
014	S	Allogeneic bone marrow transplant	Include all	1	2.0216
015	S	Autologous bone marrow transplant	Include all	1	2.0216
023	S	Cranio w major dev impl/acute complex CNS PDX w MCC or chemo implant	Include procedures: 0010	1	1.0000
054	M	Nervous system neoplasms w MCC	Include all	1	0.9664
055	M	Nervous system neoplasms w/o MCC	Include all	2	1.0637
146	M	Ear, nose, mouth & throat malignancy w MCC	Include all	1	1.0141
147	M	Ear, nose, mouth & throat malignancy w CC	Include all	2	1.2066
148	M	Ear, nose, mouth & throat malignancy w/o CC/MCC	Include all	2	1.2079
180	M	Respiratory neoplasms w MCC	Include all	1	0.8057
181	M	Respiratory neoplasms w CC	Include all	2	0.8653
182	M	Respiratory neoplasms w/o CC/MCC	Include all	2	0.8813
374	M	Digestive malignancy w MCC	Include all	1	0.8613
375	M	Digestive malignancy w CC	Include all	2	0.9207
376	M	Digestive malignancy w/o CC/MCC	Include all	2	0.9087
435	M	Malignancy of hepatobiliary system or pancreas w MCC	Include all	1	0.8840
436	M	Malignancy of hepatobiliary system or pancreas w CC	Include all	2	0.9261
437	M	Malignancy of hepatobiliary system or pancreas w/o CC/MCC	Include all	2	0.9601
456	S	Spinal fus exc cerv w spinal curv/malig/infec or 9+ fus w MCC	Include diagnoses: 1702, 1985, 20973	1	1.0056
457	S	Spinal fus exc cerv w spinal curv/malig/infec or 9+ fus w CC	See MS-DRG 456	2	1.3825
458	S	Spinal fus exc cerv w spinal curv/malig/infec or 9+ fus w/o CC/MCC	See MS-DRG 456	2	1.1016
542	M	Pathological fractures & musculoskelet & conn tiss malig w MCC	Exclude diagnoses: 4463-4, 7331, 73310-6, 73319, 73393-8	1	0.8617
543	M	Pathological fractures & musculoskelet & conn tiss malig w CC	See MS-DRG 542	2	0.9812
544	M	Pathological fractures & musculoskelet & conn tiss malig w/o CC/MCC	See MS-DRG 542	2	0.9406
582	S	Mastectomy for malignancy w CC/MCC	Include all	2	0.9866
583	S	Mastectomy for malignancy w/o CC/MCC	Include all	2	1.2797
595	M	Major skin disorders w MCC	Include diagnoses: 1720, 1722-9, 20931-6	1	0.9685
596	M	Major skin disorders w/o MCC	See MS-DRG 595	2	1.0526
597	M	Malignant breast disorders w MCC	Include all	1	1.0975
598	M	Malignant breast disorders w CC	Include all	2	1.1357
599	M	Malignant breast disorders w/o CC/MCC	Include all	2	0.9901
656	S	Kidney & ureter procedures for neoplasm w MCC	Include all	1	0.7793
657	S	Kidney & ureter procedures for neoplasm w CC	Include all	2	0.9707
658	S	Kidney & ureter procedures for neoplasm w/o CC/MCC	Include all	2	1.1295
686	M	Kidney & urinary tract neoplasms w MCC	Include all	2	0.8233
687	M	Kidney & urinary tract neoplasms w CC	Include all	2	0.8424
688	M	Kidney & urinary tract neoplasms w/o CC/MCC	Include all	3	0.7071
715	S	Other male reproductive system O.R. proc for malignancy w CC/MCC	Include all	2	0.8827
716	S	Other male reproductive system O.R. proc for malignancy w/o CC/MCC	Include all	2	1.0387
722	M	Malignancy, male reproductive system w MCC	Include all	1	0.7799
723	M	Malignancy, male reproductive system w CC	Include all	2	0.7652
724	M	Malignancy, male reproductive system w/o CC/MCC	Include all	2	0.8763

MS-DRG	Medical/Surgical	DRG_Title	ICD-9-CM	Severity	Weight
736	S	Uterine & adnexa proc for ovarian or adnexal malignancy w MCC	Include all	1	0.9919
737	S	Uterine & adnexa proc for ovarian or adnexal malignancy w CC	Include all	2	1.2718
738	S	Uterine & adnexa proc for ovarian or adnexal malignancy w/o CC/MCC	Include all	2	1.6660
739	S	Uterine,adnexa proc for non-ovarian/adnexal malig w MCC	Include all	1	0.9161
740	S	Uterine,adnexa proc for non-ovarian/adnexal malig w CC	Include all	2	1.1609
741	S	Uterine,adnexa proc for non-ovarian/adnexal malig w/o CC/MCC	Include all	2	1.2848
754	M	Malignancy, female reproductive system w MCC	Include all	1	1.0157
755	M	Malignancy, female reproductive system w CC	Include all	2	1.0164
756	M	Malignancy, female reproductive system w/o CC/MCC	Include all	2	1.1923
808	M	Major hematol/immun diag exc sickle cell crisis & coagul w MCC	Include diagnoses: 99685	1	2.0216
809	M	Major hematol/immun diag exc sickle cell crisis & coagul w CC	See MS-DRG 809	2	2.0216
810	M	Major hematol/immun diag exc sickle cell crisis & coagul w/o CC/MCC	See MS-DRG 809	2	1.9742
820	S	Lymphoma & leukemia w major O.R. procedure w MCC	Include all	1	1.0256
821	S	Lymphoma & leukemia w major O.R. procedure w CC	Include all	2	1.1012
822	S	Lymphoma & leukemia w major O.R. procedure w/o CC/MCC	Include all	2	1.1864
823	S	Lymphoma & non-acute leukemia w other O.R. proc w MCC	Include all	1	0.8770
824	S	Lymphoma & non-acute leukemia w other O.R. proc w CC	Include all	2	0.9832
825	S	Lymphoma & non-acute leukemia w other O.R. proc w/o CC/MCC	Include all	2	0.9793
826	S	Myeloprolif disord or poorly diff neopl w maj O.R. proc w MCC	Exclude diagnoses: v100-9, v1000-9, v1011-2, v1020-2, v1029, v1040-9, v1050-3, v1059, v1060-3, v1069, v1071-2, v1079, v1081-8, v1090-1,v1322	1	1.1292
827	S	Myeloprolif disord or poorly diff neopl w maj O.R. proc w CC	See MS-DRG 826	2	1.1917
828	S	Myeloprolif disord or poorly diff neopl w maj O.R. proc w/o CC/MCC	See MS-DRG 826	2	1.0533
829	S	Myeloprolif disord or poorly diff neopl w other O.R. proc w CC/MCC	See MS-DRG 826	2	1.1298
830	S	Myeloprolif disord or poorly diff neopl w other O.R. proc w/o CC/MCC	See MS-DRG 826	2	1.0585
834	M	Acute leukemia w/o major O.R. procedure w MCC	Include all	1	1.1286
835	M	Acute leukemia w/o major O.R. procedure w CC	Include all	2	1.2420
836	M	Acute leukemia w/o major O.R. procedure w/o CC/MCC	Include all	2	1.4659
837	M	Chemo w acute leukemia as sdX or w high dose chemo agent w MCC	Include all	1	1.4800
838	M	Chemo w acute leukemia as sdX w CC or high dose chemo agent	Include all	2	2.0216
839	M	Chemo w acute leukemia as sdX w/o CC/MCC	Include all	2	2.0216
840	M	Lymphoma & non-acute leukemia w MCC	Include all	1	0.8290
841	M	Lymphoma & non-acute leukemia w CC	Include all	2	0.8494
842	M	Lymphoma & non-acute leukemia w/o CC/MCC	Include all	2	0.9654
843	M	Other myeloprolif dis or poorly diff neopl diag w MCC	Exclude diagnosis: v10, v711	3	0.9458
844	M	Other myeloprolif dis or poorly diff neopl diag w CC	See MS-DRG 844	3	0.9163
845	M	Other myeloprolif dis or poorly diff neopl diag w/o CC/MCC	See MS-DRG 844	3	0.8157
846	M	Chemotherapy w/o acute leukemia as secondary diagnosis w MCC	Include all	3	1.2000
847	M	Chemotherapy w/o acute leukemia as secondary diagnosis w CC	Include all	3	1.5104
848	M	Chemotherapy w/o acute leukemia as secondary diagnosis w/o CC/MCC	Include all	3	1.7204

Cardiology & Heart Surgery

MS-DRG	Medical/Surgical	DRG Title	ICD-9-CM	Severity	Weight
001	S	Heart transplant or implant of heart assist system w MCC	Include all	1	1.8930
002	S	Heart transplant or implant of heart assist system w/o MCC	Include all	1	1.9175
163	S	Major chest procedures w MCC	Include procedures: 3712, 3724, 3731, 3791, 3805, 3815, 3835, 3845, 3855, 3865, 3885, 3954	1	1.7178
164	S	Major chest procedures w CC	See MS-DRG: 163	2	1.8431
165	S	Major chest procedures w/o CC/MCC	See MS-DRG: 164	2	1.9175
215	S	Other heart assist system implant	Include all	1	1.7546
216	S	Cardiac valve & oth maj cardiothoracic proc w card cath w MCC	Include all	1	1.0668
217	S	Cardiac valve & oth maj cardiothoracic proc w card cath w CC	Include all	2	1.0941
218	S	Cardiac valve & oth maj cardiothoracic proc w card cath w/o CC/MCC	Include all	2	1.2194
219	S	Cardiac valve & oth maj cardiothoracic proc w/o card cath w MCC	Include all	1	1.1571
220	S	Cardiac valve & oth maj cardiothoracic proc w/o card cath w CC	Include all	2	1.1957
221	S	Cardiac valve & oth maj cardiothoracic proc w/o card cath w/o CC/MCC	Include all	2	1.2883
222	S	Cardiac defib implant w cardiac cath w AMI/HF/shock w MCC	Include all	1	1.2369
223	S	Cardiac defib implant w cardiac cath w AMI/HF/shock w/o MCC	Include all	1	1.2077
224	S	Cardiac defib implant w cardiac cath w/o AMI/HF/shock w MCC	Include all	3	1.2446
225	S	Cardiac defib implant w cardiac cath w/o AMI/HF/shock w/o MCC	Include all	3	1.1698
226	S	Cardiac defibrillator implant w/o cardiac cath w MCC	Include all	1	1.0331
227	S	Cardiac defibrillator implant w/o cardiac cath w/o MCC	Include all	1	1.0917
228	S	Other cardiothoracic procedures w MCC	Include all	1	1.9175
229	S	Other cardiothoracic procedures w CC	Include all	2	1.9175
230	S	Other cardiothoracic procedures w/o CC/MCC	Include all	2	1.9175
231	S	Coronary bypass w PTCA w MCC	Include all	1	1.5485
232	S	Coronary bypass w PTCA w/o MCC	Include all	2	1.8962
233	S	Coronary bypass w cardiac cath w MCC	Include all	2	1.2518
234	S	Coronary bypass w cardiac cath w/o MCC	Include all	3	1.2979
235	S	Coronary bypass w/o cardiac cath w MCC	Include all	2	1.1881
236	S	Coronary bypass w/o cardiac cath w/o MCC	Include all	3	1.2013
237	S	Major cardiovasc procedures w MCC or thoracic aortic aneurysm repair	Include all	1	1.2346
238	S	Major cardiovascular procedures w/o MCC	Include all	2	1.1912
242	S	Permanent cardiac pacemaker implant w MCC	Include all	2	0.8310
243	S	Permanent cardiac pacemaker implant w CC	Include all	2	0.8406
244	S	Permanent cardiac pacemaker implant w/o CC/MCC	Include all	3	0.8470
245	S	AICD Generator Procedures	Include all	2	0.9325
246	S	Perc cardiovasc proc w drug-eluting stent w MCC or 4+ vessels/stents	Include all	2	1.1446
247	S	Perc cardiovasc proc w drug-eluting stent w/o MCC	Include all	3	1.0691
248	S	Perc cardiovasc proc w non-drug-eluting stent w MCC or 4+ ves/stents	Include all	2	1.1283
249	S	Perc cardiovasc proc w non-drug-eluting stent w/o MCC	Include all	3	1.0813
250	S	Perc cardiovasc proc w/o coronary artery stent w MCC	Include all	3	1.0950
251	S	Perc cardiovasc proc w/o coronary artery stent or AMI w/o MCC	Include all	3	1.1323
252	S	Other vascular procedures w MCC	Include all	2	0.9267
253	S	Other vascular procedures w CC	Include all	2	1.0547
254	S	Other vascular procedures w/o CC/MCC	Include all	3	0.9881

MS-DRG	Medical/ Surgical	DRG_Title	ICD-9-CM	Severity	Weight
260	S	Cardiac pacemaker revision except device replacement w MCC	Include all	1	1.0237
261	S	Cardiac pacemaker revision except device replacement w CC	Include all	2	1.0073
262	S	Cardiac pacemaker revision except device replacement w/o CC/MCC	Include all	2	1.0289
265	S	ACID lead procedures	Include all	2	1.0059
280	M	Acute myocardial infarction, discharged alive w MCC	Include all	1	0.8761
281	M	Acute myocardial infarction, discharged alive w CC	Include all	2	0.9769
282	M	Acute myocardia infarction, discharged alive w/o CC/MCC	Include all	2	1.1211
283	M	Acute myocardial infarction, expired w MCC	Include all	1	0.8679
284	M	Acute myocardial infarction, expired w CC	Include all	2	0.8402
285	M	Acute myocardial infarction, expired w/o CC/MCC	Include all	2	0.8378
286	M	Circulatory disorders except AMI, w card cath w MCC	Include all	2	1.1109
287	M	Circulatory disorders except AMI, w card cath w/o MCC	Include all	3	1.2293
288	M	Acute & subacute endocarditis w MCC	Include all	1	1.2186
289	M	Acute & subacute endocarditis w CC	Include all	2	1.4181
290	M	Acute & subacute endocarditis w/o CC/MCC	Include all	2	1.6106
291	M	Heart failure & shock w MCC	Include all	1	0.8800
292	M	Heart failure & shock w CC	Include all	2	0.9269
293	M	Heart failure & shock w/o CC/MCC	Include all	2	0.9162
306	M	Cardiac congenital & valvular disorders w MCC	Include all	1	1.1040
308	M	Cardiac arrhythmia & conduction disorders w MCC	Include all	1	0.9044
309	M	Cardiac arrhythmia & conduction disorders w CC	Include all	2	0.9731
314	M	Other circulatory system diagnoses w MCC	Include all	2	1.0824
315	M	Other circulatory system diagnoses w CC	Include all	2	1.3237
316	M	Other circulatory system diagnoses w/o CC/MCC	Include all	3	1.2129

Diabetes & Endocrinology

MS-DRG	Medical/ Surgical	DRG_Title	ICD-9-CM	Severity	Weight
614	S	Adrenal & pituitary procedures w CC/MCC	Include all	2	1.7714
615	S	Adrenal & pituitary procedures w/o CC/MCC	Include all	2	1.5695
619	S	O.R. procedures for obesity w MCC	Include all	1	1.5262
620	S	O.R. procedures for obesity w CC	Include all	2	2.2271
621	S	O.R. procedures for obesity w/o CC/MCC	Include all	2	2.2271
622	S	Skin grafts & wound debrid for endoc, nutrit & metab dis w MCC	Include all	1	0.7797
623	S	Skin grafts & wound debrid for endoc, nutrit & metab dis w CC	Include all	2	1.0855
624	S	Skin grafts & wound debrid for endoc, nutrit & metab dis w/o CC/MCC	Include all	2	1.3886
625	S	Thyroid, parathyroid & thyroglossal procedures w MCC	Include all	1	0.8435
626	S	Thyroid, parathyroid & thyroglossal procedures w CC	Include all	2	1.5526
627	S	Thyroid, parathyroid & thyroglossal procedures w/o CC/MCC	Include all	2	1.2832
628	S	Other endocrine, nutrit & metab O.R. proc w MCC	Include all	1	0.7714
629	S	Other endocrine, nutrit & metab O.R. proc w CC	Include all	2	1.0010
630	S	Other endocrine, nutrit & metab O.R. proc w/o CC/MCC	Include all	2	1.3124
637	M	Diabetes w MCC	Include all	3	0.9363
638	M	Diabetes w CC	Include all	3	1.0773
639	M	Diabetes w/o CC/MCC	Include all	3	0.9210
640	M	Nutritional & misc metabolic disorders w MCC	Exclude diagnosis: 77934	3	0.7252
643	M	Endocrine disorders w MCC	Include all	3	0.7776
644	M	Endocrine disorders w CC	Include all	3	0.8151

Ear, Nose, & Throat

MS-DRG	Medical/Surgical	DRG_Title	ICD-9-CM	Severity	Weight
011	S	Tracheostomy for face,mouth & neck diagnoses w MCC	Include all	1	0.9418
012	S	Tracheostomy for face,mouth & neck diagnoses w CC	Include all	1	1.1215
013	S	Tracheostomy for face,mouth & neck diagnoses w/o CC/MCC	Include all	1	1.3076
129	S	Major head & neck procedures w CC/MCC or major device	Include all	2	1.0001
130	S	Major head & neck procedures w/o CC/MCC	Include all	2	1.0316
131	S	Cranial/Facial Procedures w CC/MCC	Include all	3	1.8537
132	S	Cranial/Facial Procedures w/o CC/MCC	Include all	3	1.8537
133	S	Other ear, nose, mouth & throat O.R. procedures w CC/MCC	Include all	3	1.4405
134	S	Other ear, nose, mouth & throat O.R. procedures w/o CC/MCC	Include all	3	1.1595
139	S	Salivary gland procedures	Include all	3	0.7324
146	M	Ear, nose, mouth & throat malignancy w MCC	Include all	1	0.8795
147	M	Ear, nose, mouth & throat malignancy w CC	Include all	2	1.0465
148	M	Ear, nose, mouth & throat malignancy w/o CC/MCC	Include all	2	1.0476
152	M	Otitis media & URI w MCC	Include all	3	1.1292
154	M	Other ear, nose, mouth and throat diagnosis w MCC	Include all	3	0.6858
155	M	Other ear, nose, mouth and throat diagnosis w CC	Include all	3	0.6649
156	M	Other ear, nose, mouth and throat diagnosis w/o CC/MCC	Include all	3	0.6511

Gastroenterology & GI Surgery

MS-DRG	Medical/Surgical	DRG_Title	ICD-9-CM	Severity	Weight
326	S	Stomach, esophageal & duodenal proc w MCC	Include all	2	1.0615
327	S	Stomach, esophageal & duodenal proc w CC	Include all	2	1.2884
328	S	Stomach, esophageal & duodenal proc w/o CC/MCC	Include all	3	1.4754
329	S	Major small & large bowel procedures w MCC	Include all	1	0.9466
330	S	Major small & large bowel procedures w CC	Include all	2	1.1219
331	S	Major small & large bowel procedures w/o CC/MCC	Include all	2	1.2464
332	S	Rectal resection w MCC	Include all	1	0.8995
333	S	Rectal resection w CC	Include all	1	1.1556
334	S	Rectal resection w/o CC/MCC	Include all	2	1.2732
335	S	Peritoneal adhesiolysis w MCC	Include all	1	0.8804
336	S	Peritoneal adhesiolysis w CC	Include all	2	1.1612
337	S	Peritoneal adhesiolysis w/o CC/MCC	Include all	2	1.2876
344	S	Minor small & large bowel procedures w MCC	Include procedures: 4500, 4502-3, 4515, 4526, 4534, 4549, 465, 4650-2, 466, 4660-4, 4791, 480, 4825, 5783	2	0.9504
345	S	Minor small & large bowel procedures w CC	Include procedures: 4502-3, 4515, 4526, 4534, 4549, 465, 4650-2, 466, 4660-4, 4791, 480, 4825, 5783	2	1.2899
346	S	Minor small & large bowel procedures w/o CC/MCC	See MS-DRG 345	3	0.7889
356	S	Other digestive system O.R. procedures w MCC	Include all	2	0.8655
357	S	Other digestive system O.R. procedures w CC	Include all	2	1.0625

MS-DRG	Medical/ Surgical	DRG_Title	ICD-9-CM	Severity	Weight
358	S	Other digestive system O.R. procedures w/o CC/MCC	Include all	3	1.0754
368	M	Major esophageal disorders w MCC	Include all	1	0.9922
369	M	Major esophageal disorders w CC	Include all	2	1.1523
370	M	Major esophageal disorders w/o CC/MCC	Include all	2	1.3287
371	M	Major gastrointestinal disorders & peritoneal infections w MCC	Include all	1	0.7676
372	M	Major gastrointestinal disorders & peritoneal infections w CC	Include all	2	0.8546
373	M	Major gastrointestinal disorders & peritoneal infections w/o CC/MCC	Include all	2	1.1512
374	M	Digestive malignancy w MCC	Include all	1	0.9411
375	M	Digestive malignancy w CC	Include all	2	1.0059
376	M	Digestive malignancy w/o CC/MCC	Include all	2	0.9928
377	M	G.I. hemorrhage w MCC	Include all	1	0.7318
378	M	G.I. hemorrhage w CC	Include all	2	0.7719
379	M	G.I. hemorrhage w/o CC/MCC	Include all	2	0.8299
380	M	Complicated peptic ulcer w MCC	Include all	1	0.8663
381	M	Complicated peptic ulcer w CC	Include all	2	0.9357
382	M	Complicated peptic ulcer w/o CC/MCC	Include all	2	1.1368
383	M	Uncomplicated peptic ulcer w MCC	Include all	3	0.8788
385	M	Inflammatory bowel disease w MCC	Include all	1	1.5340
386	M	Inflammatory bowel disease w CC	Include all	2	1.7858
387	M	Inflammatory bowel disease w/o CC/MCC	Include all	2	1.7858
388	M	G.I. obstruction w MCC	Include all	3	0.7310
389	M	G.I. obstruction w CC	Include all	3	0.7366
391	M	Esophagitis, gastroent & misc digest disorders w MCC	Include all	3	0.8639
393	M	Other digestive system diagnoses w MCC	Include all	1	0.8727
394	M	Other digestive system diagnoses w CC	Include all	2	0.9444
405	S	Pancreas, liver & shunt procedures w MCC	Include all	1	1.2983
406	S	Pancreas, liver & shunt procedures w CC	Include all	1	1.3658
407	S	Pancreas, liver & shunt procedures w/o CC/MCC	Include all	2	1.4546
408	S	Biliary tract proc except only cholecyst w or w/o c.d.e. w MCC	Include all	2	0.9345
409	S	Biliary tract proc except only cholecyst w or w/o c.d.e. w CC	Include all	2	1.1125
410	S	Biliary tract proc except only cholecyst w or w/o c.d.e. w/o CC/MCC	Include all	3	0.9233
411	S	Cholecystectomy w c.d.e. w MCC	Include all	1	0.9425
412	S	Cholecystectomy w c.d.e. w CC	Include all	2	1.1686
413	S	Cholecystectomy w c.d.e. w/o CC/MCC	Include all	2	1.5343
414	S	Cholecystectomy except by laparoscope w/o c.d.e. w MCC	Include all	1	0.9016
415	S	Cholecystectomy except by laparoscope w/o c.d.e. w CC	Include all	2	1.0715
417	S	Laparoscopic cholecystectomy w/o c.d.e. w MCC	Include all	3	0.9086
418	S	Laparoscopic cholecystectomy w/o c.d.e. w CC	Include all	3	1.0732
420	S	Hepatobiliary diagnostic procedures w MCC	Include all	1	1.2563
421	S	Hepatobiliary diagnostic procedures w CC	Include all	2	1.2556
422	S	Hepatobiliary diagnostic procedures w/o CC/MCC	Include all	2	1.3244
423	S	Other hepatobiliary or pancreas O.R. procedures w MCC	Include all	3	1.0825
424	S	Other hepatobiliary or pancreas O.R. procedures w CC	Include all	3	1.0166
425	S	Other hepatobiliary or pancreas O.R. procedures w/o CC/MCC	Include all	3	1.1199
432	M	Cirrhosis & alcoholic hepatitis w MCC	Include all	1	1.6691
433	M	Cirrhosis & alcoholic hepatitis w CC	Include all	2	1.7858
434	M	Cirrhosis & alcoholic hepatitis w/o CC/MCC	Include all	2	1.7858
435	M	Malignancy of hepatobiliary system or pancreas w MCC	Include all	1	0.9658
436	M	Malignancy of hepatobiliary system or pancreas w CC	Include all	2	1.0119
437	M	Malignancy of hepatobiliary system or pancreas w/o CC/MCC	Include all	2	1.0490

MS-DRG	Medical/Surgical	DRG_Title	ICD-9-CM	Severity	Weight
438	M	Disorders of pancreas except malignancy w MCC	Include all	1	1.2372
439	M	Disorders of pancreas except malignancy w CC	Include all	2	1.5177
440	M	Disorders of pancreas except malignancy w/o CC/MCC	Include all	2	1.7351
441	M	Disorders of liver except malig,cirr,alc hepa w MCC	Exclude diagnosis: 7948	1	1.3045
442	M	Disorders of liver except malig,cirr,alc hepa w CC	See MS-DRG 442	2	1.3462

Geriatrics

MS-DRG	Medical/Surgical	DRG_Title	ICD-9-CM	Severity	Weight
001	S	Heart transplant or implant of heart assist system w MCC	Include all	1	1.0847
002	S	Heart transplant or implant of heart assist system w/o MCC	Include all	1	1.0677
003	S	ECMO or trach w MV 96+ hrs or PDX exc face, mouth & neck w maj O.R.	Include all	1	1.0469
004	S	Trach w MV 96+ hrs or PDX exc face, mouth & neck w/o maj O.R.	Include all	1	1.0297
005	S	Liver transplant w MCC or intestinal transplant	Include all	1	1.1493
006	S	Liver transplant w/o MCC	Include all	1	1.0000
007	S	Lung transplant	Include all	1	1.0000
008	S	Simultaneous pancreas/kidney transplant	Include all	1	1.0000
010	S	Pancreas transplant	Include all	1	1.0000
011	S	Tracheostomy for face,mouth & neck diagnoses w MCC	Include all	1	1.0027
012	S	Tracheostomy for face,mouth & neck diagnoses w CC	Include all	1	0.9941
013	S	Tracheostomy for face,mouth & neck diagnoses w/o CC/MCC	Include all	1	0.9964
014	S	Allogeneic bone marrow transplant	Include all	1	1.1493
015	S	Autologous bone marrow transplant	Include all	1	1.1493
020	S	Intracranial vascular procedures w PDX hemorrhage w MCC	Include all	1	1.0460
021	S	Intracranial vascular procedures w PDX hemorrhage w CC	Include all	1	0.9915
022	S	Intracranial vascular procedures w PDX hemorrhage w/o CC/MCC	Include all	1	1.1316
023	S	Cranio w major dev impl/acute complex CNS PDX w MCC or chemo implant	Include all	1	1.0372
024	S	Cranio w major dev impl/acute complex CNS PDX w/o MCC	Include all	1	1.0206
025	S	Craniotomy & endovascular intracranial procedures w MCC	Include all	1	1.0149
026	S	Craniotomy & endovascular intracranial procedures w CC	Include all	1	1.0246
027	S	Craniotomy & endovascular intracranial procedures w/o CC/MCC	Include all	1	1.0440
028	S	Spinal procedures w MCC	Include all	1	1.0290
029	S	Spinal procedures w CC or spinal neurostimulators	Include all	2	1.0140
030	S	Spinal procedures w/o CC/MCC	Include all	2	1.0177
031	S	Ventricular shunt procedures w MCC	Include all	1	0.9781
032	S	Ventricular shunt procedures w CC	Include all	2	0.9850
033	S	Ventricular shunt procedures w/o CC/MCC	Include all	2	0.9714
034	S	Carotid artery stent procedure w MCC	Include all	1	1.0326
035	S	Carotid artery stent procedure w CC	Include all	2	1.0117
036	S	Carotid artery stent procedure w/o CC/MCC	Include all	2	0.9960
037	S	Extracranial procedures w MCC	Include all	2	0.9942
038	S	Extracranial procedures w CC	Include all	2	0.9966
039	S	Extracranial procedures w/o CC/MCC	Include all	3	1.0173
040	S	Periph & cranial nerve & other nerv syst proc w MCC	Include all	2	1.0202
041	S	Periph/cranial nerve & other nerv syst proc w CC or periph neurostim	Include all	2	0.9981
042	S	Periph & cranial nerve & other nerv syst proc w/o CC/MCC	Include all	3	0.9869

MS-DRG	Medical/ Surgical	DRG Title	ICD-9-CM	Severity	Weight
052	M	Spinal disorders & injuries w CC/MCC	Include all	2	1.0200
053	M	Spinal disorders & injuries w/o CC/MCC	Include all	2	1.1288
054	M	Nervous system neoplasms w MCC	Include all	1	1.0052
055	M	Nervous system neoplasms w/o MCC	Include all	2	1.0112
056	M	Degenerative nervous system disorders w MCC	Include all	1	1.0254
057	M	Degenerative nervous system disorders w/o MCC	Include all	2	0.9965
058	M	Multiple sclerosis & cerebellar ataxia w MCC	Include all	1	1.0308
059	M	Multiple sclerosis & cerebellar ataxia w CC	Include all	2	1.0170
060	M	Multiple sclerosis & cerebellar ataxia w/o CC/MCC	Include all	2	0.9494
061	M	Acute ischemic stroke w use of thrombolytic agent w MCC	Include all	1	1.0304
062	M	Acute ischemic stroke w use of thrombolytic agent w CC	Include all	2	1.0044
063	M	Acute ischemic stroke w use of thrombolytic agent w/o CC/MCC	Include all	2	1.0155
064	M	Intracranial hemorrhage or cerebral infarction w MCC	Include all	1	1.0181
065	M	Intracranial hemorrhage or cerebral infarction w CC	Include all	2	1.0100
066	M	Intracranial hemorrhage or cerebral infarction w/o CC/MCC	Include all	2	1.0137
067	M	Nonspecific cva & precerebral occlusion w/o infarct w MCC	Include all	1	0.9779
068	M	Nonspecific cva & precerebral occlusion w/o infarct w/o MCC	Include all	2	0.9938
069	M	Transient ischemia	Include all	3	0.9855
070	M	Nonspecific cerebrovascular disorders w MCC	Include all	2	0.9963
071	M	Nonspecific cerebrovascular disorders w CC	Include all	2	0.9841
072	M	Nonspecific cerebrovascular disorders w/o CC/MCC	Include all	3	0.9827
073	M	Cranial & peripheral nerve disorders w MCC	Include all	1	0.9823
074	M	Cranial & peripheral nerve disorders w/o MCC	Include all	2	0.9921
075	M	Viral meningitis w CC/MCC	Include all	2	1.0009
076	M	Viral meningitis w/o CC/MCC	Include all	2	0.9696
077	M	Hypertensive encephalopathy w MCC	Include all	1	1.0104
078	M	Hypertensive encephalopathy w CC	Include all	2	1.0012
079	M	Hypertensive encephalopathy w/o CC/MCC	Include all	2	1.0058
080	M	Nontraumatic stupor & coma w MCC	Include all	1	1.0298
081	M	Nontraumatic stupor & coma w/o MCC	Include all	2	1.0046
082	M	Traumatic stupor & coma, coma >1 hr w MCC	Include all	1	1.0869
083	M	Traumatic stupor & coma, coma >1 hr w CC	Include all	1	1.0866
084	M	Traumatic stupor & coma, coma >1 hr w/o CC/MCC	Include all	1	1.0870
085	M	Traumatic stupor & coma, coma <1 hr w MCC	Include all	1	1.0364
086	M	Traumatic stupor & coma, coma <1 hr w CC	Include all	2	1.0141
087	M	Traumatic stupor & coma, coma <1 hr w/o CC/MCC	Include all	2	1.0410
088	M	Concussion w MCC	Include all	3	1.0476
089	M	Concussion w CC	Include all	3	1.0518
090	M	Concussion w/o CC/MCC	Include all	3	1.0790
091	M	Other disorders of nervous system w MCC	Include all	3	1.0107
092	M	Other disorders of nervous system w CC	Include all	3	0.9900
093	M	Other disorders of nervous system w/o CC/MCC	Include all	3	1.0380
094	M	Bacterial & tuberculous infections of nervous system w MCC	Include all	1	0.9941
095	M	Bacterial & tuberculous infections of nervous system w CC	Include all	2	1.0420
096	M	Bacterial & tuberculous infections of nervous system w/o CC/MCC	Include all	2	1.0199
097	M	Non-bacterial infect of nervous sys exc viral meningitis w MCC	Include all	1	0.9940
098	M	Non-bacterial infect of nervous sys exc viral meningitis w CC	Include all	2	1.0134
099	M	Non-bacterial infect of nervous sys exc viral meningitis w/o CC/MCC	Include all	2	1.0092
100	M	Seizures w MCC	Include all	2	1.0006
101	M	Seizures w/o MCC	Include all	3	0.9983

MS-DRG	Medical/ Surgical	DRG Title	ICD-9-CM	Severity	Weight
102	M	Headaches w MCC	Include all	3	1.0034
103	M	Headaches w/o MCC	Include all	3	1.0122
113	S	Orbital procedures w CC/MCC	Include all	2	1.0234
114	S	Orbital procedures w/o CC/MCC	Include all	2	0.9890
115	S	Extraocular procedures except orbit	Include all	3	0.9825
116	S	Intraocular procedures w CC/MCC	Include all	3	0.9779
117	S	Intraocular procedures w/o CC/MCC	Include all	3	1.0000
121	M	Acute major eye infections w CC/MCC	Include all	2	0.9840
122	M	Acute major eye infections w/o CC/MCC	Include all	2	1.0188
123	M	Neurological eye disorders	Include all	3	1.0024
124	M	Other disorders of the eye w MCC	Include all	2	1.0290
125	M	Other disorders of the eye w/o MCC	Include all	3	1.0109
129	S	Major head & neck procedures w CC/MCC or major device	Include all	2	1.0006
130	S	Major head & neck procedures w/o CC/MCC	Include all	2	0.9969
131	S	Cranial/facial procedures w CC/MCC	Include all	3	1.1493
132	S	Cranial/facial procedures w/o CC/MCC	Include all	3	1.1493
133	S	Other ear, nose, mouth & throat O.R. procedures w CC/MCC	Include all	3	1.0032
134	S	Other ear, nose, mouth & throat O.R. procedures w/o CC/MCC	Include all	3	1.0630
135	S	Sinus & mastoid procedures w CC/MCC	Include all	2	0.9731
136	S	Sinus & mastoid procedures w/o CC/MCC	Include all	2	0.9802
137	S	Mouth procedures w CC/MCC	Include all	3	0.9743
138	S	Mouth procedures w/o CC/MCC	Include all	3	1.1033
139	S	Salivary gland procedures	Include all	3	0.9194
146	M	Ear, nose, mouth & throat malignancy w MCC	Include all	1	1.1435
147	M	Ear, nose, mouth & throat malignancy w CC	Include all	2	1.0783
148	M	Ear, nose, mouth & throat malignancy w/o CC/MCC	Include all	2	1.1083
149	M	Dysequilibrium	Include all	3	0.9804
150	M	Epistaxis w MCC	Include all	3	1.0077
151	M	Epistaxis w/o MCC	Include all	3	0.9984
152	M	Otitis media & URI w MCC	Include all	3	0.9703
153	M	Otitis media & URI w/o MCC	Include all	3	0.9924
154	M	Other Ear, Nose, Mouth, and Throat Diagnoses with MCC	Include all	3	0.9895
155	M	Other Ear, Nose, Mouth, and Throat Diagnoses with CC	Include all	3	0.9964
156	M	Other Ear, Nose, Mouth, and Throat Diagnoses without CC/MCC	Include all	3	1.0121
157	M	Dental & Oral Diseases w MCC	Include all	3	0.9960
158	M	Dental & Oral Diseases w CC	Include all	3	0.9888
159	M	Dental & Oral Diseases w/o CC/MCC	Include all	3	0.9428
163	S	Major chest procedures w MCC	Include all	1	1.0035
164	S	Major chest procedures w CC	Include all	2	1.0095
165	S	Major chest procedures w/o CC/MCC	Include all	2	0.9981
166	S	Other resp system O.R. procedures w MCC	Include all	2	1.0006
167	S	Other resp system O.R. procedures w CC	Include all	2	0.9969
168	S	Other resp system O.R. procedures w/o CC/MCC	Include all	3	0.9730
175	M	Pulmonary embolism w MCC	Include all	1	0.9993
176	M	Pulmonary embolism w/o MCC	Include all	1	1.0015
177	M	Respiratory infections & inflammations w MCC	Include all	1	0.9928
178	M	Respiratory infections & inflammations w CC	Include all	2	0.9920
179	M	Respiratory infections & inflammations w/o CC/MCC	Include all	2	0.9991
180	M	Respiratory neoplasms w MCC	Include all	1	1.0384
181	M	Respiratory neoplasms w CC	Include all	2	1.0391
182	M	Respiratory neoplasms w/o CC/MCC	Include all	2	1.1258
183	M	Major chest trauma w MCC	Include all	1	1.1104

MS-DRG	Medical/ Surgical	DRG Title	ICD-9-CM	Severity	Weight
184	M	Major chest trauma w CC	Include all	1	1.1493
185	M	Major chest trauma w/o CC/MCC	Include all	1	1.1493
186	M	Pleural effusion w MCC	Include all	3	0.9853
187	M	Pleural effusion w CC	Include all	3	0.9879
188	M	Pleural effusion w/o CC/MCC	Include all	3	1.0059
189	M	Pulmonary edema & respiratory failure	Include all	2	1.0181
190	M	Chronic obstructive pulmonary disease w MCC	Include all	3	0.9927
191	M	Chronic obstructive pulmonary disease w CC	Include all	3	0.9900
192	M	Chronic obstructive pulmonary disease w/o CC/MCC	Include all	3	0.9922
193	M	Simple pneumonia & pleurisy w MCC	Include all	3	0.9975
194	M	Simple pneumonia & pleurisy w CC	Include all	3	0.9954
195	M	Simple pneumonia & pleurisy w/o CC/MCC	Include all	3	0.9949
196	M	Interstitial lung disease w MCC	Include all	3	1.0202
197	M	Interstitial lung disease w CC	Include all	3	0.9999
198	M	Interstitial lung disease w/o CC/MCC	Include all	3	1.0033
199	M	Pneumothorax w MCC	Include all	1	1.0036
200	M	Pneumothorax w CC	Include all	2	1.0392
201	M	Pneumothorax w/o CC/MCC	Include all	2	1.0166
202	M	Bronchitis & asthma w CC/MCC	Include all	3	0.9870
203	M	Bronchitis & asthma w/o CC/MCC	Include all	3	1.0009
204	M	Respiratory signs & symptoms	Include all	3	1.0020
205	M	Other respiratory system diagnoses w MCC	Include all	3	1.0028
206	M	Other respiratory system diagnoses w/o MCC	Include all	3	1.0058
207	M	Respiratory system diagnosis w ventilator support 96+ hours	Include all	2	1.0183
208	M	Respiratory system diagnosis w ventilator support <96 hours	Include all	2	1.0125
215	S	Other heart assist system implant	Include all	1	1.1493
216	S	Cardiac valve & oth maj cardiothoracic proc w card cath w MCC	Include all	1	0.9912
217	S	Cardiac valve & oth maj cardiothoracic proc w card cath w CC	Include all	2	0.9966
218	S	Cardiac valve & oth maj cardiothoracic proc w card cath w/o CC/MCC	Include all	2	0.9777
219	S	Cardiac valve & oth maj cardiothoracic proc w/o card cath w MCC	Include all	1	1.0066
220	S	Cardiac valve & oth maj cardiothoracic proc w/o card cath w CC	Include all	2	1.0031
221	S	Cardiac valve & oth maj cardiothoracic proc w/o card cath w/o CC/MCC	Include all	2	1.0110
222	S	Cardiac defib implant w cardiac cath w AMI/HF/shock w MCC	Include all	1	0.9970
223	S	Cardiac defib implant w cardiac cath w AMI/HF/shock w/o MCC	Include all	1	1.0281
224	S	Cardiac defib implant w cardiac cath w/o AMI/HF/shock w MCC	Include all	3	1.0127
225	S	Cardiac defib implant w cardiac cath w/o AMI/HF/shock w/o MCC	Include all	3	1.0087
226	S	Cardiac defibrillator implant w/o cardiac cath w MCC	Include all	1	0.9986
227	S	Cardiac defibrillator implant w/o cardiac cath w/o MCC	Include all	1	0.9857
228	S	Other cardiothoracic procedures w MCC	Include all	1	1.0421
229	S	Other cardiothoracic procedures w CC	Include all	2	1.0162
230	S	Other cardiothoracic procedures w/o CC/MCC	Include all	2	1.0448
231	S	Coronary bypass w PTCA w MCC	Include all	1	1.0500
232	S	Coronary bypass w PTCA w/o MCC	Include all	2	1.0343
233	S	Coronary bypass w cardiac cath w MCC	Include all	2	1.0273
234	S	Coronary bypass w cardiac cath w/o MCC	Include all	3	1.0249
235	S	Coronary bypass w/o cardiac cath w MCC	Include all	2	1.0124
236	S	Coronary bypass w/o cardiac cath w/o MCC	Include all	3	1.0260
237	S	Major cardiovasc procedures w MCC or thoracic aortic aneurysm repair	Include all	1	1.0212
238	S	Major cardiovascular procedures w/o MCC	Include all	2	0.9995

MS-DRG	Medical/Surgical	DRG Title	ICD-9-CM	Severity	Weight
239	S	Amputation for circ sys disorders exc upper limb & toe w MCC	Include all	1	1.0060
240	S	Amputation for circ sys disorders exc upper limb & toe w CC	Include all	2	1.0084
241	S	Amputation for circ sys disorders exc upper limb & toe w/o CC/MCC	Include all	2	1.0156
242	S	Permanent cardiac pacemaker implant w MCC	Include all	2	0.9941
243	S	Permanent cardiac pacemaker implant w CC	Include all	2	0.9890
244	S	Permanent cardiac pacemaker implant w/o CC/MCC	Include all	3	0.9977
245	S	AICD generator procedures	Include all	2	0.9785
246	S	Perc cardiovasc proc w drug-eluting stent w MCC or 4+ vessels/stents	Include all	2	1.0015
247	S	Perc cardiovasc proc w drug-eluting stent w/o MCC	Include all	3	1.0023
248	S	Perc cardiovasc proc w non-drug-eluting stent w MCC or 4+ ves/stents	Include all	2	1.0056
249	S	Perc cardiovasc proc w non-drug-eluting stent w/o MCC	Include all	3	1.0117
250	S	Perc cardiovasc proc w/o coronary artery stent w MCC	Include all	3	0.9917
251	S	Perc cardiovasc proc w/o coronary artery stent w/o MCC	Include all	3	1.0023
252	S	Other vascular procedures w MCC	Include all	2	0.9974
253	S	Other vascular procedures w CC	Include all	2	0.9962
254	S	Other vascular procedures w/o CC/MCC	Include all	3	0.9864
255	S	Upper limb & toe amputation for circ system disorders w MCC	Include all	1	0.9809
256	S	Upper limb & toe amputation for circ system disorders w CC	Include all	2	0.9999
257	S	Upper limb & toe amputation for circ system disorders w/o CC/MCC	Include all	2	1.0027
258	S	Cardiac pacemaker device replacement w MCC	Include all	3	0.9831
259	S	Cardiac pacemaker device replacement w/o MCC	Include all	3	0.9660
260	S	Cardiac pacemaker revision except device replacement w MCC	Include all	1	0.9955
261	S	Cardiac pacemaker revision except device replacement w CC	Include all	2	0.9889
262	S	Cardiac pacemaker revision except device replacement w/o CC/MCC	Include all	2	1.0046
263	S	Vein ligation & stripping	Include all	3	0.9194
264	S	Other circulatory system O.R. procedures	Include all	2	0.9927
265	S	AICD lead procedures	Include all	2	0.9537
280	M	Acute myocardial infarction, discharged alive w MCC	Include all	1	0.9897
281	M	Acute myocardial infarction, discharged alive w CC	Include all	2	0.9972
282	M	Acute myocardia infarction, discharged alive w/o CC/MCC	Include all	2	0.9990
283	M	Acute myocardial infarction, expired w MCC	Include all	1	1.0037
284	M	Acute myocardial infarction, expired w CC	Include all	2	1.0127
285	M	Acute myocardial infarction, expired w/o CC/MCC	Include all	2	1.0015
286	M	Circulatory disorders except AMI, w card cath w MCC	Include all	2	1.0001
287	M	Circulatory disorders except AMI, w card cath w/o MCC	Include all	3	1.0027
288	M	Acute & subacute endocarditis w MCC	Include all	1	1.0130
289	M	Acute & subacute endocarditis w CC	Include all	2	0.9788
290	M	Acute & subacute endocarditis w/o CC/MCC	Include all	2	1.0420
291	M	Heart failure & shock w MCC	Include all	1	0.9924
292	M	Heart failure & shock w CC	Include all	2	0.9932
293	M	Heart failure & shock w/o CC/MCC	Include all	2	1.0001
294	M	Deep vein thrombophlebitis w CC/MCC	Include all	3	0.9885
295	M	Deep vein thrombophlebitis w/o CC/MCC	Include all	3	0.9194
296	M	Cardiac arrest, unexplained w MCC	Include all	1	1.0463
297	M	Cardiac arrest, unexplained w CC	Include all	2	1.0389
298	M	Cardiac arrest, unexplained w/o CC/MCC	Include all	2	1.0469
299	M	Peripheral vascular disorders w MCC	Include all	1	1.0024
300	M	Peripheral vascular disorders w CC	Include all	2	0.9960

MS-DRG	Medical/ Surgical	DRG Title	ICD-9-CM	Severity	Weight
301	M	Peripheral vascular disorders w/o CC/MCC	Include all	2	0.9987
302	M	Atherosclerosis w MCC	Include all	3	0.9881
303	M	Atherosclerosis w/o MCC	Include all	3	1.0046
304	M	Hypertension w MCC	Include all	3	1.0050
305	M	Hypertension w/o MCC	Include all	3	0.9919
306	M	Cardiac congenital & valvular disorders w MCC	Include all	1	1.0031
307	M	Cardiac congenital & valvular disorders w/o MCC	Include all	2	0.9917
308	M	Cardiac arrhythmia & conduction disorders w MCC	Include all	1	0.9925
309	M	Cardiac arrhythmia & conduction disorders w CC	Include all	2	0.9890
310	M	Cardiac arrhythmia & conduction disorders w/o CC/MCC	Include all	2	0.9940
311	M	Angina pectoris	Include all	3	1.0100
312	M	Syncope & collapse	Include all	2	0.9925
313	M	Chest pain	Include all	3	0.9983
314	M	Other circulatory system diagnoses w MCC	Include all	2	0.9952
315	M	Other circulatory system diagnoses w CC	Include all	2	1.0003
316	M	Other circulatory system diagnoses w/o CC/MCC	Include all	3	1.0018
326	S	Stomach, esophageal & duodenal proc w MCC	Include all	2	1.0042
327	S	Stomach, esophageal & duodenal proc w CC	Include all	2	1.0104
328	S	Stomach, esophageal & duodenal proc w/o CC/MCC	Include all	3	1.0869
329	S	Major small & large bowel procedures w MCC	Include all	1	1.0028
330	S	Major small & large bowel procedures w CC	Include all	2	0.9924
331	S	Major small & large bowel procedures w/o CC/MCC	Include all	2	0.9977
332	S	Rectal resection w MCC	Include all	1	0.9921
333	S	Rectal resection w CC	Include all	1	0.9932
334	S	Rectal resection w/o CC/MCC	Include all	2	1.0082
335	S	Peritoneal adhesiolysis w MCC	Include all	1	0.9985
336	S	Peritoneal adhesiolysis w CC	Include all	2	0.9889
337	S	Peritoneal adhesiolysis w/o CC/MCC	Include all	2	0.9903
338	S	Appendectomy w complicated principal diag w MCC	Include all	3	1.0279
339	S	Appendectomy w complicated principal diag w CC	Include all	3	0.9989
340	S	Appendectomy w complicated principal diag w/o CC/MCC	Include all	3	0.9194
341	S	Appendectomy w/o complicated principal diag w MCC	Include all	3	1.0241
342	S	Appendectomy w/o complicated principal diag w CC	Include all	3	1.0306
343	S	Appendectomy w/o complicated principal diag w/o CC/MCC	Include all	3	1.0507
344	S	Minor small & large bowel procedures w MCC	Include all	2	1.0197
345	S	Minor small & large bowel procedures w CC	Include all	2	0.9921
346	S	Minor small & large bowel procedures w/o CC/MCC	Include all	3	1.1033
347	S	Anal & stomal procedures w MCC	Include all	1	1.0212
348	S	Anal & stomal procedures w CC	Include all	2	1.0064
349	S	Anal & stomal procedures w/o CC/MCC	Include all	2	0.9887
350	S	Inguinal & femoral hernia procedures w MCC	Include all	3	0.9926
351	S	Inguinal & femoral hernia procedures w CC	Include all	3	1.0250
352	S	Inguinal & femoral hernia procedures w/o CC/MCC	Include all	3	1.0986
353	S	Hernia procedures except inguinal & femoral w MCC	Include all	1	1.0216
354	S	Hernia procedures except inguinal & femoral w CC	Include all	2	0.9893
355	S	Hernia procedures except inguinal & femoral w/o CC/MCC	Include all	2	0.9884
356	S	Other digestive system O.R. procedures w MCC	Include all	2	0.9922
357	S	Other digestive system O.R. procedures w CC	Include all	2	1.0069
358	S	Other digestive system O.R. procedures w/o CC/MCC	Include all	3	1.0123
368	M	Major esophageal disorders w MCC	Include all	1	0.9974
369	M	Major esophageal disorders w CC	Include all	2	1.0028
370	M	Major esophageal disorders w/o CC/MCC	Include all	2	0.9790

MS-DRG	Medical/ Surgical	DRG Title	ICD-9-CM	Severity	Weight
371	M	Major gastrointestinal disorders & peritoneal infections w MCC	Include all	1	0.9865
372	M	Major gastrointestinal disorders & peritoneal infections w CC	Include all	2	0.9846
373	M	Major gastrointestinal disorders & peritoneal infections w/o CC/MCC	Include all	2	0.9978
374	M	Digestive malignancy w MCC	Include all	1	1.0395
375	M	Digestive malignancy w CC	Include all	2	1.0435
376	M	Digestive malignancy w/o CC/MCC	Include all	2	1.1168
377	M	G.I. hemorrhage w MCC	Include all	1	0.9912
378	M	G.I. hemorrhage w CC	Include all	2	0.9941
379	M	G.I. hemorrhage w/o CC/MCC	Include all	2	0.9980
380	M	Complicated peptic ulcer w MCC	Include all	1	0.9818
381	M	Complicated peptic ulcer w CC	Include all	2	0.9954
382	M	Complicated peptic ulcer w/o CC/MCC	Include all	2	0.9841
383	M	Uncomplicated peptic ulcer w MCC	Include all	3	1.0128
384	M	Uncomplicated peptic ulcer w/o MCC	Include all	3	1.0051
385	M	Inflammatory bowel disease w MCC	Include all	1	0.9752
386	M	Inflammatory bowel disease w CC	Include all	2	0.9763
387	M	Inflammatory bowel disease w/o CC/MCC	Include all	2	0.9850
388	M	G.I. obstruction w MCC	Include all	3	0.9951
389	M	G.I. obstruction w CC	Include all	3	0.9880
390	M	G.I. obstruction w/o CC/MCC	Include all	3	1.0045
391	M	Esophagitis, gastroent & misc digest disorders w MCC	Include all	3	0.9923
392	M	Esophagitis, gastroent & misc digest disorders w/o MCC	Include all	3	0.9893
393	M	Other digestive system diagnoses w MCC	Include all	1	0.9936
394	M	Other digestive system diagnoses w CC	Include all	2	0.9947
395	M	Other digestive system diagnoses w/o CC/MCC	Include all	2	0.9978
405	S	Pancreas, liver & shunt procedures w MCC	Include all	1	0.9987
406	S	Pancreas, liver & shunt procedures w CC	Include all	1	1.0351
407	S	Pancreas, liver & shunt procedures w/o CC/MCC	Include all	2	0.9781
408	S	Biliary tract proc except only cholecyst w or w/o c.d.e. w MCC	Include all	2	1.0310
409	S	Biliary tract proc except only cholecyst w or w/o c.d.e. w CC	Include all	2	1.0462
410	S	Biliary tract proc except only cholecyst w or w/o c.d.e. w/o CC/MCC	Include all	3	0.9194
411	S	Cholecystectomy w c.d.e. w MCC	Include all	1	1.0072
412	S	Cholecystectomy w c.d.e. w CC	Include all	2	0.9852
413	S	Cholecystectomy w c.d.e. w/o CC/MCC	Include all	2	0.9826
414	S	Cholecystectomy except by laparoscope w/o c.d.e. w MCC	Include all	1	1.0116
415	S	Cholecystectomy except by laparoscope w/o c.d.e. w CC	Include all	2	1.0189
416	S	Cholecystectomy except by laparoscope w/o c.d.e. w/o CC/MCC	Include all	2	1.0275
417	S	Laparoscopic cholecystectomy w/o c.d.e. w MCC	Include all	3	0.9976
418	S	Laparoscopic cholecystectomy w/o c.d.e. w CC	Include all	3	1.0108
419	S	Laparoscopic cholecystectomy w/o c.d.e. w/o CC/MCC	Include all	3	1.0160
420	S	Hepatobiliary diagnostic procedures w MCC	Include all	1	1.0215
421	S	Hepatobiliary diagnostic procedures w CC	Include all	2	1.0171
422	S	Hepatobiliary diagnostic procedures w/o CC/MCC	Include all	2	1.1493
423	S	Other hepatobiliary or pancreas O.R. procedures w MCC	Include all	3	1.0280
424	S	Other hepatobiliary or pancreas O.R. procedures w CC	Include all	3	0.9942
425	S	Other hepatobiliary or pancreas O.R. procedures w/o CC/MCC	Include all	3	1.0000
432	M	Cirrhosis & alcoholic hepatitis w MCC	Include all	1	1.0242
433	M	Cirrhosis & alcoholic hepatitis w CC	Include all	2	1.0295
434	M	Cirrhosis & alcoholic hepatitis w/o CC/MCC	Include all	2	1.1493
435	M	Malignancy of hepatobiliary system or pancreas w MCC	Include all	1	1.0344

MS-DRG	Medical/ Surgical	DRG Title	ICD-9-CM	Severity	Weight
436	M	Malignancy of hepatobiliary system or pancreas w CC	Include all	2	1.0362
437	M	Malignancy of hepatobiliary system or pancreas w/o CC/MCC	Include all	2	1.0920
438	M	Disorders of pancreas except malignancy w MCC	Include all	1	1.0101
439	M	Disorders of pancreas except malignancy w CC	Include all	2	1.0043
440	M	Disorders of pancreas except malignancy w/o CC/MCC	Include all	2	0.9980
441	M	Disorders of liver except malig,cirr,alc hepa w MCC	Include all	1	1.0316
442	M	Disorders of liver except malig,cirr,alc hepa w CC	Include all	2	1.0179
443	M	Disorders of liver except malig,cirr,alc hepa w/o CC/MCC	Include all	2	1.0521
444	M	Disorders of the biliary tract w MCC	Include all	3	1.0151
445	M	Disorders of the biliary tract w CC	Include all	3	0.9962
446	M	Disorders of the biliary tract w/o CC/MCC	Include all	3	0.9670
453	S	Combined anterior/posterior spinal fusion w MCC	Include all	1	1.0079
454	S	Combined anterior/posterior spinal fusion w CC	Include all	2	0.9913
455	S	Combined anterior/posterior spinal fusion w/o CC/MCC	Include all	2	0.9854
456	S	Spinal fus exc cerv w spinal curv/malig/infec or 9+ fus w MCC	Include all	1	1.0180
457	S	Spinal fus exc cerv w spinal curv/malig/infec or 9+ fus w CC	Include all	2	0.9783
458	S	Spinal fus exc cerv w spinal curv/malig/infec or 9+ fus w/o CC/MCC	Include all	2	0.9960
459	S	Spinal fusion except cervical w MCC	Include all	1	0.9993
460	S	Spinal fusion except cervical w/o MCC	Include all	2	0.9961
461	S	Bilateral or multiple major joint procs of lower extremity w MCC	Include all	1	0.9805
462	S	Bilateral or multiple major joint procs of lower extremity w/o MCC	Include all	2	0.9858
463	S	Wnd debrid & skn grft exc hand, for musculo-conn tiss dis w MCC	Include all	1	1.0143
464	S	Wnd debrid & skn grft exc hand, for musculo-conn tiss dis w CC	Include all	2	1.0144
465	S	Wnd debrid & skn grft exc hand, for musculo-conn tiss dis w/o CC/MCC	Include all	2	1.0207
466	S	Revision of hip or knee replacement w MCC	Include all	3	0.9877
467	S	Revision of hip or knee replacement w CC	Include all	3	0.9804
468	S	Revision of hip or knee replacement w/o CC/MCC	Include all	3	1.0053
469	S	Major joint replacement or reattachment of lower extremity w MCC	Include all	1	0.9931
470	S	Major joint replacement or reattachment of lower extremity w/o MCC	Include all	2	0.9947
471	S	Cervical spinal fusion w MCC	Include all	1	1.0117
472	S	Cervical spinal fusion w CC	Include all	2	1.0022
473	S	Cervical spinal fusion w/o CC/MCC	Include all	2	1.0157
474	S	Amputation for musculoskeletal sys & conn tissue dis w MCC	Include all	1	1.0002
475	S	Amputation for musculoskeletal sys & conn tissue dis w CC	Include all	2	0.9919
476	S	Amputation for musculoskeletal sys & conn tissue dis w/o CC/MCC	Include all	2	1.0536
477	S	Biopsies of musculoskeletal system & connective tissue w MCC	Include all	3	0.9957
478	S	Biopsies of musculoskeletal system & connective tissue w CC	Include all	3	0.9811
479	S	Biopsies of musculoskeletal system & connective tissue w/o CC/MCC	Include all	3	0.9777
480	S	Hip & femur procedures except major joint w MCC	Include all	2	0.9986
481	S	Hip & femur procedures except major joint w CC	Include all	2	0.9957
482	S	Hip & femur procedures except major joint w/o CC/MCC	Include all	3	0.9930
483	S	Major joint & limb reattachment proc of upper extremity w CC/MCC	Include all	1	0.9839
484	S	Major joint & limb reattachment proc of upper extremity w/o CC/MCC	Include all	1	1.0018
485	S	Knee procedures w pdx of infection w MCC	Include all	1	0.9702
486	S	Knee procedures w pdx of infection w CC	Include all	2	0.9842
487	S	Knee procedures w pdx of infection w/o CC/MCC	Include all	2	1.0238

MS-DRG	Medical/Surgical	DRG Title	ICD-9-CM	Severity	Weight
488	S	Knee procedures w/o pdx of infection w CC/MCC	Include all	3	1.0073
489	S	Knee procedures w/o pdx of infection w/o CC/MCC	Include all	3	0.9194
490	S	Back & neck proc exc spinal fusion w CC/MCC or disc device/neurostim	Include all	2	0.9966
491	S	Back & neck proc exc spinal fusion w/o CC/MCC	Include all	3	1.0116
492	S	Lower extrem & humer proc except hip,foot,femur w MCC	Include all	2	1.0483
493	S	Lower extrem & humer proc except hip,foot,femur w CC	Include all	2	1.0329
494	S	Lower extrem & humer proc except hip,foot,femur w/o CC/MCC	Include all	3	1.0485
495	S	Local excision & removal int fix devices exc hip & femur w MCC	Include all	2	1.0395
496	S	Local excision & removal int fix devices exc hip & femur w CC	Include all	2	0.9973
497	S	Local excision & removal int fix devices exc hip & femur w/o CC/MCC	Include all	3	0.9832
498	S	Local excision & removal int fix devices of hip & femur w CC/MCC	Include all	3	1.0268
499	S	Local excision & removal int fix devices of hip & femur w/o CC/MCC	Include all	3	0.9194
500	S	Soft tissue procedures w MCC	Include all	3	0.9903
501	S	Soft tissue procedures w CC	Include all	3	0.9918
502	S	Soft tissue procedures w/o CC/MCC	Include all	3	1.0709
503	S	Foot procedures w MCC	Include all	3	0.9757
504	S	Foot procedures w CC	Include all	3	1.0186
505	S	Foot procedures w/o CC/MCC	Include all	3	0.9890
506	S	Major thumb or joint procedures	Include all	3	1.0142
507	S	Major shoulder or elbow joint procedures w CC/MCC	Include all	2	1.0703
508	S	Major shoulder or elbow joint procedures w/o CC/MCC	Include all	2	1.0896
509	S	Arthroscopy	Include all	3	1.0315
510	S	Shoulder,elbow or forearm proc,exc major joint proc w MCC	Include all	1	1.0400
511	S	Shoulder,elbow or forearm proc,exc major joint proc w CC	Include all	2	1.0348
512	S	Shoulder,elbow or forearm proc,exc major joint proc w/o CC/MCC	Include all	2	1.0275
513	S	Hand or wrist proc, except major thumb or joint proc w CC/MCC	Include all	3	1.0056
514	S	Hand or wrist proc, except major thumb or joint proc w/o CC/MCC	Include all	3	0.9194
515	S	Other musculoskelet sys & conn tiss O.R. proc w MCC	Include all	3	1.0019
516	S	Other musculoskelet sys & conn tiss O.R. proc w CC	Include all	3	0.9880
517	S	Other musculoskelet sys & conn tiss O.R. proc w/o CC/MCC	Include all	3	0.9925
533	M	Fractures of femur w MCC	Include all	1	0.9958
534	M	Fractures of femur w/o MCC	Include all	2	0.9917
535	M	Fractures of hip & pelvis w MCC	Include all	1	0.9993
536	M	Fractures of hip & pelvis w/o MCC	Include all	2	1.0019
537	M	Sprains, strains, & dislocations of hip, pelvis & thigh w CC/MCC	Include all	3	0.9617
538	M	Sprains, strains, & dislocations of hip, pelvis & thigh w/o CC/MCC	Include all	3	1.1493
539	M	Osteomyelitis w MCC	Include all	3	0.9946
540	M	Osteomyelitis w CC	Include all	3	0.9932
541	M	Osteomyelitis w/o CC/MCC	Include all	3	1.0123
542	M	Pathological fractures & musculoskelet & conn tiss malig w MCC	Include all	1	1.0093
543	M	Pathological fractures & musculoskelet & conn tiss malig w CC	Include all	2	0.9882
544	M	Pathological fractures & musculoskelet & conn tiss malig w/o CC/MCC	Include all	2	0.9887
545	M	Connective tissue disorders w MCC	Include all	3	0.9977
546	M	Connective tissue disorders w CC	Include all	3	0.9872
547	M	Connective tissue disorders w/o CC/MCC	Include all	3	0.9761
548	M	Septic arthritis w MCC	Include all	1	0.9902
549	M	Septic arthritis w CC	Include all	2	0.9775
550	M	Septic arthritis w/o CC/MCC	Include all	2	0.9747
551	M	Medical back problems w MCC	Include all	3	1.0041

MS-DRG	Medical/Surgical	DRG Title	ICD-9-CM	Severity	Weight
552	M	Medical back problems w/o MCC	Include all	3	1.0109
553	M	Bone diseases & arthropathies w MCC	Include all	2	0.9908
554	M	Bone diseases & arthropathies w/o MCC	Include all	3	0.9946
555	M	Signs & symptoms of musculoskeletal system & conn tissue w MCC	Include all	3	0.9931
556	M	Signs & symptoms of musculoskeletal system & conn tissue w/o MCC	Include all	3	0.9868
557	M	Tendonitis, myositis & bursitis w MCC	Include all	3	0.9943
558	M	Tendonitis, myositis & bursitis w/o MCC	Include all	3	0.9953
559	M	Aftercare, musculoskeletal system & connective tissue w MCC	Include all	3	0.9955
560	M	Aftercare, musculoskeletal system & connective tissue w CC	Include all	3	0.9709
561	M	Aftercare, musculoskeletal system & connective tissue w/o CC/MCC	Include all	3	0.9868
562	M	Fx, sprn, strn & disl except femur, hip, pelvis & thigh w MCC	Include all	3	1.0026
563	M	Fx, sprn, strn & disl except femur, hip, pelvis & thigh w/o MCC	Include all	3	0.9979
564	M	Other musculoskeletal sys & connective tissue diagnoses w MCC	Include all	3	1.0326
565	M	Other musculoskeletal sys & connective tissue diagnoses w CC	Include all	3	0.9699
566	M	Other musculoskeletal sys & connective tissue diagnoses w/o CC/MCC	Include all	3	1.0288
573	S	Skin graft &/or debrid for skn ulcer or cellulitis w MCC	Include all	1	0.9930
574	S	Skin graft &/or debrid for skn ulcer or cellulitis w CC	Include all	2	0.9848
575	S	Skin graft &/or debrid for skn ulcer or cellulitis w/o CC/MCC	Include all	2	1.0190
576	S	Skin graft &/or debrid exc for skin ulcer or cellulitis w MCC	Include all	1	0.9989
577	S	Skin graft &/or debrid exc for skin ulcer or cellulitis w CC	Include all	2	1.0327
578	S	Skin graft &/or debrid exc for skin ulcer or cellulitis w/o CC/MCC	Include all	2	1.0100
579	S	Other skin, subcut tiss & breast proc w MCC	Include all	2	0.9986
580	S	Other skin, subcut tiss & breast proc w CC	Include all	2	0.9990
581	S	Other skin, subcut tiss & breast proc w/o CC/MCC	Include all	3	1.0153
582	S	Mastectomy for malignancy w CC/MCC	Include all	2	1.0062
583	S	Mastectomy for malignancy w/o CC/MCC	Include all	2	0.9857
584	S	Breast biopsy, local excision & other breast procedures w CC/MCC	Include all	2	0.9572
585	S	Breast biopsy, local excision & other breast procedures w/o CC/MCC	Include all	3	0.9194
592	M	Skin ulcers w MCC	Include all	1	1.0063
593	M	Skin ulcers w CC	Include all	2	0.9877
594	M	Skin ulcers w/o CC/MCC	Include all	2	0.9913
595	M	Major skin disorders w MCC	Include all	1	0.9911
596	M	Major skin disorders w/o MCC	Include all	2	1.0050
597	M	Malignant breast disorders w MCC	Include all	1	1.0858
598	M	Malignant breast disorders w CC	Include all	2	1.1274
599	M	Malignant breast disorders w/o CC/MCC	Include all	2	1.0616
600	M	Non-malignant breast disorders w CC/MCC	Include all	3	0.9828
601	M	Non-malignant breast disorders w/o CC/MCC	Include all	3	0.9194
602	M	Cellulitis w MCC	Include all	1	0.9864
603	M	Cellulitis w/o MCC	Include all	2	0.9899
604	M	Trauma to the skin, subcut tiss & breast w MCC	Include all	1	1.0284
605	M	Trauma to the skin, subcut tiss & breast w/o MCC	Include all	2	1.0224
606	M	Minor skin disorders w MCC	Include all	3	1.0095
607	M	Minor skin disorders w/o MCC	Include all	3	0.9913
614	S	Adrenal & pituitary procedures w CC/MCC	Include all	2	0.9727
615	S	Adrenal & pituitary procedures w/o CC/MCC	Include all	2	1.0280
616	S	Amputat of lower limb for endocrine,nutrit,& metabol dis w MCC	Include all	1	1.0195

MS-DRG	Medical/ Surgical	DRG Title	ICD-9-CM	Severity	Weight
617	S	Amputat of lower limb for endocrine,nutrit,& metabol dis w CC	Include all	2	1.0106
618	S	Amputat of lower limb for endocrine,nutrit,& metabol dis w/o CC/MCC	Include all	2	0.9194
619	S	O.R. procedures for obesity w MCC	Include all	1	0.9194
620	S	O.R. procedures for obesity w CC	Include all	2	0.9629
621	S	O.R. procedures for obesity w/o CC/MCC	Include all	2	1.1493
622	S	Skin grafts & wound debrid for endoc, nutrit & metab dis w MCC	Include all	1	0.9851
623	S	Skin grafts & wound debrid for endoc, nutrit & metab dis w CC	Include all	2	0.9799
624	S	Skin grafts & wound debrid for endoc, nutrit & metab dis w/o CC/MCC	Include all	2	1.0038
625	S	Thyroid, parathyroid & thyroglossal procedures w MCC	Include all	1	0.9707
626	S	Thyroid, parathyroid & thyroglossal procedures w CC	Include all	2	1.0224
627	S	Thyroid, parathyroid & thyroglossal procedures w/o CC/MCC	Include all	2	0.9924
628	S	Other endocrine, nutrit & metab O.R. proc w MCC	Include all	1	0.9890
629	S	Other endocrine, nutrit & metab O.R. proc w CC	Include all	2	1.0141
630	S	Other endocrine, nutrit & metab O.R. proc w/o CC/MCC	Include all	2	0.9986
637	M	Diabetes w MCC	Include all	3	1.0031
638	M	Diabetes w CC	Include all	3	0.9961
639	M	Diabetes w/o CC/MCC	Include all	3	1.0002
640	M	Nutritional & misc metabolic disorders w MCC	Include all	3	0.9982
641	M	Nutritional & misc metabolic disorders w/o MCC	Include all	3	0.9932
642	M	Inborn errors of metabolism	Include all	3	0.9978
643	M	Endocrine disorders w MCC	Include all	3	1.0012
644	M	Endocrine disorders w CC	Include all	3	0.9900
645	M	Endocrine disorders w/o CC/MCC	Include all	3	0.9889
652	S	Kidney transplant	Include all	1	0.9789
653	S	Major bladder procedures w MCC	Include all	1	0.9827
654	S	Major bladder procedures w CC	Include all	2	1.0247
655	S	Major bladder procedures w/o CC/MCC	Include all	2	1.1277
656	S	Kidney & ureter procedures for neoplasm w MCC	Include all	1	1.0144
657	S	Kidney & ureter procedures for neoplasm w CC	Include all	2	1.0053
658	S	Kidney & ureter procedures for neoplasm w/o CC/MCC	Include all	2	1.0198
659	S	Kidney & ureter procedures for non-neoplasm w MCC	Include all	2	0.9892
660	S	Kidney & ureter procedures for non-neoplasm w CC	Include all	2	1.0194
661	S	Kidney & ureter procedures for non-neoplasm w/o CC/MCC	Include all	3	1.0907
662	S	Minor bladder procedures w MCC	Include all	3	1.0016
663	S	Minor bladder procedures w CC	Include all	3	0.9875
664	S	Minor bladder procedures w/o CC/MCC	Include all	3	1.0343
665	S	Prostatectomy w MCC	Include all	3	0.9812
666	S	Prostatectomy w CC	Include all	3	1.0287
667	S	Prostatectomy w/o CC/MCC	Include all	3	0.9590
668	S	Transurethral procedures w MCC	Include all	3	0.9937
669	S	Transurethral procedures w CC	Include all	3	0.9872
670	S	Transurethral procedures w/o CC/MCC	Include all	3	0.9692
671	S	Urethral procedures w CC/MCC	Include all	3	0.9825
672	S	Urethral procedures w/o CC/MCC	Include all	3	1.0677
673	S	Other kidney & urinary tract procedures w MCC	Include all	3	0.9936
674	S	Other kidney & urinary tract procedures w CC	Include all	3	0.9809
675	S	Other kidney & urinary tract procedures w/o CC/MCC	Include all	3	0.9791
682	M	Renal failure w MCC	Include all	1	1.0028
683	M	Renal failure w CC	Include all	2	0.9983
684	M	Renal failure w/o CC/MCC	Include all	2	1.0073

MS-DRG	Medical/ Surgical	DRG Title	ICD-9-CM	Severity	Weight
685	M	Admit for renal dialysis	Include all	3	0.9958
686	M	Kidney & urinary tract neoplasms w MCC	Include all	2	1.0853
687	M	Kidney & urinary tract neoplasms w CC	Include all	2	1.0510
688	M	Kidney & urinary tract neoplasms w/o CC/MCC	Include all	3	1.0891
689	M	Kidney & urinary tract infections w MCC	Include all	3	0.9861
690	M	Kidney & urinary tract infections w/o MCC	Include all	3	0.9868
691	M	Urinary stones w esw lithotripsy w CC/MCC	Include all	3	0.9963
692	M	Urinary stones w esw lithotripsy w/o CC/MCC	Include all	3	0.9194
693	M	Urinary stones w/o esw lithotripsy w MCC	Include all	3	0.9946
694	M	Urinary stones w/o esw lithotripsy w/o MCC	Include all	3	0.9919
695	M	Kidney & urinary tract signs & symptoms w MCC	Include all	3	1.0007
696	M	Kidney & urinary tract signs & symptoms w/o MCC	Include all	3	0.9867
697	M	Urethral stricture	Include all	3	0.9522
698	M	Other kidney & urinary tract diagnoses w MCC	Include all	3	0.9886
699	M	Other kidney & urinary tract diagnoses w CC	Include all	3	0.9922
700	M	Other kidney & urinary tract diagnoses w/o CC/MCC	Include all	3	0.9773
707	S	Major male pelvic procedures w CC/MCC	Include all	2	1.0544
708	S	Major male pelvic procedures w/o CC/MCC	Include all	2	1.0123
709	S	Penis procedures w CC/MCC	Include all	3	1.1087
710	S	Penis procedures w/o CC/MCC	Include all	3	0.9194
711	S	Testes procedures w CC/MCC	Include all	2	1.0720
712	S	Testes procedures w/o CC/MCC	Include all	3	0.9194
713	S	Transurethral prostatectomy w CC/MCC	Include all	2	0.9913
714	S	Transurethral prostatectomy w/o CC/MCC	Include all	3	0.9947
715	S	Other male reproductive system O.R. proc for malignancy w CC/MCC	Include all	2	1.0332
716	S	Other male reproductive system O.R. proc for malignancy w/o CC/MCC	Include all	2	1.0071
717	S	Other male reproductive system O.R. proc exc malignancy w CC/MCC	Include all	3	1.0106
718	S	Other male reproductive system O.R. proc exc malignancy w/o CC/MCC	Include all	3	0.9194
722	M	Malignancy, male reproductive system w MCC	Include all	1	1.1297
723	M	Malignancy, male reproductive system w CC	Include all	2	1.0935
724	M	Malignancy, male reproductive system w/o CC/MCC	Include all	2	1.1493
725	M	Benign prostatic hypertrophy w MCC	Include all	3	1.0409
726	M	Benign prostatic hypertrophy w/o MCC	Include all	3	1.0095
727	M	Inflammation of the male reproductive system w MCC	Include all	3	0.9858
728	M	Inflammation of the male reproductive system w/o MCC	Include all	3	1.0037
729	M	Other male reproductive system diagnoses w CC/MCC	Include all	3	0.9761
730	M	Other male reproductive system diagnoses w/o CC/MCC	Include all	3	1.1492
734	S	Pelvic evisceration, rad hysterectomy & rad vulvectomy w CC/MCC	Include all	1	1.0170
735	S	Pelvic evisceration, rad hysterectomy & rad vulvectomy w/o CC/MCC	Include all	1	0.9960
736	S	Uterine & adnexa proc for ovarian or adnexal malignancy w MCC	Include all	1	0.9912
737	S	Uterine & adnexa proc for ovarian or adnexal malignancy w CC	Include all	2	0.9912
738	S	Uterine & adnexa proc for ovarian or adnexal malignancy w/o CC/MCC	Include all	2	0.9894
739	S	Uterine,adnexa proc for non-ovarian/adnexal malign w MCC	Include all	1	1.0439
740	S	Uterine,adnexa proc for non-ovarian/adnexal malign w CC	Include all	2	0.9756
741	S	Uterine,adnexa proc for non-ovarian/adnexal malign w/o CC/MCC	Include all	2	0.9861
742	S	Uterine & adnexa proc for non-malignancy w CC/MCC	Include all	2	0.9847

MS-DRG	Medical/ Surgical	DRG Title	ICD-9-CM	Severity	Weight
743	S	Uterine & adnexa proc for non-malignancy w/o CC/MCC	Include all	3	1.1033
744	S	D&C, conization, laparoscopy & tubal interruption w CC/MCC	Include all	2	0.9994
745	S	D&C, conization, laparoscopy & tubal interruption w/o CC/MCC	Include all	3	0.9194
746	S	Vagina, cervix & vulva procedures w CC/MCC	Include all	3	0.9841
747	S	Vagina, cervix & vulva procedures w/o CC/MCC	Include all	3	1.0204
748	S	Female reproductive system reconstructive procedures	Include all	3	0.9663
749	S	Other female reproductive system O.R. procedures w CC/MCC	Include all	2	0.9994
750	S	Other female reproductive system O.R. procedures w/o CC/MCC	Include all	2	0.9194
754	M	Malignancy, female reproductive system w MCC	Include all	1	1.0645
755	M	Malignancy, female reproductive system w CC	Include all	2	1.0467
756	M	Malignancy, female reproductive system w/o CC/MCC	Include all	2	1.1493
757	M	Infections, female reproductive system w MCC	Include all	3	0.9661
758	M	Infections, female reproductive system w CC	Include all	3	0.9792
759	M	Infections, female reproductive system w/o CC/MCC	Include all	3	0.9771
760	M	Menstrual & other female reproductive system disorders w CC/MCC	Include all	3	0.9926
761	M	Menstrual & other female reproductive system disorders w/o CC/MCC	Include all	3	0.9751
799	S	Splenectomy w MCC	Include all	1	1.0769
800	S	Splenectomy w CC	Include all	2	1.0012
801	S	Splenectomy w/o CC/MCC	Include all	2	1.0459
802	S	Other O.R. proc of the blood & blood forming organs w MCC	Include all	3	0.9936
803	S	Other O.R. proc of the blood & blood forming organs w CC	Include all	3	1.0433
804	S	Other O.R. proc of the blood & blood forming organs w/o CC/MCC	Include all	3	1.1383
808	M	Major hematom/immun diag exc sickle cell crisis & coagul w MCC	Include all	1	0.9949
809	M	Major hematom/immun diag exc sickle cell crisis & coagul w CC	Include all	2	0.9938
810	M	Major hematom/immun diag exc sickle cell crisis & coagul w/o CC/MCC	Include all	2	0.9901
811	M	Red blood cell disorders w MCC	Include all	3	0.9963
812	M	Red blood cell disorders w/o MCC	Include all	3	0.9929
813	M	Coagulation disorders	Include all	2	1.0041
814	M	Reticuloendothelial & immunity disorders w MCC	Include all	1	0.9714
815	M	Reticuloendothelial & immunity disorders w CC	Include all	2	0.9922
816	M	Reticuloendothelial & immunity disorders w/o CC/MCC	Include all	2	1.0309
820	S	Lymphoma & leukemia w major O.R. procedure w MCC	Include all	1	1.0270
821	S	Lymphoma & leukemia w major O.R. procedure w CC	Include all	2	1.0133
822	S	Lymphoma & leukemia w major O.R. procedure w/o CC/MCC	Include all	2	1.0557
823	S	Lymphoma & non-acute leukemia w other O.R. proc w MCC	Include all	1	1.0046
824	S	Lymphoma & non-acute leukemia w other O.R. proc w CC	Include all	2	1.0103
825	S	Lymphoma & non-acute leukemia w other O.R. proc w/o CC/MCC	Include all	2	1.0086
826	S	Myeloprolif disord or poorly diff neopl w maj O.R. proc w MCC	Include all	1	1.0504
827	S	Myeloprolif disord or poorly diff neopl w maj O.R. proc w CC	Include all	2	0.9915
828	S	Myeloprolif disord or poorly diff neopl w maj O.R. proc w/o CC/MCC	Include all	2	1.0458
829	S	Myeloprolif disord or poorly diff neopl w other O.R. proc w CC/MCC	Include all	2	1.0198
830	S	Myeloprolif disord or poorly diff neopl w other O.R. proc w/o CC/MCC	Include all	2	0.9732
834	M	Acute leukemia w/o major O.R. procedure w MCC	Include all	1	1.0685
835	M	Acute leukemia w/o major O.R. procedure w CC	Include all	2	1.0323
836	M	Acute leukemia w/o major O.R. procedure w/o CC/MCC	Include all	2	1.0471
837	M	Chemo w acute leukemia as sdx or w high dose chemo agent w MCC	Include all	1	0.9826

MS-DRG	Medical/Surgical	DRG Title	ICD-9-CM	Severity	Weight
838	M	Chemo w acute leukemia as sdx w CC or high dose chemo agent	Include all	2	1.0787
839	M	Chemo w acute leukemia as sdx w/o CC/MCC	Include all	2	1.0409
840	M	Lymphoma & non-acute leukemia w MCC	Include all	1	1.0244
841	M	Lymphoma & non-acute leukemia w CC	Include all	2	1.0180
842	M	Lymphoma & non-acute leukemia w/o CC/MCC	Include all	2	1.0554
843	M	Other myeloprolif dis or poorly diff neopl diag w MCC	Include all	3	1.0410
844	M	Other myeloprolif dis or poorly diff neopl diag w CC	Include all	3	1.0158
845	M	Other myeloprolif dis or poorly diff neopl diag w/o CC/MCC	Include all	3	1.0626
846	M	Chemotherapy w/o acute leukemia as secondary diagnosis w MCC	Include all	3	0.9981
847	M	Chemotherapy w/o acute leukemia as secondary diagnosis w CC	Include all	3	1.0112
848	M	Chemotherapy w/o acute leukemia as secondary diagnosis w/o CC/MCC	Include all	3	1.1493
849	M	Radiotherapy	Include all	3	0.9856
853	S	Infectious & parasitic diseases w O.R. procedure w MCC	Include all	1	1.0047
854	S	Infectious & parasitic diseases w O.R. procedure w CC	Include all	2	1.0062
855	S	Infectious & parasitic diseases w O.R. procedure w/o CC/MCC	Include all	2	1.0001
856	S	Postoperative or post-traumatic infections w O.R. proc w MCC	Include all	1	0.9780
857	S	Postoperative or post-traumatic infections w O.R. proc w CC	Include all	2	0.9985
858	S	Postoperative or post-traumatic infections w O.R. proc w/o CC/MCC	Include all	2	0.9822
862	M	Postoperative & post-traumatic infections w MCC	Include all	1	1.0163
863	M	Postoperative & post-traumatic infections w/o MCC	Include all	2	0.9923
864	M	Fever of unknown origin	Include all	2	0.9862
865	M	Fever	Include all	1	0.9903
866	M	Viral illness w/o MCC	Include all	2	0.9805
867	M	Other infectious & parasitic diseases diagnoses w MCC	Include all	1	1.0096
868	M	Other infectious & parasitic diseases diagnoses w CC	Include all	2	0.9725
869	M	Other infectious & parasitic diseases diagnoses w/o CC/MCC	Include all	2	1.0451
870	M	Septicemia or severe sepsis w MV 96+ hours	Include all	1	1.0052
871	M	Septicemia or severe sepsis w/o MV 96+ hours w MCC	Include all	1	1.0022
872	M	Septicemia or severe sepsis w/o MV 96+ hours w/o MCC	Include all	1	0.9954
876	S	O.R. procedure w principal diagnoses of mental illness	Include all	3	1.0256
880	M	Acute adjustment reaction & psychosocial dysfunction	Include all	3	0.9874
881	M	Depressive neuroses	Include all	3	0.9959
882	M	Neuroses except depressive	Include all	3	0.9960
883	M	Disorders of personality & impulse control	Include all	3	1.0459
884	M	Organic disturbances & mental retardation	Include all	3	1.0011
885	M	Psychoses	Include all	3	1.0085
886	M	Behavioral & developmental disorders	Include all	3	0.9638
887	M	Other mental disorder diagnoses	Include all	3	1.1400
894	M	Alcohol/drug abuse or dependence, left ama	Include all	3	1.1493
895	M	Alcohol/drug abuse or dependence w rehabilitation therapy	Include all	3	1.1493
896	M	Alcohol/drug abuse or dependence w/o rehabilitation therapy w MCC	Include all	3	1.0039
897	M	Alcohol/drug abuse or dependence w/o rehabilitation therapy w/o MCC	Include all	3	1.0145
901	S	Wound debridements for injuries w MCC	Include all	1	0.9878
902	S	Wound debridements for injuries w CC	Include all	2	0.9941
903	S	Wound debridements for injuries w/o CC/MCC	Include all	2	1.0123
904	S	Skin grafts for injuries w CC/MCC	Include all	2	1.0172
905	S	Skin grafts for injuries w/o CC/MCC	Include all	2	1.0259
906	S	Hand procedures for injuries	Include all	3	1.0113

MS-DRG	Medical/ Surgical	DRG Title	ICD-9-CM	Severity	Weight
907	S	Other O.R. procedures for injuries w MCC	Include all	1	1.0084
908	S	Other O.R. procedures for injuries w CC	Include all	2	1.0069
909	S	Other O.R. procedures for injuries w/o CC/MCC	Include all	2	0.9949
913	M	Traumatic injury w MCC	Include all	1	1.0112
914	M	Traumatic injury w/o MCC	Include all	2	1.0105
915	M	Allergic reactions w MCC	Include all	3	1.0424
916	M	Allergic reactions w/o MCC	Include all	3	0.9983
917	M	Poisoning & toxic effects of drugs w MCC	Include all	2	0.9885
918	M	Poisoning & toxic effects of drugs w/o MCC	Include all	3	1.0058
919	M	Complications of treatment w MCC	Include all	3	0.9889
920	M	Complications of treatment w CC	Include all	3	1.0102
921	M	Complications of treatment w/o CC/MCC	Include all	3	0.9682
922	M	Other injury, poisoning & toxic effect diag w MCC	Include all	3	1.0579
923	M	Other injury, poisoning & toxic effect diag w/o MCC	Include all	3	1.0225
927	S	Extensive burns or full thickness burns w MV 96+ hrs w skin graft	Include all	1	1.1470
928	S	Full thickness burn w skin graft or inhal inj w CC/MCC	Include all	1	1.0076
929	S	Full thickness burn w skin graft or inhal inj w/o CC/MCC	Include all	2	0.9865
933	M	Extensive burns or full thickness burns w MV 96+ hrs w/o skin graft	Include all	1	1.0998
934	M	Full thickness burn w/o skin grft or inhal inj	Include all	2	1.0266
935	M	Non-extensive burns	Include all	2	1.0103
939	S	O.R. proc w diagnoses of other contact w health services w MCC	Include all	3	0.9748
940	S	O.R. proc w diagnoses of other contact w health services w CC	Include all	3	0.9991
941	S	O.R. proc w diagnoses of other contact w health services w/o CC/MCC	Include all	3	1.1129
945	M	Rehabilitation w CC/MCC	Include all	3	1.0011
946	M	Rehabilitation w/o CC/MCC	Include all	3	1.0180
947	M	Signs & symptoms w MCC	Include all	3	1.0043
948	M	Signs & symptoms w/o MCC	Include all	3	0.9937
949	M	Aftercare w CC/MCC	Include all	3	0.9586
950	M	Aftercare w/o CC/MCC	Include all	3	0.9654
951	M	Other factors influencing health status	Include all	3	1.1493
955	S	Craniotomy for multiple significant trauma	Include all	1	1.1242
956	S	Limb reattachment, hip & femur proc for multiple significant trauma	Include all	1	1.0462
957	S	Other O.R. procedures for multiple significant trauma w MCC	Include all	1	1.1493
958	S	Other O.R. procedures for multiple significant trauma w CC	Include all	2	1.1493
959	S	Other O.R. procedures for multiple significant trauma w/o CC/MCC	Include all	2	1.1493
963	M	Other multiple significant trauma w MCC	Include all	1	1.1493
964	M	Other multiple significant trauma w CC	Include all	2	1.1493
965	M	Other multiple significant trauma w/o CC/MCC	Include all	2	1.1493
969	S	HIV w extensive O.R. procedure w MCC	Include all	1	0.9194
970	S	HIV w extensive O.R. procedure w/o MCC	Include all	1	1.0000
974	M	HIV w major related condition w MCC	Include all	1	1.0229
975	M	HIV w major related condition w CC	Include all	1	1.0126
976	M	HIV w major related condition w/o CC/MCC	Include all	1	1.0288
977	M	HIV w or w/o other related condition	Include all	2	1.1222
981	S	Extensive O.R. procedure unrelated to principal diagnosis w MCC	Include all	1	1.0080
982	S	Extensive O.R. procedure unrelated to principal diagnosis w CC	Include all	2	1.0152
983	S	Extensive O.R. procedure unrelated to principal diagnosis w/o CC/MCC	Include all	2	0.9938
984	S	Prostatic O.R. procedure unrelated to principal diagnosis w MCC	Include all	3	0.9920

MS-DRG	Medical/Surgical	DRG Title	ICD-9-CM	Severity	Weight
985	S	Prostatic O.R. procedure unrelated to principal diagnosis w CC	Include all	3	1.0057
986	S	Prostatic O.R. procedure unrelated to principal diagnosis w/o CC/MCC	Include all	3	1.1493
987	S	Non-extensive O.R. proc unrelated to principal diagnosis w MCC	Include all	3	0.9923
988	S	Non-extensive O.R. proc unrelated to principal diagnosis w CC	Include all	3	1.0038
989	S	Non-extensive O.R. proc unrelated to principal diagnosis w/o CC/MCC	Include all	3	1.0295

Gynecology

MS-DRG	Medical/Surgical	DRG Title	ICD-9-CM	Severity	Weight
734	S	Pelvic evisceration, rad hysterectomy & rad vulvectomy w CC/MCC	Include all	1	0.9046
735	S	Pelvic evisceration, rad hysterectomy & rad vulvectomy w/o CC/MCC	Include all	1	1.2269
736	S	Uterine & adnexa proc for ovarian or adnexal malignancy w MCC	Include all	1	0.5999
737	S	Uterine & adnexa proc for ovarian or adnexal malignancy w CC	Include all	2	0.7692
738	S	Uterine & adnexa proc for ovarian or adnexal malignancy w/o CC/MCC	Include all	2	1.0076
739	S	Uterine,adnexa proc for non-ovarian/adnexal malig w MCC	Include all	1	0.5540
740	S	Uterine,adnexa proc for non-ovarian/adnexal malig w CC	Include all	2	0.7021
741	S	Uterine,adnexa proc for non-ovarian/adnexal malig w/o CC/MCC	Include all	2	0.7771
742	S	Uterine & adnexa proc for non-malignancy w CC/MCC	Include all	2	1.3753
743	S	Uterine & adnexa proc for non-malignancy w/o CC/MCC	Include all	3	0.6873
746	S	Vagina, cervix & vulva procedures w CC/MCC	Include all	3	0.5485
747	S	Vagina, cervix & vulva procedures w/o CC/MCC	Include all	3	0.4921
749	S	Other female reproductive system O.R. procedures w CC/MCC	Include all	2	0.9010
750	S	Other female reproductive system O.R. procedures w/o CC/MCC	Include all	2	1.3753
754	M	Malignancy, female reproductive system w MCC	Include all	1	0.6143
755	M	Malignancy, female reproductive system w CC	Include all	2	0.6147
756	M	Malignancy, female reproductive system w/o CC/MCC	Include all	2	0.7211
757	M	Infections, female reproductive system w MCC	Include all	3	0.4462
758	M	Infections, female reproductive system w CC	Include all	3	0.4870
759	M	Infections, female reproductive system w/o CC/MCC	Include all	3	0.4210
760	M	Menstrual & other female reproductive system disorders w CC/MCC	Include all	3	0.6726
761	M	Menstrual & other female reproductive system disorders w/o CC/MCC	Include all	3	0.5286

Nephrology

MS-DRG	Medical/Surgical	DRG Title	ICD-9-CM	Severity	Weight
008	S	Simultaneous pancreas/kidney transplant	Include all	1	1.3222
652	S	Kidney transplant	Include all	1	1.0794
653	S	Major bladder procedures w MCC	Include all	1	0.9532
654	S	Major bladder procedures w CC	Include all	2	1.1929
655	S	Major bladder procedures w/o CC/MCC	Include all	2	1.4244

MS-DRG	Medical/ Surgical	DRG Title	ICD-9-CM	Severity	Weight
656	S	Kidney & ureter procedures for neoplasm w MCC	Include procedures 3924, 550, 5501-4, 551, 5511-2, 5524, 5529, 553, 5531-5, 5539, 554, 555, 5551-4, 5561, 557, 558, 5581-7, 5589, 5591, 5597, 5598, 5599	1	1.0167
657	S	Kidney & ureter procedures for neoplasm w CC	See MS-DRG 656	2	1.2740
658	S	Kidney & ureter procedures for neoplasm w/o CC/MCC	See MS-DRG 656	2	1.4769
659	S	Kidney & ureter procedures for non-neoplasm w MCC	See MS-DRG 656	2	1.0949
660	S	Kidney & ureter procedures for non-neoplasm w CC	See MS-DRG 656	2	1.5341
661	S	Kidney & ureter procedures for non-neoplasm w/o CC/MCC	See MS-DRG 656	3	1.2925
673	S	Other kidney & urinary tract procedures w MCC	Include procedures 3806-7, 3816, 3836-7, 3846- 7, 3866-7, 387, 3886-7, 3927, 3942-3, 3949-50, 3952, 3956-9, 3971	3	0.9615
674	S	Other kidney & urinary tract procedures w CC	Include procedures 3807, 3816, 3836- 7, 3846-7, 3866-7, 387, 3886-7, 3927, 3942-3, 3949-50, 3952, 3956-9, 3971	3	1.0507
675	S	Other kidney & urinary tract procedures w/o CC/MCC	See MS-DRG 674	3	0.9848
682	M	Renal failure w MCC	Include all	1	0.9097
683	M	Renal failure w CC	Include all	2	0.9676
684	M	Renal failure w/o CC/MCC	Include all	2	1.0517
686	M	Kidney & urinary tract neoplasms w MCC	Include diagnoses: 1890-1, 1980, 2230	2	1.1607
687	M	Kidney & urinary tract neoplasms w CC	See MS-DRG 686	2	1.2085
688	M	Kidney & urinary tract neoplasms w/o CC/MCC	See MS-DRG 686	3	1.2796
689	M	Kidney & urinary tract infections w MCC	Include diagnoses: 0160, 590, 0786, 0954, 5900-3, 5908-9, 59010-11, 59080-1	3	1.2784
695	M	Kidney & urinary tract signs & symptoms w MCC	Include all	3	0.8606

MS-DRG	Medical/ Surgical	DRG_Title	ICD-9-CM	Severity	Weight
698	M	Other kidney & urinary tract diagnoses w MCC	Include diagnoses: 2504, 580-3, 587, 589, 866, 4401, 4421, 4473, 4533, 5800, 5804, 5808- 13, 5818-22, 5824, 5828-32, 5834, 5836-9,5890-1, 5899, 5930-2, 5936, 8660, 886600-3, 8661, 86610-3, 27410, 27419, 44323, 44581, 58081, 58089, 58181, 58189, 58281, 58289, 58381, 58389, V420, V594	3	1.1309
699	M	Other kidney & urinary tract diagnoses w CC	See MS-DRG 698	3	1.2581
700	M	Other kidney & urinary tract diagnoses w/o CC/MCC	See MS-DRG 698	3	1.5565

Neurology & Neurosurgery

MS-DRG	Medical/ Surgical	DRG_Title	ICD-9-CM	Severity	Weight
020	S	Intracranial vascular procedures w PDX hemorrhage w MCC	Include all	1	2.1585
021	S	Intracranial vascular procedures w PDX hemorrhage w CC	Include all	1	2.9616
022	S	Intracranial vascular procedures w PDX hemorrhage w/o CC/MCC	Include all	1	3.1390
023	S	Cranio w major dev impl/acute complex CNS PDX w MCC or chemo implant	Include all	1	1.3871
024	S	Cranio w major dev impl/acute complex CNS PDX w/o MCC	Include all	1	1.5733
025	S	Craniotomy & endovascular intracranial procedures w MCC	Include all	1	1.3940
026	S	Craniotomy & endovascular intracranial procedures w CC	Include all	1	1.6368
027	S	Craniotomy & endovascular intracranial procedures w/o CC/MCC	Include all	1	2.0681
031	S	Ventricular shunt procedures w MCC	Include all	1	1.8894
032	S	Ventricular shunt procedures w CC	Include all	2	1.9182
033	S	Ventricular shunt procedures w/o CC/MCC	Include all	2	1.0493
034	S	Carotid artery stent procedure w MCC	Include all	1	0.8306
035	S	Carotid artery stent procedure w CC	Include all	2	0.8018
036	S	Carotid artery stent procedure w/o CC/MCC	Include all	2	0.7799
037	S	Extracranial procedures w MCC	Include all	1	0.7794
038	S	Extracranial procedures w CC	Include all	2	0.8144
039	S	Extracranial procedures w/o CC/MCC	Include all	2	0.7850
040	S	Periph & cranial nerve & other nerv syst proc w MCC	Include all	1	1.0697
041	S	Periph/cranial nerve & other nerv syst proc w CC or periph neurostim	Include all	2	1.1893
042	S	Periph & cranial nerve & other nerv syst proc w/o CC/MCC	Include all	2	1.3266
052	M	Spinal disorders & injuries w CC/MCC	Include all	2	1.1962
053	M	Spinal disorders & injuries w/o CC/MCC	Include all	2	1.8643
054	M	Nervous system neoplasms w MCC	Include all	1	1.1509
055	M	Nervous system neoplasms w/o MCC	Include all	2	1.2669
056	M	Degenerative nervous system disorders w MCC	Include all	1	0.7557

MS-DRG	Medical/ Surgical	DRG_Title	ICD-9-CM	Severity	Weight
057	M	Degenerative nervous system disorders w/o MCC	Include all	2	0.7205
058	M	Multiple sclerosis & cerebellar ataxia w MCC	Include all	1	1.1971
059	M	Multiple sclerosis & cerebellar ataxia w CC	Include all	2	1.3162
060	M	Multiple sclerosis & cerebellar ataxia w/o CC/MCC	Include all	2	1.5495
061	M	Acute ischemic stroke w use of thrombolytic agent w MCC	Include all	1	0.8540
062	M	Acute ischemic stroke w use of thrombolytic agent w CC	Include all	2	0.9493
063	M	Acute ischemic stroke w use of thrombolytic agent w/o CC/MCC	Include all	2	0.9830
064	M	Intracranial hemorrhage or cerebral infarction w MCC	Include all	1	0.8397
065	M	Intracranial hemorrhage or cerebral infarction w CC	Include all	2	0.8851
066	M	Intracranial hemorrhage or cerebral infarction w/o CC/MCC	Include all	2	0.9338
067	M	Nonspecific cva & precerebral occlusion w/o infarct w MCC	Include all	1	0.7470
068	M	Nonspecific cva & precerebral occlusion w/o infarct w/o MCC	Include all	2	0.8050
069	M	Transient ischemia	Include all	3	0.7346
070	M	Nonspecific cerebrovascular disorders w MCC	Include all	2	0.7997
071	M	Nonspecific cerebrovascular disorders w CC	Include all	2	0.8018
073	M	Cranial & peripheral nerve disorders w MCC	Include all	1	0.9152
074	M	Cranial & peripheral nerve disorders w/o MCC	Include all	2	1.2436
075	M	Viral meningitis w CC/MCC	Include all	2	2.8903
076	M	Viral meningitis w/o CC/MCC	Include all	2	3.1390
077	M	Hypertensive encephalopathy w MCC	Include all	1	0.9153
078	M	Hypertensive encephalopathy w CC	Include all	2	0.9611
079	M	Hypertensive encephalopathy w/o CC/MCC	Include all	2	0.9591
080	M	Nontraumatic stupor & coma w MCC	Include all	1	0.8801
081	M	Nontraumatic stupor & coma w/o MCC	Include all	2	0.9152
082	M	Traumatic stupor & coma, coma >1 hr w MCC	Include all	1	1.5040
083	M	Traumatic stupor & coma, coma >1 hr w CC	Include all	1	1.5391
084	M	Traumatic stupor & coma, coma >1 hr w/o CC/MCC	Include all	1	2.4564
085	M	Traumatic stupor & coma, coma <1 hr w MCC	Include all	1	0.9451
086	M	Traumatic stupor & coma, coma <1 hr w CC	Include all	2	0.9636
087	M	Traumatic stupor & coma, coma <1 hr w/o CC/MCC	Include all	2	1.0934
091	M	Other disorders of nervous system w MCC	Include all	3	0.9978
092	M	Other disorders of nervous system w CC	Include all	3	0.8939
093	M	Other disorders of nervous system w/o CC/MCC	Include all	3	0.9266
094	M	Bacterial & tuberculous infections of nervous system w MCC	Include all	1	1.5866
095	M	Bacterial & tuberculous infections of nervous system w CC	Include all	2	1.8968
096	M	Bacterial & tuberculous infections of nervous system w/o CC/MCC	Include all	2	3.1390
097	M	Non-bacterial infect of nervous sys exc viral meningitis w MCC	Include all	1	1.4008
098	M	Non-bacterial infect of nervous sys exc viral meningitis w CC	Include all	2	1.8979
099	M	Non-bacterial infect of nervous sys exc viral meningitis w/o CC/MCC	Include all	2	3.1390
100	M	Seizures w MCC	Include all	2	1.2873
955	S	Craniotomy for multiple significant trauma	Include all	1	3.1390

Orthopedics

MS-DRG	Medical/ Surgical	DRG Title	ICD-9-CM	Severity	Weight
028	S	Spinal procedures w MCC	Exclude procedures: 0301-2, 0309, 031, 0321, 0329, 0332, 0339, 034, 0351-3, 0359, 036, 0371-2, 0379, 0393, 0394, 0397-9	1	2.1066
029	S	Spinal procedures w CC or spinal neurostimulators	See MS-DRG 028	2	1.5817
030	S	Spinal procedures w/o CC/MCC	See MS-DRG 028	2	1.5448
453	S	Combined anterior/posterior spinal fusion w MCC	Include all	1	1.4040
454	S	Combined anterior/posterior spinal fusion w CC	Include all	2	1.8592
455	S	Combined anterior/posterior spinal fusion w/o CC/MCC	Include all	2	2.1066
456	S	Spinal fus exc cerv w spinal curv/malig/infec or 9+ fus w MCC	Include all	1	1.4419
457	S	Spinal fus exc cerv w spinal curv/malig/infec or 9+ fus w CC	Include all	2	1.4953
458	S	Spinal fus exc cerv w spinal curv/malig/infec or 9+ fus w/o CC/MCC	Include all	2	1.7405
459	S	Spinal fusion except cervical w MCC	Include all	1	1.1268
460	S	Spinal fusion except cervical w/o MCC	Include all	2	1.3139
461	S	Bilateral or multiple major joint procs of lower extremity w MCC	Include all	1	0.8972
462	S	Bilateral or multiple major joint procs of lower extremity w/o MCC	Include all	2	1.2420
463	S	Wound Debridement and Skin Graft Except Hand, for Musculo-Connective Tissue Disease w MCC	Include procedures: 8005, 8006	1	0.8345
464	S	Wound Debridement and Skin Graft Except Hand, for Musculo-Connective Tissue Disease w CC	Include procedures: 8005, 8006	2	0.9474
465	S	Wound Debridement and Skin Graft Except Hand, for Musculo-Connective Tissue Disease w/o CC/MCC	Include procedures: 8005, 8006	2	1.1038
466	S	Revision of hip or knee replacement w MCC	Include all	3	0.8053
467	S	Revision of hip or knee replacement w CC	Include all	3	0.8667
468	S	Revision of hip or knee replacement w/o CC/MCC	Include all	3	1.0725
469	S	Major joint replacement or reattachment of lower extremity w MCC	Include all	1	0.7614
470	S	Major joint replacement or reattachment of lower extremity w/o MCC	Include all	2	0.9959
471	S	Cervical spinal fusion w MCC	Include all	1	1.2080
472	S	Cervical spinal fusion w CC	Include all	2	1.5797
473	S	Cervical spinal fusion w/o CC/MCC	Include all	2	1.5743
480	S	Hip & femur procedures except major joint w MCC	Include all	2	0.7658
481	S	Hip & femur procedures except major joint w CC	Include all	2	0.7683
482	S	Hip & femur procedures except major joint w/o CC/MCC	Include all	3	0.8811
483	S	Major joint & limb reattachment proc of upper extremity w CC/MCC	Include all	1	0.8247
484	S	Major joint & limb reattachment proc of upper extremity w/o CC/MCC	Include all	1	0.9489
485	S	Knee procedures w pdx of infection w MCC	Include all	1	0.9153
486	S	Knee procedures w pdx of infection w CC	Include all	2	1.1932
487	S	Knee procedures w pdx of infection w/o CC/MCC	Include all	2	1.4917
490	S	Back & neck proc exc spinal fusion w CC/MCC or disc device/neurostim	Include all	2	1.1014
491	S	Back & neck proc exc spinal fusion w/o CC/MCC	Include all	3	0.8011
492	S	Lower extrem & humer proc except hip,foot,femur w MCC	Include all	2	1.2085
493	S	Lower extrem & humer proc except hip,foot,femur w CC	Include all	2	1.4026
494	S	Lower extrem & humer proc except hip,foot,femur w/o CC/MCC	Include all	3	2.1066

MS-DRG	Medical/Surgical	DRG_Title	ICD-9-CM	Severity	Weight
495	S	Local excision & removal int fix devices exc hip & femur w MCC	Include all	2	1.1358
496	S	Local excision & removal int fix devices exc hip & femur w CC	Include all	2	1.5314
497	S	Local excision & removal int fix devices exc hip & femur w/o CC/MCC	Include all	3	1.3092
498	S	Local excision & removal int fix devices of hip & femur w CC/MCC	Include all	3	1.1551
499	S	Local excision & removal int fix devices of hip & femur w/o CC/MCC	Include all	3	1.2491
500	S	Soft tissue procedures w MCC	Include all	3	1.1328
501	S	Soft tissue procedures w CC	Include all	3	1.2987
503	S	Foot procedures w MCC	Include all	3	1.0266
504	S	Foot procedures w CC	Include all	3	1.2378
505	S	Foot procedures w/o CC/MCC	Include all	3	1.5118
506	S	Major thumb or joint procedures	Include all	3	1.1567
507	S	Major shoulder or elbow joint procedures w CC/MCC	Include all	2	1.3402
508	S	Major shoulder or elbow joint procedures w/o CC/MCC	Include all	2	2.0284
			Include procedures: 7601, 7631, 7639, 764, 7641-6, 765-6, 7661-70, 7672, 7674, 7676-7, 7679, 7691-2, 7694, 7699, 7700-1, 7709, 7720-1, 7729-31, 7739, 7780-1, 7789-91, 7799-7801, 7809-7811, 7819-20, 7829-30, 7839-41, 7849-51, 7859, 7870-1, 7879, 7890-1, 7899, 7910, 7919-20, 7929-30, 7939-40, 7949-50, 7959-60, 7969, 7980, 7989-90, 7999, 8010, 8019, 8040, 8049, 8090, 8118, 8120, 8129, 8159, 8165-6, 8196-7, 8199, 8429, 8440, 8493, 8499		
515	S	Other musculoskelet sys & conn tiss O.R. proc w MCC		3	0.8811
516	S	Other musculoskelet sys & conn tiss O.R. proc w CC	See MS-DRG 515	3	0.8150
517	S	Other musculoskelet sys & conn tiss O.R. proc w/o CC/MCC	See MS-DRG 515	3	0.7262
533	M	Fractures of femur w MCC	Include all	1	0.8023
534	M	Fractures of femur w/o MCC	Include all	2	1.1895
535	M	Fractures of hip & pelvis w MCC	Include all	1	0.7240
536	M	Fractures of hip & pelvis w/o MCC	Include all	2	0.7397
539	M	Osteomyelitis w MCC	Include all	3	0.9104
540	M	Osteomyelitis w CC	Include all	3	0.9573
541	M	Osteomyelitis w/o CC/MCC	Include all	3	0.9460
			Include diagnoses: 7331, 73310-6, 73319, 73393-5		
542	M	Pathological fractures & musculoskelet & conn tiss malig w MCC		1	0.7370
543	M	Pathological fractures & musculoskelet & conn tiss malig w CC	See MS-DRG 542	2	0.7337

MS-DRG	Medical/Surgical	DRG_Title	ICD-9-CM	Severity	Weight
544	M	Pathological fractures & musculoskelet & conn tiss malign w/o CC/MCC	See MS-DRG 542	2	0.6774
956	S	Limb reattachment, hip & femur proc for multiple significant trauma	Include all	1	1.8053

Pulmonology

MS-DRG	Medical/Surgical	DRG_Title	ICD-9-CM	Severity	Weight
003	S	ECMO or trach w MV 96+ hrs or PDX exc face, mouth & neck w maj O.R.	Include all	1	1.5299
004	S	Trach w MV 96+ hrs or PDX exc face, mouth & neck w/o maj O.R.	Include all	1	1.1969
007	S	Lung transplant	Include all	1	1.6925
163	S	Major chest procedures w MCC	Include procedures: 3173, 3175, 3179, 3209, 321, 3221-2, 3229, 323-6, 329-31, 3325, 3328, 3334, 3339, 334, 3341-3, 3348-9, 3392, 3398-9, 3402, 3427, 345, 3451, 3459, 346, 3473-4, 348, 3481-5, 3489, 3493	2	1.4343
164	S	Major chest procedures w CC	See MS-DRG 163	2	1.2431
165	S	Major chest procedures w/o CC/MCC	See MS-DRG 163	2	1.4087
166	S	Other resp system O.R. procedures w MCC	Include all	2	1.0615
167	S	Other resp system O.R. procedures w CC	Include all	2	1.1585
168	S	Other resp system O.R. procedures w/o CC/MCC	Include all	3	0.9873
175	M	Pulmonary embolism w MCC	Include all	1	1.1274
176	M	Pulmonary embolism w/o MCC	Include all	1	1.4622
177	M	Respiratory infections & inflammations w MCC	Exclude diagnoses: 7955, V712	1	0.8618
178	M	Respiratory infections & inflammations w CC	See MS-DRG 177	2	0.8801
179	M	Respiratory infections & inflammations w/o CC/MCC	See MS-DRG 177	2	0.9903
180	M	Respiratory neoplasms w MCC	Exclude diagnoses: 2122-5, 2128-9, 2133	1	1.0625
181	M	Respiratory neoplasms w CC	See MS-DRG 181	2	1.1413
182	M	Respiratory neoplasms w/o CC/MCC	See MS-DRG 181	2	1.1583
183	M	Major chest trauma w MCC	Include all	1	1.3329
184	M	Major chest trauma w CC	Include all	1	1.5415
185	M	Major chest trauma w/o CC/MCC	Include all	1	1.6691
186	M	Pleural effusion w MCC	Include all	3	0.9189
187	M	Pleural effusion w CC	Include all	3	0.9822
189	M	Pulmonary edema & respiratory failure	Include all	2	0.9557
190	M	Chronic obstructive pulmonary disease w MCC	Include all	3	0.8722
191	M	Chronic obstructive pulmonary disease w CC	Include all	3	0.8574
192	M	Chronic obstructive pulmonary disease w/o CC/MCC	Include all	3	0.8484
193	M	Simple pneumonia & pleurisy w MCC	Include all	3	0.9028

MS-DRG	Medical/Surgical	DRG_Title	ICD-9-CM	Severity	Weight
194	M	Simple pneumonia & pleurisy w CC	Include all	3	0.9073
196	M	Interstitial lung disease w MCC	Include all	3	0.9695
197	M	Interstitial lung disease w CC	Include all	3	0.9873
198	M	Interstitial lung disease w/o CC/MCC	Include all	3	0.9980
199	M	Pneumothorax w MCC	Exclude diagnoses: 5121	1	1.2937
200	M	Pneumothorax w CC	See MS-DRG 199	2	1.6925
202	M	Bronchitis & asthma w CC/MCC	Include all	3	1.3568
207	M	Respiratory system diagnosis w ventilator support 96+ hours	Include all	2	1.1180
208	M	Respiratory system diagnosis w ventilator support <96 hours	Include all	2	1.1079
870	M	Septicemia or severe sepsis w MV 96+ hours	Include all	1	1.0594
871	M	Septicemia or severe sepsis w/o MV 96+ hours w MCC	Include all	1	0.9206
872	M	Septicemia or severe sepsis w/o MV 96+ hours w/o MCC	Include all	1	1.0357

Urology

MS-DRG	Medical/Surgical	DRG_Title	IC9-CM	Severity	Weight
653	S	Major bladder procedures w MCC	Include all	1	1.0256
654	S	Major bladder procedures w CC	Include all	2	1.2835
655	S	Major bladder procedures w/o CC/MCC	Include all	2	1.5326
656	S	Kidney & ureter procedures for neoplasm w MCC	Include procedures: 561-2, 5640-2, 5651-2, 5661-2, 5671-5, 5679, 5681-6, 5689, 5692-5, 5699, 5900, 5902-3, 5909	1	0.9171
657	S	Kidney & ureter procedures for neoplasm w CC	See MS-DRG 656	2	1.0637
658	S	Kidney & ureter procedures for neoplasm w/o CC/MCC	See MS-DRG 656	2	1.1930
659	S	Kidney & ureter procedures for non-neoplasm w MCC	See MS-DRG 656	2	1.2960
660	S	Kidney & ureter procedures for non-neoplasm w CC	See MS-DRG 656	2	1.7836
661	S	Kidney & ureter procedures for non-neoplasm w/o CC/MCC	See MS-DRG 656	3	1.3951
662	S	Minor bladder procedures w MCC	Include all	3	1.0588
663	S	Minor bladder procedures w CC	Include all	3	1.1113
664	S	Minor bladder procedures w/o CC/MCC	Include all	3	1.6062
665	S	Prostatectomy w MCC	Include all	3	0.8073
666	S	Prostatectomy w CC	Include all	3	0.8434
668	S	Transurethral procedures w MCC	Include all	3	1.0023
669	S	Transurethral procedures w CC	Include all	3	1.1232
671	S	Urethral procedures w CC/MCC	Include all	3	1.0905
673	S	Other kidney & urinary tract procedures w MCC	Include procedures: 6495-7	3	0.9094
674	S	Other kidney & urinary tract procedures w CC	See MS-DRG 673	3	0.8113
675	S	Other kidney & urinary tract procedures w/o CC/MCC	See MS-DRG 673	3	0.7034
686	M	Kidney & urinary tract neoplasms w MCC	Exclude diagnoses: 1890-1, 1980-1, 2230-1	2	1.0329
687	M	Kidney & urinary tract neoplasms w CC	See MS-DRG 686	2	1.0662
688	M	Kidney & urinary tract neoplasms w/o CC/MCC	See MS-DRG 686	3	0.8579

MS-DRG	Medical/ Surgical	DRG_Title	IC9-CM	Severity	Weight
689	M	Kidney and Urinary Tract Infections with MCC	Exclude diagnoses: 0160, 0786, 0954, 590, 5900-3, 5908-9, 59010-11, 59080-1	3	0.8461
691	M	Urinary stones w esw lithotripsy w CC/MCC	Include all	3	1.2285
692	M	Urinary stones w esw lithotripsy w/o CC/MCC	Include all	3	0.7034
697	M	Urethral stricture	Include all	3	0.9771
698	M	Other kidney & urinary tract diagnoses w MCC	Exclude diagnoses: 580-3, 587, 589, 866, 4401, 4421, 4473, 4533, 5800, 5804, 5808-13, 5818-22, 5824, 5828-32, 5834, 5836- 9,5890-1, 5899, 5930-2, 5936, 8660, 886600-3, 8661, 86610-3, 27410, 27419, 44323, 44581, 58081, 58089, 58181, 58189, 58281, 58289, 58381, 58389, V420, V594	3	0.9329
699	M	Other kidney & urinary tract diagnoses w CC	See MS-DRG 698	3	0.9772
700	M	Other kidney & urinary tract diagnoses w/o CC/MCC	See MS-DRG 698	3	0.8788
707	S	Major male pelvic procedures w CC/MCC	Include all	2	1.7588
708	S	Major male pelvic procedures w/o CC/MCC	Include all	2	1.7836
709	S	Penis procedures w CC/MCC	Include all	3	1.3198
710	S	Penis procedures w/o CC/MCC	Include all	3	0.7034
711	S	Testes procedures w CC/MCC	Include all	2	1.7529
712	S	Testes procedures w/o CC/MCC	Include all	3	1.7442
713	S	Transurethral prostatectomy w CC/MCC	Include all	2	0.8763
715	S	Other male reproductive system O.R. proc for malignancy w CC/MCC	Include all	2	1.2312
716	S	Other male reproductive system O.R. proc for malignancy w/o CC/MCC	Include all	2	1.4487
717	S	Other male reproductive system O.R. proc exc malignancy w CC/MCC	Include all	3	1.1527
718	S	Other male reproductive system O.R. proc exc malignancy w/o CC/MCC	Include all	3	0.9532
722	M	Malignancy, male reproductive system w MCC	Include all	1	1.0878
723	M	Malignancy, male reproductive system w CC	Include all	2	1.0672
724	M	Malignancy, male reproductive system w/o CC/MCC	Include all	2	1.2222
727	M	Inflammation of the male reproductive system w MCC	Include all	3	1.1148
728	M	Inflammation of the male reproductive system w/o MCC	Include all	3	1.1437
729	M	Other male reproductive system diagnoses w CC/MCC	Exclude diagnoses: V252	3	1.2681
730	M	Other male reproductive system diagnoses w/o CC/MCC	See MS-DRG 729	3	1.4955
984	S	Prostatic O.R. procedure unrelated to principal diagnosis w MCC	Include all	3	0.8078
985	S	Prostatic O.R. procedure unrelated to principal diagnosis w CC	Include all	3	0.8046
986	S	Prostatic O.R. procedure unrelated to principal diagnosis w/o CC/MCC	Include all	3	0.9943

Appendix F
2013-14 Index of Hospital Quality (IHQ)
Scores, by Specialty

Cancer

Rank	Hospital	U.S. News Score	Reputation with specialists	Survival	Success in keeping patients safe	Preventing deaths from treatable complications	Preventing collapsed lung after surgery	Preventing major bleeding after surgery	Preventing respiratory failure after surgery	Preventing incisions from reopening after surgery	Preventing accidental injuries during surgery	Cancer patient volume	Nurse staffing	Nurse Magnet recognition	NCI-designated cancer center	Transplant accreditation	Advanced technologies	Key patient services	Intensivist staffing
1	University of Texas MD Anderson Cancer Center, Houston	100.0	67.7	10	2	3	1	1	2	3	2	5,529	2.0	Yes	Yes	2	7	8	Yes
2	Memorial Sloan-Kettering Cancer Center, New York	93.0	62.0	10	2	3	1	3	3	3	3	4,739	2.1	No	Yes	2	7	8	Yes
3	Mayo Clinic, Rochester, Minn.	89.2	32.2	10	3	2	3	3	3	1	3	3,510	3.0	Yes	Yes	2	7	8	Yes
4	Johns Hopkins Hospital, Baltimore	85.2	33.5	10	2	3	1	2	3	3	2	1,749	2.2	Yes	Yes	2	7	8	Yes
5	Dana-Farber/Brigham and Women's Cancer Center, Boston	82.3	36.5	8	2	3	2	2	3	2	2	3,204	2.3	Yes	Yes	2	7	8	Yes
6	Massachusetts General Hospital, Boston	74.3	17.6	9	2	3	1	2	3	2	1	2,413	2.3	Yes	Yes	2	7	8	Yes
7	UCSF Medical Center, San Francisco	71.6	12.4	8	3	3	3	2	3	3	3	1,715	2.5	Yes	Yes	2	7	8	Yes
7	University of Washington Medical Center, Seattle	71.6	14.5	10	1	2	2	1	2	2	2	1,155	2.1	Yes	Yes	2	7	8	Yes
9	Cleveland Clinic	69.1	9.9	9	2	3	2	2	3	2	1	2,651	2.4	Yes	Yes	2	7	8	Yes
10	Stanford Hospital and Clinics, Stanford, Calif.	68.6	13.1	9	2	3	1	1	3	2	1	1,391	2.5	Yes	Yes	2	7	8	Yes
11	UCLA Medical Center, Los Angeles	66.7	12.3	9	1	2	1	1	2	3	1	1,722	2.9	Yes	Yes	2	7	8	Yes
12	Wake Forest Baptist Medical Center, Winston-Salem, N.C.	66.3	1.9	10	3	1	3	2	2	3	3	2,173	1.8	Yes	Yes	2	7	8	Yes
13	Hospital of the University of Pennsylvania, Philadelphia	65.9	7.3	9	2	2	2	2	2	2	2	2,141	2.6	Yes	Yes	2	7	8	Yes
14	Northwestern Memorial Hospital, Chicago	65.6	5.2	9	3	3	2	1	3	3	3	2,158	1.7	Yes	Yes	2	7	8	Yes
15	City of Hope, Duarte, Calif.	64.5	6.6	10	2	3	1	3	2	3	1	1,048	2.3	No	Yes	2	7	8	Yes
15	Seidman Cancer Center at UH Case Medical, Cleveland	64.5	2.2	10	3	3	2	3	3	3	1	1,629	2.2	Yes	Yes	2	7	8	Yes
17	Thomas Jefferson University Hospital, Philadelphia	64.2	3.3	9	3	3	2	2	2	3	3	1,771	2.2	Yes	Yes	2	7	8	Yes
18	Duke University Medical Center, Durham, N.C.	63.4	7.0	8	2	1	3	2	2	2	3	2,627	2.1	Yes	Yes	2	7	8	Yes
19	Moffitt Cancer Center, Tampa	63.1	4.4	10	2	3	2	2	2	3	1	1,862	1.3	No	Yes	2	7	8	Yes
20	Ohio State University James Cancer Hospital, Columbus	62.9	6.7	9	1	1	1	2	1	2	2	3,355	2.2	Yes	Yes	2	7	8	Yes
21	Barnes-Jewish Hospital/Washington University, St. Louis	62.8	5.6	9	1	3	1	1	2	2	1	3,436	2.2	Yes	Yes	2	7	8	Yes
22	New York-Presbyterian University Hospital of Columbia and Cornell, N.Y.	62.7	3.2	10	2	3	1	3	3	2	2	4,015	2.2	No	Yes	2	7	8	Yes
23	University of Colorado Hospital, Aurora	62.1	2.1	10	2	3	2	1	2	3	1	991	1.5	Yes	Yes	2	7	8	Yes
24	University of Michigan Hospitals and Health Centers, Ann Arbor	61.3	6.5	9	2	2	2	1	2	2	3	2,278	2.6	No	Yes	2	7	8	Yes
25	UPMC-University of Pittsburgh Medical Center	61.2	3.3	8	2	3	1	2	2	3	1	4,122	2.0	Yes	Yes	2	7	8	Yes
26	Cedars-Sinai Medical Center, Los Angeles	60.4	4.2	8	3	3	2	3	3	2	3	2,072	2.4	Yes	No	2	7	8	Yes
27	University of Kansas Hospital, Kansas City	60.2	2.3	9	2	3	1	3	1	2	2	1,318	2.3	Yes	Yes	2	7	8	Yes
28	Vanderbilt University Medical Center, Nashville	59.5	3.9	8	2	2	1	2	2	3	2	1,336	2.4	Yes	Yes	2	7	8	Yes
29	Yale-New Haven Hospital, New Haven, Conn.	59.3	2.2	9	1	3	1	1	3	1	2	1,760	3.0	Yes	Yes	2	7	8	Yes
30	Fox Chase Cancer Center, Philadelphia	58.8	3.7	9	2	2	1	3	3	2	2	1,154	1.5	Yes	Yes	2	7	8	Yes
31	University of Chicago Medical Center	58.6	5.9	9	1	2	1	1	2	2	1	1,624	2.7	No	Yes	2	7	8	Yes
32	IU Health Academic Health Center, Indianapolis	58.2	4.1	8	2	2	1	3	1	2	3	2,041	2.4	Yes	Yes	2	7	8	Yes
33	Mayo Clinic, Phoenix	58.0	1.3	9	3	3	3	1	3	3	3	1,047	3.6	No	Yes	2	7	8	Yes
34	Mayo Clinic, Jacksonville, Fla.	57.3	5.4	8	3	2	1	2	3	3	3	792	1.7	No	Yes	2	7	8	Yes
35	Hackensack University Medical Center, Hackensack, N.J.	56.9	2.4	8	3	3	3	3	3	2	2	2,195	2.0	Yes	No	2	7	8	Yes
36	University of Iowa Hospitals and Clinics, Iowa City	55.8	1.7	10	1	2	2	3	1	1	2	1,282	1.7	Yes	Yes	2	7	8	Yes
37	University of Minnesota Medical Center, Fairview	55.7	5.4	9	1	3	1	1	2	1	1	1,203	1.8	No	Yes	2	7	8	Yes
38	NYU Langone Medical Center, New York	55.6	2.8	8	2	3	1	3	2	3	3	1,309	2.0	Yes	Yes	1	7	8	Yes
39	University of Maryland Medical Center, Baltimore	55.5	0.0	10	1	1	1	2	1	2	2	1,151	2.2	Yes	Yes	2	7	8	Yes
40	Methodist Hospital, Houston	55.2	2.0	9	2	3	1	1	2	2	3	1,497	1.8	Yes	No	2	7	8	Yes
41	Roswell Park Cancer Institute, Buffalo	54.8	4.5	8	1	3	1	1	1	2	2	1,215	2.2	Yes	Yes	2	7	8	Yes
42	UC San Diego Medical Center	54.6	0.0	9	2	3	1	3	2	2	2	1,000	2.0	Yes	Yes	2	7	8	Yes
43	University of North Carolina Hospitals, Chapel Hill	54.4	2.1	9	1	3	1	2	2	1	1	1,525	1.8	Yes	Yes	2	7	8	Yes
44	Emory University Hospital, Atlanta	54.3	1.5	9	2	2	2	3	2	2	2	1,658	1.9	No	Yes	2	7	8	Yes
45	Nebraska Medical Center, Omaha	54.2	2.1	9	1	2	1	3	2	1	3	1,037	2.7	Yes	Yes	2	7	7	Yes
46	Hahnemann University Hospital, Philadelphia	53.8	0.0	10	2	1	2	1	2	2	1	577	1.9	Yes	No	1	7	8	Yes
47	University of Wisconsin Hospital and Clinics, Madison	53.7	1.7	9	1	3	1	1	3	1	2	1,358	1.8	Yes	Yes	2	7	8	Yes
48	USC Norris Cancer Hospital, Los Angeles	53.6	1.3	10	1	1	3	2	2	1	1	169	2.3	No	Yes	2	7	8	Yes
49	Oregon Health and Science University, Portland	53.2	0.9	9	1	2	1	1	3	1	1	1,118	2.1	Yes	Yes	2	7	7	Yes
50	Beth Israel Deaconess Medical Center, Boston	53.1	2.9	9	1	3	1	2	3	3	1	1,662	1.4	No	Yes	2	7	8	Yes

Top 10

Top 20

Cardiology & Heart Surgery

Rank	Hospital	U.S. News Score	Reputation with specialists	Survival	Success in keeping patients safe	Preventing deaths from treatable complications	Preventing collapsed lung after surgery	Preventing major bleeding after surgery	Preventing respiratory failure after surgery	Preventing incisions from reopening after surgery	Preventing accidental injuries during surgery	Cardiology & Heart Surgery patient volume	Nurse staffing	Nurse Magnet recognition	Advanced technologies	Key patient services	Trauma center	Intensivist staffing
1	Cleveland Clinic	100.0	64.3	10	2	3	2	2	3	2	1	14,785	2.4	Yes	7	7	No	Yes
2	Mayo Clinic, Rochester, Minn.	95.8	53.8	9	3	2	3	3	3	1	3	10,668	3.0	Yes	7	7	Yes	Yes
3	New York-Presbyterian University Hospital of Columbia and Cornell, N.Y.	78.2	15.9	10	2	3	1	3	3	2	2	16,656	2.2	No	7	7	Yes	Yes
4	Johns Hopkins Hospital, Baltimore	76.6	23.2	9	2	3	1	2	3	3	2	4,234	2.2	Yes	7	7	Yes	Yes
5	Brigham and Women's Hospital, Boston	76.0	19.3	9	2	3	2	2	3	2	2	7,430	2.3	Yes	7	7	Yes	Yes
6	Duke University Medical Center, Durham, N.C.	74.6	16.4	9	2	1	3	2	2	2	3	8,334	2.1	Yes	7	7	Yes	Yes
7	Massachusetts General Hospital, Boston	73.4	17.6	8	2	3	1	2	3	2	1	8,770	2.3	Yes	7	7	Yes	Yes
8	St. Francis Hospital, Roslyn, N.Y.	72.9	2.0	10	3	1	3	3	3	2	3	11,581	1.9	Yes	6	7	Yes	Yes
9	Cedars-Sinai Medical Center, Los Angeles	71.0	7.3	9	3	3	2	3	3	2	3	7,095	2.4	Yes	7	7	Yes	Yes
10	Texas Heart Institute at St. Luke's Episcopal Hospital, Houston	69.6	15.9	10	1	2	1	2	1	1	3	8,519	1.6	Yes	7	7	No	Yes
11	Hospital of the University of Pennsylvania, Philadelphia	68.8	13.6	8	2	2	2	2	2	2	2	6,237	2.6	Yes	7	7	Yes	Yes
12	Northwestern Memorial Hospital, Chicago	68.6	3.7	10	3	3	2	1	3	3	3	4,981	1.7	Yes	7	7	Yes	Yes
13	Mount Sinai Medical Center, New York	68.1	5.7	10	1	2	1	3	2	2	1	11,029	2.1	Yes	7	7	Yes	Yes
14	Methodist Hospital, Houston	66.8	6.3	10	2	3	1	1	2	2	3	8,768	1.8	Yes	7	7	No	Yes
15	NYU Langone Medical Center, New York	66.7	2.4	10	2	3	1	3	2	3	3	5,093	2.0	Yes	6	7	Yes	Yes
16	Stanford Hospital and Clinics, Stanford, Calif.	66.1	10.5	8	2	3	1	1	3	2	1	3,437	2.5	Yes	7	7	Yes	Yes
17	Barnes-Jewish Hospital/Washington University, St. Louis	65.2	5.8	9	1	3	1	1	2	2	1	9,441	2.2	Yes	7	7	Yes	Yes
17	UCLA Medical Center, Los Angeles	65.2	6.4	9	1	2	1	1	2	3	1	4,590	2.9	Yes	7	7	Yes	Yes
19	University Hospitals Case Medical Center, Cleveland	64.8	1.5	10	3	3	2	3	3	3	1	5,497	2.2	Yes	6	7	Yes	Yes
20	Loyola University Medical Center, Maywood, Ill.	63.4	2.8	10	1	2	1	2	2	2	1	4,169	2.0	Yes	7	7	Yes	Yes
20	Scripps La Jolla Hospitals and Clinics, La Jolla, Calif.	63.4	4.0	9	2	3	2	2	3	2	1	5,639	2.6	Yes	6	7	Yes	Yes
22	Minneapolis Heart Institute at Abbott Northwestern Hospital	62.9	0.0	10	2	3	1	2	2	2	2	7,522	2.2	Yes	7	7	Yes	Yes
23	University of Kansas Hospital, Kansas City	62.6	0.6	10	2	3	1	3	1	2	2	4,093	2.3	Yes	6	7	Yes	Yes
24	Ochsner Medical Center, New Orleans	61.5	4.1	8	2	2	2	3	2	2	2	7,858	1.8	Yes	7	7	Yes	Yes
25	Lenox Hill Hospital, New York	61.1	2.5	10	2	3	1	3	2	1	2	5,487	2.4	No	5	7	Yes	Yes
25	Yale-New Haven Hospital, New Haven, Conn.	61.1	2.4	9	1	3	1	1	3	1	2	6,923	3.0	Yes	7	7	Yes	Yes
27	UPMC-University of Pittsburgh Medical Center	61.0	2.5	8	2	3	1	2	2	3	1	13,069	2.0	Yes	7	7	Yes	Yes
28	Rush University Medical Center, Chicago	60.9	0.9	10	1	3	1	2	2	1	2	3,090	2.0	Yes	7	6	Yes	Yes
29	MedStar Washington Hospital Center, Washington, D.C.	60.6	6.3	10	1	2	2	1	3	1	2	10,989	1.7	No	7	7	Yes	Yes
30	IU Health Academic Health Center, Indianapolis	60.2	0.7	9	2	2	1	3	1	2	3	7,185	2.4	Yes	7	7	Yes	Yes
30	University of Michigan Hospitals and Health Centers, Ann Arbor	60.2	6.3	8	2	2	2	1	2	2	3	6,531	2.6	No	7	7	Yes	Yes
32	Florida Hospital, Orlando	60.0	2.9	7	2	3	1	3	2	2	2	18,026	2.1	Yes	6	7	No	Yes
33	Hackensack University Medical Center, Hackensack, N.J.	59.7	1.5	8	3	3	3	3	3	2	2	7,388	2.0	Yes	6	7	Yes	Yes
34	Vanderbilt University Medical Center, Nashville	59.6	1.1	9	2	2	1	2	2	3	2	5,904	2.4	Yes	7	7	Yes	Yes
35	Sentara Norfolk General Hospital-Sentara Heart Hospital, Norfolk, Va.	59.2	1.9	9	2	1	2	3	2	1	3	6,196	1.6	Yes	7	7	Yes	Yes
36	Ohio State University Wexner Medical Center, Columbus	59.0	2.0	9	1	1	1	2	1	2	2	7,814	2.2	Yes	7	7	Yes	Yes
37	Hahnemann University Hospital, Philadelphia	58.9	1.9	9	2	1	2	1	2	2	1	3,472	1.9	Yes	6	7	Yes	Yes
38	Montefiore Medical Center, New York	58.8	3.0	9	2	3	1	2	2	2	2	12,883	1.4	No	7	7	Yes	Yes
39	Aurora St. Luke's Medical Center, Milwaukee	58.7	0.9	9	2	2	1	3	3	2	2	11,556	1.8	Yes	7	7	No	Yes
40	Beaumont Hospital, Royal Oak, Mich.	58.6	2.9	8	1	2	1	3	3	1	2	10,641	1.8	Yes	6	7	Yes	Yes
41	Lehigh Valley Hospital, Allentown, Pa.	58.4	0.7	9	2	3	1	3	1	3	2	8,805	1.9	Yes	6	7	Yes	Yes
42	UC San Diego Medical Center	57.9	1.5	10	2	3	1	3	2	2	2	2,199	2.0	Yes	7	6	Yes	Yes
43	Advocate Christ Medical Center, Oak Lawn, Ill.	57.8	0.9	9	2	1	1	3	1	2	3	7,890	2.4	Yes	5	7	Yes	Yes
44	Emory University Hospital, Atlanta	57.3	11.8	8	2	2	2	3	2	2	2	5,591	1.9	No	7	7	No	Yes
44	Morristown Medical Center, Morristown, N.J.	57.3	0.0	7	3	3	2	3	3	1	3	6,625	2.9	Yes	6	7	Yes	Yes
46	Wake Forest Baptist Medical Center, Winston-Salem, N.C.	57.2	1.9	7	3	1	3	2	2	3	3	5,898	1.8	Yes	7	7	Yes	Yes
47	Shands at the University of Florida, Gainesville	57.0	1.8	10	1	2	1	1	1	2	2	5,153	1.7	Yes	7	6	Yes	Yes
48	Medical Center of Central Georgia, Macon	56.8	0.0	9	2	1	2	2	2	3	2	8,364	1.8	Yes	5	7	Yes	Yes
49	Tampa General Hospital	56.6	0.0	9	1	1	2	1	1	1	1	5,105	2.4	Yes	7	7	Yes	Yes
50	Lancaster General Hospital, Lancaster, Pa.	56.3	1.9	7	3	3	3	2	3	2	2	7,915	1.6	Yes	5	7	Yes	Yes

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Diabetes & Endocrinology

Rank	Hospital	U.S. News Score	Reputation with specialists	Survival	Success in keeping patients safe	Preventing deaths from treatable complications	Preventing collapsed lung after surgery	Preventing major bleeding after surgery	Preventing respiratory failure after surgery	Preventing incisions from reopening after surgery	Preventing accidental injuries during surgery	Diabetes & Endocrinology patient volume	Nurse staffing	Nurse Magnet recognition	Advanced technologies	Key patient services	Intensivist staffing
1	Mayo Clinic, Rochester, Minn.	100.0	52.5	9	3	2	3	3	3	1	3	786	3.0	Yes	4	8	Yes
2	Cleveland Clinic	85.4	27.9	8	2	3	2	2	3	2	1	1,123	2.4	Yes	4	8	Yes
3	Massachusetts General Hospital, Boston	85.0	41.1	7	2	3	1	2	3	2	1	793	2.3	Yes	4	8	Yes
4	Johns Hopkins Hospital, Baltimore	80.9	26.6	8	2	3	1	2	3	3	2	577	2.2	Yes	4	8	Yes
5	UCSF Medical Center, San Francisco	76.8	16.2	8	3	3	3	2	3	3	3	343	2.5	Yes	4	8	Yes
6	Yale-New Haven Hospital, New Haven, Conn.	72.2	9.3	9	1	3	1	1	3	1	2	1,044	3.0	Yes	4	8	Yes
7	New York-Presbyterian University Hospital of Columbia and Cornell, N.Y.	71.1	13.4	8	2	3	1	3	3	2	2	1,343	2.2	No	4	8	Yes
8	University of Washington Medical Center, Seattle	68.4	11.0	9	1	2	2	1	2	2	2	451	2.1	Yes	4	8	Yes
9	Brigham and Women's Hospital, Boston	67.2	13.1	7	2	3	2	2	3	2	2	576	2.3	Yes	4	8	Yes
9	Northwestern Memorial Hospital, Chicago	67.2	5.3	8	3	3	2	1	3	3	3	577	1.7	Yes	4	8	Yes
11	Hospital of the University of Pennsylvania, Philadelphia	65.6	9.7	7	2	2	2	2	2	2	2	536	2.6	Yes	4	8	Yes
11	UPMC-University of Pittsburgh Medical Center	65.6	8.5	6	2	3	1	2	2	3	1	1,081	2.0	Yes	4	8	Yes
13	UCLA Medical Center, Los Angeles	65.5	9.2	8	1	2	1	1	2	3	1	467	2.9	Yes	4	8	Yes
14	Cedars-Sinai Medical Center, Los Angeles	63.8	3.7	7	3	3	2	3	3	2	3	774	2.4	Yes	4	8	Yes
15	Mount Sinai Medical Center, New York	63.6	7.6	7	1	2	1	3	2	2	1	1,002	2.1	Yes	4	8	Yes
16	IU Health Academic Health Center, Indianapolis	63.2	1.6	8	2	2	1	3	1	2	3	897	2.4	Yes	4	8	Yes
17	Lancaster General Hospital, Lancaster, Pa.	63.0	0.0	10	3	3	3	2	3	2	2	502	1.6	Yes	4	8	Yes
18	Thomas Jefferson University Hospital, Philadelphia	62.8	2.4	8	3	3	2	2	2	3	3	573	2.2	Yes	4	8	Yes
19	Barnes-Jewish Hospital/Washington University, St. Louis	62.3	9.4	6	1	3	1	1	2	2	1	1,003	2.2	Yes	4	8	Yes
20	NYU Langone Medical Center, New York	62.2	2.9	9	2	3	1	3	2	3	3	446	2.0	Yes	4	8	Yes
21	Ochsner Medical Center, New Orleans	62.1	1.2	9	2	2	2	3	2	2	2	954	1.8	Yes	4	8	Yes
21	University of Rochester Medical Center, Rochester, N.Y.	62.1	4.6	8	2	1	2	2	2	3	1	518	1.7	Yes	4	8	Yes
23	Duke University Medical Center, Durham, N.C.	61.7	4.1	8	2	1	3	2	2	2	3	628	2.1	Yes	4	8	Yes
24	Wake Forest Baptist Medical Center, Winston-Salem, N.C.	60.9	1.1	8	3	1	3	2	2	3	3	703	1.8	Yes	4	8	Yes
25	Spectrum Health, Grand Rapids, Mich.	60.7	0.0	8	3	3	3	3	3	3	1	855	1.7	Yes	4	8	Yes
26	Methodist Hospital, Houston	59.9	3.1	7	2	3	1	1	2	2	3	871	1.8	Yes	4	8	Yes
26	University Hospitals Case Medical Center, Cleveland	59.9	0.9	7	3	3	2	3	3	3	1	662	2.2	Yes	4	8	Yes
28	Florida Hospital, Orlando	59.5	0.0	7	2	3	1	3	2	2	2	1,460	2.1	Yes	4	8	Yes
29	Baystate Medical Center, Springfield, Mass.	59.4	0.0	9	3	3	3	3	3	1	3	646	1.4	Yes	4	8	Yes
29	UC San Diego Medical Center	59.4	2.1	9	2	3	1	3	2	2	2	254	2.0	Yes	4	8	Yes
31	Christ Hospital, Cincinnati	58.9	1.1	9	2	3	3	2	1	3	2	414	1.9	Yes	4	8	Yes
31	University of Michigan Hospitals and Health Centers, Ann Arbor	58.9	3.2	9	2	2	2	1	2	2	3	590	2.6	No	4	8	Yes
33	Montefiore Medical Center, New York	58.2	1.6	8	2	3	1	2	2	2	2	1,700	1.4	No	4	8	Yes
34	Duke Regional Hospital, Durham, N.C.	57.8	0.0	8	3	3	2	3	2	3	2	544	1.6	Yes	4	8	Yes
35	Rush University Medical Center, Chicago	57.7	3.3	8	1	3	1	2	2	1	2	536	2.0	Yes	4	8	Yes
35	University of Virginia Medical Center, Charlottesville	57.7	9.2	7	2	1	1	3	3	2	3	556	2.2	No	4	7	Yes
37	Ohio State University Wexner Medical Center, Columbus	57.5	1.4	8	1	1	1	2	1	2	2	838	2.2	Yes	4	8	Yes
38	Baylor University Medical Center, Dallas	57.2	1.9	7	2	1	2	3	2	3	1	904	1.7	Yes	4	8	Yes
38	University of Kansas Hospital, Kansas City	57.2	0.0	8	2	3	1	3	1	2	2	477	2.3	Yes	4	8	Yes
40	Allina Abbot Northwestern Hospital, Minneapolis	57.1	1.2	8	2	3	1	2	2	2	2	449	2.2	Yes	4	8	Yes
40	Metro Health Medical Center, Cleveland	57.1	0.0	10	2	3	3	2	1	2	1	328	0.8	Yes	4	8	Yes
42	Memorial Hospital at Gulfport, Gulfport, Miss.	57.0	0.0	10	3	2	2	3	3	2	3	268	2.6	No	4	5	Yes
42	Oregon Health and Science University, Portland	57.0	1.9	9	1	2	1	1	3	1	1	433	2.1	Yes	4	7	Yes
44	Beaumont Hospital, Royal Oak, Mich.	56.7	0.0	8	1	2	1	3	3	1	2	1,077	1.8	Yes	4	8	Yes
44	Hahnemann University Hospital, Philadelphia	56.7	1.5	8	2	1	2	1	2	2	1	356	1.9	Yes	4	8	Yes
46	Magee-Womens Hospital of UPMC, Pittsburgh	56.6	0.0	10	3	3	3	1	3	3	1	235	2.0	No	4	8	Yes
46	St. Luke's Episcopal Hospital, Houston	56.6	0.0	10	1	2	1	2	1	1	3	515	1.6	Yes	4	8	Yes
48	John Muir Medical Center, Concord, Calif.	56.4	0.0	8	3	1	3	3	3	3	2	295	2.4	Yes	4	7	Yes
49	Baptist Medical Center, Jacksonville, Fla.	56.3	1.9	9	1	1	1	3	2	1	2	462	1.8	Yes	4	8	Yes
49	Joslin Clinic and Beth Israel Deaconess Medical Center, Boston	56.3	9.6	8	1	3	1	2	3	3	1	588	1.4	No	4	8	Yes

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Ear, Nose, & Throat

Rank	Hospital	U.S. News Score	Reputation with specialists	Survival	Success in keeping patients safe	Preventing deaths from treatable complications	Preventing collapsed lung after surgery	Preventing major bleeding after surgery	Preventing respiratory failure after surgery	Preventing incisions from reopening after surgery	Preventing accidental injuries during surgery	Ear, Nose & Throat patient volume	Nurse staffing	Nurse Magnet recognition	Advanced technologies	Key patient services	Trauma center	Intensivist staffing
1	Johns Hopkins Hospital, Baltimore	100.0	42.0	9	2	3	1	2	3	3	2	197	2.2	Yes	1	8	Yes	Yes
2	Mayo Clinic, Rochester, Minn.	96.2	17.2	9	3	2	3	3	3	1	3	343	3.0	Yes	1	8	Yes	Yes
3	University of Texas MD Anderson Cancer Center, Houston	94.4	19.2	10	2	3	1	1	2	3	2	462	2.0	Yes	1	8	No	Yes
4	UPMC-University of Pittsburgh Medical Center	92.7	22.4	8	2	3	1	2	2	3	1	420	2.0	Yes	1	8	Yes	Yes
5	Hospital of the University of Pennsylvania, Philadelphia	92.6	17.6	10	2	2	2	2	2	2	2	307	2.6	Yes	1	8	Yes	Yes
6	Cleveland Clinic	92.3	22.6	10	2	3	2	2	3	2	1	261	2.4	Yes	1	8	No	Yes
7	Massachusetts Eye and Ear Infirmary, Massachusetts General Hospital, Boston	89.5	25.1	6	2	3	1	2	3	2	1	377	2.3	Yes	1	8	Yes	Yes
8	Vanderbilt University Medical Center, Nashville	85.5	11.8	9	2	2	1	2	2	3	2	279	2.4	Yes	1	8	Yes	Yes
9	Stanford Hospital and Clinics, Stanford, Calif.	83.8	9.1	10	2	3	1	1	3	2	1	201	2.5	Yes	1	8	Yes	Yes
10	Mount Sinai Medical Center, New York	82.2	8.5	10	1	2	1	3	2	2	1	372	2.1	Yes	1	8	Yes	Yes
11	UCLA Medical Center, Los Angeles	79.7	9.1	8	1	2	1	1	2	3	1	289	2.9	Yes	1	8	Yes	Yes
12	UCSF Medical Center, San Francisco	79.1	8.5	8	3	3	3	2	3	3	3	144	2.5	Yes	1	8	No	Yes
13	University of Iowa Hospitals and Clinics, Iowa City	78.8	19.6	6	1	2	2	3	1	1	2	214	1.7	Yes	1	8	Yes	Yes
14	Barnes-Jewish Hospital/Washington University, St. Louis	78.3	11.1	7	1	3	1	1	2	2	1	333	2.2	Yes	1	8	Yes	Yes
15	Ohio State University Wexner Medical Center, Columbus	77.5	7.9	6	1	1	1	2	1	2	2	532	2.2	Yes	1	8	Yes	Yes
15	University of Michigan Hospitals and Health Centers, Ann Arbor	77.5	9.9	7	2	2	2	1	2	2	3	368	2.6	No	1	8	Yes	Yes
17	Northwestern Memorial Hospital, Chicago	77.0	1.6	10	3	3	2	1	3	3	3	102	1.7	Yes	1	8	Yes	Yes
18	University Hospitals Case Medical Center, Cleveland	76.5	1.5	9	3	3	2	3	3	3	1	279	2.2	Yes	1	8	Yes	Yes
19	Thomas Jefferson University Hospital, Philadelphia	76.1	1.1	9	3	3	2	2	2	3	3	343	2.2	Yes	1	8	Yes	Yes
20	Wake Forest Baptist Medical Center, Winston-Salem, N.C.	76.0	4.2	7	3	1	3	2	2	3	3	297	1.8	Yes	1	8	Yes	Yes
21	University of Kansas Hospital, Kansas City	75.5	1.2	10	2	3	1	3	1	2	2	262	2.3	Yes	1	8	Yes	Yes
22	University of North Carolina Hospitals, Chapel Hill	73.2	6.6	8	1	3	1	2	2	1	1	230	1.8	Yes	1	8	Yes	Yes
23	NYU Langone Medical Center, New York	72.8	2.1	10	2	3	1	3	2	3	3	90	2.0	Yes	1	8	Yes	Yes
24	Oregon Health and Science University, Portland	72.7	3.0	10	1	2	1	1	3	1	1	223	2.1	Yes	1	7	Yes	Yes
25	Mayo Clinic, Phoenix	72.4	1.6	10	3	3	3	1	3	3	3	205	3.6	No	1	8	No	Yes
26	Baystate Medical Center, Springfield, Mass.	71.9	0.0	10	3	3	3	3	3	1	3	63	1.4	Yes	1	8	Yes	Yes
27	Medical University of South Carolina, Charleston	71.8	2.3	10	2	3	2	3	2	2	2	286	2.2	No	1	7	Yes	Yes
27	University of Wisconsin Hospital and Clinics, Madison	71.8	2.3	10	1	3	1	1	3	1	2	225	1.8	Yes	1	8	Yes	Yes
29	Cedars-Sinai Medical Center, Los Angeles	71.5	0.9	9	3	3	2	3	3	2	3	102	2.4	Yes	1	8	Yes	Yes
30	University of Arizona Medical Center, Tucson	70.2	0.7	10	1	3	1	1	3	2	1	39	2.2	Yes	1	7	Yes	Yes
31	New York-Presbyterian University Hospital of Columbia and Cornell, N.Y.	69.8	4.7	8	2	3	1	3	3	2	2	222	2.2	No	1	8	Yes	Yes
32	University of Washington Medical Center, Seattle	69.5	7.9	7	1	2	2	1	2	2	2	169	2.1	Yes	1	8	No	Yes
33	Loyola University Medical Center, Maywood, Ill.	69.4	4.5	8	1	2	1	2	2	2	1	170	2.0	Yes	1	8	Yes	Yes
34	IU Health North Hospital, Carmel, Ind.	69.0	0.0	10	3	3	2	3	2	2	3	91	2.4	No	1	8	No	Yes
35	Tampa General Hospital	68.9	2.0	10	1	1	2	1	1	1	1	127	2.4	Yes	1	8	Yes	Yes
36	St. John's Hospital, St. Paul, Minn.	68.7	0.0	10	3	3	3	3	2	3	1	39	1.8	No	1	8	No	Yes
37	Yale-New Haven Hospital, New Haven, Conn.	68.6	1.6	8	1	3	1	1	3	1	2	249	3.0	Yes	1	8	Yes	Yes
38	St. Francis Hospital, Roslyn, N.Y.	68.3	0.8	9	3	1	3	3	3	2	3	25	1.9	Yes	1	8	Yes	Yes
39	Akron General Medical Center, Ohio	68.2	0.9	10	2	3	2	2	1	3	2	37	1.4	Yes	1	8	Yes	Yes
39	St. Vincent Hospital and Health Center, Indianapolis	68.2	1.0	8	2	3	2	3	1	2	3	220	1.6	Yes	1	8	Yes	Yes
41	Lenox Hill Hospital-Manhattan Eye, Ear and Throat Institute, New York	68.0	2.8	10	2	3	1	3	2	1	2	34	2.4	No	1	8	Yes	Yes
42	Penn Presbyterian Medical Center, Philadelphia	67.2	0.0	9	3	1	3	3	2	2	3	48	2.0	Yes	1	8	No	Yes
43	Hackensack University Medical Center, Hackensack, N.J.	67.1	0.8	7	3	3	3	3	3	2	2	119	2.0	Yes	1	8	Yes	Yes
43	IU Health Academic Health Center, Indianapolis	67.1	0.9	7	2	2	1	3	1	2	3	166	2.4	Yes	1	8	Yes	Yes
43	Memorial Sloan-Kettering Cancer Center, New York	67.1	4.0	9	2	3	1	3	3	3	3	248	2.1	No	1	8	No	Yes
43	South Shore Hospital, South Weymouth, Mass.	67.1	0.0	10	2	1	2	2	2	2	3	42	1.7	Yes	1	8	Yes	Yes
43	University of Maryland Medical Center, Baltimore	67.1	0.8	9	1	1	1	2	1	2	2	222	2.2	Yes	1	8	Yes	Yes
48	UC San Diego Medical Center	66.9	1.0	8	2	3	1	3	2	2	2	104	2.0	Yes	1	8	Yes	Yes
49	Alexian Brothers Medical Center, Elk Grove Village, Ill.	66.5	0.0	10	3	3	2	3	1	2	3	38	1.5	No	1	8	Yes	Yes
49	Keck Hospital of USC, Los Angeles	66.5	4.4	9	2	2	2	3	2	2	2	150	2.5	No	1	8	No	Yes
49	St. Barnabas Hospital, Bronx, New York	66.5	0.0	10	3	1	2	3	2	3	3	28	1.6	No	1	7	Yes	Yes

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Gastroenterology & GI Surgery

Rank	Hospital	U.S. News Score	Reputation with specialists	Survival	Success in keeping patients safe	Preventing deaths from treatable complications	Preventing collapsed lung after surgery	Preventing major bleeding after surgery	Preventing respiratory failure after surgery	Preventing incisions from reopening after surgery	Preventing accidental injuries during surgery	Gastroenterology & GI Surgery patient volume	Nurse staffing	Nurse Magnet recognition	Advanced technologies	Key patient services	Trauma center	Intensivist staffing
1	Mayo Clinic, Rochester, Minn.	100.0	55.9	9	3	2	3	3	3	1	3	6,868	3.0	Yes	7	8	Yes	Yes
2	Cleveland Clinic	84.8	37.9	9	2	3	2	2	3	2	1	6,465	2.4	Yes	7	8	No	Yes
3	Johns Hopkins Hospital, Baltimore	84.3	26.1	10	2	3	1	2	3	3	2	3,320	2.2	Yes	7	8	Yes	Yes
4	Massachusetts General Hospital, Boston	79.0	23.6	8	2	3	1	2	3	2	1	4,852	2.3	Yes	7	8	Yes	Yes
5	Cedars-Sinai Medical Center, Los Angeles	78.0	10.7	9	3	3	2	3	3	2	3	5,003	2.4	Yes	7	8	Yes	Yes
6	UPMC-University of Pittsburgh Medical Center	75.2	13.8	8	2	3	1	2	2	3	1	9,549	2.0	Yes	7	8	Yes	Yes
7	New York-Presbyterian University Hospital of Columbia and Cornell, N.Y.	70.0	11.0	8	2	3	1	3	3	2	2	7,720	2.2	No	7	8	Yes	Yes
8	UCLA Medical Center, Los Angeles	69.8	14.5	7	1	2	1	1	2	3	1	3,836	2.9	Yes	7	8	Yes	Yes
9	Mount Sinai Medical Center, New York	69.0	15.6	7	1	2	1	3	2	2	1	6,469	2.1	Yes	7	8	Yes	Yes
10	Northwestern Memorial Hospital, Chicago	68.1	5.6	8	3	3	2	1	3	3	3	3,425	1.7	Yes	7	8	Yes	Yes
11	IU Health Academic Health Center, Indianapolis	68.0	4.5	9	2	2	1	3	1	2	3	6,128	2.4	Yes	7	8	Yes	Yes
12	Methodist Hospital, Houston	66.8	4.2	10	2	3	1	1	2	2	3	4,979	1.8	Yes	7	8	No	Yes
13	University Hospitals Case Medical Center, Cleveland	66.4	1.5	9	3	3	2	3	3	3	1	3,407	2.2	Yes	7	8	Yes	Yes
14	Hospital of the University of Pennsylvania, Philadelphia	65.9	10.9	6	2	2	2	2	2	2	2	2,906	2.6	Yes	7	8	Yes	Yes
15	St. Francis Hospital, Roslyn, N.Y.	65.2	0.0	10	3	1	3	3	3	2	3	2,304	1.9	Yes	6	8	Yes	Yes
16	Baylor University Medical Center, Dallas	65.0	4.2	8	2	1	2	3	2	3	1	4,734	1.7	Yes	7	8	Yes	Yes
16	Ochsner Medical Center, New Orleans	65.0	3.7	9	2	2	2	3	2	2	2	4,325	1.8	Yes	7	8	Yes	Yes
18	Yale-New Haven Hospital, New Haven, Conn.	64.9	3.4	9	1	3	1	1	3	1	2	4,203	3.0	Yes	7	8	Yes	Yes
19	University of Kansas Hospital, Kansas City	64.7	1.1	10	2	3	1	3	1	2	2	2,264	2.3	Yes	7	8	Yes	Yes
20	Mayo Clinic, Phoenix	63.9	3.2	9	3	3	3	1	3	3	3	2,472	3.6	No	7	8	No	Yes
21	Thomas Jefferson University Hospital, Philadelphia	63.6	4.2	7	3	3	2	2	2	3	3	4,222	2.2	Yes	7	8	Yes	Yes
22	Brigham and Women's Hospital, Boston	63.4	5.2	8	2	3	2	2	3	2	2	4,161	2.3	Yes	6	8	Yes	Yes
23	Barnes-Jewish Hospital/Washington University, St. Louis	63.3	8.6	7	1	3	1	1	2	2	1	6,373	2.2	Yes	7	8	Yes	Yes
24	Vanderbilt University Medical Center, Nashville	63.2	8.7	6	2	2	1	2	2	3	2	2,648	2.4	Yes	7	8	Yes	Yes
25	Wake Forest Baptist Medical Center, Winston-Salem, N.C.	62.5	4.2	7	3	1	3	2	2	3	3	4,065	1.8	Yes	6	8	Yes	Yes
26	Lehigh Valley Hospital, Allentown, Pa.	62.4	1.8	9	2	3	1	3	1	3	2	4,466	1.9	Yes	6	8	Yes	Yes
27	NYU Langone Medical Center, New York	61.9	2.8	8	2	3	1	3	2	3	3	2,553	2.0	Yes	7	8	Yes	Yes
27	UCSF Medical Center, San Francisco	61.9	6.9	6	3	3	3	2	3	3	3	2,439	2.5	Yes	7	8	No	Yes
29	Stanford Hospital and Clinics, Stanford, Calif.	61.5	2.3	8	2	3	1	1	3	2	1	2,839	2.5	Yes	7	8	Yes	Yes
30	John Muir Medical Center, Walnut Creek, Calif.	60.9	0.0	10	2	3	2	3	1	2	2	1,951	2.3	Yes	6	8	Yes	Yes
31	MedStar Franklin Square Medical Center, Baltimore	60.3	0.0	10	3	3	2	3	2	3	2	2,825	1.6	Yes	6	8	No	Yes
31	UC San Diego Medical Center	60.3	3.8	7	2	3	1	3	2	2	2	1,882	2.0	Yes	7	8	Yes	Yes
33	Scripps La Jolla Hospitals and Clinics, La Jolla, Calif.	60.0	1.0	8	2	3	2	2	3	2	1	2,594	2.6	Yes	7	8	Yes	Yes
34	Allina Mercy Hospital, Coon Rapids, Minn.	59.9	0.0	10	3	3	2	2	2	3	2	1,982	1.9	No	6	8	Yes	Yes
35	Allina Abott Northwestern Hospital, Minneapolis	59.6	0.0	9	2	3	1	2	2	2	2	3,378	2.2	Yes	6	8	Yes	Yes
35	Aurora St. Luke's Medical Center, Milwaukee	59.6	0.9	9	2	2	1	3	3	2	2	4,995	1.8	Yes	7	8	No	Yes
35	University of Michigan Hospitals and Health Centers, Ann Arbor	59.6	4.4	8	2	2	2	1	2	2	3	4,552	2.6	No	7	8	Yes	Yes
38	Scottsdale Healthcare Shea Medical Center, Scottsdale, Ariz.	59.5	1.3	9	2	3	2	3	3	2	1	2,596	1.8	Yes	6	7	Yes	Yes
38	St. Luke's Episcopal Hospital, Houston	59.5	3.9	9	1	2	1	2	1	1	3	3,707	1.6	Yes	7	8	No	Yes
40	NorthShore Evanston Hospital, Evanston, Ill.	59.4	1.1	8	3	3	3	2	2	1	2	3,903	1.3	Yes	6	8	Yes	Yes
41	Rush University Medical Center, Chicago	59.3	3.2	9	1	3	1	2	2	1	2	2,355	2.0	Yes	7	8	Yes	Yes
42	University of Chicago Medical Center	58.5	6.7	8	1	2	1	1	2	2	1	2,461	2.7	No	7	8	Yes	Yes
43	Duke University Medical Center, Durham, N.C.	58.4	8.4	4	2	1	3	2	2	2	3	3,776	2.1	Yes	7	8	Yes	Yes
44	Hackensack University Medical Center, Hackensack, N.J.	58.1	0.0	7	3	3	3	3	3	2	2	4,041	2.0	Yes	6	8	Yes	Yes
44	St. Alexius Medical Center, Hoffman Estates, Ill.	58.1	0.9	10	2	3	3	2	1	2	3	1,674	1.5	No	5	8	Yes	Yes
46	Lancaster General Hospital, Lancaster, Pa.	58.0	0.0	8	3	3	3	2	3	2	2	3,629	1.6	Yes	6	8	Yes	Yes
47	Florida Hospital, Orlando	57.9	0.0	6	2	3	1	3	2	2	2	11,495	2.1	Yes	7	8	No	Yes
48	Beaumont Hospital, Royal Oak, Mich.	57.5	0.0	8	1	2	1	3	3	1	2	6,447	1.8	Yes	7	8	Yes	Yes
48	University of Rochester Medical Center, Rochester, N.Y.	57.5	1.3	7	2	1	2	2	2	3	1	3,292	1.7	Yes	7	8	Yes	Yes
50	University of Wisconsin Hospital and Clinics, Madison	57.4	1.4	9	1	3	1	1	3	1	2	2,984	1.8	Yes	7	8	Yes	Yes

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Geriatrics

Rank	Hospital	U.S. News Score	Reputation with specialists	Survival	Success in keeping patients safe	Preventing deaths from treatable complications	Preventing collapsed lung after surgery	Preventing major bleeding after surgery	Preventing respiratory failure after surgery	Preventing incisions from reopening after surgery	Preventing accidental injuries during surgery	Geriatrics patient volume	Nurse staffing	Nurse Magnet recognition	NIA-designated Alzheimer's center	Key patient services	Intensivist staffing
1	Johns Hopkins Hospital, Baltimore	100.0	27.9	10	2	3	1	2	3	3	2	7,415	2.2	Yes	Yes	9	Yes
2	Mayo Clinic, Rochester, Minn.	93.7	12.7	9	3	2	3	3	3	1	3	24,233	3.0	Yes	Yes	9	Yes
3	UCLA Medical Center, Los Angeles	92.4	26.6	7	1	2	1	1	2	3	1	14,348	2.9	Yes	Yes	9	Yes
4	Mount Sinai Medical Center, New York	91.8	31.0	7	1	2	1	3	2	2	1	23,677	2.1	Yes	Yes	9	Yes
5	Hospital for Special Surgery, New York	88.8	0.0	10	3	3	3	3	3	2	3	4,328	2.9	Yes	No	9	Yes
6	Massachusetts General Hospital, Boston	86.4	13.9	8	2	3	1	2	3	2	1	20,385	2.3	Yes	Yes	9	Yes
7	Cleveland Clinic	84.1	14.8	10	2	3	2	2	3	2	1	19,019	2.4	Yes	No	9	Yes
8	UCSF Medical Center, San Francisco	81.6	7.6	7	3	3	3	2	3	3	3	6,866	2.5	Yes	Yes	9	Yes
9	UPMC-University of Pittsburgh Medical Center	80.0	11.4	7	2	3	1	2	2	3	1	30,038	2.0	Yes	Yes	9	Yes
10	NYU Langone Medical Center, New York	79.0	2.1	10	2	3	1	3	2	3	3	15,411	2.0	Yes	Yes	9	Yes
11	Northwestern Memorial Hospital, Chicago	78.7	2.4	9	3	3	2	1	3	3	3	11,153	1.7	Yes	Yes	9	Yes
12	Rush University Medical Center, Chicago	77.2	4.4	10	1	3	1	2	2	1	2	8,460	2.0	Yes	Yes	9	Yes
13	Hospital of the University of Pennsylvania, Philadelphia	76.8	4.7	8	2	2	2	2	2	2	2	9,568	2.6	Yes	Yes	9	Yes
14	Duke University Medical Center, Durham, N.C.	76.6	15.4	7	2	1	3	2	2	2	3	11,181	2.1	Yes	No	9	Yes
15	Brigham and Women's Hospital, Boston	75.3	3.7	8	2	3	2	2	3	2	2	14,560	2.3	Yes	Yes	9	Yes
16	IU Health Academic Health Center, Indianapolis	74.5	2.0	9	2	2	1	3	1	2	3	14,680	2.4	Yes	Yes	9	Yes
17	Mayo Clinic, Phoenix	74.1	2.6	8	3	3	3	1	3	3	3	8,725	3.6	No	Yes	9	Yes
18	University of Kansas Hospital, Kansas City	73.5	0.0	10	2	3	1	3	1	2	2	6,417	2.3	Yes	Yes	9	Yes
19	New York-Presbyterian University Hospital of Columbia and Cornell, N.Y.	72.9	6.5	9	2	3	1	3	3	2	2	36,507	2.2	No	Yes	9	Yes
20	UC San Diego Medical Center	71.7	2.6	8	2	3	1	3	2	2	2	5,368	2.0	Yes	Yes	9	Yes
21	University Hospitals Case Medical Center, Cleveland	71.6	2.8	9	3	3	2	3	3	3	1	13,346	2.2	Yes	No	9	Yes
22	Yale-New Haven Hospital, New Haven, Conn.	71.4	8.2	8	1	3	1	1	3	1	2	16,562	3.0	Yes	No	8	Yes
23	Cedars-Sinai Medical Center, Los Angeles	70.3	1.6	9	3	3	2	3	3	2	3	21,198	2.4	Yes	No	9	Yes
24	Barnes-Jewish Hospital/Washington University, St. Louis	69.9	3.7	8	1	3	1	1	2	2	1	16,184	2.2	Yes	Yes	8	Yes
25	St. Francis Hospital, Roslyn, N.Y.	68.8	0.0	10	3	1	3	3	3	2	3	15,543	1.9	Yes	No	9	Yes
25	University of Washington Medical Center, Seattle	68.8	2.0	9	1	2	2	1	2	2	2	3,371	2.1	Yes	Yes	9	Yes
27	Methodist Hospital, Houston	65.8	1.5	10	2	3	1	1	2	2	3	17,238	1.8	Yes	No	9	Yes
27	University of Wisconsin Hospital and Clinics, Madison	65.8	1.9	8	1	3	1	1	3	1	2	7,637	1.8	Yes	Yes	9	Yes
29	Christ Hospital, Cincinnati	65.5	2.0	9	2	3	3	2	1	3	2	11,305	1.9	Yes	No	9	Yes
30	University of California, Irvine Medical Center, Orange	64.9	1.8	7	1	1	1	1	3	3	1	3,602	2.3	Yes	Yes	9	Yes
31	Thomas Jefferson University Hospital, Philadelphia	64.4	1.7	7	3	3	2	2	2	3	3	15,647	2.2	Yes	No	9	Yes
32	Allina Abbott Northwestern Hospital, Minneapolis	64.1	0.0	10	2	3	1	2	2	2	2	16,761	2.2	Yes	No	9	Yes
32	Oregon Health and Science University, Portland	64.1	1.8	7	1	2	1	1	3	1	1	5,018	2.1	Yes	Yes	8	Yes
34	Hackensack University Medical Center, Hackensack, N.J.	64.0	1.7	7	3	3	3	3	3	2	2	19,960	2.0	Yes	No	9	Yes
34	University of Arizona Medical Center, Tucson	64.0	2.3	7	1	3	1	1	3	2	1	5,890	2.2	Yes	Yes	7	Yes
36	UT Southwestern Medical Center, Dallas	63.8	0.0	9	3	3	3	1	3	3	1	5,525	1.7	No	Yes	9	Yes
37	Penn Presbyterian Medical Center, Philadelphia	63.4	0.0	9	3	1	3	3	2	2	3	7,166	2.0	Yes	No	9	Yes
38	Lehigh Valley Hospital, Allentown, Pa.	63.3	1.7	8	2	3	1	3	1	3	2	24,025	1.9	Yes	No	9	Yes
39	Wake Forest Baptist Medical Center, Winston-Salem, N.C.	63.2	3.3	6	3	1	3	2	2	3	3	12,108	1.8	Yes	No	9	Yes
40	John Muir Medical Center, Walnut Creek, Calif.	62.8	2.6	8	2	3	2	3	1	2	2	11,340	2.3	Yes	No	7	Yes
41	University of Michigan Hospitals and Health Centers, Ann Arbor	62.4	7.4	8	2	2	2	1	2	2	3	10,832	2.6	No	No	9	Yes
42	Ochsner Medical Center, New Orleans	62.2	2.2	8	2	2	2	3	2	2	2	15,394	1.8	Yes	No	8	Yes
43	Advocate Christ Medical Center, Oak Lawn, Ill.	61.9	2.3	7	2	1	1	3	1	2	3	19,351	2.4	Yes	No	8	Yes
43	Vanderbilt University Medical Center, Nashville	61.9	2.6	7	2	2	1	2	2	3	2	7,232	2.4	Yes	No	9	Yes
45	Beaumont Hospital, Royal Oak, Mich.	61.8	4.0	8	1	2	1	3	3	1	2	34,739	1.8	Yes	No	9	Yes
46	Morristown Medical Center, Morristown, N.J.	61.7	0.0	6	3	3	2	3	3	1	3	15,972	2.9	Yes	No	9	Yes
47	Stanford Hospital and Clinics, Stanford, Calif.	61.6	1.8	7	2	3	1	1	3	2	1	10,120	2.5	Yes	No	9	Yes
48	Scripps La Jolla Hospitals and Clinics, La Jolla, Calif.	61.4	0.0	8	2	3	2	2	3	2	1	14,683	2.6	Yes	No	8	Yes
49	Ohio State University Wexner Medical Center, Columbus	61.0	1.9	9	1	1	1	2	1	2	2	12,152	2.2	Yes	No	9	Yes
50	Aurora Sinai Medical Center, Milwaukee	60.5	1.7	8	3	2	3	2	2	2	3	213	1.4	Yes	No	8	Yes

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Gynecology

Rank	Hospital	U.S. News Score	Reputation with specialists	Survival	Success in keeping patients safe	Preventing deaths from treatable complications	Preventing collapsed lung after surgery	Preventing major bleeding after surgery	Preventing respiratory failure after surgery	Preventing incisions from reopening after surgery	Preventing accidental injuries during surgery	Gynecology patient volume	Nurse staffing	Nurse Magnet recognition	Advanced technologies	Key patient services	Intensivist staffing
1	Mayo Clinic, Rochester, Minn.	100.0	23.5	10	3	2	3	3	3	1	3	645	3.0	Yes	5	9	Yes
2	Brigham and Women's Hospital, Boston	93.1	23.3	10	2	3	2	2	3	2	2	485	2.3	Yes	5	9	Yes
3	Cleveland Clinic	85.6	20.4	9	2	3	2	2	3	2	1	390	2.4	Yes	5	9	Yes
4	Magee-Womens Hospital of UPMC, Pittsburgh	82.1	11.0	9	3	3	3	1	3	3	1	722	2.0	No	5	9	Yes
5	Johns Hopkins Hospital, Baltimore	81.5	18.8	9	2	3	1	2	3	3	2	180	2.2	Yes	5	9	Yes
6	University of Texas MD Anderson Cancer Center, Houston	81.0	20.1	7	2	3	1	1	2	3	2	330	2.0	Yes	5	9	Yes
7	Massachusetts General Hospital, Boston	77.3	7.1	10	2	3	1	2	3	2	1	331	2.3	Yes	5	9	Yes
8	UCSF Medical Center, San Francisco	76.6	6.7	9	3	3	3	2	3	3	3	196	2.5	Yes	5	9	Yes
9	Memorial Sloan-Kettering Cancer Center, New York	76.1	8.2	10	2	3	1	3	3	3	3	535	2.1	No	5	8	Yes
10	Florida Hospital, Orlando	74.1	3.4	8	2	3	1	3	2	2	2	681	2.1	Yes	5	9	Yes
11	Northwestern Memorial Hospital, Chicago	74.0	5.6	9	3	3	2	1	3	3	3	205	1.7	Yes	5	9	Yes
12	Cedars-Sinai Medical Center, Los Angeles	73.5	4.0	8	3	3	2	3	3	2	3	321	2.4	Yes	5	9	Yes
13	Duke University Medical Center, Durham, N.C.	72.3	9.0	8	2	1	3	2	2	2	3	257	2.1	Yes	5	9	Yes
14	Yale-New Haven Hospital, New Haven, Conn.	72.0	1.9	10	1	3	1	1	3	1	2	537	3.0	Yes	5	9	Yes
15	Barnes-Jewish Hospital/Washington University, St. Louis	71.9	3.6	10	1	3	1	1	2	2	1	516	2.2	Yes	5	9	Yes
16	Allina Abbott Northwestern Hospital, Minneapolis	71.0	2.1	10	2	3	1	2	2	2	2	370	2.2	Yes	5	9	Yes
17	New York-Presbyterian University Hospital of Columbia and Cornell, N.Y.	70.4	8.5	9	2	3	1	3	3	2	2	349	2.2	No	5	9	Yes
18	Hospital of the University of Pennsylvania, Philadelphia	69.6	2.5	10	2	2	2	2	2	2	2	216	2.6	Yes	5	9	Yes
19	Inova Fairfax Hospital, Falls Church, Va.	69.5	4.7	10	1	1	1	1	2	2	1	280	1.9	Yes	5	9	Yes
20	Spectrum Health, Grand Rapids, Mich.	69.2	1.4	9	3	3	3	3	3	3	1	299	1.7	Yes	5	9	Yes
21	NorthShore Evanston Hospital, Evanston, Ill.	68.8	1.4	10	3	3	3	2	2	1	2	172	1.3	Yes	5	8	Yes
22	Methodist Hospital, Houston	68.6	2.3	10	2	3	1	1	2	2	3	249	1.8	Yes	5	8	Yes
23	Stanford Hospital and Clinics, Stanford, Calif.	67.8	2.7	9	2	3	1	1	3	2	1	171	2.5	Yes	5	9	Yes
24	University Hospitals Case Medical Center, Cleveland	67.7	1.4	8	3	3	2	3	3	3	1	332	2.2	Yes	5	9	Yes
24	Vanderbilt University Medical Center, Nashville	67.7	3.6	9	2	2	1	2	2	3	2	184	2.4	Yes	5	9	Yes
26	Mayo Clinic, Phoenix	67.2	2.0	10	3	3	3	1	3	3	3	118	3.6	No	5	8	Yes
27	Wake Forest Baptist Medical Center, Winston-Salem, N.C.	67.0	2.6	7	3	1	3	2	2	3	3	296	1.8	Yes	5	9	Yes
28	Thomas Jefferson University Hospital, Philadelphia	66.9	1.7	8	3	3	2	2	2	3	3	136	2.2	Yes	5	9	Yes
29	John Muir Medical Center, Walnut Creek, Calif.	66.7	0.0	10	2	3	2	3	1	2	2	166	2.3	Yes	5	8	Yes
29	UT Southwestern Medical Center, Dallas	66.7	1.9	10	3	3	3	1	3	3	1	145	1.7	No	5	9	Yes
31	Aurora West Allis Medical Center, West Allis, Ws.	66.6	0.0	10	3	3	2	2	3	2	2	268	1.3	Yes	5	9	Yes
32	Baylor University Medical Center, Dallas	66.2	2.3	8	2	1	2	3	2	3	1	395	1.7	Yes	5	8	Yes
32	University of Rochester Medical Center, Rochester, N.Y.	66.2	2.0	10	2	1	2	2	2	3	1	72	1.7	Yes	5	9	Yes
34	Morristown Medical Center, Morristown, N.J.	66.0	1.2	7	3	3	2	3	3	1	3	245	2.9	Yes	5	9	Yes
34	University of Michigan Hospitals and Health Centers, Ann Arbor	66.0	8.1	7	2	2	2	1	2	2	3	283	2.6	No	5	9	Yes
36	City of Hope, Duarte, Calif.	65.8	1.8	10	2	3	1	3	2	3	1	141	2.3	No	5	8	Yes
37	Scripps La Jolla Hospitals and Clinics, La Jolla, Calif.	65.6	1.1	9	2	3	2	2	3	2	1	146	2.6	Yes	5	8	Yes
38	Christiana Care Hospital, Newark, Del.	65.5	1.5	9	2	1	1	3	3	3	3	293	2.1	Yes	5	8	Yes
38	Hahnemann University Hospital, Philadelphia	65.5	1.2	10	2	1	2	1	2	2	1	111	1.9	Yes	5	9	Yes
38	UCLA Medical Center, Los Angeles	65.5	5.8	7	1	2	1	1	2	3	1	160	2.9	Yes	5	9	Yes
41	St Vincent Hospital and Health Center, Indianapolis	65.1	0.0	9	2	3	2	3	1	2	3	547	1.6	Yes	5	8	Yes
42	Lehigh Valley Hospital, Allentown, Pa.	65.0	1.2	8	2	3	1	3	1	3	2	345	1.9	Yes	5	9	Yes
43	University of Washington Medical Center, Seattle	64.9	1.8	10	1	2	2	1	2	2	2	272	2.1	Yes	5	9	Yes
44	Oregon Health and Science University, Portland	64.7	2.8	10	1	2	1	1	3	1	1	145	2.1	Yes	5	8	Yes
44	UPMC-University of Pittsburgh Medical Center	64.7	0.0	10	2	3	1	2	2	3	1	95	2.0	Yes	5	9	Yes
44	University of North Carolina Hospitals, Chapel Hill	64.7	4.7	8	1	3	1	2	2	1	1	280	1.8	Yes	5	9	Yes
47	Loma Linda University Medical Center, Loma Linda, Calif.	64.6	3.2	10	1	1	1	2	1	3	2	321	2.6	No	5	9	Yes
48	Avera McKennan Hospital and University Health Center, Sioux Falls, S.D.	64.3	1.3	8	3	3	3	2	3	2	3	175	1.3	Yes	5	8	Yes
48	Sarasota Memorial Hospital, Fla.	64.3	3.6	8	2	3	2	2	3	2	1	243	1.1	Yes	5	9	Yes
50	University of Maryland Medical Center, Baltimore	64.1	2.3	10	1	1	1	2	1	2	2	92	2.2	Yes	5	9	Yes
50	University of Wisconsin Hospital and Clinics, Madison	64.1	1.1	9	1	3	1	1	3	1	2	375	1.8	Yes	5	9	Yes
50	Western Pennsylvania Hospital, Pittsburgh	64.1	1.2	9	2	2	1	2	1	3	2	195	1.5	Yes	5	9	Yes

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Nephrology

Rank	Hospital	U.S. News Score	Reputation with specialists	Survival	Success in keeping patients safe	Preventing deaths from treatable complications	Preventing collapsed lung after surgery	Preventing major bleeding after surgery	Preventing respiratory failure after surgery	Preventing incisions from reopening after surgery	Preventing accidental injuries during surgery	Nephrology patient volume	Nurse staffing	Nurse Magnet recognition	Advanced technologies	Key patient services	Trauma center	Intensivist staffing
1	Mayo Clinic, Rochester, Minn.	100.0	29.6	9	3	2	3	3	3	1	3	2,208	3.0	Yes	7	8	Yes	Yes
2	Cleveland Clinic	94.6	26.7	10	2	3	2	3	2	1	2,574	2.4	Yes	7	8	No	Yes	
3	New York-Presbyterian University Hospital of Columbia and Cornell, N.Y.	89.2	21.7	9	2	3	1	3	3	2	2	3,855	2.2	No	7	8	Yes	Yes
4	Johns Hopkins Hospital, Baltimore	86.9	15.1	10	2	3	1	2	3	3	2	1,548	2.2	Yes	7	8	Yes	Yes
5	Brigham and Women's Hospital, Boston	84.2	25.8	7	2	3	2	2	3	2	2	1,211	2.3	Yes	7	8	Yes	Yes
5	Massachusetts General Hospital, Boston	84.2	23.8	7	2	3	1	2	3	2	1	1,385	2.3	Yes	7	8	Yes	Yes
7	UCSF Medical Center, San Francisco	83.1	8.6	10	3	3	3	2	3	3	3	1,409	2.5	Yes	7	8	No	Yes
8	UCLA Medical Center, Los Angeles	82.2	11.6	10	1	2	1	1	2	3	1	1,728	2.9	Yes	7	8	Yes	Yes
9	Wake Forest Baptist Medical Center, Winston-Salem, N.C.	81.5	5.7	9	3	1	3	2	2	3	3	2,536	1.8	Yes	7	8	Yes	Yes
10	Vanderbilt University Medical Center, Nashville	81.4	12.1	9	2	2	1	2	2	3	2	1,632	2.4	Yes	7	8	Yes	Yes
11	Duke University Medical Center, Durham, N.C.	80.8	8.4	10	2	1	3	2	2	2	3	1,560	2.1	Yes	7	8	Yes	Yes
12	Barnes-Jewish Hospital/Washington University, St. Louis	79.1	12.3	8	1	3	1	1	2	2	1	2,807	2.2	Yes	7	8	Yes	Yes
13	Hospital of the University of Pennsylvania, Philadelphia	77.9	10.6	8	2	2	2	2	2	2	2	1,220	2.6	Yes	7	8	Yes	Yes
14	Northwestern Memorial Hospital, Chicago	77.8	3.0	10	3	3	2	1	3	3	3	1,701	1.7	Yes	7	8	Yes	Yes
15	University of Maryland Medical Center, Baltimore	77.6	6.3	10	1	1	1	2	1	2	2	1,318	2.2	Yes	7	8	Yes	Yes
16	UPMC-University of Pittsburgh Medical Center	77.0	7.6	8	2	3	1	2	2	3	1	2,797	2.0	Yes	7	8	Yes	Yes
17	UC San Diego Medical Center	75.8	2.7	10	2	3	1	3	2	2	2	782	2.0	Yes	7	8	Yes	Yes
18	Baylor University Medical Center, Dallas	74.2	4.3	9	2	1	2	3	2	3	1	1,672	1.7	Yes	7	8	Yes	Yes
19	University of Wisconsin Hospital and Clinics, Madison	74.0	3.9	10	1	3	1	1	3	1	2	1,527	1.8	Yes	7	8	Yes	Yes
20	IU Health Academic Health Center, Indianapolis	73.8	3.1	9	2	2	1	3	1	2	3	2,486	2.4	Yes	7	8	Yes	Yes
21	Mayo Clinic, Phoenix	73.6	2.3	10	3	3	3	1	3	3	3	1,067	3.6	No	7	8	No	Yes
22	Cedars-Sinai Medical Center, Los Angeles	73.1	3.1	8	3	3	2	3	3	2	3	1,533	2.4	Yes	7	8	Yes	Yes
22	University Hospitals Case Medical Center, Cleveland	73.1	1.3	9	3	3	2	3	3	3	1	1,421	2.2	Yes	7	8	Yes	Yes
24	Tampa General Hospital	72.3	2.9	10	1	1	2	1	1	1	1	1,552	2.4	Yes	7	8	Yes	Yes
24	University of Washington Medical Center, Seattle	72.3	7.9	10	1	2	2	1	2	2	2	818	2.1	Yes	7	8	No	Yes
26	Stanford Hospital and Clinics, Stanford, Calif.	71.8	3.9	9	2	3	1	1	3	2	1	958	2.5	Yes	7	8	Yes	Yes
27	Yale-New Haven Hospital, New Haven, Conn.	71.7	5.4	8	1	3	1	1	3	1	2	1,695	3.0	Yes	7	8	Yes	Yes
28	Methodist Hospital, Houston	71.6	2.1	10	2	3	1	1	2	2	3	1,926	1.8	Yes	7	8	No	Yes
28	Ohio State University Wexner Medical Center, Columbus	71.6	2.7	9	1	1	1	2	1	2	2	2,591	2.2	Yes	7	8	Yes	Yes
30	Rush University Medical Center, Chicago	71.5	5.6	9	1	3	1	2	2	1	2	1,038	2.0	Yes	7	8	Yes	Yes
31	Florida Hospital, Orlando	71.1	3.1	7	2	3	1	3	2	2	2	4,906	2.1	Yes	7	8	No	Yes
32	University of Colorado Hospital, Aurora	71.0	5.1	9	2	3	2	1	2	3	1	941	1.5	Yes	7	8	Yes	Yes
32	University of Rochester Medical Center, Rochester, N.Y.	71.0	2.1	10	2	1	2	2	2	3	1	1,320	1.7	Yes	7	8	Yes	Yes
34	Shands at the University of Florida, Gainesville	70.2	2.1	10	1	2	1	1	1	2	2	1,587	1.7	Yes	7	8	Yes	Yes
35	Allina Abbott Northwestern Hospital, Minneapolis	70.1	2.9	9	2	3	1	2	2	2	2	1,032	2.2	Yes	7	8	Yes	Yes
35	University of Kansas Hospital, Kansas City	70.1	0.0	10	2	3	1	3	1	2	2	1,223	2.3	Yes	7	8	Yes	Yes
37	University Hospital, San Antonio	69.6	2.9	10	1	2	1	3	2	1	1	410	1.6	Yes	7	7	Yes	Yes
38	University of Michigan Hospitals and Health Centers, Ann Arbor	69.1	3.7	9	2	2	2	1	2	2	3	1,990	2.6	No	7	8	Yes	Yes
39	NYU Langone Medical Center, New York	68.1	1.3	9	2	3	1	3	2	3	3	826	2.0	Yes	7	8	Yes	Yes
40	Medical University of South Carolina, Charleston	68.0	3.1	10	2	3	2	3	2	2	2	1,295	2.2	No	7	7	Yes	Yes
41	Virginia Commonwealth University Medical Center, Richmond	67.2	3.0	9	1	1	2	2	1	1	1	970	2.3	Yes	7	7	Yes	Yes
42	Thomas Jefferson University Hospital, Philadelphia	65.9	0.0	7	3	3	2	2	2	3	3	1,505	2.2	Yes	7	8	Yes	Yes
42	University of Iowa Hospitals and Clinics, Iowa City	65.9	3.3	9	1	2	2	3	1	1	2	1,037	1.7	Yes	7	8	Yes	Yes
44	Mount Sinai Medical Center, New York	65.7	2.7	8	1	2	1	3	2	2	1	2,305	2.1	Yes	7	8	Yes	Yes
45	Ochsner Medical Center, New Orleans	65.6	0.0	9	2	2	2	3	2	2	2	1,792	1.8	Yes	7	8	Yes	Yes
46	University of Alabama Hospital at Birmingham	65.4	4.5	7	1	1	1	1	2	2	2	2,370	1.7	Yes	7	7	Yes	Yes
47	University of California, Irvine Medical Center, Orange	65.1	1.2	9	1	1	1	1	3	3	1	486	2.3	Yes	7	8	Yes	Yes
48	Sentara Norfolk General Hospital, Norfolk, Va.	65.0	0.0	9	2	1	2	3	2	1	3	1,285	1.6	Yes	7	8	Yes	Yes
49	Memorial Hermann-Texas Medical Center, Houston	64.6	3.6	10	1	1	1	1	1	1	3	910	2.0	No	7	8	Yes	Yes
49	Methodist Hospitals of Memphis	64.6	2.9	8	2	1	1	3	2	3	3	2,890	1.6	No	7	8	Yes	Yes

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Neurology & Neurosurgery

Rank	Hospital	U.S. News Score	Reputation with specialists	Survival	Success in keeping patients safe	Preventing deaths from treatable complications	Preventing collapsed lung after surgery	Preventing major bleeding after surgery	Preventing respiratory failure after surgery	Preventing incisions from reopening after surgery	Preventing accidental injuries during surgery	Neurology patient volume	Nurse staffing	Nurse Magnet recognition	NAEC-designated epilepsy center	NIA-designated Alzheimer's center	Advanced technologies	Key patient services	Trauma center	Intensivist staffing
1	Johns Hopkins Hospital, Baltimore	100.0	42.5	9	2	3	1	2	3	3	2	2,471	2.2	Yes	Yes	Yes	5	9	Yes	Yes
2	Mayo Clinic, Rochester, Minn.	98.6	45.8	6	3	2	3	3	3	1	3	4,067	3.0	Yes	Yes	Yes	5	9	Yes	Yes
3	New York-Presbyterian University Hospital of Columbia and Cornell, N.Y.	93.1	31.8	8	2	3	1	3	3	2	2	6,167	2.2	No	Yes	Yes	5	9	Yes	Yes
4	Massachusetts General Hospital, Boston	91.3	41.7	6	2	3	1	2	3	2	1	4,694	2.3	Yes	Yes	Yes	5	9	Yes	Yes
5	UCSF Medical Center, San Francisco	88.3	36.3	6	3	3	3	2	3	3	3	2,360	2.5	Yes	Yes	Yes	5	9	No	Yes
6	Cleveland Clinic	84.6	27.5	8	2	3	2	2	3	2	1	4,475	2.4	Yes	Yes	No	5	9	No	Yes
7	Northwestern Memorial Hospital, Chicago	78.5	6.2	8	3	3	2	1	3	3	3	2,252	1.7	Yes	Yes	Yes	5	9	Yes	Yes
8	UPMC-University of Pittsburgh Medical Center	76.4	8.3	6	2	3	1	2	2	3	1	8,120	2.0	Yes	Yes	Yes	5	9	Yes	Yes
9	UCLA Medical Center, Los Angeles	76.2	13.5	7	1	2	1	1	2	3	1	2,869	2.9	Yes	Yes	Yes	5	9	Yes	Yes
10	NYU Langone Medical Center, New York	75.6	3.7	9	2	3	1	3	2	3	3	1,861	2.0	Yes	Yes	Yes	5	9	Yes	Yes
11	Methodist Hospital, Houston	73.0	6.3	9	2	3	1	1	2	2	3	4,066	1.8	Yes	Yes	No	5	9	No	Yes
12	Hospital of the University of Pennsylvania, Philadelphia	72.1	8.7	6	2	2	2	2	2	2	2	2,573	2.6	Yes	Yes	Yes	5	9	Yes	Yes
13	Barnes-Jewish Hospital/Washington University, St. Louis	70.9	11.3	6	1	3	1	1	2	2	1	4,711	2.2	Yes	Yes	Yes	5	8	Yes	Yes
14	Cedars-Sinai Medical Center, Los Angeles	69.6	2.0	8	3	3	2	3	3	2	3	3,131	2.4	Yes	Yes	No	5	9	Yes	Yes
15	IU Health Academic Health Center, Indianapolis	68.9	2.2	7	2	2	1	3	1	2	3	4,776	2.4	Yes	Yes	Yes	5	9	Yes	Yes
16	Rush University Medical Center, Chicago	68.7	4.9	9	1	3	1	2	2	1	2	2,661	2.0	Yes	Yes	Yes	5	9	Yes	Yes
16	St. Joseph's Hospital and Medical Center, Phoenix	68.7	17.8	5	1	3	1	2	1	1	1	5,086	1.7	No	Yes	Yes	4	9	Yes	Yes
18	UT Southwestern Medical Center, Dallas	68.6	1.8	9	3	3	3	1	3	3	1	1,815	1.7	No	Yes	Yes	5	9	No	Yes
19	Brigham and Women's Hospital, Boston	68.4	6.8	5	2	3	2	2	3	2	2	3,415	2.3	Yes	Yes	Yes	5	9	Yes	Yes
20	University of Kansas Hospital, Kansas City	68.3	1.5	8	2	3	1	3	1	2	2	1,652	2.3	Yes	Yes	Yes	5	9	Yes	Yes
21	Harper University Hospital, Detroit	67.6	1.5	10	2	2	2	1	2	2	2	1,459	1.4	No	Yes	No	5	9	Yes	Yes
22	Mount Sinai Medical Center, New York	66.8	3.4	7	1	2	1	3	2	2	1	3,140	2.1	Yes	Yes	Yes	5	9	Yes	Yes
23	University Hospitals Case Medical Center, Cleveland	66.6	2.1	7	3	3	2	3	3	3	1	3,432	2.2	Yes	Yes	No	5	9	Yes	Yes
24	Allina Abbott Northwestern Hospital, Minneapolis	64.4	1.1	8	2	3	1	2	2	2	2	2,861	2.2	Yes	Yes	No	5	9	Yes	Yes
25	Duke University Medical Center, Durham, N.C.	64.1	7.2	5	2	1	3	2	2	2	3	3,227	2.1	Yes	Yes	No	5	9	Yes	Yes
26	Hackensack University Medical Center, Hackensack, N.J.	63.8	1.8	6	3	3	3	3	3	2	2	2,852	2.0	Yes	Yes	No	5	9	Yes	Yes
27	University of Washington Medical Center, Seattle	63.7	4.4	8	1	2	2	1	2	2	2	590	2.1	Yes	Yes	Yes	5	9	No	Yes
28	Stanford Hospital and Clinics, Stanford, Calif.	63.6	6.5	6	2	3	1	1	3	2	1	2,075	2.5	Yes	Yes	No	5	9	Yes	Yes
29	University of Rochester Medical Center, Rochester, N.Y.	62.9	3.1	7	2	1	2	2	2	3	1	3,441	1.7	Yes	Yes	No	5	9	Yes	Yes
30	Wake Forest Baptist Medical Center, Winston-Salem, N.C.	62.6	1.7	6	3	1	3	2	2	3	3	3,419	1.8	Yes	Yes	No	5	9	Yes	Yes
31	St. Francis Hospital, Roslyn, N.Y.	61.8	0.0	9	3	1	3	3	3	2	3	1,144	1.9	Yes	No	No	5	9	Yes	Yes
32	Thomas Jefferson University Hospital, Philadelphia	61.7	3.2	5	3	3	2	2	2	3	3	4,502	2.2	Yes	Yes	No	5	9	Yes	Yes
33	Keck Hospital of USC, Los Angeles	61.6	2.1	9	2	2	2	3	2	2	2	619	2.5	No	Yes	Yes	5	9	No	Yes
34	Vanderbilt University Medical Center, Nashville	61.5	3.0	6	2	2	1	2	2	3	2	2,488	2.4	Yes	Yes	No	5	9	Yes	Yes
35	Ochsner Medical Center, New Orleans	61.1	0.0	8	2	2	2	3	2	2	2	2,763	1.8	Yes	Yes	No	5	8	Yes	Yes
36	Baylor University Medical Center, Dallas	61.0	1.4	7	2	1	2	3	2	3	1	3,922	1.7	Yes	Yes	No	5	9	Yes	Yes
37	Shands at the University of Florida, Gainesville	60.8	5.1	7	1	2	1	1	1	2	2	3,588	1.7	Yes	Yes	No	5	9	Yes	Yes
38	Florida Hospital, Orlando	60.7	0.0	7	2	3	1	3	2	2	2	7,091	2.1	Yes	Yes	No	5	8	No	Yes
38	Mayo Clinic, Phoenix	60.7	3.5	5	3	3	3	1	3	3	3	1,373	3.6	No	Yes	Yes	5	9	No	Yes
40	Emory University Hospital, Atlanta	60.5	2.5	7	2	2	2	3	2	2	2	3,804	1.9	No	Yes	Yes	5	9	No	Yes
41	Montefiore Medical Center, New York	59.5	1.6	7	2	3	1	2	2	2	2	4,641	1.4	No	Yes	No	5	9	Yes	Yes
42	UC San Diego Medical Center	58.8	1.2	6	2	3	1	3	2	2	2	1,310	2.0	Yes	Yes	Yes	5	9	Yes	Yes
43	Henry Ford Hospital, Detroit	58.1	2.2	8	1	2	1	1	1	2	2	3,534	1.6	No	Yes	No	5	9	Yes	Yes
44	University of Iowa Hospitals and Clinics, Iowa City	57.7	3.9	7	1	2	2	3	1	1	2	2,968	1.7	Yes	Yes	No	5	9	Yes	Yes
45	Hahnemann University Hospital, Philadelphia	57.6	0.0	8	2	1	2	1	2	2	1	1,323	1.9	Yes	No	No	5	8	Yes	Yes
46	Aurora St. Luke's Medical Center, Milwaukee	57.3	0.0	7	2	2	1	3	3	2	2	4,371	1.8	Yes	Yes	No	5	9	No	Yes
46	University of Colorado Hospital, Aurora	57.3	1.6	7	2	3	2	1	2	3	1	1,197	1.5	Yes	Yes	No	5	9	Yes	Yes
48	South Pointe Hospital, Warrensville Heights, Ohio	57.0	0.0	10	2	3	1	2	3	1	2	814	1.2	No	No	No	5	9	No	Yes
49	Ohio State University Wexner Medical Center, Columbus	56.9	1.6	6	1	1	1	2	1	2	2	2,995	2.2	Yes	Yes	No	5	9	Yes	Yes
50	University of Wisconsin Hospital and Clinics, Madison	56.5	1.9	6	1	3	1	1	3	1	2	2,148	1.8	Yes	Yes	Yes	5	9	Yes	Yes

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Orthopedics

Rank	Hospital	U.S. News Score	Reputation with specialists	Survival	Success in keeping patients safe	Preventing deaths from treatable complications	Preventing collapsed lung after surgery	Preventing major bleeding after surgery	Preventing respiratory failure after surgery	Preventing incisions from reopening after surgery	Preventing accidental injuries during surgery	Orthopedics patient volume	Nurse staffing	Nurse Magnet recognition	Advanced technologies	Key patient services	Trauma center	Intensivist staffing
1	Hospital for Special Surgery, New York	100.0	45.0	10	3	3	3	3	3	2	3	9,279	2.9	Yes	2	7	Yes	Yes
2	Mayo Clinic, Rochester, Minn.	91.1	47.4	9	3	2	3	3	3	1	3	6,563	3.0	Yes	2	7	Yes	Yes
3	Cleveland Clinic	74.3	22.4	10	2	3	2	2	3	2	1	3,354	2.4	Yes	2	7	No	Yes
4	Massachusetts General Hospital, Boston	70.5	22.8	8	2	3	1	2	3	2	1	3,239	2.3	Yes	2	7	Yes	Yes
5	Hospital for Joint Diseases, NYU Langone Medical Center, New York	67.8	7.5	10	2	3	1	3	2	3	3	3,905	2.0	Yes	2	7	Yes	Yes
6	Johns Hopkins Hospital, Baltimore	67.6	15.0	9	2	3	1	2	3	3	2	1,188	2.2	Yes	2	7	Yes	Yes
7	Northwestern Memorial Hospital, Chicago	65.1	4.5	10	3	3	2	1	3	3	3	2,907	1.7	Yes	2	7	Yes	Yes
7	Thomas Jefferson University Hospital, Philadelphia	65.1	8.5	8	3	3	2	2	2	3	3	4,216	2.2	Yes	2	7	Yes	Yes
9	Cedars-Sinai Medical Center, Los Angeles	64.7	3.1	9	3	3	2	3	3	2	3	4,265	2.4	Yes	2	7	Yes	Yes
10	Rush University Medical Center, Chicago	63.9	10.9	10	1	3	1	2	2	1	2	3,412	2.0	Yes	1	7	Yes	Yes
11	UPMC-University of Pittsburgh Medical Center	63.8	9.3	8	2	3	1	2	2	3	1	6,562	2.0	Yes	2	7	Yes	Yes
12	Duke University Medical Center, Durham, N.C.	63.6	11.9	7	2	1	3	2	2	2	3	3,011	2.1	Yes	2	7	Yes	Yes
13	Allina Abbot Northwestern Hospital, Minneapolis	61.6	1.6	10	2	3	1	2	2	2	2	4,932	2.2	Yes	2	7	Yes	Yes
14	UCSF Medical Center, San Francisco	61.5	3.9	9	3	3	3	2	3	3	3	2,372	2.5	Yes	2	7	No	Yes
15	New England Baptist Hospital, Boston	60.7	2.8	10	3	1	3	2	2	1	3	3,397	1.7	No	2	7	No	Yes
16	University Hospitals Case Medical Center, Cleveland	59.9	1.8	9	3	3	2	3	3	3	1	2,573	2.2	Yes	2	7	Yes	Yes
17	Brigham and Women's Hospital, Boston	58.6	5.5	8	2	3	2	2	3	2	2	2,797	2.3	Yes	2	7	Yes	Yes
18	Stanford Hospital and Clinics, Stanford, Calif.	58.5	3.1	9	2	3	1	1	3	2	1	2,746	2.5	Yes	2	7	Yes	Yes
19	Barnes-Jewish Hospital/Washington University, St. Louis	58.4	8.9	7	1	3	1	1	2	2	1	3,484	2.2	Yes	2	7	Yes	Yes
19	Tampa General Hospital	58.4	2.3	10	1	1	2	1	1	1	1	3,621	2.4	Yes	2	7	Yes	Yes
19	UCLA Medical Center, Los Angeles	58.4	5.2	9	1	2	1	1	2	3	1	2,242	2.9	Yes	2	7	Yes	Yes
22	Cadence Health Central DuPage Hospital, Winfield, Ill.	57.9	0.0	9	3	2	3	3	2	2	3	2,640	1.7	Yes	2	7	Yes	Yes
23	St Francis Hospital, Roslyn, N.Y.	57.3	0.0	10	3	1	3	3	3	2	3	599	1.9	Yes	2	7	Yes	Yes
24	Baylor University Medical Center, Dallas	57.2	2.4	8	2	1	2	3	2	3	1	4,914	1.7	Yes	2	6	Yes	Yes
25	Methodist Hospital, Houston	57.1	1.8	10	2	3	1	1	2	2	3	4,406	1.8	Yes	2	7	No	Yes
26	Beaumont Hospital, Royal Oak, Mich.	56.7	1.5	9	1	2	1	3	3	1	2	7,696	1.8	Yes	2	7	Yes	Yes
26	University of Iowa Hospitals and Clinics, Iowa City	56.7	4.5	10	1	2	2	3	1	1	2	1,788	1.7	Yes	2	7	Yes	Yes
28	University of Colorado Hospital, Aurora	56.1	1.3	10	2	3	2	1	2	3	1	1,146	1.5	Yes	2	7	Yes	Yes
29	Christ Hospital, Cincinnati	55.9	1.6	10	2	3	3	2	1	3	2	2,498	1.9	Yes	2	7	No	Yes
30	New York-Presbyterian University Hospital of Columbia and Cornell, N.Y.	55.4	6.5	8	2	3	1	3	3	2	2	3,074	2.2	No	2	7	Yes	Yes
31	MedStar Union Memorial Hospital, Baltimore	55.3	4.3	10	2	3	1	3	3	2	3	2,253	1.6	No	1	7	Yes	Yes
31	Ochsner Medical Center, New Orleans	55.3	2.3	8	2	2	2	3	2	2	2	2,487	1.8	Yes	2	7	Yes	Yes
33	Huntington Memorial Hospital, Pasadena, Calif.	55.2	2.4	9	2	3	2	1	3	2	1	2,291	1.9	Yes	1	7	Yes	Yes
34	Pennsylvania Hospital, Philadelphia	54.9	1.2	10	3	2	2	2	3	3	2	2,348	1.6	No	2	7	No	Yes
35	Hospital of the University of Pennsylvania, Philadelphia	54.7	4.2	8	2	2	2	2	2	2	2	808	2.6	Yes	2	7	Yes	Yes
35	Lehigh Valley Hospital, Allentown, Pa.	54.7	0.0	8	2	3	1	3	1	3	2	4,462	1.9	Yes	2	7	Yes	Yes
35	Magee-Womens Hospital of UPMC, Pittsburgh	54.7	0.0	10	3	3	3	1	3	3	1	1,093	2.0	No	2	7	No	Yes
38	IU Health Academic Health Center, Indianapolis	54.6	1.8	8	2	2	1	3	1	2	3	2,469	2.4	Yes	2	7	Yes	Yes
39	Virginia Commonwealth University Medical Center, Richmond	54.2	1.6	10	1	1	2	2	1	1	1	1,572	2.3	Yes	2	6	Yes	Yes
40	John Muir Medical Center, Concord, Calif.	54.1	0.0	9	3	1	3	3	3	3	2	761	2.4	Yes	2	5	No	Yes
40	John Muir Medical Center, Walnut Creek, Calif.	54.1	0.0	9	2	3	2	3	1	2	2	2,487	2.3	Yes	2	6	Yes	Yes
40	Lancaster General Hospital, Lancaster, Pa.	54.1	0.0	7	3	3	3	2	3	2	2	4,724	1.6	Yes	2	6	Yes	Yes
43	Mayo Clinic, Phoenix	54.0	0.0	9	3	3	3	1	3	3	3	1,999	3.6	No	2	7	No	Yes
43	Vanderbilt University Medical Center, Nashville	54.0	2.9	7	2	2	1	2	2	3	2	1,932	2.4	Yes	2	7	Yes	Yes
45	Scripps La Jolla Hospitals and Clinics, La Jolla, Calif.	53.8	0.0	8	2	3	2	2	3	2	1	3,056	2.6	Yes	2	7	Yes	Yes
46	Hackensack University Medical Center, Hackensack, N.J.	53.5	0.0	7	3	3	3	3	3	2	2	2,948	2.0	Yes	2	7	Yes	Yes
46	IU Health North Hospital, Carmel, Ind.	53.5	0.0	10	3	3	2	3	2	2	3	879	2.4	No	2	7	No	Yes
48	Wake Forest Baptist Medical Center, Winston-Salem, N.C.	53.1	0.0	7	3	1	3	2	2	3	3	2,560	1.8	Yes	2	7	Yes	Yes
49	Bethesda North Hospital, Cincinnati	52.8	0.0	7	3	3	3	3	1	3	3	2,737	1.9	Yes	2	7	Yes	Yes
49	Hoag Memorial Hospital Presbyterian, Newport Beach, Calif.	52.8	1.8	8	2	3	1	2	3	2	2	1,994	2.4	Yes	2	7	No	Yes

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Pulmonology

Rank	Hospital	U.S. News Score	Reputation with specialists	Survival	Success in keeping patients safe	Preventing deaths from treatable complications	Preventing collapsed lung after surgery	Preventing major bleeding after surgery	Preventing respiratory failure after surgery	Preventing incisions from reopening after surgery	Preventing accidental injuries during surgery	Pulmonology patient volume	Nurse staffing	Nurse Magnet recognition	Advanced technologies	Key patient services	Trauma center	Intensivist staffing
1	Mayo Clinic, Rochester, Minn.	100.0	44.6	8	3	2	3	3	3	1	3	6,778	3.0	Yes	6	8	Yes	Yes
2	National Jewish Health, Denver-University of Colorado Hospital, Aurora	93.6	55.6	8	2	3	2	1	2	3	1	2,431	1.5	Yes	6	8	Yes	Yes
3	Cleveland Clinic	86.6	33.2	9	2	3	2	2	3	2	1	5,535	2.4	Yes	6	8	No	Yes
4	Duke University Medical Center, Durham, N.C.	79.6	16.9	8	2	1	3	2	2	2	3	5,094	2.1	Yes	6	8	Yes	Yes
5	Massachusetts General Hospital, Boston	78.7	18.7	7	2	3	1	2	3	2	1	5,413	2.3	Yes	6	8	Yes	Yes
6	Johns Hopkins Hospital, Baltimore	78.3	25.2	7	2	3	1	2	3	3	2	2,463	2.2	Yes	6	8	Yes	Yes
7	UPMC-University of Pittsburgh Medical Center	77.1	14.5	6	2	3	1	2	2	3	1	10,028	2.0	Yes	6	8	Yes	Yes
8	Barnes-Jewish Hospital/Washington University, St. Louis	72.5	14.6	7	1	3	1	1	2	2	1	5,838	2.2	Yes	6	8	Yes	Yes
9	UC San Diego Medical Center	71.3	7.0	9	2	3	1	3	2	2	2	2,477	2.0	Yes	6	8	Yes	Yes
9	Vanderbilt University Medical Center, Nashville	71.3	7.6	8	2	2	1	2	2	3	2	3,700	2.4	Yes	6	8	Yes	Yes
11	Hospital of the University of Pennsylvania, Philadelphia	70.7	11.8	6	2	2	2	2	2	2	2	3,399	2.6	Yes	6	8	Yes	Yes
12	IU Health Academic Health Center, Indianapolis	70.5	1.1	10	2	2	1	3	1	2	3	6,776	2.4	Yes	6	8	Yes	Yes
13	Northwestern Memorial Hospital, Chicago	69.3	2.6	9	3	3	2	1	3	3	3	3,528	1.7	Yes	5	8	Yes	Yes
14	Thomas Jefferson University Hospital, Philadelphia	68.9	4.0	8	3	3	2	2	2	3	3	4,054	2.2	Yes	5	8	Yes	Yes
15	Brigham and Women's Hospital, Boston	68.4	6.6	7	2	3	2	2	3	2	2	4,816	2.3	Yes	6	8	Yes	Yes
16	Wake Forest Baptist Medical Center, Winston-Salem, N.C.	67.8	3.8	8	3	1	3	2	2	3	3	4,787	1.8	Yes	5	8	Yes	Yes
17	New York-Presbyterian University Hospital of Columbia and Cornell, N.Y.	67.3	8.1	7	2	3	1	3	3	2	2	9,559	2.2	No	6	8	Yes	Yes
17	University of Kansas Hospital, Kansas City	67.3	1.1	10	2	3	1	3	1	2	2	3,006	2.3	Yes	5	8	Yes	Yes
19	Yale-New Haven Hospital, New Haven, Conn.	67.0	2.5	9	1	3	1	1	3	1	2	5,304	3.0	Yes	5	8	Yes	Yes
20	Cedars-Sinai Medical Center, Los Angeles	66.8	2.1	7	3	3	2	3	3	2	3	5,553	2.4	Yes	6	8	Yes	Yes
21	Bethesda North Hospital, Cincinnati	65.3	1.3	8	3	3	3	3	1	3	3	5,715	1.9	Yes	5	8	Yes	Yes
22	Baylor University Medical Center, Dallas	65.1	1.8	8	2	1	2	3	2	3	1	6,310	1.7	Yes	6	8	Yes	Yes
23	Methodist Hospital, Houston	64.3	2.2	9	2	3	1	1	2	2	3	5,454	1.8	Yes	6	8	No	Yes
24	Harper University Hospital, Detroit	63.9	2.7	10	2	2	2	1	2	2	2	1,737	1.4	No	5	8	Yes	Yes
24	Lehigh Valley Hospital, Allentown, Pa.	63.9	0.0	9	2	3	1	3	1	3	2	6,533	1.9	Yes	5	8	Yes	Yes
24	Ochsner Medical Center, New Orleans	63.9	1.2	8	2	2	2	3	2	2	2	5,559	1.8	Yes	6	8	Yes	Yes
24	UCLA Medical Center, Los Angeles	63.9	6.3	6	1	2	1	1	2	3	1	4,482	2.9	Yes	6	8	Yes	Yes
24	UCSF Medical Center, San Francisco	63.9	8.8	5	3	3	3	2	3	3	3	2,441	2.5	Yes	6	8	No	Yes
29	Stanford Hospital and Clinics, Stanford, Calif.	63.7	6.5	6	2	3	1	1	3	2	1	3,120	2.5	Yes	6	8	Yes	Yes
30	Allina Abbott Northwestern Hospital, Minneapolis	63.6	0.9	9	2	3	1	2	2	2	2	3,745	2.2	Yes	5	8	Yes	Yes
31	University of Wisconsin Hospital and Clinics, Madison	63.5	2.8	9	1	3	1	1	3	1	2	3,046	1.8	Yes	6	8	Yes	Yes
32	Tampa General Hospital	63.4	3.0	8	1	1	2	1	1	1	1	3,169	2.4	Yes	6	8	Yes	Yes
33	Ohio State University Wexner Medical Center, Columbus	63.3	3.2	8	1	1	1	2	1	2	2	5,760	2.2	Yes	5	8	Yes	Yes
34	Florida Hospital, Orlando	63.1	2.7	6	2	3	1	3	2	2	2	13,892	2.1	Yes	5	8	No	Yes
35	Alexian Brothers Medical Center, Elk Grove Village, Ill.	62.7	1.3	9	3	3	2	3	1	2	3	3,611	1.5	No	5	8	Yes	Yes
36	University of Michigan Hospitals and Health Centers, Ann Arbor	62.6	5.4	7	2	2	2	1	2	2	3	4,246	2.6	No	6	8	Yes	Yes
37	Rush University Medical Center, Chicago	62.5	4.0	9	1	3	1	2	2	1	2	2,383	2.0	Yes	5	8	Yes	Yes
38	Miami Valley Hospital, Dayton, Ohio	62.2	0.0	9	1	3	1	1	1	1	1	6,945	1.9	Yes	5	8	Yes	Yes
38	University Hospitals Case Medical Center, Cleveland	62.2	1.6	7	3	3	2	3	3	3	1	3,764	2.2	Yes	5	8	Yes	Yes
40	Spectrum Health, Grand Rapids, Mich.	62.1	0.0	7	3	3	3	3	3	3	1	8,141	1.7	Yes	5	8	Yes	Yes
41	Aurora St. Luke's Medical Center, Milwaukee	61.9	1.3	8	2	2	1	3	3	2	2	7,894	1.8	Yes	5	8	No	Yes
42	Baystate Medical Center, Springfield, Mass.	61.8	2.7	6	3	3	3	3	3	1	3	4,795	1.4	Yes	5	8	Yes	Yes
43	Akron General Medical Center, Ohio	61.4	1.1	8	2	3	2	2	1	3	2	5,182	1.4	Yes	5	8	Yes	Yes
44	Beaumont Hospital, Royal Oak, Mich.	61.3	1.3	8	1	2	1	3	3	1	2	9,907	1.8	Yes	5	8	Yes	Yes
45	St. Francis Hospital, Roslyn, N.Y.	61.2	0.0	8	3	1	3	3	3	2	3	2,602	1.9	Yes	5	8	Yes	Yes
46	St. Luke's Episcopal Hospital, Houston	61.0	2.7	9	1	2	1	2	1	1	3	3,718	1.6	Yes	6	8	No	Yes
47	Hackensack University Medical Center, Hackensack, N.J.	60.9	0.0	7	3	3	3	3	3	2	2	5,943	2.0	Yes	5	8	Yes	Yes
48	University of Washington Medical Center, Seattle	60.7	5.0	9	1	2	2	1	2	2	2	1,559	2.1	Yes	6	8	No	Yes
49	Shands at the University of Florida, Gainesville	60.6	2.3	8	1	2	1	1	1	2	2	4,370	1.7	Yes	6	8	Yes	Yes
50	Mayo Clinic, Phoenix	60.5	2.3	8	3	3	3	1	3	3	3	2,813	3.6	No	5	8	No	Yes

Top 10

Top 20

Urology

Rank	Hospital	U.S. News Score	Reputation with specialists	Survival	Success in keeping patients safe	Preventing deaths from treatable complications	Preventing collapsed lung after surgery	Preventing major bleeding after surgery	Preventing respiratory failure after surgery	Preventing incisions from reopening after surgery	Preventing accidental injuries during surgery	Urology patient volume	Nurse staffing	Nurse Magnet recognition	Advanced technologies	Key patient services	Trauma center	Intensivist staffing
1	Johns Hopkins Hospital, Baltimore	100.0	50.2	10	2	3	1	2	3	3	2	951	2.2	Yes	5	9	Yes	Yes
2	Cleveland Clinic	96.6	55.4	9	2	3	2	2	3	2	1	1,376	2.4	Yes	5	9	No	Yes
3	Mayo Clinic, Rochester, Minn.	91.8	32.8	7	3	2	3	3	3	1	3	1,267	3.0	Yes	5	9	Yes	Yes
4	UCLA Medical Center, Los Angeles	80.9	20.2	8	1	2	1	1	2	3	1	1,085	2.9	Yes	5	9	Yes	Yes
5	New York-Presbyterian University Hospital of Columbia and Cornell, N.Y.	77.1	11.0	9	2	3	1	3	3	2	2	2,305	2.2	No	5	9	Yes	Yes
6	Vanderbilt University Medical Center, Nashville	77.0	11.3	8	2	2	1	2	2	3	2	1,028	2.4	Yes	5	9	Yes	Yes
7	UCSF Medical Center, San Francisco	76.7	9.5	9	3	3	3	2	3	3	3	843	2.5	Yes	5	9	No	Yes
8	Duke University Medical Center, Durham, N.C.	75.2	13.5	8	2	1	3	2	2	2	3	960	2.1	Yes	5	9	Yes	Yes
9	Northwestern Memorial Hospital, Chicago	73.6	5.3	9	3	3	2	1	3	3	3	865	1.7	Yes	5	9	Yes	Yes
10	Cedars-Sinai Medical Center, Los Angeles	72.4	2.3	9	3	3	2	3	3	2	3	1,176	2.4	Yes	5	9	Yes	Yes
11	Hospital of the University of Pennsylvania, Philadelphia	72.3	8.6	8	2	2	2	2	2	2	2	632	2.6	Yes	5	9	Yes	Yes
12	Massachusetts General Hospital, Boston	72.2	9.2	8	2	3	1	2	3	2	1	838	2.3	Yes	5	9	Yes	Yes
13	IU Health Academic Health Center, Indianapolis	71.8	6.9	8	2	2	1	3	1	2	3	1,339	2.4	Yes	5	9	Yes	Yes
14	University of Michigan Hospitals and Health Centers, Ann Arbor	71.4	10.7	8	2	2	2	1	2	2	3	1,344	2.6	No	5	9	Yes	Yes
15	Barnes-Jewish Hospital/Washington University, St. Louis	70.5	8.0	8	1	3	1	1	2	2	1	1,281	2.2	Yes	5	9	Yes	Yes
15	Memorial Sloan-Kettering Cancer Center, New York	70.5	14.4	9	2	3	1	3	3	3	3	938	2.1	No	5	8	No	Yes
17	University Hospitals Case Medical Center, Cleveland	68.5	1.2	9	3	3	2	3	3	3	1	697	2.2	Yes	5	9	Yes	Yes
18	Shands at the University of Florida, Gainesville	68.3	3.8	10	1	2	1	1	1	2	2	1,131	1.7	Yes	5	9	Yes	Yes
19	NYU Langone Medical Center, New York	68.2	4.7	9	2	3	1	3	2	3	3	497	2.0	Yes	5	9	Yes	Yes
20	Thomas Jefferson University Hospital, Philadelphia	68.1	2.7	8	3	3	2	2	2	3	3	882	2.2	Yes	5	9	Yes	Yes
21	UT Southwestern Medical Center, Dallas	67.9	8.1	9	3	3	3	1	3	3	1	618	1.7	No	5	9	No	Yes
22	Hackensack University Medical Center, Hackensack, N.J.	67.8	0.9	9	3	3	3	3	3	2	2	1,003	2.0	Yes	5	9	Yes	Yes
22	Stanford Hospital and Clinics, Stanford, Calif.	67.8	6.6	7	2	3	1	1	3	2	1	537	2.5	Yes	5	9	Yes	Yes
22	UC San Diego Medical Center	67.8	2.5	10	2	3	1	3	2	2	2	434	2.0	Yes	5	9	Yes	Yes
25	Ohio State University Wexner Medical Center, Columbus	67.5	2.5	9	1	1	1	2	1	2	2	1,462	2.2	Yes	5	9	Yes	Yes
25	Rush University Medical Center, Chicago	67.5	1.9	10	1	3	1	2	2	1	2	688	2.0	Yes	5	9	Yes	Yes
27	University of Maryland Medical Center, Baltimore	67.2	2.2	10	1	1	1	2	1	2	2	767	2.2	Yes	5	9	Yes	Yes
28	Methodist Hospital, Houston	66.7	4.8	9	2	3	1	1	2	2	3	1,069	1.8	Yes	5	8	No	Yes
29	Keck Hospital of USC, Los Angeles	66.6	5.5	10	2	2	2	3	2	2	2	481	2.5	No	5	9	No	Yes
30	UPMC-University of Pittsburgh Medical Center	66.1	2.5	7	2	3	1	2	2	3	1	1,503	2.0	Yes	5	9	Yes	Yes
31	Mayo Clinic, Phoenix	65.8	1.4	10	3	3	3	1	3	3	3	700	3.6	No	5	8	No	Yes
32	Tampa General Hospital	65.3	0.0	10	1	1	2	1	1	1	1	944	2.4	Yes	5	9	Yes	Yes
33	Allina Abbott Northwestern Hospital, Minneapolis	64.8	3.4	8	2	3	1	2	2	2	2	562	2.2	Yes	5	9	Yes	Yes
34	University of Wisconsin Hospital and Clinics, Madison	64.6	1.2	10	1	3	1	1	3	1	2	886	1.8	Yes	5	9	Yes	Yes
35	Wake Forest Baptist Medical Center, Winston-Salem, N.C.	64.5	3.6	6	3	1	3	2	2	3	3	1,000	1.8	Yes	5	9	Yes	Yes
36	Florida Hospital, Orlando	63.7	2.5	6	2	3	1	3	2	2	2	2,174	2.1	Yes	5	9	No	Yes
36	University of Alabama Hospital at Birmingham	63.7	2.5	9	1	1	1	1	2	2	2	1,168	1.7	Yes	5	8	Yes	Yes
38	University of Washington Medical Center, Seattle	63.4	3.4	10	1	2	2	1	2	2	2	542	2.1	Yes	5	9	No	Yes
39	University of Rochester Medical Center, Rochester, N.Y.	63.3	1.1	8	2	1	2	2	2	3	1	845	1.7	Yes	5	9	Yes	Yes
40	Lahey Hospital and Medical Center, Burlington, Mass.	63.2	4.1	9	1	2	1	1	1	3	2	700	1.3	Yes	5	9	Yes	Yes
41	Scripps La Jolla Hospitals and Clinics, La Jolla, Calif.	63.1	1.2	9	2	3	2	2	3	2	1	332	2.6	Yes	5	8	Yes	Yes
42	University Hospital, San Antonio	63.0	0.9	10	1	2	1	3	2	1	1	184	1.6	Yes	5	8	Yes	Yes
43	University of Texas MD Anderson Cancer Center, Houston	62.8	13.0	5	2	3	1	1	2	3	2	617	2.0	Yes	5	9	No	Yes
44	Huntington Memorial Hospital, Pasadena, Calif.	62.6	1.2	9	2	3	2	1	3	2	1	418	1.9	Yes	5	9	Yes	Yes
45	Brigham and Women's Hospital, Boston	62.5	2.7	7	2	3	2	2	3	2	2	670	2.3	Yes	5	9	Yes	Yes
46	Lehigh Valley Hospital, Allentown, Pa.	61.8	1.6	7	2	3	1	3	1	3	2	859	1.9	Yes	5	9	Yes	Yes
47	St. Francis Hospital, Roslyn, N.Y.	61.6	1.6	7	3	1	3	3	3	2	3	234	1.9	Yes	5	9	Yes	Yes
48	Beaumont Hospital, Royal Oak, Mich.	61.5	1.2	8	1	2	1	3	3	1	2	1,497	1.8	Yes	5	9	Yes	Yes
48	University of California, Irvine Medical Center, Orange	61.5	1.1	9	1	1	1	1	3	3	1	277	2.3	Yes	5	9	Yes	Yes
50	Mayo Clinic Health Eau Claire, Wis.	61.4	0.0	10	2	3	2	1	2	3	1	182	2.4	No	5	9	Yes	Yes

Top 10

Top 20

Appendix G

2013-14 Reputation-Only Rankings

Reputation-Only Rankings 2013-14—Ophthalmology

Rank	Hospital	Reputation (%)	
1	Bascom Palmer Eye Institute at the University of Miami	66.5	
2	Wills Eye Hospital, Philadelphia	64.4	
3	Wilmer Eye Institute, Johns Hopkins Hospital, Baltimore	61.0	
4	Massachusetts Eye and Ear Infirmary, Massachusetts General Hospital, Boston	33.2	
5	Jules Stein Eye Institute, UCLA Medical Center, Los Angeles	29.5	Top 5
6	University of Iowa Hospitals and Clinics, Iowa City	16.5	
7	Cleveland Clinic	15.3	
8	Duke University Medical Center, Durham, N.C.	14.2	
9	Doheny Eye Institute, USC University Hospital, Los Angeles	12.1	
10	New York Eye and Ear Infirmary, N.Y.	9.8	Top 10
11	W.K. Kellogg Eye Center, University of Michigan, Ann Arbor	8.7	
12	Barnes-Jewish Hospital/Washington University, St. Louis	8.6	
13	Cullen Eye Institute-Baylor, Methodist Hospital, Houston	7.5	
14	UCSF Medical Center, San Francisco	6.9	
15	Mayo Clinic, Rochester, Minn.	6.5	
16	Emory University Hospital, Atlanta	5.1	

Reputation-Only Rankings 2013-14—Psychiatry

Rank	Hospital	Reputation (%)	
1	McLean Hospital, Belmont, Mass.	29.8	
2	Johns Hopkins Hospital, Baltimore	29.4	
3	Massachusetts General Hospital, Boston	27.0	
4	New York-Presbyterian University Hospital of Columbia and Cornell, N.Y.	26.2	
5	Menninger Clinic, Houston	23.5	Top 5
6	Sheppard and Enoch Pratt Hospital, Baltimore	21.1	
7	Mayo Clinic, Rochester, Minn.	15.9	
8	UPMC-University of Pittsburgh Medical Center	12.1	
9	Resnick Neuropsychiatric Hospital at UCLA, Los Angeles	11.7	
10	Austen Riggs Center, Stockbridge, Mass.	8.7	Top 10
11	Yale-New Haven Hospital, New Haven, Conn.	7.6	
12	Hospital of the University of Pennsylvania, Philadelphia	7.4	
13	Emory University Hospital, Atlanta	7.3	
14	Barnes-Jewish Hospital/Washington University, St. Louis	6.0	
15	Stanford Hospital and Clinics, Stanford, Calif.	5.9	
16	Long Island Jewish Medical Center, New Hyde Park, N.Y.	5.3	

Reputation-Only Rankings 2013-14—Rehabilitation

Rank	Hospital	Reputation (%)	
1	Rehabilitation Institute of Chicago	59.0	
2	Kessler Institute for Rehabilitation, West Orange, N.J.	33.4	
3	TIRR Memorial Hermann, Houston	32.6	
4	University of Washington Medical Center, Seattle	28.6	
5	Mayo Clinic, Rochester, Minn.	26.7	Top 5
6	Spaulding Rehabilitation Hospital, Massachusetts General Hospital, Boston	26.3	
7	Craig Hospital, Englewood, Colo.	17.2	
8	Rusk Rehabilitation at NYU Langone Medical Center, New York	15.6	
9	MossRehab, Elkins Park, Pa.	15.5	
10	Shepherd Center, Atlanta	11.5	Top 10
11	MedStar National Rehabilitation Hospital, Washington, D.C.	9.5	
12	UPMC-University of Pittsburgh Medical Center	8.2	
13	Ohio State University Wexner Medical Center, Columbus	7.7	
14	Mount Sinai Medical Center, New York	6.9	
15	New York-Presbyterian University Hospital of Columbia and Cornell, N.Y.	6.3	
16	Thomas Jefferson University Hospital, Philadelphia	5.2	
17	JFK Johnson Rehabilitation Institute, Edison, N.J.	5.0	

Reputation-Only Rankings 2013-14—Rheumatology

Rank	Hospital	Reputation (%)	
1	Johns Hopkins Hospital, Baltimore	55.1	
2	Cleveland Clinic	50.0	
3	Mayo Clinic, Rochester, Minn.	39.9	
4	Hospital for Special Surgery, New York	39.4	
5	Brigham and Women's Hospital, Boston	26.0	Top 5
6	Massachusetts General Hospital, Boston	18.4	
7	Hospital for Joint Diseases, NYU Langone Medical Center, New York	17.5	
8	UCLA Medical Center, Los Angeles	15.5	
9	UPMC-University of Pittsburgh Medical Center	13.6	
10	UCSF Medical Center, San Francisco	12.7	Top 10
11	University of Alabama Hospital at Birmingham	9.2	
12	Duke University Medical Center, Durham, N.C.	8.5	
13	New York-Presbyterian University Hospital of Columbia and Cornell, N.Y.	6.6	
14	Barnes-Jewish Hospital/Washington University, St. Louis	6.3	
15	University of Michigan Hospitals and Health Centers, Ann Arbor	6.1	
16	Stanford Hospital and Clinics, Stanford, Calif.	6.0	
17	Medical University of South Carolina, Charleston	5.2	

Appendix H

The 2013-14 Honor Roll

Honor Roll 2013-14

Rank	Hospital	Points	Specialties
1	Johns Hopkins Hospital, Baltimore	30	15
2	Massachusetts General Hospital, Boston	29	16
3	Mayo Clinic, Rochester, Minn.	29	15
4	Cleveland Clinic	27	14
5	UCLA Medical Center, Los Angeles	19	13
6	Northwestern Memorial Hospital, Chicago	17	12
7	New York-Presbyterian University Hospital of Columbia and Cornell, N.Y.	17	10
7	UCSF Medical Center, San Francisco	17	10
9	Brigham and Women's Hospital, Boston	16	10
10	UPMC-University of Pittsburgh Medical Center	15	10
11	Hospital of the University of Pennsylvania, Philadelphia	12	11
12	Duke University Medical Center, Durham, N.C.	12	9
13	Cedars-Sinai Medical Center, Los Angeles	12	8
14	NYU Langone Medical Center, New York	11	8
15	Barnes-Jewish Hospital/Washington University, St. Louis	10	9
16	IU Health Academic Health Center, Indianapolis	7	7
17	Thomas Jefferson University Hospital, Philadelphia	7	6
18	University Hospitals Case Medical Center, Cleveland	6	6

