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Methodology:

U.S. News & World Report

Best Hospitals 2011-12

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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 "Best Hospitals," they had few tools or resources beyond a doctor's recommendation to inform their decision. The annual assessments initially took the form of alphabetized lists in 12 specialties, but hospitals were ranked within each specialty starting in 1993. This year's "Best Hospitals" draws from a universe of 4,825 medical facilities.[*] We use the hospital definitions supplied by the American Hospital Association (AHA) in its annual survey, which is the source of some of the data used in the Best Hospitals rankings. Under rare circumstances, we will combine two or more AHA hospitals for rankings 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 receive a composite score based on data from multiple sources. ("Best Children's Hospitals,"[†] which ranks hospitals in 10 pediatric specialties, is a separate project.) The rankings and key portions of the accompanying data are published in a print edition; both ranked and unranked hospitals, with additional data, are published online at www.usnews.com/besthospitals.

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 the work of 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 as opportunities appeared. Larger-scale enhancements are always under consideration. In 2009, a new measure related to patient safety was introduced. The basic eligibility requirements also were modified, potentially increasing the number of rankable hospitals.

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[*] 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 2011-12[§] rankings.

For 2011-12, hospitals are ranked in 16 adult specialties:

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

A. Index of Hospital Quality

Twelve of the 16 specialty rankings 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; Geriatrics; Gynecology; Nephrology; Neurology & Neurosurgery; Orthopedics; Pulmonology; and Urology.

The IHQ reflects performance in three interlocking 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.

Excellent healthcare also is shaped by the *process* of delivering care, encompassing diagnosis, treatment, prevention, and patient education.

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

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, and infection rates.

These and other factors do not always fit neatly into one of the three dimensions. As cited above, for example, complications of care are an outcome, but arguably they also reflect a flaw in the process of delivering care, and also may be affected by structural elements. Nonetheless, there is general agreement on the majority of measures.

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 2011-12 rankings is the most recent AHA Annual Survey Database from fiscal year (FY) 2009. 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 Medicare beneficiaries who use hospital inpatient services.

Process

The process component of the IHQ score is represented by a hospital's reputation for developing and sustaining a system that delivers high-quality care. The hospital's reputation can be seen as a form of peer review. The reputational score is based on cumulative responses from the three most recent surveys of board-certified physicians conducted for the Best Hospitals rankings in 2009, 2010, and 2011. The surveyed physicians were asked to nominate the "best hospitals" in their specific field of care, irrespective of expense or location, for patients with serious or difficult conditions. Up to five hospitals could be listed. (For the physician questionnaires used in the 2011-12 rankings, see ***Appendix A***.) In 2009, 2010, and again in 2011, a sample of 200 board-certified physicians was selected in each specialty. In each year, the

sample was selected from the American Medical Association (AMA) Physician Masterfile, a database of more than 850,000 physicians.[**]

The physician sample was stratified by census region (West, Northeast, South, and Midwest) 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.

Outcomes

The outcomes score measures mortality 30 days after admission for all IHQ-driven specialties. Like the volume indicator, the outcomes measure is based on MedPAR data. For each hospital and specialty, the Healthcare Division of Thomson Reuters computed 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 years (2007, 2008, and 2009) of Medicare reimbursement claims submitted by hospitals to CMS.

B. Reputation-Only Rankings

Rankings in the remaining four 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])

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

- ***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 2007 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 2011-12 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 4,825[††] community hospitals included in the FY2009 AHA universe were automatically considered for ranking; no request, application or other action was necessary. For the IHQ-driven 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 must meet <u>any</u> of the following criteria:

- Membership in the Council of Teaching Hospitals (COTH), or

- Medical school affiliation (American Medical Association or American Osteopathic Association), or

- At least 200 hospital beds set up and staffed, or

- At least four of eight important key technologies available (see ***Technology***) <u>and</u> at least 100 hospital beds set up and staffed

Hospitals that did not respond to the 2009 AHA Annual Survey remained eligible in our database. For hospitals that did not respond in 2009 but responded in 2008 and 2007, we used

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

survey data from 2008. Nonresponders lacking data from both the current survey and from one of the previous two surveys were ranked without any AHA data.

A total of 2,196 hospitals successfully passed the first stage of the eligibility process.

Stage 2. Hospitals needed a specified number of discharges in a selection of specialty-specific diagnoses submitted for CMS reimbursement in 2007, 2008, and 2009 combined. 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, 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 total number of discharges to determine the minimum surgical discharges needed to be considered eligible.

Setting discharge minimums ensures that ranking-eligible hospitals have demonstrable experience in treating a set number of complex cases in a given specialty. Before 2005, when RTI became involved in the rankings, the minimum number of surgical discharges in Cardiology & Heart Surgery was set to 500. For all hospitals meeting the minimum, a ratio of total discharges to surgical discharges was calculated. The median of this ratio was then multiplied by 500 to determine a minimum number for all discharges. To maintain consistency with prior years' rankings, this threshold was used again in 2011-12. 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.

A total of 1,874 hospitals met the volume criteria in at least one specialty, and an additional 5 hospitals become eligible due to their reputation score.

[‡‡] The exception was Cardiology & Heart Surgery, where surgical discharges alone determined the threshold for eligibility. Beginning in 2002, both medical and surgical discharges determined eligibility.

For the 2011-12 rankings, 1,879 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 were published in a special Best Hospitals print issue published in August 2011. ***Figure 1*** illustrates the eligibility and analysis process for the IHQ-driven specialties, as described in the steps above.

Table 1. Minimum Discharges by Specialty

Specialty	Minimum Discharges, Total(Surgical)	Number of Eligible Hospitals	Additional Hospitals with 1% Reputation Score	Total Eligible Hospitals
Cancer	254 (48)	870	0	870
Cardiology & Heart Surgery[a]	1,280 (500)	687	0	687
Diabetes & Endocrinology	144 (0)	1,086	1	1,087
Ear, Nose, & Throat	6 (2)	1,415	0	1,415
Gastroenterology	531 (145)	1,520	0	1,520
Geriatrics	2,274 (0)	1,493	1	1,494
Gynecology	12 (9)	1,447	3	1,450
Nephrology	172 (0)	1,620	0	1,620
Neurology & Neurosurgery	341 (86)	1,305	0	1,305
Orthopedics	287 (259)	1,590	1	1,591
Pulmonology	847 (0)	1,627	1	1,628
Urology	69 (20)	1,461	0	1,461
Total (unique hospitals)	NA	1,874	5	1,879

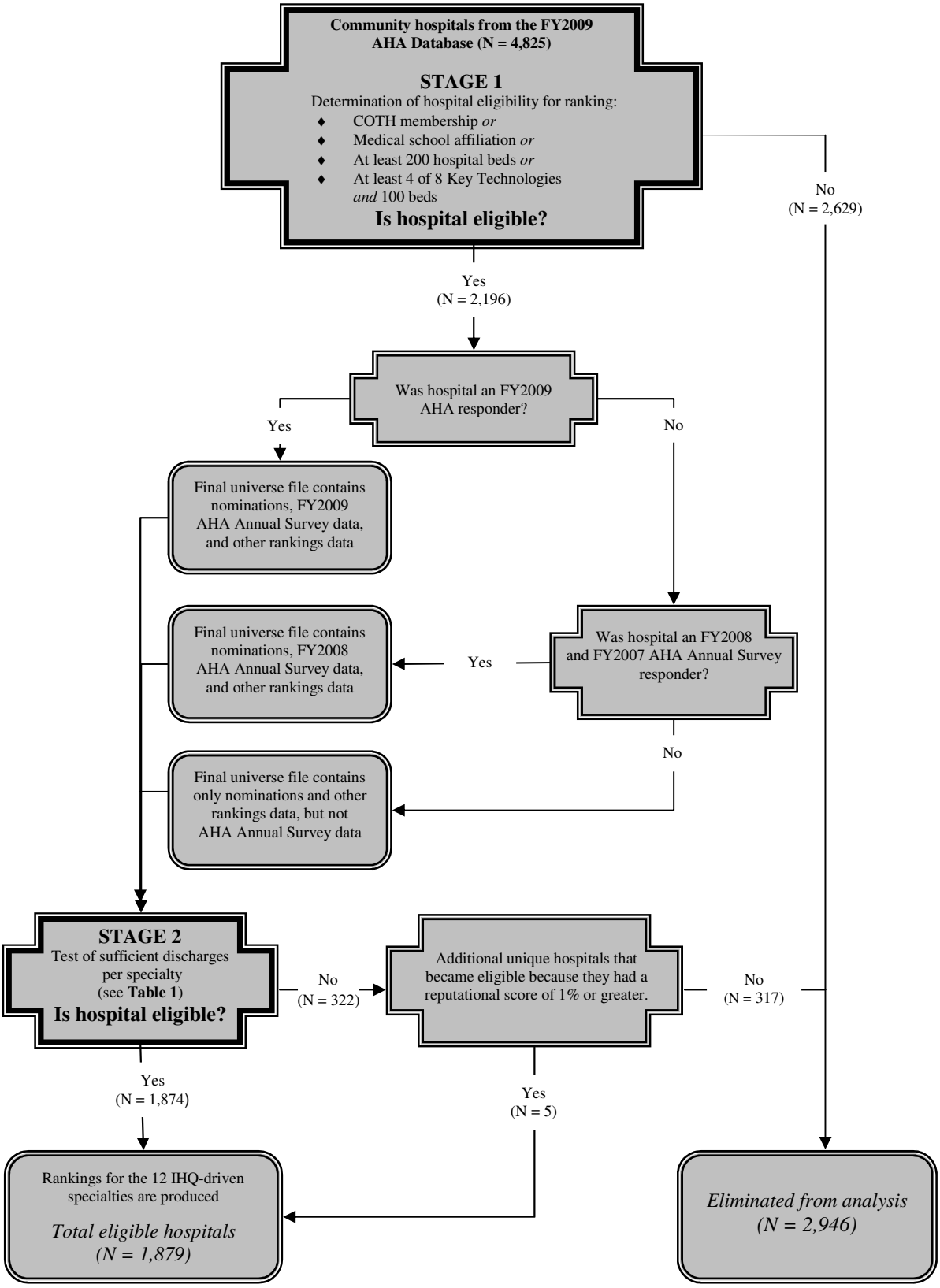
[a] In addition to discharge-based eligibility, a hospital must offer cardiac intensive care, adult interventional cardiac catheterization, and adult cardiac surgery to be considered in this specialty.

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 2011-12 index, most structural elements were derived from the 2009 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.

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



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, including more than 700 data fields that 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 one point 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 are eligible for ranking (see ***Section II.A. Eligibility***).

Brief descriptions of the technologies in the 2011-12 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.

[§§] 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.

- **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 transplant centers by the AHA are recognized. Transplant services are specific to the specialty. For example, in the Cancer specialty, transplant services include bone marrow and other tissue transplants, Gastroenterology includes liver transplant, Cardiology & Heart Surgery includes heart transplant and tissue transplant, Nephrology includes kidney transplant, Pulmonology includes lung transplant, and 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***). ***Table 3*** presents the complete list of key technologies considered for each specialty in 2011-12.

Volume

The volume index reflects medical and surgical discharges in indicated specialty-specific MS-DRG groupings submitted for CMS reimbursement in 2007, 2008, and 2009 combined. The list of MS-DRGs in each specialty is displayed in ***Appendix C***. Volume is part of the structural score in all 12 IHQ-driven specialties. The criteria used to calculate the volume used in the structural score changed slightly this year—it now includes all cases, including transfers, that appear in MedPAR for the MS-DRGs specified that meet the minimum severity thresholds (see Appendix D). To reduce the effect of extreme values or outliers for some structural measures (and for the mortality outcomes measure, as will be described), in prior years, a cap was applied to each variable in several specialties until 2006, when RTI substituted an inverse logit transformation procedure (see ***Trimming***).

Table 3. Technology by Specialty

Technology	Technology Index	Cancer	Cardiology & Heart Surgery***	Diabetes & Endocrinology	Ear, Nose, & Throat	Gastroenterology	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.

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, calculation of nurse staffing uses inverse logit transformation to eliminate the influence of wide variation. Standardization is performed after transformation to ensure that the data are distributed normally, with a mean of zero. This step is necessary to prepare the data for factor analysis, restoring balance so that trimmed and untrimmed measures have the same influence on the final score.

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 supported inclusion of these data in Ear, Nose, & Throat; Gastroenterology; 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 and is dichotomous: (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. 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

Created in 2004, the patient services index (previously termed patient/community services) is updated each year. Its components 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 2011-12 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 were included in each specialty. Starting in 2008, hospitals received 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.

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 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.

[†††] Variable was used in ranking calculations but is not displayed in the magazine in print or online.

Table 4. Patient Services by Specialty

Service	Cancer	Cardiology & Heart Surgery	Diabetes & Endocrinology	Ear, Nose, & Throat	Gastroenterology	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.

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, 2011, were awarded one point. NCI updates the list throughout the year. The current list is provided in ***Appendix C***.

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 accorded status by the Magnet Recognition Program as of March 1, 2011, received credit. The current list of Nurse Magnet hospitals can be accessed at http://www.nursecredentialing.org/MagnetOrg/searchmagnet.cfm.

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, 2011. 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 can be accessed at http://www.naecepilepsy.org/find.htm.

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, 2011, 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 this year. This designation indicates that as of March 1, 2011, 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 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/.

Trimming

Prior to 2006, distributions for the volume and nurse staffing indexes were transformed using Winsorization, a statistical procedure that takes extreme values—those above a defined threshold—and moves them toward the center of the distribution. For the Cancer specialty, for example, volume values over the 95th percentile were recoded to match the 95th percentile value. This "trimming," as the process was called in previous reports, reduced the effect of extreme outliers. A disadvantage, however, is that all extreme values were treated as if they were the same—that is, all were equal to the value at their reassigned level. Whatever variation existed at the extreme was lost. Winsorization also required that different percentile cut points be set for different variables and specialties in a way that was not standard across specialties.

‡‡‡ Variable was used in ranking calculations but is not displayed in the magazine in print.

The trimming process substituted in 2006 uses an inverse logit transformation of the distribution for the analysis variables. The function *exp(x) / {1+[exp(x)]}* is used to transform the variables before standardization. This technique is sensitive to the number of outliers and produces a transformed distribution that more closely resembles the true distribution, while reducing the effect of extreme outliers.

Weighting

To combine the structural variables from the AHA Annual Survey Database and other external databases, the elements were weighted to create a composite measure. Using factor analysis, we reduced the number of variables to force a one-factor solution for each specialty. Factor analysis is a statistical technique used to identify underlying similarities among the structural variables. More simply, variables that are strongly associated with one another receive lower factor loadings than those that have a unique distribution. The factor loadings, or weights, are applied to reduce the effect of multiple variables that, because of their strong association, may measure the same concept. The relative weight assigned to each element varies by and within a specialty from 1 year to the next. For each specialty, the factor weights have been converted into percentages to represent what percentage of the structural score each component is worth. ***Table 5*** provides the percentages of the structural score assigned to each element for 2011-12.

C. Outcomes

Considerable evidence shows a positive correlation between quality of care and better-than-average risk-adjusted mortality.[13-22] Based on this evidence, we incorporate mortality as an outcomes measure. We use risk-adjustment methods to take into account volume of cases and severity of illness and calculate a specialty-specific risk-adjusted mortality rate as an outcomes measure for the IHQ.

A patient's medical conditions (both the principal condition for which the patient is being treated, as well as other comorbid conditions the patient may have) strongly affect the chance that the patient may die while in the hospital. For a given level of quality of care, therefore, using raw mortality rates would unfairly penalize hospitals that treat patients who have a high mortality risk. In principle, we would like to compare the mortality rate of the same set of patients in all hospitals in the Best Hospitals universe. This is unfeasible because hospitals vary in the mix of conditions, both principal and comorbid, for which they treat their patients. Instead, we try to construct an "expected" mortality rate. It is what the hospital's mortality rate would be if patients who had the same diagnoses all 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.

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

Item	Cancer	Cardiology & Heart Surgery	Diabetes & Endocrinology	Ear, Nose, & Throat	Gastroenterology	Geriatrics	Gynecology	Nephrology	Neurology & Neurosurgery	Orthopedics	Pulmonology	Urology
Epilepsy center									11.5			
FACT accreditation	14.7											
Intensivists	10.8	15.3	18.2	15.5	14.8	21.7	16.7	14.9	11.6	15.1	15.4	14.6
NCI cancer center	13.9											
NIA Alzheimer's center						15.5			9.0			
Nurse Magnet hospital	10.3	13.5	14.0	12.9	12.1	20.6	14.4	12.1	9.7	13.4	12.2	12.0
Nurse staffing	10.4	11.3	11.7	11.5	11.2	19.3	12.9	10.5	8.8	11.6	10.7	11.4
Patient services	11.7	15.3	21.0	15.7	16.4	22.9	19.4	16.7	13.6	14.9	17.8	16.8
Patient volume	14.2	13.3	14.5	15.9	14.0		16.5	14.1	12.3	15.0	11.9	14.9
Technology	14.1	17.8	20.6	14.9	18.3		20.1	18.7	12.9	15.8	18.3	17.5
Trauma center		13.5		13.6	13.2			13.0	10.5	14.2	13.6	12.8

Expected mortality rates were provided by the Healthcare Division of Thomson Reuters using the pooled 2007, 2008, and 2009 MedPAR data set, 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 26.0, 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 levels, and mortality risk levels, 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]

In FY2008, the Medicare program adopted the MS-DRG system to better recognize differences in severity of illness and utilization. To accommodate the presence of DRG codes in the 2007 data, and the presence of MS-DRG codes in the 2008 and 2009 data, we ran the 3M Health Information Systems MS Grouper software with Medicare Code Editor software version 26.0 on all 3 years of data included in the analyses. By applying MS-DRGs to all records in the analyses, it is possible to assign MedPAR records to specialties using a uniform set of criteria across years of data. Version 26.0 of the software was developed for FY2009. To run this software on older years of data, we mapped ICD-9 codes forward to reflect any revisions between 2007 and 2009 so that all codes were compatible with the Version 26.0 of the software.

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 2009 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 D*** for the MS-DRGs used for 2011-12). 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, tonsillectomies are too common

[§§§] Available at: http://www.cms.hhs.gov/acuteinpatientpps/ffd/ItemDetail.asp?ItemID=CMS1198678

to be included in the MS-DRG groupings for Ear, Nose, & Throat. The process used to identify MS-DRGs is outlined below.[****]

1. Exclude MS-DRGs for very-low-intensity cases.
2. Exclude MS-DRGs not generally appropriate for a Medicare or elderly population.
    - Evaluate excluded and included MS-DRGs based 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 would be better 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 creation of a Geriatrics population) or more general issues that can affect mortality outcomes (such as exclusion of transfers, switching from inpatient to 30-day morality). Brief descriptions of these special considerations are provided below.

1. Definition of the Geriatrics patient population. Rankings in Geriatrics were removed in 2006 and reintroduced in 2007, with a new approach for identifying the target population and accounting 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 specialty rankings that are generally appropriate for a Medicare or elderly population. The sample for the mortality analysis for the Geriatrics specialty is limited to patients 75 years of

[****] For a more detailed review of these procedures, see the 2005 methodology report at www.rti.org/besthospitals.

age and older. This method allowed for more accurate reflection of the quality of inpatient hospital care received by older patients across different types of 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, 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 one-percentage point increase 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, 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 harming 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.

4. 30-day mortality. Prior to 2007, the rankings consistently defined mortality as inpatient deaths (i.e., those 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 the consistent standard. Starting in 2008, 30-day mortality is used for all IHQ-driven specialties.[††††]

5. Recoding mortality values for low-volume hospitals. A procedure was established in 2006 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. 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.

To account for the greater uncertainty inherent in mortality rates in these cases of low volume, we recode mortality for hospitals not meeting a specialty-specific volume threshold.

[††††] 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.

Mortality at or below the 25th percentile is recoded to the 25th percentile. Mortality between the 25th and 75th percentiles is recoded to the 50th percentile. Mortality at or above the 75th percentile is recoded to the 75th percentile.[‡‡‡‡] This recoding helped reduce the effect of mortality outliers associated with low volume.

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.

In order 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 largest collection of all-payer hospital care data in the United States.[30] For the 2011-12 rankings, weights were calculated based on the 2007 and 2008 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. Weights were applied to all specialties except Geriatrics, which is adequately represented using Medicare data for those age 75 years and older. The weights for each MS-DRG are shown in ***Appendix D***.

The 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.

[‡‡‡‡] For specialties where the 75th percentile for volume was below 150, we substituted 150 for the threshold for applying this rule, because analysis of the distributions suggested that this was an appropriate absolute minimum for the reliability of mortality data.

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 distribution of the most recent 3-year mortality ratio for all hospitals. Hospitals with the best mortality ratio (closest to 0) are in the highest percentile and received a higher survival score. The survival score provides a new format for presenting information about hospital performance with regard to patient mortality. Because percentiles are used to determine the scores, the survival score provides feedback relative to all other tertiary hospitals eligible for the ranking—showing how hospitals perform relative to others rather than a simple mortality ratio alone. The scoring based on percentiles is shown in ***Table 6***.

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 2011-12, we pooled nominations for the three most recent surveys (2009, 2010, and 2011) to arrive at the process measure. We treated the IHQ-driven and reputation-only specialties identically for the reputation component. Therefore, this section presents the methodology and results for both.

Table 6. Mortality Ratio PercentilesTransformed into Survival Scores

Specialty	Survival Score									
	10	9	8	7	6	5	4	3	2	1
Cancer	[0 - 0.626)	[0.626 - 0.720)	[0.720 - 0.813)	[0.813 - 0.907)	[0.907 – 1.000)	[1.000 - 1.093)	[1.093 - 1.187)	[1.187 - 1.280)	[1.280 - 1.374)	≥ 1.374
Cardiology & Heart Surgery	[0 - 0.648)	[0.648 - 0.736)	[0.736 - 0.824)	[0.824 - 0.912)	[0.912 - 1.000)	[1.000 - 1.088)	[1.088 - 1.176)	[1.176 - 1.264)	[1.264 - 1.352)	≥ 1.352
Diabetes & Endocrinology	[0 - 0.462)	[0.462 - 0.596)	[0.596 - 0.731)	[0.731 - 0.865)	[0.865 - 1.000)	[1.000 - 1.135)	[1.135 - 1.269)	[1.269 - 1.404)	[1.404 - 1.538)	≥ 1.538
Ear, Nose, & Throat	[0 - 0.379)	[0.379 - 0.534)	[0.534 - 0.689)	[0.689 - 0.845)	[0.845 - 1.000)	[1.000 - 1.155)	[1.155 - 1.311)	[1.311 - 1.466)	[1.466 - 1.621)	≥ 1.621
Gastro-enterology	[0 - 0.668)	[0.668 - 0.751)	[0.751 - 0.834)	[0.834 - 0.917)	[0.917 - 1.000)	[1.000 - 1.083)	[1.083 - 1.166)	[1.166 - 1.249)	[1.249 - 1.332)	≥ 1.332
Geriatrics	[0 - 0.623)	[0.623 - 0.717)	[0.717 - 0.811)	[0.811 - 0.906)	[0.906 - 1.000)	[1.000 - 1.094)	[1.094 - 1.189)	[1.189 - 1.283)	[1.283 - 1.377)	≥ 1.377
Gynecology	[0 - 0.344)	[0.344 - 0.508)	[0.508 - 0.672)	[0.672 - 0.836)	[0.836 - 1.000)	[1.000 - 1.164)	[1.164 - 1.328)	[1.328 - 1.492)	[1.492 - 1.656)	≥ 1.656
Nephrology	[0 - 0.539)	[0.539 - 0.654)	[0.654 - 0.769)	[0.769 - 0.885)	[0.885 - 1.000)	[1.000 - 1.115)	[1.115 - 1.231)	[1.231 - 1.346)	[1.346 - 1.461)	≥ 1.461
Neurology & Neurosurgery	[0 - 0.471)	[0.471 - 0.603)	[0.603 - 0.735)	[0.735 - 0.868)	[0.868 - 1.000)	[1.000 - 1.132)	[1.132 - 1.265)	[1.265 - 1.397)	[1.397 - 1.529)	≥ 1.529
Orthopedics	[0 - 0.466)	[0.466 - 0.599)	[0.599 - 0.733)	[0.733 - 0.866)	[0.866 - 1.000)	[1.000 - 1.134)	[1.134 - 1.267)	[1.267 - 1.401)	[1.401 - 1.534)	≥ 1.534
Pulmonology	[0 - 0.694)	[0.694 - 0.770)	[0.770 - 0.847)	[0.847 - 0.923)	[0.923 - 1.000)	[1.000 - 1.077)	[1.077 - 1.153)	[1.153 - 1.23)	[1.23 - 1.306)	≥ 1.306
Urology	[0 - 0.458)	[0.458 - 0.593)	[0.593 - 0.729)	[0.729 - 0.864)	[0.864 - 1.000)	[1.000 - 1.136)	[1.136 - 1.271)	[1.271 - 1.407)	[1.407 - 1.542)	≥ 1.542

Notation: Open bracket indicates greater than or equal to; closed bracket indicates less than or equal to; open parenthesis indicates greater than; closed parenthesis indicates less than.

Sample for the 2011 Survey

The 2011[§§§§] survey sample consisted of 3,200 board-certified physicians selected from the AMA Physician Masterfile. From within the AMA Masterfile of 820,000 physicians, we selected a target population of 202,868 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. The final sample included federal and nonfederal medical and osteopathic physicians practicing in all 50 states and the District of Columbia.

[§§§§] For information on the 2008 and 2009 samples, please see the respective methodology reports at www.rti.org/besthospitals.

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 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 specialties (or affiliated subspecialties) were eligible for the survey. ***Table 7*** displays the association among Best Hospitals specialties, ABMS subspecialties, and corresponding member boards.

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. Therefore, 50 physicians were selected from each of the 16 specialties in each of the four census regions (www.census.gov/geo/www/us_regdiv.pdf). Equal-size groups permitted easier comparison of differences among regions and specialties.

Survey Procedure

Materials

For 2009, 2010, and 2011, sampled physicians in each specialty were mailed a one-page, single-sided questionnaire containing a single hospital nomination element. Approximately half of the sample received a form, requesting nominations for as many as five hospitals in their specialty that provide the best care to patients with serious conditions, regardless of location or expense. The other half of the sample received a form allowing up to ten nominations for hospitals in their specialty (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).

Table 7. Physician Sample Mapping

Best Hospitals Specialty	American Board of	AMA Subspecialty
Cancer	Internal Medicine	Hematology
		Hematology/Oncology
		Medical Oncology
		Surgical Oncology
		Musculoskeletal Oncology
	Obstetrics & Gynecology	Gynecologic Oncology
	Radiology	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	Internal Medicine	Gastroenterology
		Hepatology
		Proctology
		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
	Neurological Surgery	Neurological Surgery
Ophthalmology	Ophthalmology	Ophthalmology
Orthopedics	Orthopedic Surgery	Orthopedic Surgery
		Sports Medicine–Orthopedics
		Hand Surgery
		Adult Reconstructive Orthopedics
		Spine Surgery
		Orthopedic Trauma Surgery
Psychiatry	Psychiatry & Neurology	Psychiatry
Rehabilitation	Physical Medicine & Rehabilitation	Physical Medicine & Rehabilitation (PMR)
		Spinal Cord Injury
		Sports Medicine–PMR
		Sports Medicine
Pulmonology	Internal Medicine	Pulmonary Diseases
Rheumatology	Internal Medicine	Rheumatology
Urology	Urology	Urological Surgery

Mailings

The physician survey mailings were conducted in stages over several weeks starting at the beginning of 2011. The initial mailing was sent via U.S. Postal Service (USPS) First Class metered mail. Two weeks after the initial survey mailing, a replacement survey and new cover letter were sent to the sampled physicians as a reminder. Two weeks following the reminder, we sent a USPS Priority mailing to nonresponders, along with another copy of the questionnaire, a new cover letter, and a business reply envelope. Two weeks after the second survey was sent, a third survey mailing was sent either by USPS Priority or overnight via Federal Express to the remaining nonresponders; the packet included the questionnaire, a cover letter, and a postage-paid return envelope. (See ***Table 8*** for a simplified schedule of the physician survey mailing.)

Table 8. Physician Survey Mailing Schedule

Materials Mailed	Sent via	Sent to	Date
1st copy of physician survey	USPS, First Class mail	Full physician sample	January 13, 2011
2nd copy of physician survey	USPS, First Class mail	Sample members who did not respond	January 27, 2011
3rd copy of physician survey	USPS, Priority mail	Sample members who did not respond	February 10, 2011
4th copy of physician survey	USPS, Priority mail, or Federal Express	Sample members who did not respond	February 24, 2011
5th copy of physician Survey	USPS, First Class mail	Sample members who did not respond	March 28, 2011

Response Rates

Table 9 shows the response rate by specialty for the 3 years of survey data used in the 2011-12 rankings. The average response rate for the 3 years of data collection was 45.7%, using American Association for Public Opinion Research (AAPOR) Standard Response Rate 6,[*****] which treats undeliverables as ineligible cases.

[*****] 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.

Table 9. Yearly Response Rate by Specialty (2009–2011)

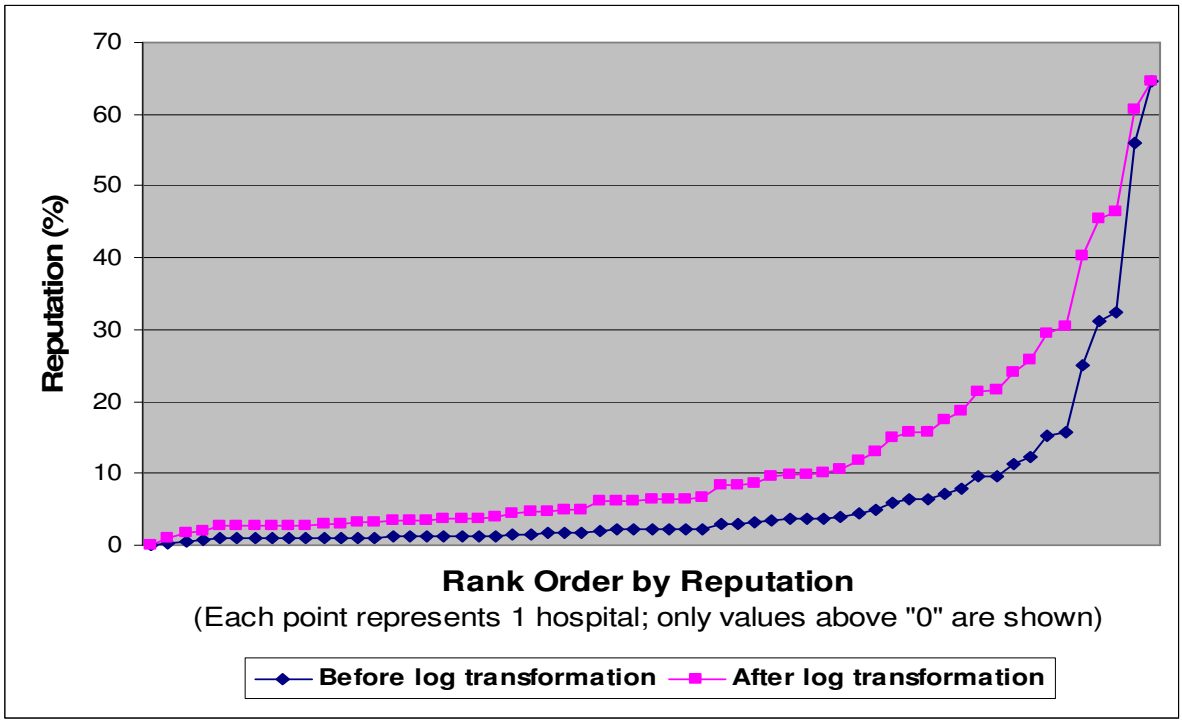
Specialty	2009		2010		2011		3-Year Total	
	n	%	n	%	n	%	n	%
Cancer	79	41.1	81	41.8	74	39.8	234	40.9
Cardiology & Heart Surgery	83	42.6	102	53.4	64	34.6	249	45.0
Diabetes & Endocrinology	92	47.2	86	44.8	76	40.4	254	44.4
Ear, Nose, & Throat	115	58.4	115	58.7	99	50.5	329	56.1
Gastroenterology	108	55.4	97	49.2	71	39.0	276	49.0
Geriatrics	101	52.6	99	52.1	66	36.1	266	48.3
Gynecology	82	42.3	91	48.1	61	32.3	234	41.9
Nephrology	80	41.9	76	39.8	63	35.2	219	39.2
Neurology & Neurosurgery	104	53.3	83	43.9	86	45.7	273	48.0
Ophthalmology	105	54.1	119	60.4	78	41.1	302	53.2
Orthopedics	85	43.1	87	44.2	83	43.0	255	43.4
Psychiatry	73	37.8	83	43.5	65	35.1	221	39.1
Rehabilitation	105	54.7	103	53.1	75	41.2	283	50.5
Pulmonology	86	44.1	64	33.3	67	36.6	217	38.6
Rheumatology	93	48.9	98	51.9	74	37.6	265	46.9
Urology	104	50.8	100	52.6	82	43.4	286	49.3
Overall Response Rate[a]	**1,491**	**48.0**	**1,484**	**48.2**	**1,181**	**39.5**	**4,156**	**45.7**

[a] The overall response rate for each year was calculated using AAPOR Standard Response Rate 6.

Log Transformation

Starting with the 2010-11 rankings, we added a step to the analysis of the reputation data obtained from physicians' hospital nominations. By its nature, a survey that solicits recommendations for "best hospitals" will result in data that is not normally distributed—relatively few hospitals will receive even one "best" recommendation. Of the hospitals recommended, moreover, 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. To address this issue, we implemented a log transformation of the reputation data. The transformation reshapes the distribution, reducing the skew (flattening the distribution) of the reputation data. In this way, the distribution of reputation data more closely matches those of the other components in the rankings. ***Figure 2*** demonstrates the impact of this step on reputation data, using a set of simulated values. As is evident, once the log transformation has been applied, the relative position of each hospital on this variable remains the same but the distance between the values is reduced. Due to the reduced variance, the impact of the reputation score on hospitals' final standing in the rankings is slightly diminished. As with the other components, the reputation data is standardized before being combined in the Index of Hospital Quality.

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



E. Patient Safety Index

Patient safety is an important aspect of both outcomes and reputation. It is a critical component in evaluating and determining the best hospitals. In 2009, *U.S. News* introduced the patient safety index, a new index score addressing patient safety in the Best Hospitals rankings.

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 HCUP 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 10***. These PSIs were chosen based on codes likely to be reported, not already part of existing composites, and not related to obstetric care.

Table 10. Comparison of the AHRQ PSI Index and the Best Hospitals Patient Safety Index

PSI	Included in the AHRQ PSI Composite Index	Included in the Best Hospitals Patient Safety Index
PSI 03: Decubitus ulcer	✓	
PSI 04: Death among surgical in patients with serious treatable complications		✓
PSI 06: Iatrogenic pneumothorax	✓	✓
PSI 07: Selected infection due to medical care	✓	
PSI 08: Postoperative hip fracture	✓	
PSI 09: Postoperative hemorrhage or hematoma	✓	✓
PSI 10: Postoperative physiological and metabolic derangements	✓	
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 only five of the constituents of AHRQ's PSI index, as indicated in the third column of Table 10. 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 in patients 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) has been dropped from the Best Hospitals patient safety index this year 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, for 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 11***.

Table 11. Weights for the PSI Components of the Best Hospitals Patient Safety Index

PSI	Weight in the Best Hospitals Patient Safety Index
PSI 04: Death among surgical in patients 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 $< 25^{th}$ percentile, index values in the 25^{th} to 74^{th} percentile, and index values $\geq 75^{th}$ percentile. Hospitals with index values below the 25^{th} percentile receive a score of 3 indicating highest quality, and hospitals with index values at or above the 75^{th} percentile receive a score of 1 indicating lowest quality. Means and several percentile points for the distributions of unadjusted and adjusted patient safety indexes are shown in ***Table 12***. Note that this year's rankings also report scores for each PSI included in the index using the same 3-point scale used for reporting the PSI index.

Table 12. Percentiles of Patient Safety Index Values

	25th Percentile	50th Percentile	75th Percentile
PSI Index	-0.21	-0.02	0.20
PSI 04: Death among surgical in patients with serious treatable complications	-0.23	-0.04	0.19
PSI 06: Iatrogenic pneumothorax	-0.47	-0.08	0.44
PSI 09: Postoperative hemorrhage or hematoma	-0.30	-0.04	0.26
PSI 11: Postoperative respiratory failure	-0.48	-0.10	0.42
PSI 14: Postoperative wound dehiscence	-0.98	-0.30	0.65
PSI 15: Accidental puncture or laceration	-0.16	-0.03	0.14

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 2011-12 rankings, the MedPAR files used were the Federal fiscal year 2007, 2008, and 2009 files. Data were analyzed using the AHRQ PSI grouper software version 3.2.

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 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 formula for calculating the specialty-specific IHQ for a hospital is shown in Equation (1). Please note that this formula is illustrative. It cannot be used directly to calculate a score for an individual hospital because standardized data values are adjusted according to the distribution of measures across all eligible hospitals. For the 2011-12 rankings, we instituted a new ruling that allowed for ties for hospitals with the same IHQ score.

The IHQ score can be thought of as a simple weighted sum of structural, process, and outcomes measures. The weights for the structural measures are factor loadings, and the weights for the process and outcomes measures are equal to the sum of all structural measure factors.

$$IHQ_i = \{.3[(S_{1i} \times F_{1i}) + (S_{2i} \times F_{2i}) + \ldots + (S_{ni} \times F_{ni})] + .325[(P_i \times \sum_{1i}^{ni} F)] + .325[(M_i \times \sum_{1i}^{ni} F)] + .05PS_i\}, \quad (1)$$

where

IHQ_i = index for hospital quality for specialty i;

S_{ni} = standardized value for structural indicator n (STRUCTURE), for specialty i;

F_{ni} = factor loadings for structural indicator n for specialty i;

P_i = standardized nomination score (PROCESS) for specialty i;

M_i = standardized mortality score (OUTCOMES) for specialty i; and

PS_i = standardized patient safety index score for specialty i.

The general formula for deriving the IHQ scores has remained unchanged since its creation in 1993. For presentation purposes, raw IHQ scores are transformed to a 100-point scale and the top hospital in each specialty receives a score of 100. The transformation is shown in Equation (2):

$$(Raw\ IHQ\ score_i - minimum_i) / range_i. \quad (2)$$

Means and standard deviations (SDs) of the IHQ for the 12 IHQ-driven specialties are listed in ***Table 13***. These data illustrate that the spread of IHQ scores produces a very small number of hospitals that are 3 and 4 SDs above the mean. Horizontal lines in the 12 specialty lists in ***Appendix E*** indicate cutoff points of 3 and 4 SDs above the mean.

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, which makes 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.

Table 13. Means and Standard Deviations, IHQ-Driven Specialties

Specialty	Mean IHQ Score	SD	IHQ Score 3 SDs Above the Mean	IHQ Score 4 SDs Above the Mean
Cancer	20.2	9.2	47.8	57.1
Cardiology & Heart Surgery	21.3	9.8	50.6	60.3
Diabetes & Endocrinology	24.9	7.7	48.1	55.8
Ear, Nose, & Throat	27.6	7.3	49.5	56.9
Gastroenterology	22.9	6.9	43.5	50.4
Geriatrics	19.2	7.9	42.9	50.7
Gynecology	33.0	7.7	56.0	63.6
Nephrology	23.1	8.7	49.2	57.9
Neurology & Neurosurgery	25.6	7.6	48.5	56.1
Orthopedics	18.6	7.1	39.9	47.0
Pulmonology	20.7	7.0	41.5	48.5
Urology	28.0	7.1	49.2	56.3

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. For the 2011-12 rankings, this was 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.B. Structure*** 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 F***). Although the four

reputation-only specialties are ranked without IHQ scores, SDs of the reputational scores remains useful in identifying truly superior hospitals (in terms of statistically relevant nomination scores). ***Table 14*** presents the means and SDs of the reputation-only scores.

Table 14. Means and Standard Deviations for the Reputation-Only Specialties

Specialty	Mean Reputational Score (%)	SD	Reputational Score (%), 2 SDs Above the Mean	Reputational Score (%), 3 SDs Above the Mean
Ophthalmology	4.9	13.5	32.0	45.5
Psychiatry	3.2	7.1	17.5	24.6
Rehabilitation	3.7	10.0	23.7	33.8
Rheumatology	4.3	10.1	24.6	34.8

IV. Honor Roll

This year, 140 different hospitals were ranked in at least one specialty. The Honor Roll recognizes excellence across a broad range of specialties. To be listed, a hospital must have ranked at least three standard deviations above the mean in at least 6 of the 16 specialties. For 2011-12, 17 hospitals were listed on the Honor Roll. A hospital's ranking on the Honor Roll was based on points assigned by specialty, as follows:

- A hospital that ranked at least 3 but less than 4 SDs above the mean in data-driven specialties (at least 2 but less than 3 SDs in reputation-only specialties) received one point.

- A hospital that ranked 4 or more SDs above the mean in data-driven specialties (3 or more SDs in reputation-only specialties) received 2 points.

Using SDs above the mean as the criterion for inclusion in the Honor Roll sets a threshold for overall excellence. The Honor Roll also indicates the relative distances between the Best Hospitals, which cannot be determined solely from the rankings. ***Appendix G*** lists this year's 17 Honor Roll hospitals.

V. Summary of Changes, 2005 to 2011-12

RTI began working with *U.S. News* on the Best Hospitals rankings in 2005. To maintain consistency in the ranking process, RTI replicated the preexisting methodology in the 2005 rankings and implemented only minor improvements in 2006.

Changes for 2007 and 2008 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. The significant methodological changes introduced in the 2007 rankings are listed below; for a more detailed discussion of these changes, we recommend reviewing the 2007 or 2008 project methodology reports, which are available online at www.rti.org/besthospitals.

Summary of 2007 Changes

- **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 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 2009 Changes

- **Eligibility criteria updated.** Hospitals with a minimum number of hospitals 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 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 the 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.

- **"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 2011-12 Changes

- **Ties in ranking allowed.** For 2011-12, we instituted a new rule that allows for ties in ranking for hospitals with the same IHQ score. Previously ties were not allowed and 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 ≥75th percentile, 25th-74th percentile, and <25th percentile.

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. 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.

VII. References

1. Donabedian A. “Evaluating the quality of medical care.” *The Milbank Memorial Fund Quarterly.* 1966; 44:166–203.

2. Donabedian A. “Promoting quality through evaluating the process of patient care.” *Medical Care.* 1968; 6:181.

3. Donabedian A. “The quality of care: How can it be assessed?” *Journal of the American Medical Association.* 1988; 260:1743–1748.

4. Donabedian A. “The seven pillars of quality.” *Archives of Pathology and Laboratory Medicine.* 1990; 114:1115–1118.

5. Donabedian A. “The role of outcomes in quality assessment and assurance.” *Quality Review Bulletin*. 1992; 18(11):356–360.

6. Clinical Research and Documentation Departments of 3M Health Information Systems. *All Patient Refined Diagnosis Related Groups (APR-DRGs): Methodology overview, version 20.0*. Wallingford, CT: 3M Health Information Systems; 2003.

7. Hill CA, Winfrey KL, Rudolph BA. “‘Best Hospitals:’ A description of the methodology for the index of hospital quality.” *Inquiry.* 1997; 34:80–90.

8. American Hospital Association (AHA). *Annual Survey of Hospitals Database documentation manual*. Chicago, IL: American Hospital Association; 2005.

9. Pronovost PJ, Holzmueller CG, Clattenburg L, Berenholtz S, Martinez EA, Paz JR, Needham DM. (2006). Team care: beyond open and closed intensive care units. *Current Opinion in Critical Care*, 12(6):604-8.

10. Sapirstein A, Needham DM, Pronovost PJ. (2008). 24-hour intensivist staffing: balancing benefits and costs. *Critical Care Medicine*; 36(1):367-8.

11. Cancer Centers Branch of the National Cancer Institute. *Policies and guidelines relating to the cancer-center support grant*. Washington, DC: National Cancer Institute; 2000.

12. National Association of Epilepsy Centers. “Guidelines for essential services, personnel, and facilities in specialized epilepsy centers in the United States.” *Epilepsia*. 2001; 42(6).

13. U.S. Department of Health and Human Services. *Medicare hospital mortality information* (HCFA publication 01-002). Report prepared by Otis R. Bowen and William L. Roper. Washington, DC: U.S. Government Printing Office; 1987.

14. Blumberg MS. "Comments on HCFA hospital death rate statistical outliers." *HSR: Health Services Research*. 1987; 21:715–740.

15. Dubois RW, Brook RH, Rogers WH. "Adjusted hospital death rates: A potential screen for quality of medical care." *American Journal of Public Health.* 1987; 77:1162–1166.

16. Gillis KD, Hixson JS. "Efficacy of statistical outlier analysis for monitoring quality of care." *Journal of Business and Economic Statistics.* 1991; 9:241–252.

17. Green J, Wintfield N, Sharkey P, Passman LJ. "The importance of severity of illness in assessing hospital mortality." *Journal of the American Medical Association.* 1990; 263:241–246.

18. Green J, Passman LJ, Wintfield N. "Analyzing hospital mortality: The consequences of diversity in patient mix." *Journal of the American Medical Association.* 1991; 265:1849–1853.

19. Greenfield S, Aronow HU, Elashoff RM, Watanabe D. "Flaws in mortality data: The hazards of ignoring comorbid disease." *Journal of the American Medical Association.* 1988; 260:2253–2257.

20. Rosen HM, Green BA. "The HCFA excess mortality lists: A methodological critique." *Hospital and Health Services Administration*. 1987; 2:119–124.

21. Flood AB, Scott WR. "Conceptual and methodological issues in measuring the quality of care in hospitals." In *Hospital structure and performance.* Baltimore, MD: Johns Hopkins University Press; 1987.

22. Iezzoni LI, Ash AS, Coffman GA, Moskowitz MA. "Predicting in-hospital mortality: A comparison of severity measurement approaches." *Medical Care.* 1992; 30:347–359.

23. De Marco MF, Lorenzoni L, Addari P, Nante N. "Evaluation of the capacity of the APR-DRG classification system to predict hospital mortality." *Epidemiol Prev*. 2002; 26(4):183–190.

24. Ciccone G, Lorenzoni L, Ivaldi C, Ciccarelli E, Piobbici M, Arione R. "Social class, mode of admission, severity of illness and hospital mortality: An analysis with 'all patient refined DRG' of discharges from the Molinette Hospital in Turin." *Epidemiol Prev*. 1999; 23(3):188–196.

25. Centers for Medicare & Medicaid Services (CMS). *Medicare Provider Analysis and Review (MEDPAR) of Short-Stay Hospitals.* Baltimore, MD: Centers for Medicare & Medicaid Services. Available at www.cms.hhs.gov/statistics/medpar/default.as. Accessed on April 26, 2005.

26. National Center for Health Statistics. *The international classification of diseases, ninth revision, clinical modification* (ICD-9-CM). Hyattsville, MD: National Center for Health Statistics. Available at www.cdc.gov/nchs/about/otheract/icd9/abticd9.htm. Accessed on April 21, 2006.

27. Cromwell J, Adamache WO, Bernard S, Greenwald LM, Drozd EM, Root ED, Kane NM, Devers KJ. *Specialty hospital evaluation.* Final report prepared for the Centers for Medicare & Medicaid Services (CMS Contract No. 500-00-0024, T.O. 12). Waltham, MA: RTI International; 2005.

28. Medicare Payment Advisory Commission. *A data book: Healthcare spending and the Medicare program, June 2006*. Washington, DC: Medicare Prospective Payment Commission; 2006.

29. Davies GM, Geppert J, McClellan M, et al. *Refinement of the HCUP quality indicators.* Prepared by UCSF-Stanford Evidence-based Practice Center for the Agency for Healthcare Research and Quality (AHRQ Publication No. 01-0035). Rockville, MD: Agency for Healthcare Research and Quality; 2001. Available at www.qualityindicators.ahrq.gov/downloads/technical/qi_technical_summary.pdf.

30. Agency for Healthcare Research and Quality (AHRQ). *Healthcare Cost and Utilization Project (HCUP). 1998–2004.* Rockville, MD: Agency for Healthcare Research and Quality. Available at www.hcup-us.ahrq.gov/databases.jsp.

31. Institute of Medicine (IOM). *To err is human: Building a safer health system.* Washington, DC: National Academy Press; 2000.

32. Agency for Healthcare Research and Quality (AHRQ). *Guide to patient safety indicators, version 3.1.* Rockville, MD: Agency for Healthcare Research and Quality. Available at www.qualityindicators.ahrq.gov/psi_download.htm.

33. Isaac T, Jha AK. Are Patient Safety Indicators related to widely used measures of hospital quality? *Journal of General Internal Medicine,* 2008; 23 (9):1373-1378.

34. Thornlow, DK, & Stukenborg, GJ. The association between hospital characteristics and rates of preventable complications and adverse events. *Medical Care,* 2006; 44(3):265-9.

35. Miller MR, Pronovost P, Donithan M, Zeger, S, Zhan, C, Morlock, L, Meyer, GS. Relationship between performance measurement and accreditation: implications for quality of care and patient safety. *American Journal of Medical Quality,* 2005; 20(5):239-252.

36. Encinosa, WE, & Hellinger, FJ. The Impact of Medical Errors on Ninety-Day Costs and Outcomes: An Examination of Surgical Patients. *Health Services Research,* 2008; 43(6), 2067-2085.

37. Paradis, AR, Stewart, VT, Bayley, KB, Brown, A, Bennett, AJ. Excess Cost and Length of Stay Associated with Voluntary Patient Safety Event Reports in Hospitals. *American Journal of Medical Quality,* 2009; 24(1), 53-60.

38. Rivard, PE, Luther, SL, Christiansen, CL, Zhao, SB, Loveland, S, Elixhauser, A, et al. Using patient safety indicators to estimate the impact of potential adverse events on outcomes. *Medical Care Research and Review,* 2008; 65(1), 67-87.

39. Rosen, AK, Rivard, P, Zhao, SB, Loveland, S, Tsilimingras, D, Christiansen, CL, et al. Evaluating the Patient Safety Indicators- How well do they perform on Veterans Health Administration data? *Medical Care,* 2005; 43(9), 873-884.

40. Zhan, C, & Miller, MR. Excess Length of Stay, Charges, and Mortality Attributable to Medical Injuries During Hospitalization. *Journal of the American Medical Association,* 2003; 290, 1868-1874.

41. Agency for Healthcare Research and Quality (AHRQ). *Patient Safety Indicators (PSI) composite measure workgroup final report.* Rockville, MD: Agency for Healthcare Research and Quality. Available at http://www.qualityindicators.ahrq.gov/psi_download.htm.

42. Agency for Healthcare Research and Quality (AHRQ). *National healthcare quality report.* Rockville, MD: Agency for Healthcare Research and Quality. Available at www.ahrq.gov/qual/measurix.htm.

43. Agency for Healthcare Research and Quality (AHRQ). *National healthcare disparities report.* Rockville, MD: Agency for Healthcare Research and Quality. Available at www.ahrq.gov/qual/measurix.htm.

Appendix A

2011-12 Sample Physician Questionnaire

«ID»

U.S.News & WORLD REPORT
usnews.com

Best Hospitals

Your nominations will be reflected in the 2011-12 *U.S. News & World Report cancer* rankings.

Without considering location or expense, list up to ten U.S. hospitals (and/or affiliated medical schools) that in your opinion provide the best <u>inpatient</u> care for the most complex or difficult medical conditions or surgical procedures associated with cancer. *For medical schools affiliated with multiple hospitals, please list the individual hospital and not the medical school.*

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

Please send your response in the enclosed postpaid envelope or fax to (800) 476-9721.

Conducted by:

RTI INTERNATIONAL

RTI International
3040 Cornwallis Rd, PO Box 12194,
Research Triangle Park, NC 27709-2194

«ID»

U.S.News & WORLD REPORT
usnews.com

Best Hospitals

Your nominations will be reflected in the 2011-12 *U.S. News & World Report neurology and neurosurgery* rankings.

Without considering location or expense, list up to five U.S. hospitals (and/or affiliated medical schools) that in your opinion provide the best <u>inpatient</u> care for the most complex or difficult medical and/or surgical conditions associated with neurology and neurosurgery. *For medical schools affiliated with multiple hospitals, please list the individual hospital and not the medical school.*

	Hospital	City	State
a.			
b.			
c.			
d.			
e.			

Please send your response in the enclosed postpaid envelope or fax to (800) 476-9721.

Conducted by:

RTI INTERNATIONAL

RTI International
3040 Cornwallis Rd, PO Box 12194,
Research Triangle Park, NC 27709-2194

Appendix B

Structural Variable Map

The following variables, used to construct structural elements of the 2011-12 IHQ, were taken from the 2008 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

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 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

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

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, 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

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 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

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

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...
FTMSIA, FTCICA, FTOICA, PTMSIA, PTCICA, PTOICA, FTEMSI, FTECIC, or FTEOIC > 0

Appendix C

NCI Cancer Centers

Abramson Cancer Center
University of Pennsylvania
Caryn Lerman, Ph.D.
Interim Director

16th Floor Penn Tower
3400 Spruce Street
Philadelphia, Pennsylvania 19104-4283
Tel: (215) 662-6065
Fax: (215) 349-5325

Arizona Cancer Center
University of Arizona
David S. Alberts, M.D.
Director

1515 North Campbell Avenue
P.O. Box 245024
Tucson, Arizona 85724
Tel: (520) 626-7685
Fax: (520) 626-6898

for Albert Einstein Cancer Center, see E

The Cancer Institute of New Jersey
Robert Wood Johnson Medical School
Robert S. DiPaola, M.D.
Director

195 Little Albany Street
New Brunswick, New Jersey 08903-2681
Tel: (732) 235-8064
Fax: (732) 235-8094

Cancer Therapy & Research Center
University of Texas Health Science Center at San Antonio
Ian M. Thompson, M.D.
Executive Director

7979 Wurzbach Road, Mail Code 8026
Urschel Tower, Room U627
San Antonio, Texas 78229
Tel: (210) 450-1000
Fax: (210) 450-1100

Case Comprehensive Cancer Center
Case Western Reserve University
Stanton L. Gerson, M.D.
Director

11100 Euclid Ave., Wearn 151
Cleveland, Ohio 44106-5065
Tel: (216) 844-8562
Fax: (216) 844-4975

Chao Family Comprehensive Cancer Center
University of California at Irvine
Frank L. Meyskens, Jr., M.D.
Director

101 The City Drive
Building 56, Rt. 81, Room 216L
Orange, California 92868
Tel: (714) 456-6310
Fax: (714) 456-2240

City of Hope Comprehensive Cancer Center
Michael A. Friedman, M.D.
Director

1500 East Duarte Road
Duarte, California 91010-3000
Tel: (626) 301-8460
Fax: (626) 930-5486

Dana-Farber/Harvard Cancer Center
Dana-Farber Cancer Institute
Edward J. Benz, Jr., M.D.
Director

44 Binney Street, Rm. 1628
Boston, Massachusetts 02115
Tel: (617) 632-2100
Toll Free: (877) 420-3951
Fax: (617) 632-4452

Duke Cancer Institute
Duke University Medical Center
Anthony R. Means, Ph.D.
Director

Box 2714
Durham, North Carolina 27710
Tel: (919) 684-5613
Fax: (919) 684-5653

Dan L. Duncan Cancer Center
Baylor College of Medicine
C. Kent Osborne, M.D.
Director

One Baylor Plaza
MS: BCM305
Houston, Texas 77030
Tel: (713) 798-1354
Fax: (713) 798-2716

Albert Einstein Cancer Research Center
Albert Einstein College of Medicine
I. David Goldman, M.D.
Director

Chanin Building, Room 209
1300 Morris Park Avenue
Bronx, New York 10461
Tel: (718) 430-2302
Fax: (718) 430-8550

Fox Chase Cancer Center
Micheal V. Seiden, M.D., Ph.D.
President & Chief Executive Officer

333 Cottman Avenue
Philadelphia, Pennsylvania 19111
Tel: (215) 728-3636
Fax: (215) 728-2571

Fred Hutchinson/University of Washington Cancer Consortium
Fred Hutchinson Cancer Research Center
Lawrence Corey, M.D.
President & Director

P.O. Box 19024, D1-060
Seattle, Washington 98109-1024
Tel: (206) 667-4305
Fax: (206) 667-5268

Georgetown Lombardi Comprehensive Cancer Center
Louis M. Weiner, M.D.
Director

3970 Reservoir Road, N.W.
Research Bldg., Suite E501
Washington, DC 20007
Tel: (202) 687-2110
Fax: (202) 687-6402

Greenebaum Cancer Center
University of Maryland
Kevin J. Cullen, M.D.
Director

22 South Greene Street
Baltimore, Maryland 21201
Tel: (410) 328-7904
Fax: (410) 328-3018

Holden Comprehensive Cancer Center
The University of Iowa
George J. Weiner, M.D.
Director

5970 "Z" JPP
200 Hawkins Drive
Iowa City, Iowa 52242
Tel: (319) 353-8620
Fax: (319) 353-8988

Hollings Cancer Center

86 Jonathan Lucas Street

Medical University of South Carolina
Andrew S. Kraft, M.D.
Director

Charleston, South Carolina 29425
Tel: (843) 792-8284
Fax: (843) 792-9456

Huntsman Cancer Institute
University of Utah
Mary C. Beckerle, Ph.D.
Executive Director

2000 Circle of Hope
Salt Lake City, Utah 84112-5550
Tel: (801) 585-0303
Fax: (801) 585-0900

Indiana University Melvin and Bren Simon Cancer Center
Patrick J. Loehrer, Sr., M.D.
Director

Indiana Cancer Pavilion
535 Barnhill Drive, Room 455
Indianapolis, Indiana 46202-5289
Tel: (317) 278-0070
Fax: (317) 278-0074

Herbert Irving Comprehensive Cancer Center
College of Physicians & Surgeons
Columbia University
Riccardo Dalla-Favera, M.D.
Director

1130 St. Nicholas Avenue
Room 508
New York, New York 10032
Tel: (212) 851-5273
Fax: (212) 851-5236

Jonsson Comprehensive Cancer Center
University of California at Los Angeles
Judith C. Gasson, Ph.D.
Director

8-684 Factor Building
10833 Le Conte Avenue
Los Angeles, California 90095-1781
Tel: (310) 825-5268
Fax: (310) 206-5553

The Barbara Ann Karmanos Cancer Institute
Wayne State University School of Medicine
Gerold Bepler, M.D., Ph.D.
President & CEO

4100 John R
Detroit, Michigan 48201
Tel: (800) KARMANOS
Fax: (313) 576-8630

Kimmel Cancer Center
Thomas Jefferson University
Richard G. Pestell, M.D., Ph.D.
Director

233 South 10th Street
BLSB, Room 1050
Philadelphia, Pennsylvania 19107-5799
Tel: (215) 503-5692
Fax: (215) 503-9334

Robert H. Lurie Comprehensive Cancer Center
Northwestern University
Steven T. Rosen, M.D.
Director

303 E. Superior Street
Suite 3-125
Chicago, Illinois 60611
Tel: (312) 908-5250
Fax: (312) 908-1372

M.D. Anderson Cancer Center
University of Texas
John Mendelsohn, M.D.
President

1515 Holcombe Boulevard, Box 91
Houston, Texas 77030
Tel: (713) 792-2121
Fax: (713) 799-2210

Masonic Cancer Center
at the University of Minnesota
Douglas Yee, M.D.
Director

MMC 806, 420 Delaware Street, S.E.
Minneapolis, Minnesota 55455
Tel: (612) 624-8484
Tel: (888) 226-2376
Fax: (612) 626-3069

Massey Cancer Center
Virginia Commonwealth University
Gordon D. Ginder, M.D.
Professor of Medicine & Director

P.O. Box 980037
Richmond, Virginia 23298-0037
Tel: (804) 828-0450
Fax: (804) 828-8453

Mayo Clinic Cancer Center
Mayo Clinic Rochester
Robert Diasio, M.D.
Director

200 First Street, S.W.
Rochester, Minnesota 55905
Tel: (507) 266-4997
Fax: (507) 284-1544

Memorial Sloan-Kettering Cancer Center
Craig B. Thompson, M.D.
President & CEO

1275 York Avenue
New York, New York 10021
Tel: (212) 639-2000 or (800) 525-2225
Fax: (212) 717-3299

H. Lee Moffitt Cancer Center & Research Institute
at the University of South Florida
William S. Dalton, Ph.D., M.D.
CEO & Center Director

12902 Magnolia Drive, MCC-CEO
Tampa, Florida 33612-9497
Tel: (813) 615-4261
Fax: (813) 615-4258

Moores Cancer Center
University of California, San Diego
Dennis A. Carson, M.D.
Director

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Appendix D

2011-12 Diagnosis Related Group (DRG)

Groupings, by Specialty

Cancer

MS-DRG	Medical/ Surgical	DRG_Title	ICD-9-CM	Severity	Weight
009	S	Bone marrow transplant	Include all	1	1.9168
023	S	Cranio w major dev impl/acute complex CNS PDX w MCC or chemo implant	Include procedures: 0010	1	1.9168
054	M	Nervous system neoplasms w MCC	Include all	1	0.9755
055	M	Nervous system neoplasms w/o MCC	Include all	2	1.0518
146	M	Ear, nose, mouth & throat malignancy w MCC	Include all	1	0.9845
147	M	Ear, nose, mouth & throat malignancy w CC	Include all	2	1.1016
148	M	Ear, nose, mouth & throat malignancy w/o CC/MCC	Include all	2	1.1339
180	M	Respiratory neoplasms w MCC	Include all	1	0.8006
181	M	Respiratory neoplasms w CC	Include all	2	0.8581
182	M	Respiratory neoplasms w/o CC/MCC	Include all	2	0.7819
374	M	Digestive malignancy w MCC	Include all	1	0.8064
375	M	Digestive malignancy w CC	Include all	2	0.8849
376	M	Digestive malignancy w/o CC/MCC	Include all	2	0.8566
435	M	Malignancy of hepatobiliary system or pancreas w MCC	Include all	1	0.8602
436	M	Malignancy of hepatobiliary system or pancreas w CC	Include all	2	0.9187
437	M	Malignancy of hepatobiliary system or pancreas w/o CC/MCC	Include all	2	0.8564
456	S	Spinal fus exc cerv w spinal curv/malig/infec or 9+ fus w MCC	Include diagnoses: 1702, 1985	1	1.3885
457	S	Spinal fus exc cerv w spinal curv/malig/infec or 9+ fus w CC	See MS-DRG 456	2	1.5588
458	S	Spinal fus exc cerv w spinal curv/malig/infec or 9+ fus w/o CC/MCC	See MS-DRG 456	2	1.2755
542	M	Pathological fractures & musculoskelet & conn tiss malig w MCC	Exclude diagnoses: 4463-4, 7331, 73310-6, 73319, 73393-8	1	1.0235
543	M	Pathological fractures & musculoskelet & conn tiss malig w CC	See MS-DRG 542	2	1.0976
544	M	Pathological fractures & musculoskelet & conn tiss malig w/o CC/MCC	See MS-DRG 542	2	1.3030
582	S	Mastectomy for malignancy w CC/MCC	Include all	2	0.9795
583	S	Mastectomy for malignancy w/o CC/MCC	Include all	2	1.1923
595	M	Major skin disorders w MCC	Include diagnoses: 1720, 1722-9	1	1.1092
596	M	Major skin disorders w/o MCC	See MS-DRG 595	2	0.6156
597	M	Malignant breast disorders w MCC	Include all	1	1.0816
598	M	Malignant breast disorders w CC	Include all	2	1.1431
599	M	Malignant breast disorders w/o CC/MCC	Include all	2	1.2864
656	S	Kidney & ureter procedures for neoplasm w MCC	Include all	1	0.7922
657	S	Kidney & ureter procedures for neoplasm w CC	Include all	2	1.0157
658	S	Kidney & ureter procedures for neoplasm w/o CC/MCC	Include all	2	1.0448
686	M	Kidney & urinary tract neoplasms w MCC	Include all	2	0.7615
687	M	Kidney & urinary tract neoplasms w CC	Include all	2	0.8130
688	M	Kidney & urinary tract neoplasms w/o CC/MCC	Include all	3	0.6750
715	S	Other male reproductive system O.R. proc for malignancy w CC/MCC	Include all	2	0.9828
716	S	Other male reproductive system O.R. proc for malignancy w/o CC/MCC	Include all	2	0.9970
722	M	Malignancy, male reproductive system w MCC	Include all	1	0.7165
723	M	Malignancy, male reproductive system w CC	Include all	2	0.7592
724	M	Malignancy, male reproductive system w/o CC/MCC	Include all	2	0.7196
736	S	Uterine & adnexa proc for ovarian or adnexal malignancy w MCC	Include all	1	0.9594
737	S	Uterine & adnexa proc for ovarian or adnexal malignancy w CC	Include all	2	1.3120

MS-DRG	Medical/ Surgical	DRG_Title	ICD-9-CM	Severity	Weight
738	S	Uterine & adnexa proc for ovarian or adnexal malignancy w/o CC/MCC	Include all	2	1.5315
739	S	Uterine,adnexa proc for non-ovarian/adnexal malig w MCC	Include all	1	0.9095
740	S	Uterine,adnexa proc for non-ovarian/adnexal malig w CC	Include all	2	1.1364
741	S	Uterine,adnexa proc for non-ovarian/adnexal malig w/o CC/MCC	Include all	2	1.3393
754	M	Malignancy, female reproductive system w MCC	Include all	1	0.9953
755	M	Malignancy, female reproductive system w CC	Include all	2	1.0902
756	M	Malignancy, female reproductive system w/o CC/MCC	Include all	2	1.2349
808	M	Major hematol/immun diag exc sickle cell crisis & coagul w MCC	Include diagnoses: 99685	1	1.1092
809	M	Major hematol/immun diag exc sickle cell crisis & coagul w CC	See MS-DRG 809	2	1.1092
810	M	Major hematol/immun diag exc sickle cell crisis & coagul w/o CC/MCC	See MS-DRG 809	2	1.1092
820	S	Lymphoma & leukemia w major O.R. procedure w MCC	Include all	1	1.0680
821	S	Lymphoma & leukemia w major O.R. procedure w CC	Include all	2	1.1051
822	S	Lymphoma & leukemia w major O.R. procedure w/o CC/MCC	Include all	2	1.0813
823	S	Lymphoma & non-acute leukemia w other O.R. proc w MCC	Include all	1	0.8686
824	S	Lymphoma & non-acute leukemia w other O.R. proc w CC	Include all	2	0.9393
825	S	Lymphoma & non-acute leukemia w other O.R. proc w/o CC/MCC	Include all	2	0.9701
826	S	Myeloprolif disord or poorly diff neopl w maj O.R. proc w MCC	Include all	1	1.1257
827	S	Myeloprolif disord or poorly diff neopl w maj O.R. proc w CC	Include all	2	1.4166
828	S	Myeloprolif disord or poorly diff neopl w maj O.R. proc w/o CC/MCC	Include all	2	0.9972
829	S	Myeloprolif disord or poorly diff neopl w other O.R. proc w CC/MCC	Include all	2	0.9844
830	S	Myeloprolif disord or poorly diff neopl w other O.R. proc w/o CC/MCC	Include all	2	1.0701
834	M	Acute leukemia w/o major O.R. procedure w MCC	Include all	1	1.1639
835	M	Acute leukemia w/o major O.R. procedure w CC	Include all	2	1.3669
836	M	Acute leukemia w/o major O.R. procedure w/o CC/MCC	Include all	2	1.3900
837	M	Chemo w acute leukemia as sdx or w high dose chemo agent w MCC	Include all	1	1.5789
838	M	Chemo w acute leukemia as sdx w CC or high dose chemo agent	Include all	2	1.9168
839	M	Chemo w acute leukemia as sdx w/o CC/MCC	Include all	2	1.9168
840	M	Lymphoma & non-acute leukemia w MCC	Include all	1	0.8061
841	M	Lymphoma & non-acute leukemia w CC	Include all	2	0.8712
842	M	Lymphoma & non-acute leukemia w/o CC/MCC	Include all	2	0.8782
843	M	Other myeloprolif dis or poorly diff neopl diag w MCC	Exclude diagnosis: v10, v711	3	1.0534
844	M	Other myeloprolif dis or poorly diff neopl diag w CC	See MS-DRG 844	3	1.5430
845	M	Other myeloprolif dis or poorly diff neopl diag w/o CC/MCC	See MS-DRG 844	3	1.4320
846	M	Chemotherapy w/o acute leukemia as secondary diagnosis w MCC	Include all	3	1.3986
847	M	Chemotherapy w/o acute leukemia as secondary diagnosis w CC	Include all	3	1.6906
848	M	Chemotherapy w/o acute leukemia as secondary diagnosis w/o CC/MCC	Include all	3	1.1189

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	1.9076
002	S	Heart transplant or implant of heart assist system w/o MCC	Include all	1	1.9076
163	S	Major chest procedures w MCC	Include procedures: 3712, 3724, 3731, 3791, 3805, 3815, 3835, 3845, 3855, 3865, 3885, 3954	1	1.9001
164	S	Major chest procedures w CC	See MS-DRG: 163	2	1.9076
165	S	Major chest procedures w/o CC/MCC	See MS-DRG: 164	2	1.9076
215	S	Other heart assist system implant	Include all	1	1.6282
216	S	Cardiac valve & oth maj cardiothoracic proc w card cath w MCC	Include all	1	1.0855
217	S	Cardiac valve & oth maj cardiothoracic proc w card cath w CC	Include all	2	1.0859
218	S	Cardiac valve & oth maj cardiothoracic proc w card cath w/o CC/MCC	Include all	2	1.1517
219	S	Cardiac valve & oth maj cardiothoracic proc w/o card cath w MCC	Include all	1	1.1900
220	S	Cardiac valve & oth maj cardiothoracic proc w/o card cath w CC	Include all	2	1.2571
221	S	Cardiac valve & oth maj cardiothoracic proc w/o card cath w/o CC/MCC	Include all	2	1.3000
222	S	Cardiac defib implant w cardiac cath w AMI/HF/shock w MCC	Include all	1	1.1496
223	S	Cardiac defib implant w cardiac cath w AMI/HF/shock w/o MCC	Include all	1	1.1577
224	S	Cardiac defib implant w cardiac cath w/o AMI/HF/shock w MCC	Include all	3	1.2276
225	S	Cardiac defib implant w cardiac cath w/o AMI/HF/shock w/o MCC	Include all	3	1.2232
226	S	Cardiac defibrillator implant w/o cardiac cath w MCC	Include all	1	1.0145
227	S	Cardiac defibrillator implant w/o cardiac cath w/o MCC	Include all	1	1.0958
228	S	Other cardiothoracic procedures w MCC	Include all	1	1.8136
229	S	Other cardiothoracic procedures w CC	Include all	2	1.9076
230	S	Other cardiothoracic procedures w/o CC/MCC	Include all	2	1.6577
231	S	Coronary bypass w PTCA w MCC	Include all	1	1.5175
232	S	Coronary bypass w PTCA w/o MCC	Include all	2	1.7558
233	S	Coronary bypass w cardiac cath w MCC	Include all	2	1.2293
234	S	Coronary bypass w cardiac cath w/o MCC	Include all	3	1.3087
235	S	Coronary bypass w/o cardiac cath w MCC	Include all	2	1.2118
236	S	Coronary bypass w/o cardiac cath w/o MCC	Include all	3	1.1834
237	S	Major cardiovasc procedures w MCC or thoracic aortic anuerysm repair	Include all	1	1.2083
238	S	Major cardiovascular procedures w/o MCC	Include all	2	1.1574
242	S	Permanent cardiac pacemaker implant w MCC	Include all	2	0.8337
243	S	Permanent cardiac pacemaker implant w CC	Include all	2	0.8413
244	S	Permanent cardiac pacemaker implant w/o CC/MCC	Include all	3	0.8560
245	S	AICD Generator Procedures	Include all	2	0.9522
246	S	Perc cardiovasc proc w drug-eluting stent w MCC or 4+ vessels/stents	Include all	2	1.1456
247	S	Perc cardiovasc proc w drug-eluting stent w/o MCC	Include all	3	1.0492
248	S	Perc cardiovasc proc w non-drug-eluting stent w MCC or 4+ ves/stents	Include all	2	1.1337
249	S	Perc cardiovasc proc w non-drug-eluting stent w/o MCC	Include all	3	1.0465
250	S	Perc cardiovasc proc w/o coronary artery stent w MCC	Include all	3	1.0926
251	S	Perc cardiovasc proc w/o coronary artery stent or AMI w/o MCC	Include all	3	1.1583
252	S	Other vascular procedures w MCC	Include all	2	0.9334
253	S	Other vascular procedures w CC	Include all	2	1.0361
254	S	Other vascular procedures w/o CC/MCC	Include all	3	0.9417

MS-DRG	Medical/ Surgical	DRG_Title	ICD-9-CM	Severity	Weight
260	S	Cardiac pacemaker revision except device replacement w MCC	Include all	1	1.0306
261	S	Cardiac pacemaker revision except device replacement w CC	Include all	2	1.0436
262	S	Cardiac pacemaker revision except device replacement w/o CC/MCC	Include all	2	1.0840
265	S	ACID lead procedures	Include all	2	1.0382
280	M	Acute myocardial infarction, discharged alive w MCC	Include all	1	0.8756
281	M	Acute myocardial infarction, discharged alive w CC	Include all	2	0.9447
282	M	Acute myocardia infarction, discharged alive w/o CC/MCC	Include all	2	1.0942
283	M	Acute myocardial infarction, expired w MCC	Include all	1	0.8484
284	M	Acute myocardial infarction, expired w CC	Include all	2	0.8572
285	M	Acute myocardial infarction, expired w/o CC/MCC	Include all	2	0.8069
286	M	Circulatory disorders except AMI, w card cath w MCC	Include all	2	1.1200
287	M	Circulatory disorders except AMI, w card cath w/o MCC	Include all	3	1.2441
288	M	Acute & subacute endocarditis w MCC	Include all	1	1.2295
289	M	Acute & subacute endocarditis w CC	Include all	2	1.3689
290	M	Acute & subacute endocarditis w/o CC/MCC	Include all	2	1.4115
291	M	Heart failure & shock w MCC	Include all	1	0.8886
292	M	Heart failure & shock w CC	Include all	2	0.9061
293	M	Heart failure & shock w/o CC/MCC	Include all	2	0.9168
306	M	Cardiac congenital & valvular disorders w MCC	Include all	1	1.1422
308	M	Cardiac arrhythmia & conduction disorders w MCC	Include all	1	0.9086
309	M	Cardiac arrhythmia & conduction disorders w CC	Include all	2	0.9616
314	M	Other circulatory system diagnoses w MCC	Include all	2	1.0767
315	M	Other circulatory system diagnoses w CC	Include all	2	1.2419
316	M	Other circulatory system diagnoses w/o CC/MCC	Include all	3	1.1015

Diabetes & Endocrinology

MS-DRG	Medical/ Surgical	DRG_Title	ICD-9-CM	Severity	Weight
614	S	Adrenal & pituitary procedures w CC/MCC	Include all	2	1.8331
615	S	Adrenal & pituitary procedures w/o CC/MCC	Include all	2	1.6797
619	S	O.R. procedures for obesity w MCC	Include all	1	2.0925
620	S	O.R. procedures for obesity w CC	Include all	2	2.6851
621	S	O.R. procedures for obesity w/o CC/MCC	Include all	2	2.6851
622	S	Skin grafts & wound debrid for endoc, nutrit & metab dis w MCC	Include all	1	0.9506
623	S	Skin grafts & wound debrid for endoc, nutrit & metab dis w CC	Include all	2	1.0734
624	S	Skin grafts & wound debrid for endoc, nutrit & metab dis w/o CC/MCC	Include all	2	1.1291
625	S	Thyroid, parathyroid & thyroglossal procedures w MCC	Include all	1	0.8360
626	S	Thyroid, parathyroid & thyroglossal procedures w CC	Include all	2	1.5996
627	S	Thyroid, parathyroid & thyroglossal procedures w/o CC/MCC	Include all	2	1.4348
628	S	Other endocrine, nutrit & metab O.R. proc w MCC	Include all	1	0.8276
629	S	Other endocrine, nutrit & metab O.R. proc w CC	Include all	2	0.9702
630	S	Other endocrine, nutrit & metab O.R. proc w/o CC/MCC	Include all	2	1.1639
637	M	Diabetes w MCC	Include all	3	1.2512
638	M	Diabetes w CC	Include all	3	0.8913
639	M	Diabetes w/o CC/MCC	Include all	3	0.8990
640	M	Nutritional & misc metabolic disorders w MCC	Include all	3	0.7663
643	M	Endocrine disorders w MCC	Include all	3	0.8059
644	M	Endocrine disorders w CC	Include all	3	0.8347

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	1.0125
012	S	Tracheostomy for face,mouth & neck diagnoses w CC	Include all	1	1.1477
013	S	Tracheostomy for face,mouth & neck diagnoses w/o CC/MCC	Include all	1	1.3362
129	S	Major head & neck procedures w CC/MCC or major device	Include all	2	1.0501
130	S	Major head & neck procedures w/o CC/MCC	Include all	2	1.1079
131	S	Cranial/Facial Procedures w CC/MCC	Include all	3	2.1330
132	S	Cranial/Facial Procedures w/o CC/MCC	Include all	3	2.1330
133	S	Other ear, nose, mouth & throat O.R. procedures w CC/MCC	Include all	3	1.7332
134	S	Other ear, nose, mouth & throat O.R. procedures w/o CC/MCC	Include all	3	1.5261
139	S	Salivary gland procedures	Include all	3	0.7384
146	M	Ear, nose, mouth & throat malignancy w MCC	Include all	1	0.8590
147	M	Ear, nose, mouth & throat malignancy w CC	Include all	2	0.9612
148	M	Ear, nose, mouth & throat malignancy w/o CC/MCC	Include all	2	0.9894
152	M	Otitis media & URI w MCC	Include all	3	0.8234
154	M	Other ear, nose, mouth and throat diagnosis w MCC	Include all	3	0.7396
155	M	Other ear, nose, mouth and throat diagnosis w CC	Include all	3	0.6701
156	M	Other ear, nose, mouth and throat diagnosis w/o CC/MCC	Include all	3	0.6891

Gastroenterology

MS-DRG	Medical/ Surgical	DRG_Title	ICD-9-CM	Severity	Weight
326	S	Stomach, esophageal & duodenal proc w MCC	Include all	2	1.1022
327	S	Stomach, esophageal & duodenal proc w CC	Include all	2	1.2976
328	S	Stomach, esophageal & duodenal proc w/o CC/MCC	Include all	3	1.3712
329	S	Major small & large bowel procedures w MCC	Include all	1	0.9714
330	S	Major small & large bowel procedures w CC	Include all	2	1.1565
331	S	Major small & large bowel procedures w/o CC/MCC	Include all	2	1.2303
332	S	Rectal resection w MCC	Include all	1	0.8637
333	S	Rectal resection w CC	Include all	1	1.1809
334	S	Rectal resection w/o CC/MCC	Include all	2	1.2586
335	S	Peritoneal adhesiolysis w MCC	Include all	1	0.9226
336	S	Peritoneal adhesiolysis w CC	Include all	2	1.2211
337	S	Peritoneal adhesiolysis w/o CC/MCC	Include all	2	1.4048
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	1.1978
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	1.5712
346	S	Minor small & large bowel procedures w/o CC/MCC	See MS-DRG 345	3	0.6791
356	S	Other digestive system O.R. procedures w MCC	Include all	2	0.9020
357	S	Other digestive system O.R. procedures w CC	Include all	2	1.0967
358	S	Other digestive system O.R. procedures w/o CC/MCC	Include all	3	0.8309

MS-DRG	Medical/ Surgical	DRG_Title	ICD-9-CM	Severity	Weight
368	M	Major esophageal disorders w MCC	Include all	1	0.9903
369	M	Major esophageal disorders w CC	Include all	2	1.1165
370	M	Major esophageal disorders w/o CC/MCC	Include all	2	1.2991
371	M	Major gastrointestinal disorders & peritoneal infections w MCC	Include all	1	0.7755
372	M	Major gastrointestinal disorders & peritoneal infections w CC	Include all	2	0.8877
373	M	Major gastrointestinal disorders & peritoneal infections w/o CC/MCC	Include all	2	1.0549
374	M	Digestive malignancy w MCC	Include all	1	0.9018
375	M	Digestive malignancy w CC	Include all	2	0.9895
376	M	Digestive malignancy w/o CC/MCC	Include all	2	0.9579
377	M	G.I. hemorrhage w MCC	Include all	1	0.7480
378	M	G.I. hemorrhage w CC	Include all	2	0.7856
379	M	G.I. hemorrhage w/o CC/MCC	Include all	2	0.8186
380	M	Complicated peptic ulcer w MCC	Include all	1	0.8704
381	M	Complicated peptic ulcer w CC	Include all	2	0.9387
382	M	Complicated peptic ulcer w/o CC/MCC	Include all	2	1.0579
383	M	Uncomplicated peptic ulcer w MCC	Include all	3	0.8486
385	M	Inflammatory bowel disease w MCC	Include all	1	1.3838
386	M	Inflammatory bowel disease w CC	Include all	2	1.8501
387	M	Inflammatory bowel disease w/o CC/MCC	Include all	2	1.8501
388	M	G.I. obstruction w MCC	Include all	3	0.7396
389	M	G.I. obstruction w CC	Include all	3	0.7446
391	M	Esophagitis, gastroent & misc digest disorders w MCC	Include all	3	0.9065
393	M	Other digestive system diagnoses w MCC	Include all	1	0.8670
394	M	Other digestive system diagnoses w CC	Include all	2	0.9523
405	S	Pancreas, liver & shunt procedures w MCC	Include all	1	1.3630
406	S	Pancreas, liver & shunt procedures w CC	Include all	1	1.4191
407	S	Pancreas, liver & shunt procedures w/o CC/MCC	Include all	2	1.6391
408	S	Biliary tract proc except only cholecyst w or w/o c.d.e. w MCC	Include all	2	0.9600
409	S	Biliary tract proc except only cholecyst w or w/o c.d.e. w CC	Include all	2	1.1270
410	S	Biliary tract proc except only cholecyst w or w/o c.d.e. w/o CC/MCC	Include all	3	1.2905
411	S	Cholecystectomy w c.d.e. w MCC	Include all	1	0.9376
412	S	Cholecystectomy w c.d.e. w CC	Include all	2	1.0708
413	S	Cholecystectomy w c.d.e. w/o CC/MCC	Include all	2	1.2263
414	S	Cholecystectomy except by laparoscope w/o c.d.e. w MCC	Include all	1	0.9283
415	S	Cholecystectomy except by laparoscope w/o c.d.e. w CC	Include all	2	1.1366
417	S	Laparoscopic cholecystectomy w/o c.d.e. w MCC	Include all	3	0.9372
418	S	Laparoscopic cholecystectomy w/o c.d.e. w CC	Include all	3	1.1385
420	S	Hepatobiliary diagnostic procedures w MCC	Include all	1	1.1667
421	S	Hepatobiliary diagnostic procedures w CC	Include all	2	1.2426
422	S	Hepatobiliary diagnostic procedures w/o CC/MCC	Include all	2	1.6379
423	S	Other hepatobiliary or pancreas O.R. procedures w MCC	Include all	3	1.0932
424	S	Other hepatobiliary or pancreas O.R. procedures w CC	Include all	3	1.0339
425	S	Other hepatobiliary or pancreas O.R. procedures w/o CC/MCC	Include all	3	1.1540
432	M	Cirrhosis & alcoholic hepatitis w MCC	Include all	1	1.7171
433	M	Cirrhosis & alcoholic hepatitis w CC	Include all	2	1.8058
434	M	Cirrhosis & alcoholic hepatitis w/o CC/MCC	Include all	2	1.8501
435	M	Malignancy of hepatobiliary system or pancreas w MCC	Include all	1	0.9618
436	M	Malignancy of hepatobiliary system or pancreas w CC	Include all	2	1.0273
437	M	Malignancy of hepatobiliary system or pancreas w/o CC/MCC	Include all	2	0.9576
438	M	Disorders of pancreas except malignancy w MCC	Include all	1	1.2766

MS-DRG	Medical/ Surgical	DRG_Title	ICD-9-CM	Severity	Weight
439	M	Disorders of pancreas except malignancy w CC	Include all	2	1.5844
440	M	Disorders of pancreas except malignancy w/o CC/MCC	Include all	2	1.6425
441	M	Disorders of liver except malig,cirr,alc hepa w MCC	Exclude diagnosis: 7948	1	1.6879
442	M	Disorders of liver except malig,cirr,alc hepa w CC	See MS-DRG 442	2	1.6364

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	1.1096
002	S	Heart transplant or implant of heart assist system w/o MCC	Include all	1	0.9206
003	S	ECMO or trach w MV 96+ hrs or PDX exc face, mouth & neck w maj O.R.	Include all	1	1.0550
004	S	Trach w MV 96+ hrs or PDX exc face, mouth & neck w/o maj O.R.	Include all	1	1.0250
005	S	Liver transplant w MCC or intestinal transplant	Include all	1	0.9206
006	S	Liver transplant w/o MCC	Include all	1	0.9206
007	S	Lung transplant	Include all	1	0.9206
008	S	Simultaneous pancreas/kidney transplant	Include all	1	1.0078
009	S	Bone marrow transplant	Include all	1	1.0420
010	S	Pancreas transplant	Include all	1	1.0078
011	S	Tracheostomy for face,mouth & neck diagnoses w MCC	Include all	1	1.0363
012	S	Tracheostomy for face,mouth & neck diagnoses w CC	Include all	1	1.0494
013	S	Tracheostomy for face,mouth & neck diagnoses w/o CC/MCC	Include all	1	1.0581
020	S	Intracranial vascular procedures w PDX hemorrhage w MCC	Include all	1	1.0933
021	S	Intracranial vascular procedures w PDX hemorrhage w CC	Include all	1	1.0646
022	S	Intracranial vascular procedures w PDX hemorrhage w/o CC/MCC	Include all	1	1.1096
023	S	Cranio w major dev impl/acute complex CNS PDX w MCC or chemo implant	Include all	1	1.0486
024	S	Cranio w major dev impl/acute complex CNS PDX w/o MCC	Include all	1	1.0382
025	S	Craniotomy & endovascular intracranial procedures w MCC	Include all	1	1.0147
026	S	Craniotomy & endovascular intracranial procedures w CC	Include all	1	1.0324
027	S	Craniotomy & endovascular intracranial procedures w/o CC/MCC	Include all	1	1.0229
028	S	Spinal procedures w MCC	Include all	1	1.0235
029	S	Spinal procedures w CC or spinal neurostimulators	Include all	2	1.0063
030	S	Spinal procedures w/o CC/MCC	Include all	2	0.9915
031	S	Ventricular shunt procedures w MCC	Include all	1	1.0250
032	S	Ventricular shunt procedures w CC	Include all	2	0.9764
033	S	Ventricular shunt procedures w/o CC/MCC	Include all	2	0.9659
034	S	Carotid artery stent procedure w MCC	Include all	1	1.0170
035	S	Carotid artery stent procedure w CC	Include all	2	1.0328
036	S	Carotid artery stent procedure w/o CC/MCC	Include all	2	1.0242
037	S	Extracranial procedures w MCC	Include all	2	1.0129
038	S	Extracranial procedures w CC	Include all	2	0.9921
039	S	Extracranial procedures w/o CC/MCC	Include all	3	1.0222
040	S	Periph & cranial nerve & other nerv syst proc w MCC	Include all	2	1.0190
041	S	Periph/cranial nerve & other nerv syst proc w CC or periph neurostim	Include all	2	1.0076
042	S	Periph & cranial nerve & other nerv syst proc w/o CC/MCC	Include all	3	0.9557
052	M	Spinal disorders & injuries w CC/MCC	Include all	2	1.0957
053	M	Spinal disorders & injuries w/o CC/MCC	Include all	2	1.0642

MS-DRG	Medical/ Surgical	DRG_Title	ICD-9-CM	Severity	Weight
054	M	Nervous system neoplasms w MCC	Include all	1	1.0307
055	M	Nervous system neoplasms w/o MCC	Include all	2	1.0147
056	M	Degenerative nervous system disorders w MCC	Include all	1	1.0141
057	M	Degenerative nervous system disorders w/o MCC	Include all	2	0.9992
058	M	Multiple sclerosis & cerebellar ataxia w MCC	Include all	1	1.0455
059	M	Multiple sclerosis & cerebellar ataxia w CC	Include all	2	0.9832
060	M	Multiple sclerosis & cerebellar ataxia w/o CC/MCC	Include all	2	0.9841
061	M	Acute ischemic stroke w use of thrombolytic agent w MCC	Include all	1	1.0380
062	M	Acute ischemic stroke w use of thrombolytic agent w CC	Include all	2	1.0158
063	M	Acute ischemic stroke w use of thrombolytic agent w/o CC/MCC	Include all	2	1.0065
064	M	Intracranial hemorrhage or cerebral infarction w MCC	Include all	1	1.0145
065	M	Intracranial hemorrhage or cerebral infarction w CC	Include all	2	1.0108
066	M	Intracranial hemorrhage or cerebral infarction w/o CC/MCC	Include all	2	1.0099
067	M	Nonspecific cva & precerebral occlusion w/o infarct w MCC	Include all	1	0.9991
068	M	Nonspecific cva & precerebral occlusion w/o infarct w/o MCC	Include all	2	1.0003
069	M	Transient ischemia	Include all	3	0.9940
070	M	Nonspecific cerebrovascular disorders w MCC	Include all	2	0.9970
071	M	Nonspecific cerebrovascular disorders w CC	Include all	2	0.9978
072	M	Nonspecific cerebrovascular disorders w/o CC/MCC	Include all	3	0.9770
073	M	Cranial & peripheral nerve disorders w MCC	Include all	1	0.9999
074	M	Cranial & peripheral nerve disorders w/o MCC	Include all	2	0.9972
075	M	Viral meningitis w CC/MCC	Include all	2	1.0761
076	M	Viral meningitis w/o CC/MCC	Include all	2	1.0687
077	M	Hypertensive encephalopathy w MCC	Include all	1	1.0375
078	M	Hypertensive encephalopathy w CC	Include all	2	1.0265
079	M	Hypertensive encephalopathy w/o CC/MCC	Include all	2	1.0252
080	M	Nontraumatic stupor & coma w MCC	Include all	1	0.9885
081	M	Nontraumatic stupor & coma w/o MCC	Include all	2	0.9984
082	M	Traumatic stupor & coma, coma >1 hr w MCC	Include all	1	1.0651
083	M	Traumatic stupor & coma, coma >1 hr w CC	Include all	1	1.0642
084	M	Traumatic stupor & coma, coma >1 hr w/o CC/MCC	Include all	1	1.0621
085	M	Traumatic stupor & coma, coma <1 hr w MCC	Include all	1	1.0166
086	M	Traumatic stupor & coma, coma <1 hr w CC	Include all	2	1.0172
087	M	Traumatic stupor & coma, coma <1 hr w/o CC/MCC	Include all	2	1.0245
088	M	Concussion w MCC	Include all	3	1.0480
089	M	Concussion w CC	Include all	3	1.0530
090	M	Concussion w/o CC/MCC	Include all	3	1.0176
091	M	Other disorders of nervous system w MCC	Include all	3	1.0022
092	M	Other disorders of nervous system w CC	Include all	3	0.9892
093	M	Other disorders of nervous system w/o CC/MCC	Include all	3	1.0221
094	M	Bacterial & tuberculous infections of nervous system w MCC	Include all	1	1.0060
095	M	Bacterial & tuberculous infections of nervous system w CC	Include all	2	1.0151
096	M	Bacterial & tuberculous infections of nervous system w/o CC/MCC	Include all	2	1.0170
097	M	Non-bacterial infect of nervous sys exc viral meningitis w MCC	Include all	1	0.9948
098	M	Non-bacterial infect of nervous sys exc viral meningitis w CC	Include all	2	1.0207
099	M	Non-bacterial infect of nervous sys exc viral meningitis w/o CC/MCC	Include all	2	0.9601
100	M	Seizures w MCC	Include all	2	1.0045
101	M	Seizures w/o MCC	Include all	3	1.0050
102	M	Headaches w MCC	Include all	3	1.0992
103	M	Headaches w/o MCC	Include all	3	1.0008

MS-DRG	Medical/ Surgical	DRG_Title	ICD-9-CM	Severity	Weight
113	S	Orbital procedures w CC/MCC	Include all	2	1.0777
114	S	Orbital procedures w/o CC/MCC	Include all	2	0.9998
115	S	Extraocular procedures except orbit	Include all	3	1.1096
116	S	Intraocular procedures w CC/MCC	Include all	3	0.9896
117	S	Intraocular procedures w/o CC/MCC	Include all	3	1.0078
121	M	Acute major eye infections w CC/MCC	Include all	2	0.9972
122	M	Acute major eye infections w/o CC/MCC	Include all	2	1.0241
123	M	Neurological eye disorders	Include all	3	0.9859
124	M	Other disorders of the eye w MCC	Include all	2	0.9886
125	M	Other disorders of the eye w/o MCC	Include all	3	0.9971
129	S	Major head & neck procedures w CC/MCC or major device	Include all	2	1.0039
130	S	Major head & neck procedures w/o CC/MCC	Include all	2	0.9992
131	S	Cranial/facial procedures w CC/MCC	Include all	3	1.1019
132	S	Cranial/facial procedures w/o CC/MCC	Include all	3	0.9206
133	S	Other ear, nose, mouth & throat O.R. procedures w CC/MCC	Include all	3	0.9715
134	S	Other ear, nose, mouth & throat O.R. procedures w/o CC/MCC	Include all	3	1.0209
135	S	Sinus & mastoid procedures w CC/MCC	Include all	2	1.0490
136	S	Sinus & mastoid procedures w/o CC/MCC	Include all	2	1.0247
137	S	Mouth procedures w CC/MCC	Include all	3	0.9365
138	S	Mouth procedures w/o CC/MCC	Include all	3	0.9206
139	S	Salivary gland procedures	Include all	3	0.9863
146	M	Ear, nose, mouth & throat malignancy w MCC	Include all	1	1.0067
147	M	Ear, nose, mouth & throat malignancy w CC	Include all	2	1.0211
148	M	Ear, nose, mouth & throat malignancy w/o CC/MCC	Include all	2	1.0230
149	M	Dysequilibrium	Include all	3	1.0044
150	M	Epistaxis w MCC	Include all	3	0.9737
151	M	Epistaxis w/o MCC	Include all	3	0.9615
152	M	Otitis media & URI w MCC	Include all	3	1.0072
153	M	Otitis media & URI w/o MCC	Include all	3	0.9951
154	M	Other Ear, Nose, Mouth, and Throat Diagnoses with MCC	Include all	3	0.9902
155	M	Other Ear, Nose, Mouth, and Throat Diagnoses with CC	Include all	3	0.9874
156	M	Other Ear, Nose, Mouth, and Throat Diagnoses without CC/MCC	Include all	3	0.9722
157	M	Dental & Oral Diseases w MCC	Include all	3	0.9826
158	M	Dental & Oral Diseases w CC	Include all	3	1.0080
159	M	Dental & Oral Diseases w/o CC/MCC	Include all	3	1.0896
163	S	Major chest procedures w MCC	Include all	1	1.0114
164	S	Major chest procedures w CC	Include all	2	1.0075
165	S	Major chest procedures w/o CC/MCC	Include all	2	0.9756
166	S	Other resp system O.R. procedures w MCC	Include all	2	1.0004
167	S	Other resp system O.R. procedures w CC	Include all	2	1.0100
168	S	Other resp system O.R. procedures w/o CC/MCC	Include all	3	1.0635
175	M	Pulmonary embolism w MCC	Include all	1	1.0042
176	M	Pulmonary embolism w/o MCC	Include all	1	1.0104
177	M	Respiratory infections & inflammations w MCC	Include all	1	0.9870
178	M	Respiratory infections & inflammations w CC	Include all	2	0.9871
179	M	Respiratory infections & inflammations w/o CC/MCC	Include all	2	0.9852
180	M	Respiratory neoplasms w MCC	Include all	1	1.0225
181	M	Respiratory neoplasms w CC	Include all	2	1.0408
182	M	Respiratory neoplasms w/o CC/MCC	Include all	2	1.0683
183	M	Major chest trauma w MCC	Include all	1	1.0832
184	M	Major chest trauma w CC	Include all	1	1.1096
185	M	Major chest trauma w/o CC/MCC	Include all	1	1.1096

MS-DRG	Medical/ Surgical	DRG_Title	ICD-9-CM	Severity	Weight
186	M	Pleural effusion w MCC	Include all	3	0.9924
187	M	Pleural effusion w CC	Include all	3	1.0115
188	M	Pleural effusion w/o CC/MCC	Include all	3	1.0530
189	M	Pulmonary edema & respiratory failure	Include all	2	1.0083
190	M	Chronic obstructive pulmonary disease w MCC	Include all	3	0.9981
191	M	Chronic obstructive pulmonary disease w CC	Include all	3	0.9966
192	M	Chronic obstructive pulmonary disease w/o CC/MCC	Include all	3	1.0034
193	M	Simple pneumonia & pleurisy w MCC	Include all	3	0.9993
194	M	Simple pneumonia & pleurisy w CC	Include all	3	0.9930
195	M	Simple pneumonia & pleurisy w/o CC/MCC	Include all	3	0.9967
196	M	Interstitial lung disease w MCC	Include all	3	1.0062
197	M	Interstitial lung disease w CC	Include all	3	1.0026
198	M	Interstitial lung disease w/o CC/MCC	Include all	3	1.0436
199	M	Pneumothorax w MCC	Include all	1	1.0220
200	M	Pneumothorax w CC	Include all	2	1.0572
201	M	Pneumothorax w/o CC/MCC	Include all	2	1.0097
202	M	Bronchitis & asthma w CC/MCC	Include all	3	0.9903
203	M	Bronchitis & asthma w/o CC/MCC	Include all	3	1.0108
204	M	Respiratory signs & symptoms	Include all	3	0.9913
205	M	Other respiratory system diagnoses w MCC	Include all	3	1.0262
206	M	Other respiratory system diagnoses w/o MCC	Include all	3	1.0091
207	M	Respiratory system diagnosis w ventilator support 96+ hours	Include all	2	1.0144
208	M	Respiratory system diagnosis w ventilator support <96 hours	Include all	2	1.0158
215	S	Other heart assist system implant	Include all	1	1.0445
216	S	Cardiac valve & oth maj cardiothoracic proc w card cath w MCC	Include all	1	1.0045
217	S	Cardiac valve & oth maj cardiothoracic proc w card cath w CC	Include all	2	0.9842
218	S	Cardiac valve & oth maj cardiothoracic proc w card cath w/o CC/MCC	Include all	2	1.0256
219	S	Cardiac valve & oth maj cardiothoracic proc w/o card cath w MCC	Include all	1	1.0055
220	S	Cardiac valve & oth maj cardiothoracic proc w/o card cath w CC	Include all	2	1.0123
221	S	Cardiac valve & oth maj cardiothoracic proc w/o card cath w/o CC/MCC	Include all	2	1.0402
222	S	Cardiac defib implant w cardiac cath w AMI/HF/shock w MCC	Include all	1	1.0006
223	S	Cardiac defib implant w cardiac cath w AMI/HF/shock w/o MCC	Include all	1	0.9926
224	S	Cardiac defib implant w cardiac cath w/o AMI/HF/shock w MCC	Include all	3	1.0219
225	S	Cardiac defib implant w cardiac cath w/o AMI/HF/shock w/o MCC	Include all	3	1.0575
226	S	Cardiac defibrillator implant w/o cardiac cath w MCC	Include all	1	1.0095
227	S	Cardiac defibrillator implant w/o cardiac cath w/o MCC	Include all	1	0.9957
228	S	Other cardiothoracic procedures w MCC	Include all	1	1.0186
229	S	Other cardiothoracic procedures w CC	Include all	2	1.0122
230	S	Other cardiothoracic procedures w/o CC/MCC	Include all	2	1.0084
231	S	Coronary bypass w PTCA w MCC	Include all	1	1.0107
232	S	Coronary bypass w PTCA w/o MCC	Include all	2	1.0177
233	S	Coronary bypass w cardiac cath w MCC	Include all	2	1.0181
234	S	Coronary bypass w cardiac cath w/o MCC	Include all	3	1.0233
235	S	Coronary bypass w/o cardiac cath w MCC	Include all	2	1.0384
236	S	Coronary bypass w/o cardiac cath w/o MCC	Include all	3	1.0209
237	S	Major cardiovasc procedures w MCC or thoracic aortic anuerysm repair	Include all	1	1.0141
238	S	Major cardiovascular procedures w/o MCC	Include all	2	0.9897
239	S	Amputation for circ sys disorders exc upper limb & toe w MCC	Include all	1	0.9970
240	S	Amputation for circ sys disorders exc upper limb & toe w CC	Include all	2	1.0021

MS-DRG	Medical/ Surgical	DRG_Title	ICD-9-CM	Severity	Weight
241	S	Amputation for circ sys disorders exc upper limb & toe w/o CC/MCC	Include all	2	1.0001
242	S	Permanent cardiac pacemaker implant w MCC	Include all	2	1.0039
243	S	Permanent cardiac pacemaker implant w CC	Include all	2	0.9928
244	S	Permanent cardiac pacemaker implant w/o CC/MCC	Include all	3	1.0045
245	S	AICD generator procedures	Include all	2	0.9852
246	S	Perc cardiovasc proc w drug-eluting stent w MCC or 4+ vessels/stents	Include all	2	1.0095
247	S	Perc cardiovasc proc w drug-eluting stent w/o MCC	Include all	3	1.0030
248	S	Perc cardiovasc proc w non-drug-eluting stent w MCC or 4+ ves/stents	Include all	2	1.0082
249	S	Perc cardiovasc proc w non-drug-eluting stent w/o MCC	Include all	3	0.9941
250	S	Perc cardiovasc proc w/o coronary artery stent w MCC	Include all	3	1.0021
251	S	Perc cardiovasc proc w/o coronary artery stent w/o MCC	Include all	3	1.0121
252	S	Other vascular procedures w MCC	Include all	2	0.9825
253	S	Other vascular procedures w CC	Include all	2	0.9961
254	S	Other vascular procedures w/o CC/MCC	Include all	3	0.9860
255	S	Upper limb & toe amputation for circ system disorders w MCC	Include all	1	0.9915
256	S	Upper limb & toe amputation for circ system disorders w CC	Include all	2	1.0080
257	S	Upper limb & toe amputation for circ system disorders w/o CC/MCC	Include all	2	1.0130
258	S	Cardiac pacemaker device replacement w MCC	Include all	3	0.9881
259	S	Cardiac pacemaker device replacement w/o MCC	Include all	3	0.9822
260	S	Cardiac pacemaker revision except device replacement w MCC	Include all	1	0.9904
261	S	Cardiac pacemaker revision except device replacement w CC	Include all	2	0.9850
262	S	Cardiac pacemaker revision except device replacement w/o CC/MCC	Include all	2	1.0313
263	S	Vein ligation & stripping	Include all	3	0.9206
264	S	Other circulatory system O.R. procedures	Include all	2	0.9925
265	S	AICD lead procedures	Include all	2	0.9695
280	M	Acute myocardial infarction, discharged alive w MCC	Include all	1	0.9953
281	M	Acute myocardial infarction, discharged alive w CC	Include all	2	0.9950
282	M	Acute myocardia infarction, discharged alive w/o CC/MCC	Include all	2	1.0037
283	M	Acute myocardial infarction, expired w MCC	Include all	1	1.0001
284	M	Acute myocardial infarction, expired w CC	Include all	2	1.0073
285	M	Acute myocardial infarction, expired w/o CC/MCC	Include all	2	1.0002
286	M	Circulatory disorders except AMI, w card cath w MCC	Include all	2	1.0075
287	M	Circulatory disorders except AMI, w card cath w/o MCC	Include all	3	1.0061
288	M	Acute & subacute endocarditis w MCC	Include all	1	0.9986
289	M	Acute & subacute endocarditis w CC	Include all	2	0.9858
290	M	Acute & subacute endocarditis w/o CC/MCC	Include all	2	1.0191
291	M	Heart failure & shock w MCC	Include all	1	0.9933
292	M	Heart failure & shock w CC	Include all	2	0.9930
293	M	Heart failure & shock w/o CC/MCC	Include all	2	0.9991
294	M	Deep vein thrombophlebitis w CC/MCC	Include all	3	0.9484
295	M	Deep vein thrombophlebitis w/o CC/MCC	Include all	3	0.9206
296	M	Cardiac arrest, unexplained w MCC	Include all	1	1.0468
297	M	Cardiac arrest, unexplained w CC	Include all	2	0.9808
298	M	Cardiac arrest, unexplained w/o CC/MCC	Include all	2	1.0328
299	M	Peripheral vascular disorders w MCC	Include all	1	0.9954
300	M	Peripheral vascular disorders w CC	Include all	2	0.9967
301	M	Peripheral vascular disorders w/o CC/MCC	Include all	2	1.0020
302	M	Atherosclerosis w MCC	Include all	3	1.0217

MS-DRG	Medical/ Surgical	DRG_Title	ICD-9-CM	Severity	Weight
303	M	Atherosclerosis w/o MCC	Include all	3	0.9967
304	M	Hypertension w MCC	Include all	3	0.9960
305	M	Hypertension w/o MCC	Include all	3	0.9965
306	M	Cardiac congenital & valvular disorders w MCC	Include all	1	1.0184
307	M	Cardiac congenital & valvular disorders w/o MCC	Include all	2	0.9963
308	M	Cardiac arrhythmia & conduction disorders w MCC	Include all	1	0.9974
309	M	Cardiac arrhythmia & conduction disorders w CC	Include all	2	0.9959
310	M	Cardiac arrhythmia & conduction disorders w/o CC/MCC	Include all	2	0.9995
311	M	Angina pectoris	Include all	3	1.0128
312	M	Syncope & collapse	Include all	2	0.9967
313	M	Chest pain	Include all	3	1.0110
314	M	Other circulatory system diagnoses w MCC	Include all	2	0.9990
315	M	Other circulatory system diagnoses w CC	Include all	2	0.9930
316	M	Other circulatory system diagnoses w/o CC/MCC	Include all	3	0.9993
326	S	Stomach, esophageal & duodenal proc w MCC	Include all	2	1.0031
327	S	Stomach, esophageal & duodenal proc w CC	Include all	2	1.0255
328	S	Stomach, esophageal & duodenal proc w/o CC/MCC	Include all	3	1.0441
329	S	Major small & large bowel procedures w MCC	Include all	1	1.0018
330	S	Major small & large bowel procedures w CC	Include all	2	0.9947
331	S	Major small & large bowel procedures w/o CC/MCC	Include all	2	1.0002
332	S	Rectal resection w MCC	Include all	1	0.9969
333	S	Rectal resection w CC	Include all	1	0.9955
334	S	Rectal resection w/o CC/MCC	Include all	2	0.9908
335	S	Peritoneal adhesiolysis w MCC	Include all	1	0.9974
336	S	Peritoneal adhesiolysis w CC	Include all	2	1.0069
337	S	Peritoneal adhesiolysis w/o CC/MCC	Include all	2	1.0072
338	S	Appendectomy w complicated principal diag w MCC	Include all	3	0.9933
339	S	Appendectomy w complicated principal diag w CC	Include all	3	1.0235
340	S	Appendectomy w complicated principal diag w/o CC/MCC	Include all	3	0.9588
341	S	Appendectomy w/o complicated principal diag w MCC	Include all	3	1.0002
342	S	Appendectomy w/o complicated principal diag w CC	Include all	3	0.9749
343	S	Appendectomy w/o complicated principal diag w/o CC/MCC	Include all	3	0.9206
344	S	Minor small & large bowel procedures w MCC	Include all	2	1.0614
345	S	Minor small & large bowel procedures w CC	Include all	2	0.9799
346	S	Minor small & large bowel procedures w/o CC/MCC	Include all	3	0.9935
347	S	Anal & stomal procedures w MCC	Include all	1	0.9615
348	S	Anal & stomal procedures w CC	Include all	2	1.0010
349	S	Anal & stomal procedures w/o CC/MCC	Include all	2	1.0184
350	S	Inguinal & femoral hernia procedures w MCC	Include all	3	0.9866
351	S	Inguinal & femoral hernia procedures w CC	Include all	3	0.9911
352	S	Inguinal & femoral hernia procedures w/o CC/MCC	Include all	3	1.0335
353	S	Hernia procedures except inguinal & femoral w MCC	Include all	1	1.0029
354	S	Hernia procedures except inguinal & femoral w CC	Include all	2	0.9923
355	S	Hernia procedures except inguinal & femoral w/o CC/MCC	Include all	2	1.0172
356	S	Other digestive system O.R. procedures w MCC	Include all	2	1.0060
357	S	Other digestive system O.R. procedures w CC	Include all	2	1.0062
358	S	Other digestive system O.R. procedures w/o CC/MCC	Include all	3	0.9389
368	M	Major esophageal disorders w MCC	Include all	1	0.9975
369	M	Major esophageal disorders w CC	Include all	2	1.0102
370	M	Major esophageal disorders w/o CC/MCC	Include all	2	1.0255
371	M	Major gastrointestinal disorders & peritoneal infections w MCC	Include all	1	0.9858
372	M	Major gastrointestinal disorders & peritoneal infections w CC	Include all	2	0.9859

MS-DRG	Medical/ Surgical	DRG_Title	ICD-9-CM	Severity	Weight
373	M	Major gastrointestinal disorders & peritoneal infections w/o CC/MCC	Include all	2	0.9918
374	M	Digestive malignancy w MCC	Include all	1	1.0226
375	M	Digestive malignancy w CC	Include all	2	1.0402
376	M	Digestive malignancy w/o CC/MCC	Include all	2	1.0268
377	M	G.I. hemorrhage w MCC	Include all	1	0.9983
378	M	G.I. hemorrhage w CC	Include all	2	0.9926
379	M	G.I. hemorrhage w/o CC/MCC	Include all	2	1.0020
380	M	Complicated peptic ulcer w MCC	Include all	1	1.0014
381	M	Complicated peptic ulcer w CC	Include all	2	0.9918
382	M	Complicated peptic ulcer w/o CC/MCC	Include all	2	0.9920
383	M	Uncomplicated peptic ulcer w MCC	Include all	3	0.9974
384	M	Uncomplicated peptic ulcer w/o MCC	Include all	3	1.0095
385	M	Inflammatory bowel disease w MCC	Include all	1	1.0092
386	M	Inflammatory bowel disease w CC	Include all	2	0.9747
387	M	Inflammatory bowel disease w/o CC/MCC	Include all	2	1.0027
388	M	G.I. obstruction w MCC	Include all	3	0.9991
389	M	G.I. obstruction w CC	Include all	3	0.9910
390	M	G.I. obstruction w/o CC/MCC	Include all	3	1.0019
391	M	Esophagitis, gastroent & misc digest disorders w MCC	Include all	3	1.0016
392	M	Esophagitis, gastroent & misc digest disorders w/o MCC	Include all	3	0.9887
393	M	Other digestive system diagnoses w MCC	Include all	1	0.9935
394	M	Other digestive system diagnoses w CC	Include all	2	0.9964
395	M	Other digestive system diagnoses w/o CC/MCC	Include all	2	0.9943
405	S	Pancreas, liver & shunt procedures w MCC	Include all	1	1.0415
406	S	Pancreas, liver & shunt procedures w CC	Include all	1	1.0030
407	S	Pancreas, liver & shunt procedures w/o CC/MCC	Include all	2	1.0417
408	S	Biliary tract proc except only cholecyst w or w/o c.d.e. w MCC	Include all	2	1.0144
409	S	Biliary tract proc except only cholecyst w or w/o c.d.e. w CC	Include all	2	1.0118
410	S	Biliary tract proc except only cholecyst w or w/o c.d.e. w/o CC/MCC	Include all	3	1.0189
411	S	Cholecystectomy w c.d.e. w MCC	Include all	1	1.0059
412	S	Cholecystectomy w c.d.e. w CC	Include all	2	1.0012
413	S	Cholecystectomy w c.d.e. w/o CC/MCC	Include all	2	0.9594
414	S	Cholecystectomy except by laparoscope w/o c.d.e. w MCC	Include all	1	1.0111
415	S	Cholecystectomy except by laparoscope w/o c.d.e. w CC	Include all	2	1.0127
416	S	Cholecystectomy except by laparoscope w/o c.d.e. w/o CC/MCC	Include all	2	1.0302
417	S	Laparoscopic cholecystectomy w/o c.d.e. w MCC	Include all	3	1.0165
418	S	Laparoscopic cholecystectomy w/o c.d.e. w CC	Include all	3	1.0119
419	S	Laparoscopic cholecystectomy w/o c.d.e. w/o CC/MCC	Include all	3	0.9876
420	S	Hepatobiliary diagnostic procedures w MCC	Include all	1	0.9884
421	S	Hepatobiliary diagnostic procedures w CC	Include all	2	1.0258
422	S	Hepatobiliary diagnostic procedures w/o CC/MCC	Include all	2	0.9206
423	S	Other hepatobiliary or pancreas O.R. procedures w MCC	Include all	3	1.0185
424	S	Other hepatobiliary or pancreas O.R. procedures w CC	Include all	3	1.0224
425	S	Other hepatobiliary or pancreas O.R. procedures w/o CC/MCC	Include all	3	1.0078
432	M	Cirrhosis & alcoholic hepatitis w MCC	Include all	1	1.0242
433	M	Cirrhosis & alcoholic hepatitis w CC	Include all	2	1.0174
434	M	Cirrhosis & alcoholic hepatitis w/o CC/MCC	Include all	2	1.0921
435	M	Malignancy of hepatobiliary system or pancreas w MCC	Include all	1	1.0240
436	M	Malignancy of hepatobiliary system or pancreas w CC	Include all	2	1.0241
437	M	Malignancy of hepatobiliary system or pancreas w/o CC/MCC	Include all	2	1.0485

MS-DRG	Medical/ Surgical	DRG_Title	ICD-9-CM	Severity	Weight
438	M	Disorders of pancreas except malignancy w MCC	Include all	1	1.0201
439	M	Disorders of pancreas except malignancy w CC	Include all	2	0.9946
440	M	Disorders of pancreas except malignancy w/o CC/MCC	Include all	2	1.0002
441	M	Disorders of liver except malig,cirr,alc hepa w MCC	Include all	1	1.0149
442	M	Disorders of liver except malig,cirr,alc hepa w CC	Include all	2	1.0210
443	M	Disorders of liver except malig,cirr,alc hepa w/o CC/MCC	Include all	2	1.0396
444	M	Disorders of the biliary tract w MCC	Include all	3	0.9949
445	M	Disorders of the biliary tract w CC	Include all	3	0.9901
446	M	Disorders of the biliary tract w/o CC/MCC	Include all	3	1.0054
453	S	Combined anterior/posterior spinal fusion w MCC	Include all	1	1.0770
454	S	Combined anterior/posterior spinal fusion w CC	Include all	2	0.9957
455	S	Combined anterior/posterior spinal fusion w/o CC/MCC	Include all	2	1.0150
456	S	Spinal fus exc cerv w spinal curv/malig/infec or 9+ fus w MCC	Include all	1	1.0394
457	S	Spinal fus exc cerv w spinal curv/malig/infec or 9+ fus w CC	Include all	2	0.9741
458	S	Spinal fus exc cerv w spinal curv/malig/infec or 9+ fus w/o CC/MCC	Include all	2	0.9620
459	S	Spinal fusion except cervical w MCC	Include all	1	0.9947
460	S	Spinal fusion except cervical w/o MCC	Include all	2	0.9975
461	S	Bilateral or multiple major joint procs of lower extremity w MCC	Include all	1	1.0207
462	S	Bilateral or multiple major joint procs of lower extremity w/o MCC	Include all	2	1.0076
463	S	Wnd debrid & skn grft exc hand, for musculo-conn tiss dis w MCC	Include all	1	0.9916
464	S	Wnd debrid & skn grft exc hand, for musculo-conn tiss dis w CC	Include all	2	1.0072
465	S	Wnd debrid & skn grft exc hand, for musculo-conn tiss dis w/o CC/MCC	Include all	2	1.0283
466	S	Revision of hip or knee replacement w MCC	Include all	3	1.0007
467	S	Revision of hip or knee replacement w CC	Include all	3	0.9825
468	S	Revision of hip or knee replacement w/o CC/MCC	Include all	3	0.9826
469	S	Major joint replacement or reattachment of lower extremity w MCC	Include all	1	0.9969
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	1.0114
472	S	Cervical spinal fusion w CC	Include all	2	1.0265
473	S	Cervical spinal fusion w/o CC/MCC	Include all	2	1.0092
474	S	Amputation for musculoskeletal sys & conn tissue dis w MCC	Include all	1	0.9930
475	S	Amputation for musculoskeletal sys & conn tissue dis w CC	Include all	2	1.0108
476	S	Amputation for musculoskeletal sys & conn tissue dis w/o CC/MCC	Include all	2	1.0038
477	S	Biopsies of musculoskeletal system & connective tissue w MCC	Include all	3	0.9814
478	S	Biopsies of musculoskeletal system & connective tissue w CC	Include all	3	0.9671
479	S	Biopsies of musculoskeletal system & connective tissue w/o CC/MCC	Include all	3	0.9643
480	S	Hip & femur procedures except major joint w MCC	Include all	2	1.0028
481	S	Hip & femur procedures except major joint w CC	Include all	2	1.0036
482	S	Hip & femur procedures except major joint w/o CC/MCC	Include all	3	0.9850
483	S	Major joint & limb reattachment proc of upper extremity w CC/MCC	Include all	1	1.0019
484	S	Major joint & limb reattachment proc of upper extremity w/o CC/MCC	Include all	1	0.9985
485	S	Knee procedures w pdx of infection w MCC	Include all	1	0.9967
486	S	Knee procedures w pdx of infection w CC	Include all	2	1.0452
487	S	Knee procedures w pdx of infection w/o CC/MCC	Include all	2	1.0263
488	S	Knee procedures w/o pdx of infection w CC/MCC	Include all	3	1.0075
489	S	Knee procedures w/o pdx of infection w/o CC/MCC	Include all	3	1.0704

MS-DRG	Medical/ Surgical	DRG_Title	ICD-9-CM	Severity	Weight
490	S	Back & neck proc exc spinal fusion w CC/MCC or disc device/neurostim	Include all	2	1.0093
491	S	Back & neck proc exc spinal fusion w/o CC/MCC	Include all	3	1.0449
492	S	Lower extrem & humer proc except hip,foot,femur w MCC	Include all	2	1.0268
493	S	Lower extrem & humer proc except hip,foot,femur w CC	Include all	2	1.0308
494	S	Lower extrem & humer proc except hip,foot,femur w/o CC/MCC	Include all	3	1.0371
495	S	Local excision & removal int fix devices exc hip & femur w MCC	Include all	2	0.9977
496	S	Local excision & removal int fix devices exc hip & femur w CC	Include all	2	0.9919
497	S	Local excision & removal int fix devices exc hip & femur w/o CC/MCC	Include all	3	0.9206
498	S	Local excision & removal int fix devices of hip & femur w CC/MCC	Include all	3	0.9573
499	S	Local excision & removal int fix devices of hip & femur w/o CC/MCC	Include all	3	0.9206
500	S	Soft tissue procedures w MCC	Include all	3	0.9880
501	S	Soft tissue procedures w CC	Include all	3	0.9572
502	S	Soft tissue procedures w/o CC/MCC	Include all	3	1.1096
503	S	Foot procedures w MCC	Include all	3	1.0552
504	S	Foot procedures w CC	Include all	3	1.0288
505	S	Foot procedures w/o CC/MCC	Include all	3	0.9968
506	S	Major thumb or joint procedures	Include all	3	1.1096
507	S	Major shoulder or elbow joint procedures w CC/MCC	Include all	2	1.0197
508	S	Major shoulder or elbow joint procedures w/o CC/MCC	Include all	2	0.9609
509	S	Arthroscopy	Include all	3	1.0890
510	S	Shoulder,elbow or forearm proc,exc major joint proc w MCC	Include all	1	1.0756
511	S	Shoulder,elbow or forearm proc,exc major joint proc w CC	Include all	2	1.0290
512	S	Shoulder,elbow or forearm proc,exc major joint proc w/o CC/MCC	Include all	2	1.0215
513	S	Hand or wrist proc, except major thumb or joint proc w CC/MCC	Include all	3	0.9869
514	S	Hand or wrist proc, except major thumb or joint proc w/o CC/MCC	Include all	3	0.9206
515	S	Other musculoskelet sys & conn tiss O.R. proc w MCC	Include all	3	1.0063
516	S	Other musculoskelet sys & conn tiss O.R. proc w CC	Include all	3	0.9919
517	S	Other musculoskelet sys & conn tiss O.R. proc w/o CC/MCC	Include all	3	0.9886
533	M	Fractures of femur w MCC	Include all	1	0.9708
534	M	Fractures of femur w/o MCC	Include all	2	0.9982
535	M	Fractures of hip & pelvis w MCC	Include all	1	1.0017
536	M	Fractures of hip & pelvis w/o MCC	Include all	2	0.9989
537	M	Sprains, strains, & dislocations of hip, pelvis & thigh w CC/MCC	Include all	3	1.0403
538	M	Sprains, strains, & dislocations of hip, pelvis & thigh w/o CC/MCC	Include all	3	0.9668
539	M	Osteomyelitis w MCC	Include all	3	0.9967
540	M	Osteomyelitis w CC	Include all	3	0.9694
541	M	Osteomyelitis w/o CC/MCC	Include all	3	0.9499
542	M	Pathological fractures & musculoskelet & conn tiss malig w MCC	Include all	1	1.0057
543	M	Pathological fractures & musculoskelet & conn tiss malig w CC	Include all	2	0.9945
544	M	Pathological fractures & musculoskelet & conn tiss malig w/o CC/MCC	Include all	2	0.9878
545	M	Connective tissue disorders w MCC	Include all	3	0.9746
546	M	Connective tissue disorders w CC	Include all	3	0.9958
547	M	Connective tissue disorders w/o CC/MCC	Include all	3	0.9519
548	M	Septic arthritis w MCC	Include all	1	1.0096
549	M	Septic arthritis w CC	Include all	2	1.0075
550	M	Septic arthritis w/o CC/MCC	Include all	2	0.9612
551	M	Medical back problems w MCC	Include all	3	1.0045
552	M	Medical back problems w/o MCC	Include all	3	1.0098
553	M	Bone diseases & arthropathies w MCC	Include all	2	1.0169

MS-DRG	Medical/ Surgical	DRG_Title	ICD-9-CM	Severity	Weight
554	M	Bone diseases & arthropathies w/o MCC	Include all	3	0.9996
555	M	Signs & symptoms of musculoskeletal system & conn tissue w MCC	Include all	3	0.9785
556	M	Signs & symptoms of musculoskeletal system & conn tissue w/o MCC	Include all	3	0.9651
557	M	Tendonitis, myositis & bursitis w MCC	Include all	3	1.0047
558	M	Tendonitis, myositis & bursitis w/o MCC	Include all	3	0.9900
559	M	Aftercare, musculoskeletal system & connective tissue w MCC	Include all	3	0.9946
560	M	Aftercare, musculoskeletal system & connective tissue w CC	Include all	3	1.0183
561	M	Aftercare, musculoskeletal system & connective tissue w/o CC/MCC	Include all	3	0.9866
562	M	Fx, sprn, strn & disl except femur, hip, pelvis & thigh w MCC	Include all	3	1.0046
563	M	Fx, sprn, strn & disl except femur, hip, pelvis & thigh w/o MCC	Include all	3	1.0019
564	M	Other musculoskeletal sys & connective tissue diagnoses w MCC	Include all	3	0.9845
565	M	Other musculoskeletal sys & connective tissue diagnoses w CC	Include all	3	0.9647
566	M	Other musculoskeletal sys & connective tissue diagnoses w/o CC/MCC	Include all	3	0.9966
573	S	Skin graft &/or debrid for skn ulcer or cellulitis w MCC	Include all	1	0.9807
574	S	Skin graft &/or debrid for skn ulcer or cellulitis w CC	Include all	2	0.9864
575	S	Skin graft &/or debrid for skn ulcer or cellulitis w/o CC/MCC	Include all	2	0.9909
576	S	Skin graft &/or debrid exc for skin ulcer or cellulitis w MCC	Include all	1	0.9530
577	S	Skin graft &/or debrid exc for skin ulcer or cellulitis w CC	Include all	2	1.0059
578	S	Skin graft &/or debrid exc for skin ulcer or cellulitis w/o CC/MCC	Include all	2	1.0011
579	S	Other skin, subcut tiss & breast proc w MCC	Include all	2	0.9973
580	S	Other skin, subcut tiss & breast proc w CC	Include all	2	1.0082
581	S	Other skin, subcut tiss & breast proc w/o CC/MCC	Include all	3	1.0722
582	S	Mastectomy for malignancy w CC/MCC	Include all	2	0.9936
583	S	Mastectomy for malignancy w/o CC/MCC	Include all	2	1.0033
584	S	Breast biopsy, local excision & other breast procedures w CC/MCC	Include all	2	0.9861
585	S	Breast biopsy, local excision & other breast procedures w/o CC/MCC	Include all	3	0.9206
592	M	Skin ulcers w MCC	Include all	1	0.9866
593	M	Skin ulcers w CC	Include all	2	0.9996
594	M	Skin ulcers w/o CC/MCC	Include all	2	0.9956
595	M	Major skin disorders w MCC	Include all	1	0.9684
596	M	Major skin disorders w/o MCC	Include all	2	0.9928
597	M	Malignant breast disorders w MCC	Include all	1	1.0372
598	M	Malignant breast disorders w CC	Include all	2	1.0734
599	M	Malignant breast disorders w/o CC/MCC	Include all	2	1.1096
600	M	Non-malignant breast disorders w CC/MCC	Include all	3	0.9844
601	M	Non-malignant breast disorders w/o CC/MCC	Include all	3	0.9206
602	M	Cellulitis w MCC	Include all	1	0.9920
603	M	Cellulitis w/o MCC	Include all	2	0.9911
604	M	Trauma to the skin, subcut tiss & breast w MCC	Include all	1	1.0221
605	M	Trauma to the skin, subcut tiss & breast w/o MCC	Include all	2	1.0225
606	M	Minor skin disorders w MCC	Include all	3	1.0029
607	M	Minor skin disorders w/o MCC	Include all	3	1.0115
614	S	Adrenal & pituitary procedures w CC/MCC	Include all	2	0.9763
615	S	Adrenal & pituitary procedures w/o CC/MCC	Include all	2	1.0427
616	S	Amputat of lower limb for endocrine,nutrit,& metabol dis w MCC	Include all	1	1.0308
617	S	Amputat of lower limb for endocrine,nutrit,& metabol dis w CC	Include all	2	0.9970

MS-DRG	Medical/ Surgical	DRG_Title	ICD-9-CM	Severity	Weight
618	S	Amputat of lower limb for endocrine,nutrit,& metabol dis w/o CC/MCC	Include all	2	0.9993
619	S	O.R. procedures for obesity w MCC	Include all	1	0.9206
620	S	O.R. procedures for obesity w CC	Include all	2	1.1096
621	S	O.R. procedures for obesity w/o CC/MCC	Include all	2	1.1096
622	S	Skin grafts & wound debrid for endoc, nutrit & metab dis w MCC	Include all	1	1.0021
623	S	Skin grafts & wound debrid for endoc, nutrit & metab dis w CC	Include all	2	0.9834
624	S	Skin grafts & wound debrid for endoc, nutrit & metab dis w/o CC/MCC	Include all	2	0.9206
625	S	Thyroid, parathyroid & thyroglossal procedures w MCC	Include all	1	0.9702
626	S	Thyroid, parathyroid & thyroglossal procedures w CC	Include all	2	1.0042
627	S	Thyroid, parathyroid & thyroglossal procedures w/o CC/MCC	Include all	2	1.0040
628	S	Other endocrine, nutrit & metab O.R. proc w MCC	Include all	1	1.0028
629	S	Other endocrine, nutrit & metab O.R. proc w CC	Include all	2	0.9994
630	S	Other endocrine, nutrit & metab O.R. proc w/o CC/MCC	Include all	2	0.9851
637	M	Diabetes w MCC	Include all	3	1.0193
638	M	Diabetes w CC	Include all	3	1.0099
639	M	Diabetes w/o CC/MCC	Include all	3	1.0164
640	M	Nutritional & misc metabolic disorders w MCC	Include all	3	1.0077
641	M	Nutritional & misc metabolic disorders w/o MCC	Include all	3	0.9926
642	M	Inborn errors of metabolism	Include all	3	0.9630
643	M	Endocrine disorders w MCC	Include all	3	1.0026
644	M	Endocrine disorders w CC	Include all	3	0.9936
645	M	Endocrine disorders w/o CC/MCC	Include all	3	1.0199
652	S	Kidney transplant	Include all	1	0.9934
653	S	Major bladder procedures w MCC	Include all	1	1.0260
654	S	Major bladder procedures w CC	Include all	2	0.9942
655	S	Major bladder procedures w/o CC/MCC	Include all	2	1.0218
656	S	Kidney & ureter procedures for neoplasm w MCC	Include all	1	0.9755
657	S	Kidney & ureter procedures forneoplasm w CC	Include all	2	0.9994
658	S	Kidney & ureter procedures for neoplasm w/o CC/MCC	Include all	2	1.0329
659	S	Kidney & ureter procedures for non-neoplasm w MCC	Include all	2	1.0200
660	S	Kidney & ureter procedures for non-neoplasm w CC	Include all	2	1.0138
661	S	Kidney & ureter procedures for non-neoplasm w/o CC/MCC	Include all	3	1.0887
662	S	Minor bladder procedures w MCC	Include all	3	1.0460
663	S	Minor bladder procedures w CC	Include all	3	0.9723
664	S	Minor bladder procedures w/o CC/MCC	Include all	3	0.9636
665	S	Prostatectomy w MCC	Include all	3	0.9783
666	S	Prostatectomy w CC	Include all	3	1.0561
667	S	Prostatectomy w/o CC/MCC	Include all	3	0.9763
668	S	Transurethral procedures w MCC	Include all	3	0.9827
669	S	Transurethral procedures w CC	Include all	3	0.9834
670	S	Transurethral procedures w/o CC/MCC	Include all	3	0.9946
671	S	Urethral procedures w CC/MCC	Include all	3	0.9786
672	S	Urethral procedures w/o CC/MCC	Include all	3	1.1096
673	S	Other kidney & urinary tract procedures w MCC	Include all	3	0.9898
674	S	Other kidney & urinary tract procedures w CC	Include all	3	0.9993
675	S	Other kidney & urinary tract procedures w/o CC/MCC	Include all	3	1.0310
682	M	Renal failure w MCC	Include all	1	0.9996
683	M	Renal failure w CC	Include all	2	0.9969
684	M	Renal failure w/o CC/MCC	Include all	2	1.0088
685	M	Admit for renal dialysis	Include all	3	1.0061

MS-DRG	Medical/ Surgical	DRG_Title	ICD-9-CM	Severity	Weight
686	M	Kidney & urinary tract neoplasms w MCC	Include all	2	1.0579
687	M	Kidney & urinary tract neoplasms w CC	Include all	2	1.0437
688	M	Kidney & urinary tract neoplasms w/o CC/MCC	Include all	3	1.0023
689	M	Kidney & urinary tract infections w MCC	Include all	3	0.9888
690	M	Kidney & urinary tract infections w/o MCC	Include all	3	0.9858
691	M	Urinary stones w esw lithotripsy w CC/MCC	Include all	3	0.9379
692	M	Urinary stones w esw lithotripsy w/o CC/MCC	Include all	3	0.9206
693	M	Urinary stones w/o esw lithotripsy w MCC	Include all	3	0.9909
694	M	Urinary stones w/o esw lithotripsy w/o MCC	Include all	3	1.0113
695	M	Kidney & urinary tract signs & symptoms w MCC	Include all	3	1.0561
696	M	Kidney & urinary tract signs & symptoms w/o MCC	Include all	3	1.0099
697	M	Urethral stricture	Include all	3	1.1018
698	M	Other kidney & urinary tract diagnoses w MCC	Include all	3	1.0172
699	M	Other kidney & urinary tract diagnoses w CC	Include all	3	1.0000
700	M	Other kidney & urinary tract diagnoses w/o CC/MCC	Include all	3	0.9621
707	S	Major male pelvic procedures w CC/MCC	Include all	2	1.0116
708	S	Major male pelvic procedures w/o CC/MCC	Include all	2	1.0483
709	S	Penis procedures w CC/MCC	Include all	3	1.0766
710	S	Penis procedures w/o CC/MCC	Include all	3	1.0078
711	S	Testes procedures w CC/MCC	Include all	2	1.0298
712	S	Testes procedures w/o CC/MCC	Include all	3	0.9206
713	S	Transurethral prostatectomy w CC/MCC	Include all	2	1.0065
714	S	Transurethral prostatectomy w/o CC/MCC	Include all	3	0.9929
715	S	Other male reproductive system O.R. proc for malignancy w CC/MCC	Include all	2	1.1096
716	S	Other male reproductive system O.R. proc for malignancy w/o CC/MCC	Include all	2	1.0383
717	S	Other male reproductive system O.R. proc exc malignancy w CC/MCC	Include all	3	0.9869
718	S	Other male reproductive system O.R. proc exc malignancy w/o CC/MCC	Include all	3	0.9206
722	M	Malignancy, male reproductive system w MCC	Include all	1	1.0594
723	M	Malignancy, male reproductive system w CC	Include all	2	1.1069
724	M	Malignancy, male reproductive system w/o CC/MCC	Include all	2	1.0965
725	M	Benign prostatic hypertrophy w MCC	Include all	3	1.0197
726	M	Benign prostatic hypertrophy w/o MCC	Include all	3	0.9947
727	M	Inflammation of the male reproductive system w MCC	Include all	3	0.9972
728	M	Inflammation of the male reproductive system w/o MCC	Include all	3	1.0005
729	M	Other male reproductive system diagnoses w CC/MCC	Include all	3	1.0144
730	M	Other male reproductive system diagnoses w/o CC/MCC	Include all	3	1.0195
734	S	Pelvic evisceration, rad hysterectomy & rad vulvectomy w CC/MCC	Include all	1	0.9986
735	S	Pelvic evisceration, rad hysterectomy & rad vulvectomy w/o CC/MCC	Include all	1	1.0176
736	S	Uterine & adnexa proc for ovarian or adnexal malignancy w MCC	Include all	1	1.0077
737	S	Uterine & adnexa proc for ovarian or adnexal malignancy w CC	Include all	2	0.9910
738	S	Uterine & adnexa proc for ovarian or adnexal malignancy w/o CC/MCC	Include all	2	0.9408
739	S	Uterine,adnexa proc for non-ovarian/adnexal malig w MCC	Include all	1	0.9989
740	S	Uterine,adnexa proc for non-ovarian/adnexal malig w CC	Include all	2	0.9869
741	S	Uterine,adnexa proc for non-ovarian/adnexal malig w/o CC/MCC	Include all	2	0.9792
742	S	Uterine & adnexa proc for non-malignancy w CC/MCC	Include all	2	1.0104
743	S	Uterine & adnexa proc for non-malignancy w/o CC/MCC	Include all	3	0.9632

MS-DRG	Medical/ Surgical	DRG_Title	ICD-9-CM	Severity	Weight
744	S	D&C, conization, laparoscopy & tubal interruption w CC/MCC	Include all	2	1.0149
745	S	D&C, conization, laparoscopy & tubal interruption w/o CC/MCC	Include all	3	0.9206
746	S	Vagina, cervix & vulva procedures w CC/MCC	Include all	3	0.9813
747	S	Vagina, cervix & vulva procedures w/o CC/MCC	Include all	3	1.1096
748	S	Female reproductive system reconstructive procedures	Include all	3	0.9838
749	S	Other female reproductive system O.R. procedures w CC/MCC	Include all	2	1.0344
750	S	Other female reproductive system O.R. procedures w/o CC/MCC	Include all	2	1.0736
754	M	Malignancy, female reproductive system w MCC	Include all	1	1.0385
755	M	Malignancy, female reproductive system w CC	Include all	2	1.0650
756	M	Malignancy, female reproductive system w/o CC/MCC	Include all	2	1.0785
757	M	Infections, female reproductive system w MCC	Include all	3	0.9904
758	M	Infections, female reproductive system w CC	Include all	3	0.9828
759	M	Infections, female reproductive system w/o CC/MCC	Include all	3	0.9780
760	M	Menstrual & other female reproductive system disorders w CC/MCC	Include all	3	1.0044
761	M	Menstrual & other female reproductive system disorders w/o CC/MCC	Include all	3	0.9974
799	S	Splenectomy w MCC	Include all	1	1.0981
800	S	Splenectomy w CC	Include all	2	1.0285
801	S	Splenectomy w/o CC/MCC	Include all	2	1.0385
802	S	Other O.R. proc of the blood & blood forming organs w MCC	Include all	3	0.9984
803	S	Other O.R. proc of the blood & blood forming organs w CC	Include all	3	1.0680
804	S	Other O.R. proc of the blood & blood forming organs w/o CC/MCC	Include all	3	0.9206
808	M	Major hematol/immun diag exc sickle cell crisis & coagul w MCC	Include all	1	0.9935
809	M	Major hematol/immun diag exc sickle cell crisis & coagul w CC	Include all	2	1.0003
810	M	Major hematol/immun diag exc sickle cell crisis & coagul w/o CC/MCC	Include all	2	0.9816
811	M	Red blood cell disorders w MCC	Include all	3	0.9989
812	M	Red blood cell disorders w/o MCC	Include all	3	0.9872
813	M	Coagulation disorders	Include all	2	1.0005
814	M	Reticuloendothelial & immunity disorders w MCC	Include all	1	0.9808
815	M	Reticuloendothelial & immunity disorders w CC	Include all	2	0.9894
816	M	Reticuloendothelial & immunity disorders w/o CC/MCC	Include all	2	0.9990
820	S	Lymphoma & leukemia w major O.R. procedure w MCC	Include all	1	1.0015
821	S	Lymphoma & leukemia w major O.R. procedure w CC	Include all	2	0.9824
822	S	Lymphoma & leukemia w major O.R. procedure w/o CC/MCC	Include all	2	0.9800
823	S	Lymphoma & non-acute leukemia w other O.R. proc w MCC	Include all	1	1.0027
824	S	Lymphoma & non-acute leukemia w other O.R. proc w CC	Include all	2	0.9881
825	S	Lymphoma & non-acute leukemia w other O.R. proc w/o CC/MCC	Include all	2	1.0125
826	S	Myeloprolif disord or poorly diff neopl w maj O.R. proc w MCC	Include all	1	1.0249
827	S	Myeloprolif disord or poorly diff neopl w maj O.R. proc w CC	Include all	2	1.0087
828	S	Myeloprolif disord or poorly diff neopl w maj O.R. proc w/o CC/MCC	Include all	2	1.0541
829	S	Myeloprolif disord or poorly diff neopl w other O.R. proc w CC/MCC	Include all	2	1.0091
830	S	Myeloprolif disord or poorly diff neopl w other O.R. proc w/o CC/MCC	Include all	2	1.0186
834	M	Acute leukemia w/o major O.R. procedure w MCC	Include all	1	1.0052
835	M	Acute leukemia w/o major O.R. procedure w CC	Include all	2	1.0407
836	M	Acute leukemia w/o major O.R. procedure w/o CC/MCC	Include all	2	1.0741
837	M	Chemo w acute leukemia as sdx or w high dose chemo agent w MCC	Include all	1	1.0292
838	M	Chemo w acute leukemia as sdx w CC or high dose chemo agent	Include all	2	1.0076

MS-DRG	Medical/ Surgical	DRG_Title	ICD-9-CM	Severity	Weight
839	M	Chemo w acute leukemia as sdx w/o CC/MCC	Include all	2	0.9974
840	M	Lymphoma & non-acute leukemia w MCC	Include all	1	1.0149
841	M	Lymphoma & non-acute leukemia w CC	Include all	2	1.0067
842	M	Lymphoma & non-acute leukemia w/o CC/MCC	Include all	2	1.0299
843	M	Other myeloprolif dis or poorly diff neopl diag w MCC	Include all	3	1.0164
844	M	Other myeloprolif dis or poorly diff neopl diag w CC	Include all	3	1.0163
845	M	Other myeloprolif dis or poorly diff neopl diag w/o CC/MCC	Include all	3	0.9846
846	M	Chemotherapy w/o acute leukemia as secondary diagnosis w MCC	Include all	3	1.0027
847	M	Chemotherapy w/o acute leukemia as secondary diagnosis w CC	Include all	3	1.0138
848	M	Chemotherapy w/o acute leukemia as secondary diagnosis w/o CC/MCC	Include all	3	0.9206
849	M	Radiotherapy	Include all	3	0.9806
853	S	Infectious & parasitic diseases w O.R. procedure w MCC	Include all	1	1.0054
854	S	Infectious & parasitic diseases w O.R. procedure w CC	Include all	2	1.0043
855	S	Infectious & parasitic diseases w O.R. procedure w/o CC/MCC	Include all	2	1.0256
856	S	Postoperative or post-traumatic infections w O.R. proc w MCC	Include all	1	0.9361
857	S	Postoperative or post-traumatic infections w O.R. proc w CC	Include all	2	1.0253
858	S	Postoperative or post-traumatic infections w O.R. proc w/o CC/MCC	Include all	2	0.9206
862	M	Postoperative & post-traumatic infections w MCC	Include all	1	0.9833
863	M	Postoperative & post-traumatic infections w/o MCC	Include all	2	0.9792
864	M	Fever of unknown origin	Include all	2	0.9922
865	M	Fever	Include all	1	1.0015
866	M	Viral illness w/o MCC	Include all	2	0.9986
867	M	Other infectious & parasitic diseases diagnoses w MCC	Include all	1	0.9866
868	M	Other infectious & parasitic diseases diagnoses w CC	Include all	2	0.9977
869	M	Other infectious & parasitic diseases diagnoses w/o CC/MCC	Include all	2	1.0145
870	M	Septicemia or severe sepsis w MV 96+ hours	Include all	1	0.9894
871	M	Septicemia or severe sepsis w/o MV 96+ hours w MCC	Include all	1	0.9990
872	M	Septicemia or severe sepsis w/o MV 96+ hours w/o MCC	Include all	1	0.9951
876	S	O.R. procedure w principal diagnoses of mental illness	Include all	3	1.0487
880	M	Acute adjustment reaction & psychosocial dysfunction	Include all	3	1.0084
881	M	Depressive neuroses	Include all	3	1.0271
882	M	Neuroses except depressive	Include all	3	0.9467
883	M	Disorders of personality & impulse control	Include all	3	0.9206
884	M	Organic disturbances & mental retardation	Include all	3	0.9976
885	M	Psychoses	Include all	3	1.0193
886	M	Behavioral & developmental disorders	Include all	3	0.9818
887	M	Other mental disorder diagnoses	Include all	3	1.0885
894	M	Alcohol/drug abuse or dependence, left ama	Include all	3	0.9206
895	M	Alcohol/drug abuse or dependence w rehabilitation therapy	Include all	3	1.1096
896	M	Alcohol/drug abuse or dependence w/o rehabilitation therapy w MCC	Include all	3	0.9986
897	M	Alcohol/drug abuse or dependence w/o rehabilitation therapy w/o MCC	Include all	3	0.9938
901	S	Wound debridements for injuries w MCC	Include all	1	0.9567
902	S	Wound debridements for injuries w CC	Include all	2	0.9971
903	S	Wound debridements for injuries w/o CC/MCC	Include all	2	1.0315
904	S	Skin grafts for injuries w CC/MCC	Include all	2	0.9781
905	S	Skin grafts for injuries w/o CC/MCC	Include all	2	1.0022
906	S	Hand procedures for injuries	Include all	3	1.1096
907	S	Other O.R. procedures for injuries w MCC	Include all	1	1.0029

MS-DRG	Medical/ Surgical	DRG_Title	ICD-9-CM	Severity	Weight
908	S	Other O.R. procedures for injuries w CC	Include all	2	0.9978
909	S	Other O.R. procedures for injuries w/o CC/MCC	Include all	2	1.0228
913	M	Traumatic injury w MCC	Include all	1	1.0677
914	M	Traumatic injury w/o MCC	Include all	2	1.0176
915	M	Allergic reactions w MCC	Include all	3	1.0309
916	M	Allergic reactions w/o MCC	Include all	3	1.0076
917	M	Poisoning & toxic effects of drugs w MCC	Include all	2	0.9980
918	M	Poisoning & toxic effects of drugs w/o MCC	Include all	3	1.0005
919	M	Complications of treatment w MCC	Include all	3	0.9929
920	M	Complications of treatment w CC	Include all	3	0.9860
921	M	Complications of treatment w/o CC/MCC	Include all	3	1.0241
922	M	Other injury, poisoning & toxic effect diag w MCC	Include all	3	0.9963
923	M	Other injury, poisoning & toxic effect diag w/o MCC	Include all	3	1.0131
927	S	Extensive burns or full thickness burns w MV 96+ hrs w skin graft	Include all	1	0.9206
928	S	Full thickness burn w skin graft or inhal inj w CC/MCC	Include all	1	0.9879
929	S	Full thickness burn w skin graft or inhal inj w/o CC/MCC	Include all	2	0.9770
933	M	Extensive burns or full thickness burns w MV 96+ hrs w/o skin graft	Include all	1	0.9206
934	M	Full thickness burn w/o skin grft or inhal inj	Include all	2	1.0591
935	M	Non-extensive burns	Include all	2	1.0485
939	S	O.R. proc w diagnoses of other contact w health services w MCC	Include all	3	0.9787
940	S	O.R. proc w diagnoses of other contact w health services w CC	Include all	3	0.9697
941	S	O.R. proc w diagnoses of other contact w health services w/o CC/MCC	Include all	3	0.9206
945	M	Rehabilitation w CC/MCC	Include all	3	0.9898
946	M	Rehabilitation w/o CC/MCC	Include all	3	0.9873
947	M	Signs & symptoms w MCC	Include all	3	1.0040
948	M	Signs & symptoms w/o MCC	Include all	3	0.9896
949	M	Aftercare w CC/MCC	Include all	3	1.0509
950	M	Aftercare w/o CC/MCC	Include all	3	0.9971
951	M	Other factors influencing health status	Include all	3	1.1096
955	S	Craniotomy for multiple significant trauma	Include all	1	1.1096
956	S	Limb reattachment, hip & femur proc for multiple significant trauma	Include all	1	1.0525
957	S	Other O.R. procedures for multiple significant trauma w MCC	Include all	1	1.1096
958	S	Other O.R. procedures for multiple significant trauma w CC	Include all	2	1.1096
959	S	Other O.R. procedures for multiple significant trauma w/o CC/MCC	Include all	2	1.1096
963	M	Other multiple significant trauma w MCC	Include all	1	1.1096
964	M	Other multiple significant trauma w CC	Include all	2	1.1096
965	M	Other multiple significant trauma w/o CC/MCC	Include all	2	1.0955
969	S	HIV w extensive O.R. procedure w MCC	Include all	1	0.9206
970	S	HIV w extensive O.R. procedure w/o MCC	Include all	1	1.1096
974	M	HIV w major related condition w MCC	Include all	1	1.0271
975	M	HIV w major related condition w CC	Include all	1	1.0155
976	M	HIV w major related condition w/o CC/MCC	Include all	1	1.1096
977	M	HIV w or w/o other related condition	Include all	2	1.0693
981	S	Extensive O.R. procedure unrelated to principal diagnosis w MCC	Include all	1	1.0013
982	S	Extensive O.R. procedure unrelated to principal diagnosis w CC	Include all	2	1.0072
983	S	Extensive O.R. procedure unrelated to principal diagnosis w/o CC/MCC	Include all	2	1.0186
984	S	Prostatic O.R. procedure unrelated to principal diagnosis w MCC	Include all	3	1.0105
985	S	Prostatic O.R. procedure unrelated to principal diagnosis w CC	Include all	3	0.9623

MS-DRG	Medical/ Surgical	DRG_Title	ICD-9-CM	Severity	Weight
986	S	Prostatic O.R. procedure unrelated to principal diagnosis w/o CC/MCC	Include all	3	1.0083
987	S	Non-extensive O.R. proc unrelated to principal diagnosis w MCC	Include all	3	0.9908
988	S	Non-extensive O.R. proc unrelated to principal diagnosis w CC	Include all	3	0.9886
989	S	Non-extensive O.R. proc unrelated to principal diagnosis w/o CC/MCC	Include all	3	1.0180

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	0.8821
735	S	Pelvic evisceration, rad hysterectomy & rad vulvectomy w/o CC/MCC	Include all	1	1.3306
736	S	Uterine & adnexa proc for ovarian or adnexal malignancy w MCC	Include all	1	0.5259
737	S	Uterine & adnexa proc for ovarian or adnexal malignancy w CC	Include all	2	0.7192
738	S	Uterine & adnexa proc for ovarian or adnexal malignancy w/o CC/MCC	Include all	2	0.8395
739	S	Uterine,adnexa proc for non-ovarian/adnexal malig w MCC	Include all	1	0.4986
740	S	Uterine,adnexa proc for non-ovarian/adnexal malig w CC	Include all	2	0.6229
741	S	Uterine,adnexa proc for non-ovarian/adnexal malig w/o CC/MCC	Include all	2	0.7342
742	S	Uterine & adnexa proc for non-malignancy w CC/MCC	Include all	2	1.3921
743	S	Uterine & adnexa proc for non-malignancy w/o CC/MCC	Include all	3	0.6142
746	S	Vagina, cervix & vulva procedures w CC/MCC	Include all	3	0.5061
747	S	Vagina, cervix & vulva procedures w/o CC/MCC	Include all	3	0.3797
749	S	Other female reproductive system O.R. procedures w CC/MCC	Include all	2	0.8699
750	S	Other female reproductive system O.R. procedures w/o CC/MCC	Include all	2	1.3921
754	M	Malignancy, female reproductive system w MCC	Include all	1	0.5456
755	M	Malignancy, female reproductive system w CC	Include all	2	0.5976
756	M	Malignancy, female reproductive system w/o CC/MCC	Include all	2	0.6769
757	M	Infections, female reproductive system w MCC	Include all	3	0.4393
758	M	Infections, female reproductive system w CC	Include all	3	0.4774
759	M	Infections, female reproductive system w/o CC/MCC	Include all	3	0.3795
760	M	Menstrual & other female reproductive system disorders w CC/MCC	Include all	3	0.5793
761	M	Menstrual & other female reproductive system disorders w/o CC/MCC	Include all	3	0.4254

Nephrology

MS-DRG	Medical/ Surgical	DRG_Title	ICD-9-CM	Severity	Weight
008	S	Simultaneous pancreas/kidney transplant	Include all	1	1.2798
652	S	Kidney transplant	Include all	1	1.1828
653	S	Major bladder procedures w MCC	Include all	1	1.0587
654	S	Major bladder procedures w CC	Include all	2	1.2205
655	S	Major bladder procedures w/o CC/MCC	Include all	2	1.3595
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	1.0964
657	S	Kidney & ureter procedures forneoplasm w CC	See MS-DRG 656	2	1.3197
658	S	Kidney & ureter procedures for neoplasm w/o CC/MCC	See MS-DRG 656	2	1.6901
659	S	Kidney & ureter procedures for non-neoplasm w MCC	See MS-DRG 656	2	1.3138
660	S	Kidney & ureter procedures for non-neoplasm w CC	See MS-DRG 656	2	1.4399
661	S	Kidney & ureter procedures for non-neoplasm w/o CC/MCC	See MS-DRG 656	3	1.2296
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	1.0402
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	1.0699
675	S	Other kidney & urinary tract procedures w/o CC/MCC	See MS-DRG 674	3	0.9433
682	M	Renal failure w MCC	Include all	1	0.9980
683	M	Renal failure w CC	Include all	2	0.9703
684	M	Renal failure w/o CC/MCC	Include all	2	1.0462
686	M	Kidney & urinary tract neoplasms w MCC	Include diagnoses: 1890-1, 1980, 2230	2	1.3291
687	M	Kidney & urinary tract neoplasms w CC	See MS-DRG 686	2	1.1206
688	M	Kidney & urinary tract neoplasms w/o CC/MCC	See MS-DRG 686	3	1.2263
689	M	Kidney & urinary tract infections w MCC	Include diagnoses: 0160, 590, 0786, 0954, 5900-3, 5908-9, 59010-11, 59080-1	3	1.4331
695	M	Kidney & urinary tract signs & symptoms w MCC	Include all	3	0.8908

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	1.1905
699	M	Other kidney & urinary tract diagnoses w CC	See MS-DRG 698	3	1.5177
700	M	Other kidney & urinary tract diagnoses w/o CC/MCC	See MS-DRG 698	3	1.6901

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	2.3032
021	S	Intracranial vascular procedures w PDX hemorrhage w CC	Include all	1	3.0899
022	S	Intracranial vascular procedures w PDX hemorrhage w/o CC/MCC	Include all	1	3.0899
023	S	Cranio w major dev impl/acute complex CNS PDX w MCC or chemo implant	Include all	1	1.4584
024	S	Cranio w major dev impl/acute complex CNS PDX w/o MCC	Include all	1	1.5702
025	S	Craniotomy & endovascular intracranial procedures w MCC	Include all	1	1.3283
026	S	Craniotomy & endovascular intracranial procedures w CC	Include all	1	1.6068
027	S	Craniotomy & endovascular intracranial procedures w/o CC/MCC	Include all	1	2.0095
028	S	Spinal procedures w MCC	Include all	1	1.7844
029	S	Spinal procedures w CC or spinal neurostimulators	Include all	2	1.9152
030	S	Spinal procedures w/o CC/MCC	Include all	2	1.9407
031	S	Ventricular shunt procedures w MCC	Include all	1	1.9723
032	S	Ventricular shunt procedures w CC	Include all	2	1.6403
033	S	Ventricular shunt procedures w/o CC/MCC	Include all	2	0.9009
034	S	Carotid artery stent procedure w MCC	Include all	1	0.7542
035	S	Carotid artery stent procedure w CC	Include all	2	0.7712
036	S	Carotid artery stent procedure w/o CC/MCC	Include all	2	0.7459
037	S	Extracranial procedures w MCC	Include all	1	0.7528
038	S	Extracranial procedures w CC	Include all	2	0.7490
039	S	Extracranial procedures w/o CC/MCC	Include all	2	0.7259
040	S	Periph & cranial nerve & other nerv syst proc w MCC	Include all	1	1.0053
041	S	Periph/cranial nerve & other nerv syst proc w CC or periph neurostim	Include all	2	1.1114
042	S	Periph & cranial nerve & other nerv syst proc w/o CC/MCC	Include all	2	1.1465
052	M	Spinal disorders & injuries w CC/MCC	Include all	2	1.1907

MS-DRG	Medical/ Surgical	DRG_Title	ICD-9-CM	Severity	Weight
053	M	Spinal disorders & injuries w/o CC/MCC	Include all	2	1.5658
054	M	Nervous system neoplasms w MCC	Include all	1	1.0972
055	M	Nervous system neoplasms w/o MCC	Include all	2	1.1830
056	M	Degenerative nervous system disorders w MCC	Include all	1	0.6998
057	M	Degenerative nervous system disorders w/o MCC	Include all	2	0.6728
058	M	Multiple sclerosis & cerebellar ataxia w MCC	Include all	1	1.2246
059	M	Multiple sclerosis & cerebellar ataxia w CC	Include all	2	1.2614
060	M	Multiple sclerosis & cerebellar ataxia w/o CC/MCC	Include all	2	1.4782
061	M	Acute ischemic stroke w use of thrombolytic agent w MCC	Include all	1	0.8615
062	M	Acute ischemic stroke w use of thrombolytic agent w CC	Include all	2	0.9187
063	M	Acute ischemic stroke w use of thrombolytic agent w/o CC/MCC	Include all	2	0.9451
064	M	Intracranial hemorrhage or cerebral infarction w MCC	Include all	1	0.7860
065	M	Intracranial hemorrhage or cerebral infarction w CC	Include all	2	0.8187
066	M	Intracranial hemorrhage or cerebral infarction w/o CC/MCC	Include all	2	0.8514
067	M	Nonspecific cva & precerebral occlusion w/o infarct w MCC	Include all	1	0.7286
068	M	Nonspecific cva & precerebral occlusion w/o infarct w/o MCC	Include all	2	0.7470
069	M	Transient ischemia	Include all	3	0.6943
070	M	Nonspecific cerebrovascular disorders w MCC	Include all	2	0.7541
071	M	Nonspecific cerebrovascular disorders w CC	Include all	2	0.7553
073	M	Cranial & peripheral nerve disorders w MCC	Include all	1	0.9333
074	M	Cranial & peripheral nerve disorders w/o MCC	Include all	2	1.1011
075	M	Viral meningitis w CC/MCC	Include all	2	2.8342
076	M	Viral meningitis w/o CC/MCC	Include all	2	3.0899
077	M	Hypertensive encephalopathy w MCC	Include all	1	0.9535
078	M	Hypertensive encephalopathy w CC	Include all	2	0.9408
079	M	Hypertensive encephalopathy w/o CC/MCC	Include all	2	0.9911
080	M	Nontraumatic stupor & coma w MCC	Include all	1	0.8068
081	M	Nontraumatic stupor & coma w/o MCC	Include all	2	0.8757
082	M	Traumatic stupor & coma, coma >1 hr w MCC	Include all	1	1.5038
083	M	Traumatic stupor & coma, coma >1 hr w CC	Include all	1	1.7016
084	M	Traumatic stupor & coma, coma >1 hr w/o CC/MCC	Include all	1	2.5995
085	M	Traumatic stupor & coma, coma <1 hr w MCC	Include all	1	0.8849
086	M	Traumatic stupor & coma, coma <1 hr w CC	Include all	2	0.9792
087	M	Traumatic stupor & coma, coma <1 hr w/o CC/MCC	Include all	2	1.0154
091	M	Other disorders of nervous system w MCC	Include all	3	0.9111
092	M	Other disorders of nervous system w CC	Include all	3	0.8328
093	M	Other disorders of nervous system w/o CC/MCC	Include all	3	0.8235
094	M	Bacterial & tuberculous infections of nervous system w MCC	Include all	1	1.5709
095	M	Bacterial & tuberculous infections of nervous system w CC	Include all	2	1.9186
096	M	Bacterial & tuberculous infections of nervous system w/o CC/MCC	Include all	2	2.8772
097	M	Non-bacterial infect of nervous sys exc viral meningitis w MCC	Include all	1	1.2261
098	M	Non-bacterial infect of nervous sys exc viral meningitis w CC	Include all	2	1.6210
099	M	Non-bacterial infect of nervous sys exc viral meningitis w/o CC/MCC	Include all	2	3.0899
100	M	Seizures w MCC	Include all	2	1.1900
453	S	Combined anterior/posterior spinal fusion w MCC	Include all	1	1.5245
454	S	Combined anterior/posterior spinal fusion w CC	Include all	2	1.9733
455	S	Combined anterior/posterior spinal fusion w/o CC/MCC	Include all	2	3.0899
456	S	Spinal fus exc cerv w spinal curv/malig/infec or 9+ fus w MCC	Include all	1	1.4331
457	S	Spinal fus exc cerv w spinal curv/malig/infec or 9+ fus w CC	Include all	2	1.5368
458	S	Spinal fus exc cerv w spinal curv/malig/infec or 9+ fus w/o CC/MCC	Include all	2	1.5813

MS-DRG	Medical/ Surgical	DRG_Title	ICD-9-CM	Severity	Weight
459	S	Spinal fusion except cervical w MCC	Include all	1	1.0557
460	S	Spinal fusion except cervical w/o MCC	Include all	2	1.2327
471	S	Cervical spinal fusion w MCC	Include all	1	1.1615
472	S	Cervical spinal fusion w CC	Include all	2	1.5443
473	S	Cervical spinal fusion w/o CC/MCC	Include all	2	1.5792
490	S	Back & neck proc exc spinal fusion w CC/MCC or disc device/neurostim	Include all	2	1.0123
491	S	Back & neck proc exc spinal fusion w/o CC/MCC	Include all	3	0.7646
955	S	Craniotomy for multiple significant trauma	Include all	1	3.0899

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	1.6420
029	S	Spinal procedures w CC or spinal neurostimulators	See MS-DRG 028	2	2.5600
030	S	Spinal procedures w/o CC/MCC	See MS-DRG 028	2	2.5600
453	S	Combined anterior/posterior spinal fusion w MCC	Include all	1	1.6353
454	S	Combined anterior/posterior spinal fusion w CC	Include all	2	2.1167
455	S	Combined anterior/posterior spinal fusion w/o CC/MCC	Include all	2	2.5600
456	S	Spinal fus exc cerv w spinal curv/malig/infec or 9+ fus w MCC	Include all	1	1.5372
457	S	Spinal fus exc cerv w spinal curv/malig/infec or 9+ fus w CC	Include all	2	1.6485
458	S	Spinal fus exc cerv w spinal curv/malig/infec or 9+ fus w/o CC/MCC	Include all	2	1.6962
459	S	Spinal fusion except cervical w MCC	Include all	1	1.1324
460	S	Spinal fusion except cervical w/o MCC	Include all	2	1.3223
461	S	Bilateral or multiple major joint procs of lower extremity w MCC	Include all	1	1.0147
462	S	Bilateral or multiple major joint procs of lower extremity w/o MCC	Include all	2	1.1890
466	S	Revision of hip or knee replacement w MCC	Include all	3	0.7871
467	S	Revision of hip or knee replacement w CC	Include all	3	0.8350
468	S	Revision of hip or knee replacement w/o CC/MCC	Include all	3	0.9886
469	S	Major joint replacement or reattachment of lower extremity w MCC	Include all	1	0.7693
470	S	Major joint replacement or reattachment of lower extremity w/o MCC	Include all	2	0.9752
471	S	Cervical spinal fusion w MCC	Include all	1	1.2460
472	S	Cervical spinal fusion w CC	Include all	2	1.6566
473	S	Cervical spinal fusion w/o CC/MCC	Include all	2	1.6940
480	S	Hip & femur procedures except major joint w MCC	Include all	2	0.7551
481	S	Hip & femur procedures except major joint w CC	Include all	2	0.7718
482	S	Hip & femur procedures except major joint w/o CC/MCC	Include all	3	0.8459
483	S	Major joint & limb reattachment proc of upper extremity w CC/MCC	Include all	1	0.8374
484	S	Major joint & limb reattachment proc of upper extremity w/o CC/MCC	Include all	1	0.9516
485	S	Knee procedures w pdx of infection w MCC	Include all	1	1.2473
486	S	Knee procedures w pdx of infection w CC	Include all	2	1.4215

MS-DRG	Medical/ Surgical	DRG_Title	ICD-9-CM	Severity	Weight
487	S	Knee procedures w pdx of infection w/o CC/MCC	Include all	2	1.8726
490	S	Back & neck proc exc spinal fusion w CC/MCC or disc device/neurostim	Include all	2	1.0858
491	S	Back & neck proc exc spinal fusion w/o CC/MCC	Include all	3	0.8202
492	S	Lower extrem & humer proc except hip,foot,femur w MCC	Include all	2	1.1643
493	S	Lower extrem & humer proc except hip,foot,femur w CC	Include all	2	1.4378
494	S	Lower extrem & humer proc except hip,foot,femur w/o CC/MCC	Include all	3	2.5600
495	S	Local excision & removal int fix devices exc hip & femur w MCC	Include all	2	1.4103
496	S	Local excision & removal int fix devices exc hip & femur w CC	Include all	2	1.5419
497	S	Local excision & removal int fix devices exc hip & femur w/o CC/MCC	Include all	3	1.4791
498	S	Local excision & removal int fix devices of hip & femur w CC/MCC	Include all	3	1.1546
499	S	Local excision & removal int fix devices of hip & femur w/o CC/MCC	Include all	3	1.1095
500	S	Soft tissue procedures w MCC	Include all	3	1.2550
501	S	Soft tissue procedures w CC	Include all	3	1.2890
503	S	Foot procedures w MCC	Include all	3	1.0967
504	S	Foot procedures w CC	Include all	3	1.3461
505	S	Foot procedures w/o CC/MCC	Include all	3	1.7420
506	S	Major thumb or joint procedures	Include all	3	1.2591
507	S	Major shoulder or elbow joint procedures w CC/MCC	Include all	2	1.3101
508	S	Major shoulder or elbow joint procedures w/o CC/MCC	Include all	2	1.8667
515	S	Other musculoskelet sys & conn tiss O.R. proc w MCC	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	3	1.3174
516	S	Other musculoskelet sys & conn tiss O.R. proc w CC	See MS-DRG 515	3	1.5212
517	S	Other musculoskelet sys & conn tiss O.R. proc w/o CC/MCC	See MS-DRG 515	3	0.8318
533	M	Fractures of femur w MCC	Include all	1	0.7700
534	M	Fractures of femur w/o MCC	Include all	2	1.2526
535	M	Fractures of hip & pelvis w MCC	Include all	1	0.7254
536	M	Fractures of hip & pelvis w/o MCC	Include all	2	0.7397

MS-DRG	Medical/ Surgical	DRG_Title	ICD-9-CM	Severity	Weight
539	M	Osteomyelitis w MCC	Include all	3	0.9637
540	M	Osteomyelitis w CC	Include all	3	0.9400
541	M	Osteomyelitis w/o CC/MCC	Include all	3	0.7643
542	M	Pathological fractures & musculoskelet & conn tiss malig w MCC	Include diagnoses: 7331, 73310-6, 73319, 73393-5	1	0.7215
543	M	Pathological fractures & musculoskelet & conn tiss malig w CC	See MS-DRG 542	2	0.7942
544	M	Pathological fractures & musculoskelet & conn tiss malig w/o CC/MCC	See MS-DRG 542	2	0.6477
956	S	Limb reattachment, hip & femur proc for multiple significant trauma	Include all	1	1.9044

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	1.5021
004	S	Trach w MV 96+ hrs or PDX exc face, mouth & neck w/o maj O.R.	Include all	1	1.1876
007	S	Lung transplant	Include all	1	1.7090
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	1.3138
164	S	Major chest procedures w CC	See MS-DRG 163	2	1.2758
165	S	Major chest procedures w/o CC/MCC	See MS-DRG 163	2	1.4919
166	S	Other resp system O.R. procedures w MCC	Include all	2	1.0561
167	S	Other resp system O.R. procedures w CC	Include all	2	1.1686
168	S	Other resp system O.R. procedures w/o CC/MCC	Include all	3	0.9956
175	M	Pulmonary embolism w MCC	Include all	1	1.1276
176	M	Pulmonary embolism w/o MCC	Include all	1	1.4284
177	M	Respiratory infections & inflammations w MCC	Exclude diagnoses: 7955, V712	1	0.8889
178	M	Respiratory infections & inflammations w CC	See MS-DRG 177	2	0.8573
179	M	Respiratory infections & inflammations w/o CC/MCC	See MS-DRG 177	2	1.1965
180	M	Respiratory neoplasms w MCC	Exclude diagnoses: 2122-5, 2128-9, 2133	1	1.2118
181	M	Respiratory neoplasms w CC	See MS-DRG 181	2	1.2505
182	M	Respiratory neoplasms w/o CC/MCC	See MS-DRG 181	2	1.2805
183	M	Major chest trauma w MCC	Include all	1	1.2709
184	M	Major chest trauma w CC	Include all	1	1.5203
185	M	Major chest trauma w/o CC/MCC	Include all	1	1.6039
186	M	Pleural effusion w MCC	Include all	3	0.9344

MS-DRG	Medical/ Surgical	DRG_Title	ICD-9-CM	Severity	Weight
187	M	Pleural effusion w CC	Include all	3	1.0038
189	M	Pulmonary edema & respiratory failure	Include all	2	0.9161
190	M	Chronic obstructive pulmonary disease w MCC	Include all	3	0.8615
191	M	Chronic obstructive pulmonary disease w CC	Include all	3	0.8531
192	M	Chronic obstructive pulmonary disease w/o CC/MCC	Include all	3	0.8383
193	M	Simple pneumonia & pleurisy w MCC	Include all	3	0.8955
194	M	Simple pneumonia & pleurisy w CC	Include all	3	0.8762
196	M	Interstitial lung disease w MCC	Include all	3	0.9775
197	M	Interstitial lung disease w CC	Include all	3	0.9793
198	M	Interstitial lung disease w/o CC/MCC	Include all	3	0.9523
199	M	Pneumothorax w MCC	Exclude diagnoses: 5121	1	1.2073
200	M	Pneumothorax w CC	See MS-DRG 199	2	1.7090
202	M	Bronchitis & asthma w CC/MCC	Include all	3	1.3577
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	1.1110
870	M	Septicemia or severe sepsis w MV 96+ hours	Include all	1	1.0255
871	M	Septicemia or severe sepsis w/o MV 96+ hours w MCC	Include all	1	0.9197
872	M	Septicemia or severe sepsis w/o MV 96+ hours w/o MCC	Include all	1	1.0628

Urology

MS-DRG	Medical/ Surgical	DRG_Title	IC9-CM	Severity	Weight
653	S	Major bladder procedures w MCC	Include all	1	0.9334
654	S	Major bladder procedures w CC	Include all	2	1.0761
655	S	Major bladder procedures w/o CC/MCC	Include all	2	1.1986
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	0.8566
657	S	Kidney & ureter procedures forneoplasm w CC	See MS-DRG 656	2	0.8606
658	S	Kidney & ureter procedures for neoplasm w/o CC/MCC	See MS-DRG 656	2	0.8592
659	S	Kidney & ureter procedures for non-neoplasm w MCC	See MS-DRG 656	2	1.1703
660	S	Kidney & ureter procedures for non-neoplasm w CC	See MS-DRG 656	2	1.4469
661	S	Kidney & ureter procedures for non-neoplasm w/o CC/MCC	See MS-DRG 656	3	0.7034
662	S	Minor bladder procedures w MCC	Include all	3	0.8856
663	S	Minor bladder procedures w CC	Include all	3	0.9329
664	S	Minor bladder procedures w/o CC/MCC	Include all	3	0.8525
665	S	Prostatectomy w MCC	Include all	3	0.7010
666	S	Prostatectomy w CC	Include all	3	0.7691
668	S	Transurethral procedures w MCC	Include all	3	0.9061
669	S	Transurethral procedures w CC	Include all	3	0.9060
671	S	Urethral procedures w CC/MCC	Include all	3	0.9681
673	S	Other kidney & urinary tract procedures w MCC	Include procedures: 6495-7	3	0.9577
674	S	Other kidney & urinary tract procedures w CC	See MS-DRG 673	3	0.9577
675	S	Other kidney & urinary tract procedures w/o CC/MCC	See MS-DRG 673	3	0.9577

MS-DRG	Medical/ Surgical	DRG_Title	ICD-9-CM	Severity	Weight
686	M	Kidney & urinary tract neoplasms w MCC	Exclude diagnoses: 1890-1, 1980-1, 2230-1	2	0.9917
687	M	Kidney & urinary tract neoplasms w CC	See MS-DRG 686	2	1.0367
688	M	Kidney & urinary tract neoplasms w/o CC/MCC	See MS-DRG 686	3	0.9577
689	M	Kidney and Urinary Tract Infections with MCC	Exclude diagnoses: 0160, 0786, 0954, 590, 5900-3, 5908-9, 59010-11, 59080-1	3	0.7610
691	M	Urinary stones w esw lithotripsy w CC/MCC	Include all	3	1.0339
692	M	Urinary stones w esw lithotripsy w/o CC/MCC	Include all	3	0.6291
697	M	Urethral stricture	Include all	3	0.9406
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	0.9043
699	M	Other kidney & urinary tract diagnoses w CC	See MS-DRG 698	3	1.0901
700	M	Other kidney & urinary tract diagnoses w/o CC/MCC	See MS-DRG 698	3	1.2585
707	S	Major male pelvic procedures w CC/MCC	Include all	2	1.4469
708	S	Major male pelvic procedures w/o CC/MCC	Include all	2	1.4469
709	S	Penis procedures w CC/MCC	Include all	3	1.2800
710	S	Penis procedures w/o CC/MCC	Include all	3	0.8656
711	S	Testes procedures w CC/MCC	Include all	2	1.3645
712	S	Testes procedures w/o CC/MCC	Include all	3	0.6291
713	S	Transurethral prostatectomy w CC/MCC	Include all	2	0.7604
715	S	Other male reproductive system O.R. proc for malignancy w CC/MCC	Include all	2	1.1894
716	S	Other male reproductive system O.R. proc for malignancy w/o CC/MCC	Include all	2	1.2066
717	S	Other male reproductive system O.R. proc exc malignancy w CC/MCC	Include all	3	0.9336
718	S	Other male reproductive system O.R. proc exc malignancy w/o CC/MCC	Include all	3	0.6291
722	M	Malignancy, male reproductive system w MCC	Include all	1	0.8671
723	M	Malignancy, male reproductive system w CC	Include all	2	0.9188
724	M	Malignancy, male reproductive system w/o CC/MCC	Include all	2	0.8709
727	M	Inflammation of the male reproductive system w MCC	Include all	3	1.0484
728	M	Inflammation of the male reproductive system w/o MCC	Include all	3	0.9257
729	M	Other male reproductive system diagnoses w CC/MCC	Exclude diagnoses: V252	3	0.9207

MS-DRG	Medical/ Surgical	DRG_Title	ICD-9-CM	Severity	Weight
730	M	Other male reproductive system diagnoses w/o CC/MCC	See MS-DRG 729	3	0.9577
984	S	Prostatic O.R. procedure unrelated to principal diagnosis w MCC	Include all	3	0.7173
985	S	Prostatic O.R. procedure unrelated to principal diagnosis w CC	Include all	3	0.6910
986	S	Prostatic O.R. procedure unrelated to principal diagnosis w/o CC/MCC	Include all	3	0.6717

Appendix E

2011-12 Index of Hospital Quality (IHQ)

Scores, by Specialty

Final IHQ-Driven Rankings 2011-12—Cancer

2011 Rank	Hospital	U.S. News Score	Reputation (%)	Survival score (Best=10)	Patient safety score (Best=3)	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	Patient volume	Nurse staffing score (higher is better)	Nurse Magnet hospital	NCI cancer center	FACT accreditation level (Best=2)	Technology score (Best=7)	Patient services score (Best=8)	Intensivists	Current AHA responder	
1	University of Texas M.D. Anderson Cancer Center, Houston	100.0	78.9	10	1	3	1	1	1	2	2	4,178	2.0	Yes	Yes	2	7	8	1	Yes	
2	Memorial Sloan-Kettering Cancer Center, New York	94.7	67.9	10	3	3	1	3	3	2	2	4,701	1.9	No	Yes	2	7	8	1	Yes	
3	Johns Hopkins Hospital, Baltimore	80.8	40.6	10	2	3	1	2	3	2	1	1,688	2.1	Yes	Yes	2	7	8	1	Yes	
4	Mayo Clinic, Rochester, Minn.	78.8	38.4	9	1	2	1	1	2	2	1	3,497	3.1	Yes	Yes	2	7	8	1	Yes	
5	Dana-Farber/Brigham and Women's Cancer Center, Boston	75.5	35.4	9	2	3	1	2	2	2	1	2,367	2.2	Yes	Yes	2	7	8	1	Yes	
6	University of Washington Medical Center, Seattle	63.9	18.2	10	1	2	1	1	2	2	1	954	2.1	Yes	Yes	2	7	8	1	Yes	
7	Massachusetts General Hospital, Boston	61.9	18.1	9	2	3	1	2	3	2	1	2,088	2.1	Yes	Yes	2	7	8	1	Yes	
8	UCSF Medical Center, San Francisco	60.3	16.1	9	2	1	3	1	3	2	2	1,544	2.5	No	Yes	2	7	8	1	Yes	
9	Cleveland Clinic	59.7	14.1	10	2	3	2	2	2	2	2	2,533	2.3	Yes	Yes	2	7	8	1	Yes	
10	Ronald Reagan UCLA Medical Center, Los Angeles	58.0	11.4	10	2	2	2	1	1	3	2	970	3.0	Yes	Yes	2	7	8	1	Yes	+4 S.D.s
11	Duke University Medical Center, Durham, N.C.	54.4	11.9	8	2	2	1	2	2	2	3	2,405	2.0	Yes	Yes	2	7	8	1	Yes	
12	Stanford Hospital and Clinics, Stanford, Calif.	53.2	12.5	8	1	2	1	1	3	1	1	1,258	2.6	Yes	Yes	2	7	8	1	Yes	
13	University of Michigan Hospitals and Health Centers, Ann Arbor	52.1	9.2	9	2	3	1	1	2	2	2	1,802	2.6	No	Yes	2	7	8	1	Yes	
14	University of Chicago Medical Center	50.4	7.7	9	2	2	2	1	2	2	1	1,688	2.6	Yes	Yes	2	7	8	1	Yes	
15	Hospital of the University of Pennsylvania, Philadelphia	50.1	9.2	9	2	2	2	2	2	2	2	1,653	1.8	Yes	Yes	2	7	8	1	Yes	
16	Barnes-Jewish Hospital/Washington University, St. Louis	49.2	5.6	9	2	2	2	2	1	2	2	3,383	2.1	Yes	Yes	2	7	8	1	Yes	+3 S.D.s
17	City of Hope, Duarte, Calif.	47.6	7.0	10	1	3	1	1	2	2	1	1,053	2.3	No	Yes	2	7	8	1	Yes	
18	Moffitt Cancer Center, Tampa	44.8	4.7	10	1	3	1	1	1	2	1	1,627	1.2	No	Yes	2	7	8	1	Yes	
19	New York-Presbyterian University Hospital of Columbia and Cornell, N.Y.	44.6	3.2	10	2	2	1	2	2	2	1	3,489	2.0	No	Yes	2	7	8	1	Yes	
20	Ohio State University James Cancer Hospital, Columbus	44.2	4.8	9	1	2	2	1	2	1	1	2,856	2.1	Yes	Yes	2	7	8	1	Yes	
21	Northwestern Memorial Hospital, Chicago	43.0	5.7	7	2	2	1	1	2	2	3	1,852	1.5	Yes	Yes	2	7	8	1	Yes	
22	University of Maryland Medical Center, Baltimore	41.9	2.6	10	2	1	2	1	2	3	1	974	2.0	Yes	Yes	2	7	8	1	Yes	
23	University of Minnesota Medical Center, Fairview	41.7	2.9	9	2	3	2	2	2	2	1	1,062	2.0	Yes	Yes	2	7	8	1	Yes	
24	Yale-New Haven Hospital, New Haven, Conn.	41.6	3.1	9	2	2	2	2	2	2	1	1,410	3.2	No	Yes	2	7	8	1	Yes	
25	NYU Langone Medical Center, New York	41.3	2.7	10	2	2	1	2	2	3	3	1,200	1.9	Yes	Yes	1	7	8	1	Yes	
26	Vanderbilt University Medical Center, Nashville	41.1	3.1	9	2	2	1	2	1	2	2	1,322	2.1	Yes	Yes	2	7	8	1	Yes	
27	Roswell Park Cancer Institute, Buffalo	40.9	4.5	8	1	2	1	1	1	2	1	910	2.3	Yes	Yes	2	7	8	1	Yes	
28	University of Iowa Hospitals and Clinics, Iowa City	40.6	1.0	10	2	3	3	2	1	1	1	1,385	1.7	Yes	Yes	2	7	8	1	Yes	
29	UPMC-University of Pittsburgh Medical Center	39.8	3.5	7	2	3	2	2	2	2	1	3,216	1.5	Yes	Yes	2	7	8	1	Yes	
29	University of Wisconsin Hospital and Clinics, Madison	39.8	2.7	9	2	3	1	1	3	1	2	1,209	1.9	Yes	Yes	2	7	7	1	Yes	
31	Thomas Jefferson University Hospital, Philadelphia	39.2	2.3	8	3	2	3	2	2	2	3	1,436	2.2	Yes	Yes	2	7	8	1	Yes	
32	Cedars-Sinai Medical Center, Los Angeles	38.9	2.7	8	3	3	3	2	2	2	2	1,925	2.4	Yes	No	2	7	8	1	Yes	
33	Beth Israel Deaconess Medical Center, Boston	38.7	1.9	9	2	3	1	1	3	2	1	1,523	1.4	No	Yes	2	7	8	1	Yes	+2 S.D.s
34	University of Colorado Hospital, Aurora	38.3	1.6	10	1	2	1	1	2	2	1	795	1.7	Yes	Yes	2	7	7	1	Yes	
35	Shands at the University of Florida, Gainesville	38.0	3.0	9	1	1	1	1	1	1	1	1,203	1.6	Yes	No	2	7	8	1	Yes	
36	University Hospitals Case Medical Center, Cleveland	37.6	0.8	10	2	3	1	1	3	2	1	1,427	1.9	Yes	Yes	2	7	8	1	Yes	
37	Emory University Hospital, Atlanta	37.2	1.1	9	2	2	3	3	2	2	2	1,424	2.1	No	Yes	2	7	8	1	Yes	
38	Fox Chase Cancer Center, Philadelphia	36.7	4.1	7	1	3	2	2	1	1	2	961	1.7	Yes	Yes	2	7	8	1	Yes	
39	University of California, Davis Medical Center, Sacramento	36.1	1.9	9	1	2	1	1	2	2	1	795	2.7	No	Yes	2	7	8	1	Yes	
40	Rush University Medical Center, Chicago	35.8	1.8	9	1	2	2	1	2	1	1	1,519	2.0	Yes	No	2	6	8	1	Yes	
41	Mount Sinai Medical Center, New York	35.6	1.0	9	2	2	2	2	2	2	1	2,137	2.0	Yes	No	2	7	8	1	Yes	
42	Hackensack University Medical Center, Hackensack, N.J.	35.1	1.7	7	3	2	3	2	3	2	2	2,180	2.6	Yes	No	2	7	8	1	Yes	
42	Wake Forest Baptist Medical Center, Winston-Salem, N.C.	35.1	0.0	9	2	1	3	1	1	2	3	1,686	1.8	Yes	Yes	2	7	8	1	Yes	
44	University of Kansas Hospital, Kansas City	34.9	0.8	10	2	3	1	1	1	2	3	1,131	2.1	Yes	No	2	7	8	1	Yes	
45	Magee-Womens Hospital of UPMC, Pittsburgh	34.4	0.0	10	3	3	3	2	2	2	1	560	1.4	No	No	0	7	8	1	Yes	
46	Mayo Clinic, Jacksonville, Fla.	33.9	1.9	8	2	2	1	2	2	3	2	704	2.1	No	Yes	2	7	7	1	Yes	
47	UC San Diego Medical Center	33.7	0.6	9	2	3	1	2	1	2	1	744	1.9	No	Yes	2	7	8	1	Yes	
48	USC Norris Cancer Hospital, Los Angeles	33.6	0.0	10	1	2	3	1	1	1	1	434	1.0	No	Yes	1	7	8	1	Yes	
48	University of Virginia Medical Center, Charlottesville	33.6	1.1	9	2	1	1	2	2	2	1	1,375	1.9	Yes	Yes	0	6	8	1	Yes	
50	University of California, Irvine Medical Center, Orange	33.5	0.0	10	2	2	1	1	2	3	1	617	2.5	Yes	Yes	0	7	8	1	Yes	

Final IHQ-Driven Rankings 2011-12—Cardiology & Heart Surgery

2011 Rank	Hospital	U.S. News Score	Reputation (%)	Survival score (Best=10)	Patient safety score (Best=3)	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	Patient volume	Nurse staffing score (higher is better)	Nurse Magnet hospital	Technology score (Best=7)	Patient services score (Best=7)	Trauma center	Intensivists	Current AHA responder	
1	Cleveland Clinic	100.0	75.3	10	2	3	2	2	2	2	2	12,861	2.3	Yes	7	7	No	1	Yes	
2	Mayo Clinic, Rochester, Minn.	90.2	62.4	9	1	2	1	1	2	2	1	10,189	3.1	Yes	7	7	Yes	1	Yes	
3	Johns Hopkins Hospital, Baltimore	72.2	26.4	10	2	3	1	2	3	2	1	4,155	2.1	Yes	7	7	Yes	1	Yes	
4	Texas Heart Institute at St. Luke's Episcopal Hospital, Houston	69.3	24.1	10	2	2	3	1	1	2	3	8,307	2.0	Yes	7	6	No	1	Yes	
5	Massachusetts General Hospital, Boston	68.2	23.4	9	2	3	1	2	3	2	1	8,294	2.1	Yes	7	7	Yes	1	Yes	
6	New York-Presbyterian University Hospital of Columbia and Cornell, N.Y.	62.1	14.8	10	2	2	1	2	2	2	1	14,360	2.0	No	7	7	Yes	1	Yes	
7	Duke University Medical Center, Durham, N.C.	61.8	17.8	9	2	2	1	2	2	2	3	7,703	2.0	Yes	7	7	Yes	1	Yes	
8	Brigham and Women's Hospital, Boston	61.1	19.4	9	2	3	1	2	2	2	1	6,515	2.2	No	7	7	Yes	1	Yes	+4 S.D.s
9	Ronald Reagan UCLA Medical Center, Los Angeles	58.0	10.9	10	2	2	2	1	1	3	2	2,826	3.0	Yes	7	7	Yes	1	Yes	
10	Hospital of the University of Pennsylvania, Philadelphia	56.3	15.1	8	2	2	2	2	2	2	2	4,790	1.8	Yes	7	7	Yes	1	Yes	
11	Mount Sinai Medical Center, New York	51.2	7.1	10	2	2	2	2	2	2	1	9,296	2.0	Yes	7	7	Yes	1	Yes	+3 S.D.s
12	University of Michigan Hospitals and Health Centers, Ann Arbor	49.7	8.5	9	2	3	1	1	2	2	2	5,630	2.6	No	7	7	Yes	1	Yes	
13	Cedars-Sinai Medical Center, Los Angeles	47.0	6.3	8	3	3	3	2	2	2	2	6,129	2.4	Yes	7	7	Yes	1	Yes	
14	Stanford Hospital and Clinics, Stanford, Calif.	46.7	11.6	6	1	2	1	1	3	1	1	2,846	2.6	Yes	7	7	Yes	1	Yes	
15	NYU Langone Medical Center, New York	45.6	3.9	10	2	2	1	2	2	3	3	4,269	1.9	Yes	6	7	Yes	1	Yes	
16	Northwestern Memorial Hospital, Chicago	44.8	4.7	10	2	2	1	1	2	2	3	4,434	1.5	Yes	7	7	Yes	1	Yes	
17	Emory University Hospital, Atlanta	44.4	10.3	7	2	2	3	3	2	2	2	5,168	2.1	No	7	7	No	1	Yes	
18	Barnes-Jewish Hospital/Washington University, St. Louis	43.9	4.4	9	2	2	2	2	1	2	2	8,433	2.1	Yes	7	7	Yes	1	Yes	
19	Methodist Hospital, Houston	42.8	4.4	10	1	2	1	1	2	1	3	8,737	1.8	Yes	7	7	No	1	Yes	
20	Loyola University Medical Center, Maywood, Ill.	41.8	2.0	10	2	2	1	2	1	2	1	3,924	2.0	Yes	6	7	Yes	1	Yes	
20	UPMC-University of Pittsburgh Medical Center	41.8	5.2	8	2	3	2	2	2	2	1	10,890	1.5	Yes	7	7	Yes	1	Yes	
22	Ochsner Medical Center, New Orleans	41.2	3.1	9	3	1	3	1	2	3	2	5,009	1.6	Yes	7	7	Yes	1	Yes	+2 S.D.s
23	Vanderbilt University Medical Center, Nashville	40.7	2.9	10	2	2	1	2	1	2	2	5,487	2.1	Yes	7	7	Yes	1	Yes	
24	Ohio State University Hospital, Columbus	40.1	2.9	9	1	2	2	1	2	1	1	7,962	2.1	Yes	7	7	Yes	1	Yes	
25	St. Francis Hospital, Roslyn, N.Y.	40.0	1.0	10	2	1	2	2	3	2	3	10,374	2.0	Yes	6	7	Yes	1	Yes	
26	Yale-New Haven Hospital, New Haven, Conn.	39.0	3.5	8	2	2	2	2	2	2	1	5,956	3.2	No	7	7	Yes	1	Yes	
27	Beth Israel Deaconess Medical Center, Boston	38.3	4.3	8	2	3	1	1	3	2	1	6,719	1.4	No	5	7	Yes	1	Yes	
27	Shands at the University of Florida, Gainesville	38.3	3.8	8	1	1	1	1	1	1	1	5,426	1.6	Yes	7	7	Yes	1	Yes	
29	Rush University Medical Center, Chicago	37.9	1.3	10	1	2	2	1	2	1	1	2,916	2.0	Yes	7	6	Yes	1	Yes	
30	Washington Hospital Center, Washington, D.C.	37.4	2.0	10	1	2	1	2	2	1	1	10,939	1.4	No	7	7	Yes	1	Yes	
31	University of Maryland Medical Center, Baltimore	37.3	2.9	8	2	1	2	1	2	3	1	3,486	2.0	Yes	7	7	Yes	1	Yes	
32	Beaumont Hospital, Royal Oak, Mich.	37.1	3.5	7	2	2	2	2	2	1	2	10,540	1.6	Yes	6	7	Yes	1	Yes	
33	Banner Good Samaritan Medical Center, Phoenix	35.8	0.3	10	2	3	2	2	2	2	1	4,286	2.3	Yes	6	7	Yes	1	Yes	
33	Union Memorial Hospital, Baltimore	35.8	0.8	10	2	3	1	2	2	2	2	6,206	1.6	No	5	7	Yes	1	Yes	
35	University of Chicago Medical Center	35.7	1.5	9	2	2	2	1	2	2	1	3,595	2.6	Yes	7	7	Yes	1	Yes	
36	Harper University Hospital, Detroit	35.2	0.7	10	3	3	3	2	2	2	2	4,336	1.3	No	6	7	No	1	Yes	
37	Minneapolis Heart Institute at Abbott Northwestern Hospital, Minneapolis	35.1	0.7	9	2	2	2	2	2	2	1	6,617	2.2	Yes	6	7	Yes	1	Yes	
38	Memorial Hermann-Texas Medical Center, Houston	35.0	2.0	9	2	2	3	2	1	2	3	3,763	2.1	No	6	7	Yes	1	Yes	
39	University of Kansas Hospital, Kansas City	34.6	0.0	10	2	3	1	1	1	2	3	2,851	2.1	Yes	6	7	Yes	1	Yes	
40	University Medical Center, Tucson, Ariz.	34.1	0.7	9	2	2	2	1	2	3	1	2,468	2.3	Yes	6	7	Yes	1	Yes	
41	Hackensack University Medical Center, Hackensack, N.J.	33.6	0.0	9	3	2	3	2	3	2	2	7,243	2.6	Yes	6	7	Yes	1	Yes	
41	University of Texas Southwestern Medical Center, Dallas	33.6	3.1	8	2	2	3	1	2	2	1	2,994	1.7	No	7	7	No	0	Yes	
43	UCSF Medical Center, San Francisco	33.5	3.1	8	2	1	3	1	3	2	2	2,537	2.5	No	7	6	No	1	Yes	
44	Allegheny General Hospital, Pittsburgh	33.2	1.0	8	3	3	3	3	2	2	2	4,897	2.1	No	7	7	Yes	1	Yes	
45	Scripps La Jolla Hospitals and Clinics, La Jolla, Calif.	33.1	1.0	8	2	2	2	2	3	2	1	4,061	2.7	Yes	6	7	Yes	1	Yes	
46	Hahnemann University Hospital, Philadelphia	33.0	1.2	10	1	2	2	1	3	1	1	3,267	1.5	Yes	6	6	Yes	0	Yes	
47	Sentara Norfolk General Hospital-Sentara Heart Hospital, Norfolk, Va.	32.8	0.0	9	2	3	2	2	2	2	2	5,294	1.6	Yes	7	7	Yes	1	Yes	
48	Tampa General Hospital	32.7	0.5	9	1	3	2	1	2	1	1	4,168	2.2	Yes	7	7	Yes	1	Yes	
49	Newark Beth Israel Medical Center, N.J.	32.6	0.9	10	2	1	2	3	2	3	2	4,713	1.5	No	6	7	No	1	Yes	
50	Christ Hospital, Cincinnati	32.1	0.7	9	2	3	2	2	1	2	2	4,663	2.1	Yes	6	7	No	1	Yes	

Final IHQ-Driven Rankings 2011-12—Diabetes & Endocrinology

2011 Rank	Hospital	U.S. News Score	Reputation (%)	Survival score (Best=10)	Patient safety score (Best=3)	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	Patient volume	Nurse staffing score (higher is better)	Nurse Magnet hospital	Technology score (Best=4)	Patient services score (Best=8)	Intensivists	Current AHA responder	
1	Mayo Clinic, Rochester, Minn.	100.0	64.9	9	1	2	1	1	2	2	1	845	3.1	Yes	4	8	1	Yes	
2	Massachusetts General Hospital, Boston	89.2	52.5	7	2	3	1	2	3	2	1	749	2.1	Yes	4	8	1	Yes	
3	Johns Hopkins Hospital, Baltimore	80.6	31.1	9	2	3	1	2	3	2	1	598	2.1	Yes	4	8	1	Yes	
4	UCSF Medical Center, San Francisco	69.5	22.8	8	2	1	3	1	3	2	2	355	2.5	No	4	8	1	Yes	
5	Cleveland Clinic	66.0	20.7	6	2	3	2	2	2	2	2	993	2.3	Yes	4	8	1	Yes	
6	New York-Presbyterian University Hospital of Columbia and Cornell, N.Y.	64.8	16.4	8	2	2	1	2	2	2	1	1,069	2.0	No	4	8	1	Yes	
7	Ronald Reagan UCLA Medical Center, Los Angeles	62.2	14.5	8	2	2	2	1	1	3	2	241	3.0	Yes	4	8	1	Yes	
8	Yale-New Haven Hospital, New Haven, Conn.	60.8	12.3	9	2	2	2	2	2	2	1	1,024	3.2	No	4	8	1	Yes	
9	Brigham and Women's Hospital, Boston	58.9	11.5	9	2	3	1	2	2	2	1	520	2.2	No	4	8	1	Yes	+4 S.D.s
10	University of Washington Medical Center, Seattle	54.6	10.3	8	1	2	1	1	2	2	1	359	2.1	Yes	4	8	1	Yes	
11	Hospital of the University of Pennsylvania, Philadelphia	54.4	8.6	9	2	2	2	2	2	2	2	436	1.8	Yes	4	8	1	Yes	
12	Barnes-Jewish Hospital/Washington University, St. Louis	52.8	11.4	6	2	2	2	2	1	2	2	757	2.1	Yes	4	8	1	Yes	
13	University of Virginia Medical Center, Charlottesville	50.8	8.5	7	2	1	1	2	2	2	1	496	1.9	Yes	4	8	1	Yes	
14	Vanderbilt University Medical Center, Nashville	49.5	6.6	8	2	2	1	2	1	2	2	535	2.1	Yes	4	8	1	Yes	
15	Mount Sinai Medical Center, New York	48.1	6.3	8	2	2	2	2	2	2	1	774	2.0	Yes	4	8	1	Yes	+3 S.D.s
16	Joslin Clinic and Beth Israel Deaconess Medical Center, Boston	47.7	7.2	8	2	3	1	1	3	2	1	591	1.4	No	4	8	1	Yes	
17	University of Michigan Hospitals and Health Centers, Ann Arbor	47.4	4.9	9	2	3	1	1	2	2	2	494	2.6	No	4	8	1	Yes	
18	Northwestern Memorial Hospital, Chicago	43.4	2.7	10	2	2	1	1	2	2	3	486	1.5	Yes	4	8	1	Yes	
18	UPMC-University of Pittsburgh Medical Center	43.4	5.0	7	2	3	2	2	2	2	1	858	1.5	Yes	4	8	1	Yes	
20	Ohio State University Hospital, Columbus	42.8	2.6	9	1	2	2	1	2	1	1	724	2.1	Yes	4	8	1	Yes	
20	Washington Hospital Center, Washington, D.C.	42.8	3.0	9	1	2	1	2	2	1	1	931	1.4	No	4	8	1	Yes	
22	NYU Langone Medical Center, New York	42.4	4.0	8	2	2	1	2	2	3	3	378	1.9	Yes	4	8	1	Yes	
23	University of Chicago Medical Center	42.0	5.5	6	2	2	2	1	2	2	1	445	2.6	Yes	4	8	1	Yes	
24	University of Texas Southwestern Medical Center, Dallas	41.9	3.1	10	2	2	3	1	2	2	1	411	1.7	No	4	8	0	Yes	
25	UC San Diego Medical Center	41.8	2.4	10	2	3	1	2	1	2	1	186	1.9	No	4	8	1	Yes	
26	Duke University Medical Center, Durham, N.C.	40.8	5.2	6	2	2	1	2	2	2	3	608	2.0	Yes	4	8	1	Yes	
27	Cedars-Sinai Medical Center, Los Angeles	40.6	3.3	7	3	3	3	2	2	2	2	646	2.4	Yes	4	8	1	Yes	+2 S.D.s
28	University of Texas M.D. Anderson Cancer Center, Houston	40.3	9.3	2	1	3	1	1	1	2	2	273	2.0	Yes	4	8	1	Yes	
29	University of Maryland Medical Center, Baltimore	40.0	1.1	10	2	1	2	1	2	3	1	312	2.0	Yes	4	8	1	Yes	
30	Montefiore Medical Center, New York	38.2	2.4	7	2	2	2	1	1	2	2	1,259	1.2	No	4	8	1	Yes	
31	Banner Good Samaritan Medical Center, Phoenix	38.0	0.0	10	2	3	2	2	2	2	1	450	2.3	Yes	4	8	1	Yes	
32	Methodist Hospital, Houston	37.3	1.0	9	1	2	1	1	2	1	3	901	1.8	Yes	4	8	1	Yes	
33	Stanford Hospital and Clinics, Stanford, Calif.	37.2	3.8	6	1	2	1	1	3	1	1	280	2.6	Yes	4	8	1	Yes	
34	Lahey Clinic, Burlington, Mass.	37.1	0.0	10	2	2	1	1	1	3	1	281	1.3	Yes	4	8	1	Yes	
35	St. Luke's Episcopal Hospital, Houston	36.8	0.0	10	2	2	3	1	1	2	3	476	2.0	Yes	4	7	1	Yes	
36	Froedtert Hospital, Milwaukee	36.6	1.4	8	2	1	2	1	3	3	1	585	2.0	Yes	4	8	1	Yes	
36	Greenville Memorial Hospital, Greenville, S.C.	36.6	0.7	10	2	2	3	2	1	2	1	358	1.7	No	4	8	1	Yes	
36	University of Minnesota Medical Center, Fairview	36.6	1.4	8	2	3	2	2	2	2	1	408	2.0	Yes	4	8	1	Yes	
39	University Hospitals Case Medical Center, Cleveland	36.5	0.6	9	2	3	1	1	3	2	1	627	1.9	Yes	4	8	1	Yes	
40	Lehigh Valley Hospital, Allentown, Pa.	36.2	0.5	9	2	3	1	1	2	3	1	523	2.1	Yes	4	8	1	Yes	
40	Spectrum Health, Grand Rapids, Mich.	36.2	0.0	9	2	2	2	2	2	2	1	913	1.8	Yes	4	8	1	Yes	
40	University Hospital, San Antonio	36.2	2.6	9	1	3	1	1	1	1	2	116	1.6	Yes	2	6	1	Yes	
43	Hennepin County Medical Center, Minneapolis	36.0	0.7	10	1	2	1	2	1	2	1	385	2.4	No	2	7	1	Yes	
44	University of Illinois Medical Center at Chicago	35.9	1.4	9	2	2	2	1	1	3	2	265	1.8	No	2	6	1	Yes	
45	Tampa General Hospital	35.5	0.0	10	1	3	2	1	2	1	1	375	2.2	Yes	4	8	1	Yes	
45	Thomas Jefferson University Hospital, Philadelphia	35.5	1.0	7	3	2	3	2	2	2	3	463	2.2	Yes	4	8	1	Yes	
47	Harper University Hospital, Detroit	35.4	0.0	9	3	3	3	2	2	2	2	640	1.3	No	4	8	1	Yes	
47	Indiana University Health, Indianapolis	35.4	0.6	8	1	2	2	2	1	1	2	703	2.2	Yes	4	8	1	Yes	
49	Mercy Hospital, Coon Rapids, Minn.	35.3	0.0	10	2	1	1	2	2	2	1	181	2.0	No	3	8	1	Yes	
50	Georgetown University Hospital, Washington, D.C.	35.1	1.8	8	1	2	1	2	1	2	1	205	1.5	Yes	4	7	1	Yes	
50	Union Memorial Hospital, Baltimore	35.1	0.6	9	2	3	1	2	2	2	2	429	1.6	No	4	8	1	Yes	

Final IHQ-Driven Rankings 2011-12—Ear, Nose & Throat

2011 Rank	Hospital	U.S. News Score	Reputation (%)	Survival score (Best=10)	Patient safety score (Best=3)	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	Patient volume	Nurse staffing score (higher is better)	Nurse Magnet hospital	Technology score (Best=1)	Patient services score (Best=8)	Trauma center	Intensivists	Current AHA responder	
1	Johns Hopkins Hospital, Baltimore	100.0	56.1	10	2	3	1	2	3	2	1	201	2.1	Yes	1	8	Yes	1	Yes	
2	Massachusetts Eye and Ear Infirmary, Massachusetts General Hospital, Boston	82.5	29.6	8	2	3	1	2	3	2	1	336	2.1	Yes	1	8	Yes	1	Yes	
2	UPMC-University of Pittsburgh Medical Center	82.5	31.0	7	2	3	2	2	2	2	1	323	1.5	Yes	1	8	Yes	1	Yes	
4	Mayo Clinic, Rochester, Minn.	78.9	24.7	9	1	2	1	1	2	2	1	322	3.1	Yes	1	8	Yes	1	Yes	
5	University of Iowa Hospitals and Clinics, Iowa City	77.5	25.1	8	2	3	3	2	1	1	1	231	1.7	Yes	1	8	Yes	1	Yes	
6	University of Texas M.D. Anderson Cancer Center, Houston	76.9	22.1	10	1	3	1	1	1	2	2	414	2.0	Yes	1	8	No	1	Yes	
7	Hospital of the University of Pennsylvania, Philadelphia	73.1	20.5	8	2	2	2	2	2	2	2	278	1.8	Yes	1	8	Yes	1	Yes	
8	Cleveland Clinic	71.8	21.4	7	2	3	2	2	2	2	2	217	2.3	Yes	1	8	No	1	Yes	
9	University of Michigan Hospitals and Health Centers, Ann Arbor	65.9	15.7	6	2	3	1	1	2	2	2	304	2.6	No	1	8	Yes	1	Yes	
10	Barnes-Jewish Hospital/Washington University, St. Louis	65.7	14.9	7	2	2	2	2	1	2	2	280	2.1	Yes	1	8	Yes	1	Yes	
11	Ronald Reagan UCLA Medical Center, Los Angeles	62.8	11.2	9	2	2	2	1	1	3	2	251	3.0	Yes	1	8	Yes	1	Yes	
12	University of Washington Medical Center, Seattle	60.8	12.7	9	1	2	1	1	2	2	1	171	2.1	Yes	1	8	No	1	Yes	
13	Stanford Hospital and Clinics, Stanford, Calif.	59.3	11.0	8	1	2	1	1	3	1	1	149	2.6	Yes	1	8	Yes	1	Yes	
14	Vanderbilt University Medical Center, Nashville	57.9	9.1	8	2	2	1	2	1	2	2	240	2.1	Yes	1	8	Yes	1	Yes	
15	UCSF Medical Center, San Francisco	57.6	10.3	10	2	1	3	1	3	2	2	122	2.5	No	1	8	No	1	Yes	+4 S.D.s
16	Memorial Sloan-Kettering Cancer Center, New York	56.5	8.9	9	3	3	1	3	3	2	2	262	1.9	No	1	8	No	1	Yes	
17	Ohio State University Hospital, Columbus	56.3	7.3	8	1	2	2	1	2	1	1	477	2.1	Yes	1	8	Yes	1	Yes	
18	Mount Sinai Medical Center, New York	53.5	6.8	8	2	2	2	2	2	2	1	280	2.0	Yes	1	8	Yes	1	Yes	
19	New York-Presbyterian University Hospital of Columbia and Cornell, N.Y.	51.2	6.0	10	2	2	1	2	2	2	1	168	2.0	No	1	8	Yes	1	Yes	
20	University of North Carolina Hospitals, Chapel Hill	50.6	7.1	6	1	2	1	2	1	2	1	194	1.9	Yes	1	8	Yes	1	Yes	
21	University Hospital, Cincinnati	50.2	7.3	7	1	3	1	1	1	1	1	191	2.0	No	1	8	Yes	1	Yes	
22	Methodist Hospital, Houston	49.6	7.4	7	1	2	1	1	2	1	3	101	1.8	Yes	1	8	No	1	Yes	+3 S.D.s
23	Oregon Health and Science University, Portland	45.3	4.6	8	1	2	1	2	1	2	1	173	1.9	No	1	7	Yes	1	Yes	
24	NYU Langone Medical Center, New York	45.1	2.7	10	2	2	1	2	2	3	3	137	1.9	Yes	1	8	Yes	1	Yes	
25	Thomas Jefferson University Hospital, Philadelphia	44.1	2.3	8	3	2	3	2	2	2	3	272	2.2	Yes	1	8	Yes	1	Yes	
26	New York Eye and Ear Infirmary, N.Y.	44.0	2.7	10	3	2	2	3	3	2	1	23	1.3	Yes	1	8	Yes	0	Yes	
27	Duke University Medical Center, Durham, N.C.	43.6	3.3	7	2	2	1	2	2	2	3	161	2.0	Yes	1	8	Yes	1	Yes	
28	Northwestern Memorial Hospital, Chicago	42.8	2.4	10	2	2	1	1	2	2	3	87	1.5	Yes	1	8	Yes	1	Yes	
28	University Hospitals Case Medical Center, Cleveland	42.8	2.2	8	2	3	1	1	3	2	1	203	1.9	Yes	1	8	Yes	1	Yes	
30	University of Chicago Medical Center	42.3	2.1	8	2	2	2	1	2	2	1	156	2.6	Yes	1	8	Yes	1	Yes	+2 S.D.s
31	University of Kansas Hospital, Kansas City	42.0	1.6	9	2	3	1	1	1	2	3	185	2.1	Yes	1	8	Yes	1	Yes	
32	St. Vincent Medical Center, Los Angeles, Calif.	41.6	3.2	10	3	2	3	2	2	2	3	17	1.8	No	0	6	No	0	Yes	
33	Ochsner Medical Center, New Orleans	41.5	1.8	9	3	1	3	1	2	3	2	87	1.6	Yes	1	8	Yes	1	Yes	
34	University of Miami, Jackson Memorial Hospital	41.4	4.1	3	2	2	2	2	2	3	1	197	1.6	No	1	8	Yes	1	Yes	
35	Loyola University Medical Center, Maywood, Ill.	41.1	2.5	6	2	2	1	2	1	2	1	152	2.0	Yes	1	8	Yes	1	Yes	
36	University of Alabama Hospital at Birmingham	40.8	2.4	5	1	1	1	1	1	2	1	329	2.0	Yes	1	8	Yes	1	Yes	
37	Indiana University Health, Indianapolis	40.6	1.9	8	1	2	2	2	1	1	2	161	2.2	Yes	1	8	Yes	1	Yes	
38	University of Maryland Medical Center, Baltimore	40.5	0.9	10	2	1	2	1	2	3	1	211	2.0	Yes	1	8	Yes	1	Yes	
39	University of Virginia Medical Center, Charlottesville	40.3	3.9	2	2	1	1	2	2	2	1	151	1.9	Yes	1	8	Yes	1	Yes	
39	University of Wisconsin Hospital and Clinics, Madison	40.3	1.6	8	2	3	1	1	3	1	2	193	1.9	Yes	1	7	Yes	1	Yes	
41	Medical University of South Carolina, Charleston	39.7	1.9	9	2	2	3	2	2	2	3	223	2.1	No	1	7	Yes	0	Yes	
42	Froedtert Hospital, Milwaukee	38.9	1.2	8	2	1	2	1	3	3	1	135	2.0	Yes	1	8	Yes	1	Yes	
43	Emory University Hospital, Atlanta	38.7	1.7	9	2	2	3	3	2	2	2	197	2.1	No	1	8	No	1	Yes	
43	St. Luke's Episcopal Hospital, Houston	38.7	1.1	10	2	2	3	1	1	2	3	52	2.0	Yes	1	7	No	1	Yes	
45	Yale-New Haven Hospital, New Haven, Conn.	38.5	0.9	8	2	2	2	2	2	2	1	246	3.2	No	1	8	Yes	1	Yes	
46	Cedars-Sinai Medical Center, Los Angeles	38.4	0.7	9	3	3	3	2	2	2	2	83	2.4	Yes	1	8	Yes	1	Yes	
46	Rush University Medical Center, Chicago	38.4	1.0	9	1	2	2	1	2	1	1	171	2.0	Yes	1	8	Yes	1	Yes	
48	Henry Ford Hospital, Detroit	37.9	1.5	9	1	2	1	1	1	3	2	125	1.8	No	1	8	Yes	1	Yes	
49	University of Minnesota Medical Center, Fairview	37.7	0.6	9	2	3	2	2	2	2	1	107	2.0	Yes	1	8	Yes	1	Yes	
50	University of Utah Health Care, Salt Lake City	37.6	1.6	8	2	3	1	1	2	2	1	121	1.6	No	1	8	Yes	1	Yes	

Final IHQ-Driven Rankings 2011-12—Gastroenterology

2011 Rank	Hospital	U.S. News Score	Reputation (%)	Survival score (Best=10)	Patient safety score (Best=3)	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	Patient volume	Nurse staffing score (higher is better)	Nurse Magnet hospital	Technology score (Best=7)	Patient services score (Best=8)	Trauma center	Intensivists	Current AHA responder	
1	Mayo Clinic, Rochester, Minn.	100.0	57.3	8	1	2	1	1	2	2	1	6,753	3.1	Yes	7	8	Yes	1	Yes	
2	Cleveland Clinic	89.6	42.4	9	2	3	2	2	2	2	2	5,594	2.3	Yes	7	8	No	1	Yes	
3	Johns Hopkins Hospital, Baltimore	79.8	25.8	10	2	3	1	2	3	2	1	3,271	2.1	Yes	7	8	Yes	1	Yes	
4	Massachusetts General Hospital, Boston	77.0	28.4	7	2	3	1	2	3	2	1	4,601	2.1	Yes	7	8	Yes	1	Yes	
5	Mount Sinai Medical Center, New York	59.7	13.4	6	2	2	2	2	2	2	1	5,751	2.0	Yes	7	8	Yes	1	Yes	
6	Ronald Reagan UCLA Medical Center, Los Angeles	59.4	12.3	8	2	2	2	1	1	3	2	2,004	3.0	Yes	7	8	Yes	1	Yes	
7	Hospital of the University of Pennsylvania, Philadelphia	58.4	14.8	5	2	2	2	2	2	2	2	2,414	1.8	Yes	7	8	Yes	1	Yes	
8	New York-Presbyterian University Hospital of Columbia and Cornell, N.Y.	56.1	9.7	8	2	2	1	2	2	2	1	6,826	2.0	No	7	8	Yes	1	Yes	
9	University of Chicago Medical Center	55.4	9.9	8	2	2	2	1	2	2	1	2,674	2.6	Yes	7	8	Yes	1	Yes	
10	UPMC-University of Pittsburgh Medical Center	54.4	9.7	7	2	3	2	2	2	2	1	7,591	1.5	Yes	7	8	Yes	1	Yes	
11	Cedars-Sinai Medical Center, Los Angeles	54.0	8.3	8	3	3	3	2	2	2	2	4,172	2.4	Yes	7	8	Yes	1	Yes	
12	Barnes-Jewish Hospital/Washington University, St. Louis	52.4	9.3	6	2	2	2	2	1	2	2	5,620	2.1	Yes	7	8	Yes	1	Yes	+4 S.D.s
13	Duke University Medical Center, Durham, N.C.	49.1	9.8	4	2	2	1	2	2	2	3	3,537	2.0	Yes	7	8	Yes	1	Yes	
14	UCSF Medical Center, San Francisco	48.0	7.9	7	2	1	3	1	3	2	2	2,217	2.5	No	7	8	No	1	Yes	
15	Brigham and Women's Hospital, Boston	47.9	5.8	9	2	3	1	2	2	2	1	3,439	2.2	No	6	8	Yes	1	Yes	
16	Indiana University Health, Indianapolis	46.6	5.9	7	1	2	2	2	1	1	2	5,173	2.2	Yes	7	8	Yes	1	Yes	
17	Vanderbilt University Medical Center, Nashville	46.1	6.3	7	2	2	1	2	1	2	2	2,576	2.1	Yes	7	8	Yes	1	Yes	
18	Northwestern Memorial Hospital, Chicago	45.6	6.0	7	2	2	1	1	2	2	3	3,061	1.5	Yes	7	8	Yes	1	Yes	
19	Cleveland Clinic Florida, Weston	44.2	3.2	10	2	3	3	3	1	2	1	1,383	1.4	No	4	7	No	1	Yes	+3 S.D.s
20	University of Michigan Hospitals and Health Centers, Ann Arbor	43.4	4.5	8	2	3	1	1	2	2	2	3,786	2.6	No	7	8	Yes	1	Yes	
21	Beth Israel Deaconess Medical Center, Boston	42.4	3.5	9	2	3	1	1	3	2	1	4,224	1.4	No	7	8	Yes	1	Yes	
22	Thomas Jefferson University Hospital, Philadelphia	40.5	3.4	7	3	2	3	2	2	2	3	3,535	2.2	Yes	7	8	Yes	1	Yes	
22	University of Texas M.D. Anderson Cancer Center, Houston	40.5	4.6	10	1	3	1	1	1	2	2	2,186	2.0	Yes	6	8	No	1	Yes	
24	Methodist Hospital, Houston	39.9	2.2	10	1	2	1	1	2	1	3	4,277	1.8	Yes	7	8	No	1	Yes	
25	University Hospitals Case Medical Center, Cleveland	39.4	1.4	10	2	3	1	1	3	2	1	3,234	1.9	Yes	7	8	Yes	1	Yes	
25	University of Minnesota Medical Center, Fairview	39.4	2.0	10	2	3	2	2	2	2	1	2,079	2.0	Yes	7	8	Yes	1	Yes	
27	Ochsner Medical Center, New Orleans	39.2	2.2	8	3	1	3	1	2	3	2	2,983	1.6	Yes	7	8	Yes	1	Yes	
28	Baylor University Medical Center, Dallas	39.1	2.7	7	2	1	1	2	2	2	2	3,941	2.1	Yes	7	8	Yes	1	Yes	
29	Yale-New Haven Hospital, New Haven, Conn.	38.9	1.9	9	2	2	2	2	2	2	1	3,573	3.2	No	7	8	Yes	1	Yes	
30	St. Luke's Episcopal Hospital, Houston	38.5	1.6	10	2	2	3	1	1	2	3	3,481	2.0	Yes	7	7	No	1	Yes	
31	Virginia Mason Medical Center, Seattle	37.9	3.4	8	2	3	2	1	3	2	1	2,672	1.1	No	6	8	No	1	Yes	
32	Froedtert Hospital, Milwaukee	37.7	2.0	8	2	1	2	1	3	3	1	2,391	2.0	Yes	7	8	Yes	1	Yes	
32	NYU Langone Medical Center, New York	37.7	2.4	7	2	2	1	2	2	3	3	2,326	1.9	Yes	7	8	Yes	1	Yes	
34	Lahey Clinic, Burlington, Mass.	37.0	3.4	6	2	2	1	1	1	3	1	2,802	1.3	Yes	7	8	Yes	1	Yes	+2 S.D.s
35	University of Kansas Hospital, Kansas City	36.5	0.7	10	2	3	1	1	1	2	3	1,754	2.1	Yes	7	8	Yes	1	Yes	
36	Medical University of South Carolina, Charleston	36.4	4.8	4	2	2	3	2	2	2	3	2,348	2.1	No	7	7	Yes	0	Yes	
37	University of Alabama Hospital at Birmingham	36.3	4.3	5	1	1	1	1	1	2	1	3,053	2.0	Yes	7	8	Yes	1	Yes	
38	Shands at the University of Florida, Gainesville	36.2	2.1	7	1	1	1	1	1	1	1	3,170	1.6	Yes	7	8	Yes	1	Yes	
39	Mayo Clinic, Jacksonville, Fla.	36.1	2.1	9	2	2	1	2	2	3	2	2,192	2.1	No	7	7	No	1	Yes	
40	Mayo Clinic, Phoenix	35.4	1.8	8	2	3	2	1	3	2	2	2,333	3.2	No	7	8	No	1	Yes	
40	Stanford Hospital and Clinics, Stanford, Calif.	35.4	2.9	6	1	2	1	1	3	1	1	2,299	2.6	Yes	7	8	Yes	1	Yes	
42	University of Wisconsin Hospital and Clinics, Madison	35.0	1.0	9	2	3	1	1	3	1	2	2,613	1.9	Yes	7	7	Yes	1	Yes	
43	Allegheny General Hospital, Pittsburgh	34.5	1.1	8	3	3	3	3	2	2	2	2,815	2.1	No	7	8	Yes	1	Yes	
44	University of North Carolina Hospitals, Chapel Hill	34.1	3.3	4	1	2	1	2	1	2	1	2,717	1.9	Yes	7	8	Yes	1	Yes	
45	Florida Hospital, Orlando	33.9	1.3	6	2	2	1	2	2	2	2	9,297	1.7	No	7	8	No	1	Yes	
46	North Shore University Hospital, Manhasset, N.Y.	33.6	1.7	6	2	2	2	2	2	2	2	6,703	1.8	No	6	8	Yes	1	Yes	
47	John Muir Medical Center, Walnut Creek, Calif.	33.4	0.0	9	2	3	2	2	2	2	2	1,739	2.1	Yes	6	8	Yes	1	Yes	
48	Lehigh Valley Hospital, Allentown, Pa.	33.3	0.0	9	2	3	1	1	2	3	1	3,828	2.1	Yes	5	8	Yes	1	Yes	
48	Piedmont Hospital, Atlanta	33.3	0.0	10	3	2	1	2	3	3	3	2,509	1.8	No	7	8	No	1	Yes	
48	USC University Hospital, Los Angeles	33.3	1.0	9	2	3	2	1	1	2	2	993	2.2	No	7	8	No	1	Yes	

Final IHQ-Driven Rankings 2011-12—Geriatrics

2011 Rank	Hospital	U.S. News Score	Reputation (%)	Survival score (Best=10)	Patient safety score (Best=3)	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	Patient volume	Nurse staffing score (higher is better)	Nurse Magnet hospital	NIA Alzheimer's center	Patient services score (Best=9)	Intensivists	Current AHA responder	
1	Mount Sinai Medical Center, New York	100.0	39.8	7	2	2	2	2	2	2	1	21,062	2.0	Yes	Yes	9	1	Yes	
2	Ronald Reagan UCLA Medical Center, Los Angeles	95.0	33.5	8	2	2	2	1	1	3	2	5,514	3.0	Yes	Yes	9	1	Yes	
3	Johns Hopkins Hospital, Baltimore	91.8	26.7	10	2	3	1	2	3	2	1	7,726	2.1	Yes	Yes	9	1	Yes	
4	Massachusetts General Hospital, Boston	74.4	16.1	8	2	3	1	2	3	2	1	18,709	2.1	Yes	Yes	9	1	Yes	
5	Duke University Medical Center, Durham, N.C.	68.7	15.0	7	2	2	1	2	2	2	3	10,152	2.0	Yes	Yes	9	1	Yes	
6	Mayo Clinic, Rochester, Minn.	67.0	11.6	8	1	2	1	1	2	2	1	23,256	3.1	Yes	Yes	9	1	Yes	
7	Cleveland Clinic	65.9	11.1	10	2	3	2	2	2	2	2	16,696	2.3	Yes	No	9	1	Yes	
8	New York-Presbyterian University Hospital of Columbia and Cornell, N.Y.	64.8	10.2	9	2	2	1	2	2	2	1	30,532	2.0	No	Yes	9	1	Yes	
9	UPMC-University of Pittsburgh Medical Center	64.0	11.8	7	2	3	2	2	2	2	1	25,136	1.5	Yes	Yes	9	1	Yes	
10	Yale-New Haven Hospital, New Haven, Conn.	57.5	9.7	8	2	2	2	2	2	2	1	14,267	3.2	No	No	8	1	Yes	
11	University of Michigan Hospitals and Health Centers, Ann Arbor	54.4	7.3	8	2	3	1	1	2	2	2	9,179	2.6	No	Yes	9	1	Yes	
12	UCSF Medical Center, San Francisco	53.5	8.1	7	2	1	3	1	3	2	2	6,570	2.5	No	Yes	9	1	Yes	
13	Johns Hopkins Bayview Medical Center, Baltimore	52.3	9.7	7	2	3	2	2	2	1	2	7,950	1.3	No	No	9	1	Yes	+4 S.D.s
14	Hospital of the University of Pennsylvania, Philadelphia	50.3	5.7	9	2	2	2	2	2	2	2	7,519	1.8	Yes	Yes	9	1	Yes	
15	NYU Langone Medical Center, New York	49.1	3.0	10	2	2	1	2	2	3	3	13,208	1.9	Yes	Yes	9	1	Yes	
16	Hospital for Special Surgery, New York	46.0	0.0	10	3	3	3	2	3	2	3	4,098	2.5	Yes	No	9	1	Yes	
17	Beth Israel Deaconess Medical Center, Boston	45.9	5.6	8	2	3	1	1	3	2	1	16,505	1.4	No	No	9	1	Yes	
17	Rush University Medical Center, Chicago	45.9	3.0	10	1	2	2	1	2	1	1	8,063	2.0	Yes	Yes	9	1	Yes	
19	Barnes-Jewish Hospital/Washington University, St. Louis	45.3	3.8	8	2	2	2	2	1	2	2	14,978	2.1	Yes	Yes	9	1	Yes	
20	University of Washington Medical Center, Seattle	44.1	4.2	8	1	2	1	1	2	2	1	3,194	2.1	Yes	Yes	9	1	Yes	
21	St. Louis University Hospital	43.3	8.8	5	1	2	1	2	1	1	1	3,898	1.5	No	No	9	0	Yes	
22	Brigham and Women's Hospital, Boston	42.9	3.3	8	2	3	1	2	2	2	1	12,645	2.2	No	Yes	9	1	Yes	+3 S.D.s
23	Methodist Hospital, Houston	42.0	2.8	9	1	2	1	1	2	1	3	16,508	1.8	Yes	No	8	1	Yes	
23	University Hospitals Case Medical Center, Cleveland	42.0	2.9	9	2	3	1	1	3	2	1	12,506	1.9	Yes	No	9	1	Yes	
25	Indiana University Health, Indianapolis	40.1	2.2	8	1	2	2	2	1	1	2	13,479	2.2	Yes	Yes	9	1	Yes	
26	Beaumont Hospital, Royal Oak, Mich.	39.9	2.2	8	2	2	2	2	2	1	2	33,303	1.6	Yes	No	9	1	Yes	
27	Wesley Woods Geriatric Hospital of Emory University, Atlanta	39.5	3.1	7	2	2	3	3	2	2	2	10,187	2.1	No	Yes	9	1	Yes	
28	Montefiore Medical Center, New York	39.3	3.8	7	2	2	2	1	1	2	2	26,480	1.2	No	No	9	1	Yes	
29	Northwestern Memorial Hospital, Chicago	38.2	1.4	8	2	2	1	1	2	2	3	10,091	1.5	Yes	Yes	9	1	Yes	
30	USC University Hospital, Los Angeles	37.8	1.2	10	2	3	2	1	1	2	2	1,723	2.2	No	Yes	9	1	Yes	
31	University of Wisconsin Hospital and Clinics, Madison	37.6	2.1	8	2	3	1	1	3	1	2	6,523	1.9	Yes	Yes	8	1	Yes	
32	Hackensack University Medical Center, Hackensack, N.J.	37.2	2.0	7	3	2	3	2	3	2	2	18,785	2.6	Yes	No	9	1	Yes	
33	Boston Medical Center	36.9	4.1	7	1	3	1	2	2	1	1	5,767	1.2	No	Yes	7	0	Yes	
34	University of Chicago Medical Center	36.6	1.9	8	2	2	2	1	2	2	1	5,831	2.6	Yes	No	9	1	Yes	
35	St. Francis Hospital, Roslyn, N.Y.	36.0	0.5	10	2	1	2	2	3	2	3	13,211	2.0	Yes	No	9	1	Yes	
36	University of Alabama Hospital at Birmingham	35.8	2.6	6	1	1	1	1	1	2	1	7,475	2.0	Yes	Yes	9	1	Yes	
37	St. Luke's Episcopal Hospital, Houston	35.5	1.1	9	2	2	3	1	1	2	3	11,563	2.0	Yes	No	6	1	Yes	
38	North Shore University Hospital, Manhasset, N.Y.	35.0	2.4	6	2	2	2	2	2	2	2	34,256	1.8	No	No	9	1	Yes	+2 S.D.s
39	Ochsner Medical Center, New Orleans	34.8	1.0	9	3	1	3	1	2	3	2	9,704	1.6	Yes	No	8	1	Yes	
40	Cedars-Sinai Medical Center, Los Angeles	34.4	0.5	8	3	3	3	2	2	2	2	18,620	2.4	Yes	No	9	1	Yes	
41	Banner Good Samaritan Medical Center, Phoenix	34.0	0.3	9	2	3	2	2	2	2	1	7,692	2.3	Yes	Yes	8	1	Yes	
42	Mount Sinai Medical Center, Miami Beach, Fla.	33.7	0.5	9	2	1	3	2	2	2	2	11,797	1.6	No	Yes	8	1	Yes	
43	Harper University Hospital, Detroit	33.5	0.0	10	3	3	3	2	2	2	2	5,170	1.3	No	No	9	1	Yes	
44	Stanford Hospital and Clinics, Stanford, Calif.	33.3	2.4	6	1	2	1	1	3	1	1	8,458	2.6	Yes	No	8	1	Yes	
44	Tampa General Hospital	33.3	1.7	7	1	3	2	1	2	1	1	8,200	2.2	Yes	No	9	1	Yes	
46	University Medical Center, Tucson, Ariz.	33.1	0.4	8	2	2	2	1	2	3	1	4,623	2.3	Yes	Yes	8	1	Yes	
47	Lehigh Valley Hospital, Allentown, Pa.	33.0	0.5	8	2	3	1	1	2	3	1	19,995	2.1	Yes	No	9	1	Yes	
47	Thomas Jefferson University Hospital, Philadelphia	33.0	1.0	7	3	2	3	2	2	2	3	13,290	2.2	Yes	No	9	1	Yes	
47	University of Maryland Medical Center, Baltimore	33.0	1.8	7	2	1	2	1	2	3	1	5,137	2.0	Yes	No	9	1	Yes	
47	Washington Hospital Center, Washington, D.C.	33.0	1.6	9	1	2	1	2	2	1	1	12,390	1.4	No	No	7	1	Yes	

Final IHQ-Driven Rankings 2011-12—Gynecology

2011 Rank	Hospital	U.S. News Score	Reputation (%)	Survival score (Best=10)	Patient safety score (Best=3)	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	Patient volume	Nurse staffing score (higher is better)	Nurse Magnet hospital	Technology score (Best=5)	Patient services score (Best=9)	Intensivists	Current AHA responder	
1	Mayo Clinic, Rochester, Minn.	100.0	27.6	10	1	2	1	1	2	2	1	622	3.1	Yes	5	9	1	Yes	
2	Johns Hopkins Hospital, Baltimore	97.1	27.8	10	2	3	1	2	3	2	1	184	2.1	Yes	5	9	1	Yes	
3	Brigham and Women's Hospital, Boston	91.7	22.1	10	2	3	1	2	2	2	1	399	2.2	No	5	9	1	Yes	
4	Cleveland Clinic	89.7	21.7	9	2	3	2	2	2	2	2	350	2.3	Yes	5	9	1	Yes	
5	Massachusetts General Hospital, Boston	80.1	15.4	10	2	3	1	2	3	2	1	279	2.1	Yes	5	9	1	Yes	
6	University of Texas M.D. Anderson Cancer Center, Houston	78.3	15.3	9	1	3	1	1	1	2	2	291	2.0	Yes	5	9	1	Yes	
7	Magee-Womens Hospital of UPMC, Pittsburgh	74.6	12.5	9	3	3	3	2	2	2	1	521	1.4	No	5	9	1	Yes	
8	Memorial Sloan-Kettering Cancer Center, New York	74.0	11.6	10	3	3	1	3	3	2	2	453	1.9	No	5	8	1	Yes	
9	Duke University Medical Center, Durham, N.C.	73.1	12.0	9	2	2	1	2	2	2	3	256	2.0	Yes	5	9	1	Yes	
10	New York-Presbyterian University Hospital of Columbia and Cornell, N.Y.	70.4	11.0	9	2	2	1	2	2	2	1	298	2.0	No	5	9	1	Yes	
10	UCSF Medical Center, San Francisco	70.4	10.6	10	2	1	3	1	3	2	2	201	2.5	No	5	9	1	Yes	
12	University of Michigan Hospitals and Health Centers, Ann Arbor	64.4	8.9	8	2	3	1	1	2	2	2	216	2.6	No	5	9	1	Yes	
13	Ronald Reagan UCLA Medical Center, Los Angeles	63.9	6.6	10	2	2	2	1	1	3	2	108	3.0	Yes	5	9	1	Yes	+4 S.D.s
14	Stanford Hospital and Clinics, Stanford, Calif.	61.3	7.0	9	1	2	1	1	3	1	1	169	2.6	Yes	5	9	1	Yes	
15	Hospital of the University of Pennsylvania, Philadelphia	60.7	6.4	9	2	2	2	2	2	2	2	175	1.8	Yes	5	9	1	Yes	
16	Northwestern Memorial Hospital, Chicago	59.2	5.6	10	2	2	1	1	2	2	3	173	1.5	Yes	5	9	1	Yes	
16	Yale-New Haven Hospital, New Haven, Conn.	59.2	5.2	9	2	2	2	2	2	2	1	458	3.2	No	5	9	1	Yes	
18	Barnes-Jewish Hospital/Washington University, St. Louis	56.9	4.2	9	2	2	2	2	1	2	2	447	2.1	Yes	5	9	1	Yes	+3 S.D.s
19	Women and Infants Hospital of Rhode Island, Providence	55.9	5.1	9	2	3	2	2	1	2	1	380	2.1	No	5	9	0	Yes	
20	University of Alabama Hospital at Birmingham	54.2	4.4	8	1	1	1	1	1	2	1	430	2.0	Yes	5	9	1	Yes	
21	Parkland Memorial Hospital, Dallas	53.9	5.8	9	2	3	2	1	2	3	1	57	1.8	No	1	8	1	Yes	
22	Inova Fairfax Hospital, Falls Church, Va.	53.8	3.7	10	1	2	1	1	2	2	1	258	2.1	Yes	5	9	1	Yes	
23	Cedars-Sinai Medical Center, Los Angeles	53.3	3.4	8	3	3	3	2	2	2	2	295	2.4	Yes	5	9	1	Yes	
24	University of Texas Southwestern Medical Center, Dallas	53.1	5.1	8	2	2	3	1	2	2	1	114	1.7	No	5	9	0	Yes	
25	Ohio State University Hospital, Columbus	51.9	3.3	8	1	2	2	1	2	1	1	431	2.1	Yes	5	9	1	Yes	
26	Emory University Hospital, Atlanta	51.2	2.8	10	2	2	3	3	2	2	2	139	2.1	No	5	9	1	Yes	
26	Mount Sinai Medical Center, New York	51.2	3.1	9	2	2	2	2	2	2	1	282	2.0	Yes	5	9	1	Yes	
28	University of California, Irvine Medical Center, Orange	50.6	3.3	8	2	2	1	1	2	3	1	105	2.5	Yes	5	9	1	Yes	
28	University of Washington Medical Center, Seattle	50.6	2.6	10	1	2	1	1	2	2	1	258	2.1	Yes	5	9	1	Yes	
30	Florida Hospital, Orlando	50.1	2.3	9	2	2	1	2	2	2	2	613	1.7	No	5	9	1	Yes	
30	University of North Carolina Hospitals, Chapel Hill	50.1	3.3	8	1	2	1	2	1	2	1	277	1.9	Yes	5	9	1	Yes	
32	University of Rochester Medical Center, Rochester, N.Y.	49.2	2.6	10	1	1	2	2	1	2	1	55	1.8	Yes	5	9	1	Yes	
33	Rush University Medical Center, Chicago	49.0	1.9	10	1	2	2	1	2	1	1	404	2.0	Yes	4	9	1	Yes	
34	USC University Hospital, Los Angeles	48.7	2.6	10	2	3	2	1	1	2	2	11	2.2	No	5	9	1	Yes	+2 S.D.s
35	Mayo Clinic, Phoenix	47.7	1.7	10	2	3	2	1	3	2	2	138	3.2	No	5	8	1	Yes	
36	Banner Good Samaritan Medical Center, Phoenix	47.4	2.3	8	2	3	2	2	2	2	1	189	2.3	Yes	4	9	1	Yes	
36	University Hospitals Case Medical Center, Cleveland	47.4	1.4	10	2	3	1	1	3	2	1	315	1.9	Yes	5	9	1	Yes	
38	Harper University Hospital, Detroit	46.4	2.0	10	3	3	3	2	2	2	2	56	1.3	No	5	9	1	Yes	
39	University of Chicago Medical Center	46.3	1.9	8	2	2	2	1	2	2	1	156	2.6	Yes	5	9	1	Yes	
40	Ochsner Medical Center, New Orleans	46.2	1.6	8	3	1	3	1	2	3	2	179	1.6	Yes	5	9	1	Yes	
41	Dartmouth-Hitchcock Medical Center, Lebanon, N.H.	46.0	1.2	10	2	3	1	1	2	2	1	207	2.6	Yes	5	9	1	Yes	
42	Georgetown University Hospital, Washington, D.C.	45.8	2.9	7	1	2	1	2	1	2	1	52	1.5	Yes	5	8	1	Yes	
42	NYU Langone Medical Center, New York	45.8	2.0	8	2	2	1	2	2	3	3	134	1.9	Yes	5	9	1	Yes	
44	University of Virginia Medical Center, Charlottesville	45.3	1.2	9	2	1	1	2	2	2	1	303	1.9	Yes	5	9	1	Yes	
45	Tampa General Hospital	45.1	1.9	8	1	3	2	1	2	1	1	177	2.2	Yes	5	9	1	Yes	
46	Washington Hospital Center, Washington, D.C.	45.0	2.8	7	1	2	1	2	2	1	1	234	1.4	No	5	9	1	Yes	
47	Thomas Jefferson University Hospital, Philadelphia	44.8	1.7	7	3	2	3	2	2	2	3	93	2.2	Yes	5	9	1	Yes	
47	University of Utah Health Care, Salt Lake City	44.8	1.1	10	2	3	1	1	2	2	1	145	1.6	No	5	9	1	Yes	
49	Vanderbilt University Medical Center, Nashville	44.2	0.9	9	2	2	1	2	1	2	2	216	2.1	Yes	5	9	1	Yes	
49	Wake Forest Baptist Medical Center, Winston-Salem, N.C.	44.2	1.5	7	2	1	3	1	1	2	3	271	1.8	Yes	5	9	1	Yes	

Final IHQ-Driven Rankings 2011-12—Nephrology

2011 Rank	Hospital	U.S. News Score	Reputation (%)	Survival score (Best=10)	Patient safety score (Best=3)	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	Patient volume	Nurse staffing score (higher is better)	Nurse Magnet hospital	Technology score (Best=7)	Patient services score (Best=8)	Trauma center	Intensivists	Current AHA responder	
1	Mayo Clinic, Rochester, Minn.	100.0	37.5	8	1	2	1	1	2	2	1	2,256	3.1	Yes	7	8	Yes	1	Yes	
2	Cleveland Clinic	98.1	31.6	10	2	3	2	2	2	2	2	2,480	2.3	Yes	7	8	No	1	Yes	
3	Johns Hopkins Hospital, Baltimore	95.8	29.8	10	2	3	1	2	3	2	1	1,499	2.1	Yes	7	8	Yes	1	Yes	
4	Massachusetts General Hospital, Boston	94.5	34.0	7	2	3	1	2	3	2	1	1,390	2.1	Yes	7	8	Yes	1	Yes	
5	New York-Presbyterian University Hospital of Columbia and Cornell, N.Y.	94.0	29.4	8	2	2	1	2	2	2	1	3,592	2.0	No	7	8	Yes	1	Yes	
6	Brigham and Women's Hospital, Boston	87.9	29.2	7	2	3	1	2	2	2	1	1,191	2.2	No	7	8	Yes	1	Yes	
7	Ronald Reagan UCLA Medical Center, Los Angeles	84.8	18.7	10	2	2	2	1	1	3	2	1,189	3.0	Yes	7	8	Yes	1	Yes	
8	UCSF Medical Center, San Francisco	72.5	14.8	9	2	1	3	1	3	2	2	1,373	2.5	No	7	8	No	1	Yes	
9	Barnes-Jewish Hospital/Washington University, St. Louis	65.7	10.3	8	2	2	2	2	1	2	2	3,067	2.1	Yes	7	8	Yes	1	Yes	
9	Duke University Medical Center, Durham, N.C.	65.7	10.9	8	2	2	1	2	2	2	3	1,463	2.0	Yes	7	8	Yes	1	Yes	
11	University of Washington Medical Center, Seattle	62.5	9.4	10	1	2	1	1	2	2	1	789	2.1	Yes	7	8	No	1	Yes	
12	Vanderbilt University Medical Center, Nashville	61.4	8.5	8	2	2	1	2	1	2	2	1,619	2.1	Yes	7	8	Yes	1	Yes	
13	Hospital of the University of Pennsylvania, Philadelphia	60.8	9.1	8	2	2	2	2	2	2	2	1,077	1.8	Yes	7	8	Yes	1	Yes	+4 S.D.s
14	Wake Forest Baptist Medical Center, Winston-Salem, N.C.	56.1	6.2	8	2	1	3	1	1	2	3	2,292	1.8	Yes	7	8	Yes	1	Yes	
15	UPMC-University of Pittsburgh Medical Center	55.5	5.7	9	2	3	2	2	2	2	1	2,135	1.5	Yes	7	8	Yes	1	Yes	
16	University of Colorado Hospital, Aurora	55.3	6.5	9	1	2	1	1	2	2	1	741	1.7	Yes	7	7	Yes	1	Yes	
17	Cedars-Sinai Medical Center, Los Angeles	54.4	5.1	9	3	3	3	2	2	2	2	1,514	2.4	Yes	7	8	Yes	1	Yes	
18	Emory University Hospital, Atlanta	53.6	8.0	6	2	2	3	3	2	2	2	1,463	2.1	No	7	8	No	1	Yes	
19	University of Minnesota Medical Center, Fairview	52.7	4.2	10	2	3	2	2	2	2	1	943	2.0	Yes	7	8	Yes	1	Yes	
20	Beth Israel Deaconess Medical Center, Boston	51.1	4.9	9	2	3	1	1	3	2	1	1,759	1.4	No	7	8	Yes	1	Yes	
21	Stanford Hospital and Clinics, Stanford, Calif.	50.9	5.3	8	1	2	1	1	3	1	1	778	2.6	Yes	7	8	Yes	1	Yes	
22	University of Alabama Hospital at Birmingham	50.7	4.9	8	1	1	1	1	1	2	1	2,199	2.0	Yes	7	8	Yes	1	Yes	
23	Baylor University Medical Center, Dallas	49.9	4.6	8	2	1	1	2	2	2	2	1,571	2.1	Yes	7	8	Yes	1	Yes	
24	University of Wisconsin Hospital and Clinics, Madison	49.6	2.8	10	2	3	1	1	3	1	2	1,583	1.9	Yes	7	7	Yes	1	Yes	
25	Mount Sinai Medical Center, New York	49.3	3.9	8	2	2	2	2	2	2	1	2,313	2.0	Yes	7	8	Yes	1	Yes	+3 S.D.s
26	University of Michigan Hospitals and Health Centers, Ann Arbor	49.2	3.4	9	2	3	1	1	2	2	2	1,953	2.6	No	7	8	Yes	1	Yes	
27	University of Maryland Medical Center, Baltimore	47.9	1.5	10	2	1	2	1	2	3	1	1,206	2.0	Yes	7	8	Yes	1	Yes	
28	University of Chicago Medical Center	47.0	2.6	9	2	2	2	1	2	2	1	1,189	2.6	Yes	7	8	Yes	1	Yes	
29	Mayo Clinic, Phoenix	46.9	2.7	10	2	3	2	1	3	2	2	890	3.2	No	7	8	No	1	Yes	
30	Memorial Hermann-Texas Medical Center, Houston	46.8	3.1	10	2	2	3	2	1	2	3	1,005	2.1	No	7	8	Yes	1	Yes	
31	Northwestern Memorial Hospital, Chicago	46.2	2.4	9	2	2	1	1	2	2	3	1,725	1.5	Yes	7	8	Yes	1	Yes	
32	University of Texas Southwestern Medical Center, Dallas	45.8	4.3	8	2	2	3	1	2	2	1	1,001	1.7	No	7	8	No	0	Yes	
33	Methodist Hospital, Houston	45.3	2.2	10	1	2	1	1	2	1	3	1,770	1.8	Yes	7	8	No	1	Yes	
34	UC San Diego Medical Center	45.2	2.5	10	2	3	1	2	1	2	1	730	1.9	No	7	8	Yes	1	Yes	
35	Shands at the University of Florida, Gainesville	43.6	2.2	9	1	1	1	1	1	1	1	1,570	1.6	Yes	7	8	Yes	1	Yes	
35	Yale-New Haven Hospital, New Haven, Conn.	43.6	2.4	8	2	2	2	2	2	2	1	1,547	3.2	No	7	8	Yes	1	Yes	
37	University of Kansas Hospital, Kansas City	43.4	0.9	10	2	3	1	1	1	2	3	976	2.1	Yes	7	8	Yes	1	Yes	
38	University of Iowa Hospitals and Clinics, Iowa City	43.2	1.5	10	2	3	3	2	1	1	1	985	1.7	Yes	7	8	Yes	1	Yes	
39	Ohio State University Hospital, Columbus	43.0	1.7	9	1	2	2	1	2	1	1	2,287	2.1	Yes	7	8	Yes	1	Yes	
40	Tampa General Hospital	42.8	1.0	10	1	3	2	1	2	1	1	1,384	2.2	Yes	7	8	Yes	1	Yes	
41	University of North Carolina Hospitals, Chapel Hill	42.7	3.8	6	1	2	1	2	1	2	1	1,285	1.9	Yes	7	8	Yes	1	Yes	
42	University of Rochester Medical Center, Rochester, N.Y.	42.6	2.5	8	1	1	2	2	1	2	1	1,085	1.8	Yes	7	8	Yes	1	Yes	
43	Henry Ford Hospital, Detroit	41.9	2.6	8	1	2	1	1	1	3	2	2,295	1.8	No	7	8	Yes	1	Yes	
44	NYU Langone Medical Center, New York	41.2	1.8	8	2	2	1	2	2	3	3	774	1.9	Yes	7	8	Yes	1	Yes	
45	University of Miami, Jackson Memorial Hospital	40.8	2.4	7	2	2	2	2	2	3	1	1,790	1.6	No	7	8	Yes	1	Yes	+2 S.D.s
46	University Hospital, San Antonio	39.7	1.0	10	1	3	1	1	1	1	2	509	1.6	Yes	4	6	Yes	1	Yes	
47	Rush University Medical Center, Chicago	38.7	0.0	10	1	2	2	1	2	1	1	1,017	2.0	Yes	7	8	Yes	1	Yes	
47	University Hospitals Case Medical Center, Cleveland	38.7	0.8	9	2	3	1	1	3	2	1	1,339	1.9	Yes	7	8	Yes	1	Yes	
49	Virginia Commonwealth University Medical Center, Richmond	38.3	0.3	10	2	2	3	1	1	2	1	843	2.4	Yes	7	7	Yes	1	Yes	
50	Froedtert Hospital, Milwaukee	38.2	0.4	9	2	1	2	1	3	3	1	1,156	2.0	Yes	7	8	Yes	1	Yes	
50	Tulane University Hospital and Clinic, New Orleans	38.2	2.2	9	2	2	2	1	1	3	1	634	1.7	No	5	5	No	1	Yes	
50	University of California, Irvine Medical Center, Orange	38.2	0.9	9	2	2	1	1	2	3	1	534	2.5	Yes	7	8	Yes	1	Yes	

Final IHQ-Driven Rankings 2011-12—Neurology & Neurosurgery

2011 Rank	Hospital	U.S. News Score	Reputation (%)	Survival score (Best=10)	Patient safety score (Best=3)	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	Patient volume	Nurse staffing score (higher is better)	Nurse Magnet hospital	Epilepsy center	NIA Alzheimer's center	Technology score (Best=5)	Patient services score (Best=9)	Trauma center	Intensivists	Current AHA responder	
1	Johns Hopkins Hospital, Baltimore	100.0	52.9	9	2	3	1	2	3	2	1	3,237	2.1	Yes	Yes	Yes	5	9	Yes	1	Yes	
2	Mayo Clinic, Rochester, Minn.	96.8	62.4	6	1	2	1	1	2	2	1	4,738	3.1	Yes	Yes	Yes	5	9	Yes	1	Yes	
3	Massachusetts General Hospital, Boston	92.0	53.8	6	2	3	1	2	3	2	1	4,839	2.1	Yes	Yes	Yes	5	9	Yes	1	Yes	
4	New York-Presbyterian University Hospital of Columbia and Cornell, N.Y.	88.7	38.0	8	2	2	1	2	2	2	1	5,803	2.0	No	Yes	Yes	5	9	Yes	1	Yes	
5	UCSF Medical Center, San Francisco	84.9	40.4	7	2	1	3	1	3	2	2	3,138	2.5	No	Yes	Yes	5	9	No	1	Yes	
6	Cleveland Clinic	82.6	34.5	8	2	3	2	2	2	2	2	4,748	2.3	Yes	Yes	No	5	9	No	1	Yes	
7	Ronald Reagan UCLA Medical Center, Los Angeles	64.2	17.6	6	2	2	2	1	1	3	2	1,817	3.0	Yes	Yes	Yes	5	9	Yes	1	Yes	
8	Duke University Medical Center, Durham, N.C.	60.0	14.3	5	2	2	1	2	2	2	3	3,507	2.0	Yes	Yes	Yes	5	9	Yes	1	Yes	
9	St. Joseph's Hospital and Medical Center, Phoenix	58.8	16.2	4	2	3	3	2	1	2	1	5,097	1.7	No	Yes	Yes	5	9	Yes	1	Yes	
10	UPMC-University of Pittsburgh Medical Center	58.3	10.9	6	2	3	2	2	2	2	1	8,440	1.5	Yes	Yes	Yes	5	9	Yes	1	Yes	
11	NYU Langone Medical Center, New York	57.4	5.3	10	2	2	1	2	2	3	3	2,424	1.9	Yes	Yes	Yes	5	9	Yes	1	Yes	
12	Northwestern Memorial Hospital, Chicago	56.3	7.4	8	2	2	1	1	2	2	3	2,535	1.5	Yes	Yes	Yes	5	9	Yes	1	Yes	+4 S.D.s
13	Barnes-Jewish Hospital/Washington University, St. Louis	54.5	9.3	6	2	2	2	2	1	2	2	4,789	2.1	Yes	Yes	Yes	5	9	Yes	1	Yes	
14	Hospital of the University of Pennsylvania, Philadelphia	53.9	10.4	5	2	2	2	2	2	2	2	2,297	1.8	Yes	Yes	Yes	5	9	Yes	1	Yes	
15	Rush University Medical Center, Chicago	52.4	5.8	9	1	2	2	1	2	1	1	3,122	2.0	Yes	Yes	Yes	5	9	Yes	1	Yes	
15	University of Washington Medical Center, Seattle	52.4	5.5	9	1	2	1	1	2	2	1	849	2.1	Yes	Yes	Yes	5	9	No	1	Yes	
17	Brigham and Women's Hospital, Boston	49.9	8.2	5	2	3	1	2	2	2	1	3,487	2.2	No	Yes	Yes	5	9	Yes	1	Yes	
18	Emory University Hospital, Atlanta	49.8	6.2	7	2	2	3	3	2	2	2	4,081	2.1	No	Yes	Yes	5	9	No	1	Yes	
19	Hospital for Special Surgery, New York	49.3	0.0	10	3	3	3	2	3	2	3	1,068	2.5	Yes	No	No	5	9	Yes	1	Yes	+3 S.D.s
20	Stanford Hospital and Clinics, Stanford, Calif.	47.8	7.2	6	1	2	1	1	3	1	1	2,491	2.6	Yes	Yes	No	5	9	Yes	1	Yes	
21	University of Iowa Hospitals and Clinics, Iowa City	47.2	4.8	9	2	3	3	2	1	1	1	3,340	1.7	Yes	Yes	No	5	9	Yes	1	Yes	
22	Methodist Hospital, Houston	47.1	3.6	9	1	2	1	1	2	1	3	4,905	1.8	Yes	Yes	No	5	8	No	1	Yes	
22	Mount Sinai Medical Center, New York	47.1	3.8	8	2	2	2	2	2	2	1	3,251	2.0	Yes	No	Yes	5	9	Yes	1	Yes	
24	Cedars-Sinai Medical Center, Los Angeles	46.8	3.3	8	3	3	3	2	2	2	2	3,711	2.4	Yes	Yes	No	5	9	Yes	1	Yes	
25	USC University Hospital, Los Angeles	46.0	1.5	10	2	3	2	1	1	2	2	814	2.2	No	Yes	Yes	5	9	No	1	Yes	
26	Harper University Hospital, Detroit	43.3	0.6	10	3	3	3	2	2	2	2	1,466	1.3	No	Yes	No	5	9	No	1	Yes	
27	University of Michigan Hospitals and Health Centers, Ann Arbor	43.2	5.1	5	2	3	1	1	2	2	2	2,478	2.6	No	Yes	Yes	5	9	Yes	1	Yes	
28	Shands at the University of Florida, Gainesville	42.3	4.9	6	1	1	1	1	1	1	1	3,470	1.6	Yes	Yes	No	5	9	Yes	1	Yes	
29	University of Chicago Medical Center	42.0	2.5	8	2	2	2	1	2	2	1	1,552	2.6	Yes	Yes	No	5	9	Yes	1	Yes	
30	Abbott Northwestern Hospital, Minneapolis	41.5	0.5	9	2	2	2	2	2	2	1	4,059	2.2	Yes	Yes	No	5	9	Yes	1	Yes	+2 S.D.s
31	University of Texas Southwestern Medical Center, Dallas	40.1	1.4	9	2	2	3	1	2	2	1	2,065	1.7	No	Yes	Yes	5	9	No	0	Yes	
32	University of Alabama Hospital at Birmingham	39.7	3.5	5	1	1	1	1	1	2	1	3,460	2.0	Yes	Yes	Yes	5	9	Yes	1	Yes	
33	Indiana University Health, Indianapolis	39.5	2.2	6	1	2	2	2	1	1	2	4,406	2.2	Yes	Yes	Yes	5	9	Yes	1	Yes	
33	University of Miami, Jackson Memorial Hospital	39.5	3.6	5	2	2	2	2	2	3	1	2,804	1.6	No	Yes	Yes	5	9	Yes	1	Yes	
35	University of Virginia Medical Center, Charlottesville	39.3	6.0	4	2	1	1	2	2	2	1	3,818	1.9	Yes	Yes	No	5	9	Yes	1	Yes	
36	University of Minnesota Medical Center, Fairview	39.0	1.2	8	2	3	2	2	2	2	1	1,561	2.0	Yes	Yes	No	5	9	Yes	1	Yes	
37	Vanderbilt University Medical Center, Nashville	38.8	1.8	7	2	2	1	2	1	2	2	2,784	2.1	Yes	Yes	No	5	9	Yes	1	Yes	
38	Henry Ford Hospital, Detroit	38.6	1.5	8	1	2	1	1	1	3	2	3,603	1.8	No	Yes	No	5	9	Yes	1	Yes	
39	Loyola University Medical Center, Maywood, Ill.	38.3	1.7	7	2	2	1	2	1	2	1	1,678	2.0	Yes	Yes	No	4	9	Yes	1	Yes	
39	Yale-New Haven Hospital, New Haven, Conn.	38.3	3.3	5	2	2	2	2	2	2	1	2,453	3.2	No	Yes	No	5	9	Yes	1	Yes	
41	Beth Israel Deaconess Medical Center, Boston	38.1	3.2	6	2	3	1	1	3	2	1	3,363	1.4	No	Yes	No	5	9	Yes	1	Yes	
41	St. Francis Hospital, Roslyn, N.Y.	38.1	0.6	9	2	1	2	2	3	2	3	1,002	2.0	Yes	No	No	5	9	Yes	1	Yes	
43	Columbia Regional Hospital, Columbia, Mo.	37.8	0.0	10	3	3	3	2	3	3	1	464	2.0	No	No	No	4	7	No	0	Yes	
44	Montefiore Medical Center, New York	37.6	1.7	7	2	2	2	1	1	2	2	3,935	1.2	No	Yes	No	5	9	No	1	Yes	
45	Ohio State University Hospital, Columbus	37.1	2.5	6	1	2	2	1	2	1	1	2,816	2.1	Yes	Yes	No	5	9	Yes	1	Yes	
46	New England Baptist Hospital, Boston	37.0	0.0	10	3	2	3	3	3	1	3	656	1.5	No	No	No	3	8	No	0	Yes	
47	University Hospitals Case Medical Center, Cleveland	36.8	1.0	7	2	3	1	1	3	2	1	3,561	1.9	Yes	Yes	No	5	9	Yes	1	Yes	
48	Thomas Jefferson University Hospital, Philadelphia	36.5	2.7	4	3	2	3	2	2	2	3	4,207	2.2	Yes	Yes	No	5	9	Yes	1	Yes	
48	University of Rochester Medical Center, Rochester, N.Y.	36.5	2.2	6	1	1	2	2	1	2	1	3,012	1.8	Yes	Yes	No	5	9	Yes	1	Yes	
50	University of Colorado Hospital, Aurora	36.2	0.8	8	1	2	1	1	2	2	1	1,263	1.7	Yes	Yes	No	5	8	Yes	1	Yes	

Final IHQ-Driven Rankings 2011-12—Orthopedics

2011 Rank	Hospital	U.S. News Score	Reputation (%)	Survival score (Best=10)	Patient safety score (Best=3)	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	Patient volume	Nurse staffing score (higher is better)	Nurse Magnet hospital	Technology score (Best=2)	Patient services score (Best=7)	Trauma center	Intensivists	Current AHA responder	
1	Hospital for Special Surgery, New York	100.0	47.6	10	3	3	3	2	3	2	3	8,248	2.5	Yes	2	7	Yes	1	Yes	
2	Mayo Clinic, Rochester, Minn.	94.9	49.7	10	1	2	1	1	2	2	1	6,139	3.1	Yes	2	7	Yes	1	Yes	
3	Massachusetts General Hospital, Boston	75.7	28.9	9	2	3	1	2	3	2	1	2,913	2.1	Yes	2	7	Yes	1	Yes	
4	Cleveland Clinic	71.3	24.7	9	2	3	2	2	2	2	2	3,237	2.3	Yes	2	7	No	1	Yes	
5	Johns Hopkins Hospital, Baltimore	65.2	19.6	8	2	3	1	2	3	2	1	1,080	2.1	Yes	2	7	Yes	1	Yes	
6	Duke University Medical Center, Durham, N.C.	58.0	15.4	7	2	2	1	2	2	2	3	2,453	2.0	Yes	2	7	Yes	1	Yes	
7	UPMC-University of Pittsburgh Medical Center	56.9	13.0	8	2	3	2	2	2	2	1	4,728	1.5	Yes	2	7	Yes	1	Yes	
8	Rush University Medical Center, Chicago	54.1	9.3	10	1	2	2	1	2	1	1	3,141	2.0	Yes	1	7	Yes	1	Yes	
9	Barnes-Jewish Hospital/Washington University, St. Louis	53.8	10.1	9	2	2	2	2	1	2	2	2,964	2.1	Yes	2	7	Yes	1	Yes	
10	Hospital for Joint Diseases, NYU Langone Medical Center, New York	53.5	9.8	9	2	2	1	2	2	3	3	2,960	1.9	Yes	2	7	Yes	1	Yes	
11	Harborview Medical Center, Seattle	52.9	13.5	7	2	2	2	2	2	2	1	1,147	2.4	No	2	6	Yes	1	Yes	
12	University of Iowa Hospitals and Clinics, Iowa City	51.1	8.9	10	2	3	3	2	1	1	1	1,711	1.7	Yes	2	7	Yes	1	Yes	
13	Hospital of the University of Pennsylvania, Philadelphia	48.7	9.4	8	2	2	2	2	2	2	2	591	1.8	Yes	2	7	Yes	1	Yes	+4 S.D.s
14	Thomas Jefferson University Hospital, Philadelphia	46.7	6.1	9	3	2	3	2	2	2	3	3,252	2.2	Yes	2	7	Yes	1	Yes	
15	Stanford Hospital and Clinics, Stanford, Calif.	45.3	7.0	8	1	2	1	1	3	1	1	2,324	2.6	Yes	2	6	Yes	1	Yes	
16	New York-Presbyterian University Hospital of Columbia and Cornell, N.Y.	44.0	6.3	9	2	2	1	2	2	2	1	2,642	2.0	No	2	7	Yes	1	Yes	
17	Northwestern Memorial Hospital, Chicago	43.5	4.2	10	2	2	1	1	2	2	3	2,136	1.5	Yes	2	7	Yes	1	Yes	
17	University of Washington Medical Center, Seattle	43.5	6.5	9	1	2	1	1	2	2	1	1,136	2.1	Yes	1	7	No	1	Yes	
19	Ronald Reagan UCLA Medical Center, Los Angeles	43.4	8.4	5	2	2	2	1	1	3	2	331	3.0	Yes	2	7	Yes	1	Yes	
20	Brigham and Women's Hospital, Boston	41.9	6.0	8	2	3	1	2	2	2	1	2,495	2.2	No	2	7	Yes	1	Yes	
21	UCSF Medical Center, San Francisco	41.5	5.3	9	2	1	3	1	3	2	2	1,885	2.5	No	2	7	No	1	Yes	+3 S.D.s
22	Cedars-Sinai Medical Center, Los Angeles	39.2	2.5	9	3	3	3	2	2	2	2	3,444	2.4	Yes	2	7	Yes	1	Yes	
23	University Hospitals Case Medical Center, Cleveland	38.0	2.5	10	2	3	1	1	3	2	1	2,244	1.9	Yes	2	7	Yes	1	Yes	
24	USC University Hospital, Los Angeles	37.8	2.9	10	2	3	2	1	1	2	2	646	2.2	No	2	7	No	1	Yes	
25	University of Michigan Hospitals and Health Centers, Ann Arbor	37.5	3.9	8	2	3	1	1	2	2	2	1,601	2.6	No	2	7	Yes	1	Yes	
26	Texas Orthopedic Hospital, Houston	37.4	2.9	10	3	3	3	3	3	2	3	1,321	1.7	No	0	5	No	0	Yes	
27	Tampa General Hospital	36.5	1.9	10	1	3	2	1	2	1	1	3,271	2.2	Yes	2	7	Yes	1	Yes	
28	University of Maryland Medical Center, Baltimore	36.4	3.6	7	2	1	2	1	2	3	1	1,178	2.0	Yes	2	7	Yes	1	Yes	
29	Methodist Hospitals of Memphis	36.1	4.5	6	2	1	2	1	1	2	3	2,344	1.7	No	2	6	Yes	1	Yes	
30	Methodist Hospital, Houston	35.6	1.9	10	1	2	1	1	2	1	3	4,044	1.8	Yes	2	7	No	1	Yes	
31	New England Baptist Hospital, Boston	35.2	1.5	10	3	2	3	3	3	1	3	3,054	1.5	No	2	7	No	0	Yes	
32	Parkland Memorial Hospital, Dallas	34.6	4.1	8	2	3	2	1	2	3	1	391	1.8	No	1	6	Yes	1	Yes	
33	Beaumont Hospital, Royal Oak, Mich.	34.3	1.4	8	2	2	2	2	2	1	2	6,580	1.6	Yes	2	7	Yes	1	Yes	
34	Union Memorial Hospital, Baltimore	32.9	1.2	10	2	3	1	2	2	2	2	1,883	1.6	No	1	7	Yes	1	Yes	
34	University of Minnesota Medical Center, Fairview	32.9	1.4	9	2	3	2	2	2	2	1	1,686	2.0	Yes	2	7	Yes	1	Yes	
36	Carolinas Medical Center, Charlotte, N.C.	32.8	2.7	7	2	1	3	1	3	2	1	1,984	1.9	No	2	7	Yes	1	Yes	
36	Ohio State University Hospital, Columbus	32.8	2.7	7	1	2	2	1	2	1	1	1,406	2.1	Yes	2	7	Yes	1	Yes	+2 S.D.s
38	Nebraska Orthopaedic Hospital, Omaha	32.2	0.9	10	3	3	3	3	3	2	1	1,029	2.1	No	1	3	No	0	Yes	
38	Ochsner Medical Center, New Orleans	32.2	1.4	8	3	1	3	1	2	3	2	1,454	1.6	Yes	2	7	Yes	1	Yes	
40	UMDNJ-University Hospital, Newark, N.J.	31.8	1.7	10	1	3	1	2	1	1	1	447	1.7	No	1	5	Yes	1	Yes	
41	Pennsylvania Hospital, Philadelphia	31.7	1.0	10	3	3	2	2	2	2	2	2,023	1.5	No	2	7	No	1	Yes	
42	Magee-Womens Hospital of UPMC, Pittsburgh	31.5	0.0	10	3	3	3	2	2	2	1	664	1.4	No	2	7	No	1	Yes	
43	Abbott Northwestern Hospital, Minneapolis	31.4	0.0	10	2	2	2	2	2	2	1	4,011	2.2	Yes	2	7	Yes	1	Yes	
43	University of Chicago Medical Center	31.4	2.0	7	2	2	2	1	2	2	1	748	2.6	Yes	2	7	Yes	1	Yes	
45	John Muir Medical Center, Walnut Creek, Calif.	31.3	0.5	9	2	3	2	2	2	2	2	2,241	2.1	Yes	2	6	Yes	1	Yes	
46	University of California, Davis Medical Center, Sacramento	31.2	1.4	9	1	2	1	1	2	2	1	1,165	2.7	No	2	7	Yes	1	Yes	
47	Vanderbilt University Medical Center, Nashville	31.0	1.7	7	2	2	1	2	1	2	2	1,582	2.1	Yes	2	7	Yes	1	Yes	
48	Indiana University Health, Indianapolis	30.8	1.8	7	1	2	2	2	1	1	2	2,345	2.2	Yes	2	7	Yes	1	Yes	
48	UC San Diego Medical Center	30.8	2.0	7	2	3	1	2	1	2	1	932	1.9	No	2	7	Yes	1	Yes	
50	Allegheny General Hospital, Pittsburgh	30.5	0.5	9	3	3	3	3	2	2	2	2,054	2.1	No	2	7	Yes	1	Yes	

Final IHQ-Driven Rankings 2011-12—Pulmonology

2011 Rank	Hospital	U.S. News Score	Reputation (%)	Survival score (Best=10)	Patient safety score (Best=3)	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	Patient volume	Nurse staffing score (higher is better)	Nurse Magnet hospital	Technology score (Best=6)	Patient services score (Best=8)	Trauma center	Intensivists	Current AHA responder	
1	National Jewish Health, Denver-University of Colorado Hospital, Aurora	100.0	63.6	8	1	2	1	1	2	2	1	1,789	1.7	Yes	6	7	Yes	1	Yes	
2	Mayo Clinic, Rochester, Minn.	87.4	39.5	8	1	2	1	1	2	2	1	5,678	3.1	Yes	6	8	Yes	1	Yes	
3	Cleveland Clinic	82.4	33.0	9	2	3	2	2	2	2	2	4,319	2.3	Yes	6	8	No	1	Yes	
4	Johns Hopkins Hospital, Baltimore	79.8	27.0	10	2	3	1	2	3	2	1	2,332	2.1	Yes	6	8	Yes	1	Yes	
5	Duke University Medical Center, Durham, N.C.	66.4	19.1	7	2	2	1	2	2	2	3	4,237	2.0	Yes	6	8	Yes	1	Yes	
6	UPMC-University of Pittsburgh Medical Center	65.3	18.2	6	2	3	2	2	2	2	1	8,038	1.5	Yes	6	8	Yes	1	Yes	
7	Massachusetts General Hospital, Boston	62.1	14.6	8	2	3	1	2	3	2	1	4,585	2.1	Yes	6	8	Yes	1	Yes	
8	Barnes-Jewish Hospital/Washington University, St. Louis	56.8	12.5	7	2	2	2	2	1	2	2	5,287	2.1	Yes	6	8	Yes	1	Yes	
9	Hospital of the University of Pennsylvania, Philadelphia	56.6	12.9	7	2	2	2	2	2	2	2	2,533	1.8	Yes	6	8	Yes	1	Yes	
10	New York-Presbyterian University Hospital of Columbia and Cornell, N.Y.	53.1	9.7	7	2	2	1	2	2	2	1	8,293	2.0	No	6	8	Yes	1	Yes	
11	Brigham and Women's Hospital, Boston	50.7	8.5	8	2	3	1	2	2	2	1	4,044	2.2	No	6	8	Yes	1	Yes	
12	UCSF Medical Center, San Francisco	50.2	10.4	6	2	1	3	1	3	2	2	2,222	2.5	No	6	8	No	1	Yes	
13	Ronald Reagan UCLA Medical Center, Los Angeles	49.9	7.3	8	2	2	2	1	1	3	2	1,825	3.0	Yes	6	8	Yes	1	Yes	
14	University of Michigan Hospitals and Health Centers, Ann Arbor	49.7	8.1	8	2	3	1	1	2	2	2	3,362	2.6	No	6	8	Yes	1	Yes	
15	Vanderbilt University Medical Center, Nashville	48.7	6.7	8	2	2	1	2	1	2	2	3,255	2.1	Yes	6	8	Yes	1	Yes	+4 S.D.s
16	UC San Diego Medical Center	48.0	7.8	7	2	3	1	2	1	2	1	1,816	1.9	No	6	8	Yes	1	Yes	
17	University of Washington Medical Center, Seattle	47.9	8.2	8	1	2	1	1	2	2	1	1,357	2.1	Yes	6	8	No	1	Yes	+3 S.D.s
18	University of Minnesota Medical Center, Fairview	41.1	2.7	10	2	3	2	2	2	2	1	2,289	2.0	Yes	6	8	Yes	1	Yes	
19	University of Chicago Medical Center	40.3	4.6	7	2	2	2	1	2	2	1	2,202	2.6	Yes	6	8	Yes	1	Yes	
20	University of Maryland Medical Center, Baltimore	39.7	2.9	9	2	1	2	1	2	3	1	1,962	2.0	Yes	6	8	Yes	1	Yes	
21	Thomas Jefferson University Hospital, Philadelphia	39.4	3.1	8	3	2	3	2	2	2	3	3,230	2.2	Yes	5	8	Yes	1	Yes	
22	Yale-New Haven Hospital, New Haven, Conn.	39.0	2.5	9	2	2	2	2	2	2	1	4,368	3.2	No	5	8	Yes	1	Yes	
23	University of Iowa Hospitals and Clinics, Iowa City	38.1	2.8	8	2	3	3	2	1	1	1	2,180	1.7	Yes	6	8	Yes	1	Yes	
24	Temple University Hospital, Philadelphia	37.2	3.5	7	2	1	2	2	2	3	3	2,516	1.7	No	6	8	Yes	1	Yes	
25	Ohio State University Hospital, Columbus	37.1	2.5	8	1	2	2	1	2	1	1	5,509	2.1	Yes	5	8	Yes	1	Yes	
25	University of Alabama Hospital at Birmingham	37.1	3.1	7	1	1	1	1	1	2	1	4,237	2.0	Yes	6	8	Yes	1	Yes	
27	Methodist Hospital, Houston	36.7	2.3	9	1	2	1	1	2	1	3	5,096	1.8	Yes	6	8	No	1	Yes	
28	Shands at the University of Florida, Gainesville	36.4	2.7	7	1	1	1	1	1	1	1	4,022	1.6	Yes	6	8	Yes	1	Yes	
29	University of Kansas Hospital, Kansas City	36.3	0.7	10	2	3	1	1	1	2	3	2,205	2.1	Yes	5	8	Yes	1	Yes	
30	Northwestern Memorial Hospital, Chicago	35.7	1.4	9	2	2	1	1	2	2	3	3,259	1.5	Yes	5	8	Yes	1	Yes	
30	Ochsner Medical Center, New Orleans	35.7	1.5	8	3	1	3	1	2	3	2	3,047	1.6	Yes	5	8	Yes	1	Yes	
32	USC University Hospital, Los Angeles	35.6	1.5	10	2	3	2	1	1	2	2	564	2.2	No	6	8	No	1	Yes	
33	University Hospitals Case Medical Center, Cleveland	34.9	1.4	8	2	3	1	1	3	2	1	3,396	1.9	Yes	5	8	Yes	1	Yes	
34	Harper University Hospital, Detroit	34.8	0.4	10	3	3	3	2	2	2	2	1,455	1.3	No	5	8	No	1	Yes	
35	University of Wisconsin Hospital and Clinics, Madison	34.6	0.9	9	2	3	1	1	3	1	2	2,500	1.9	Yes	6	7	Yes	1	Yes	+2 S.D.s
36	Beth Israel Deaconess Medical Center, Boston	34.3	2.2	7	2	3	1	1	3	2	1	4,454	1.4	No	5	8	Yes	1	Yes	
37	Indiana University Health, Indianapolis	33.9	0.7	9	1	2	2	2	1	1	2	5,919	2.2	Yes	6	8	Yes	1	Yes	
38	Stanford Hospital and Clinics, Stanford, Calif.	33.0	2.9	5	1	2	1	1	3	1	1	2,426	2.6	Yes	6	8	Yes	1	Yes	
39	Boston Medical Center	32.9	3.1	7	1	3	1	2	2	1	1	2,013	1.2	No	5	7	Yes	0	Yes	
40	Metro Health Medical Center, Cleveland	32.3	0.4	9	2	3	2	3	2	2	1	2,028	0.7	Yes	5	8	Yes	1	Yes	
40	University of North Carolina Hospitals, Chapel Hill	32.3	2.4	6	1	2	1	2	1	2	1	3,041	1.9	Yes	6	8	Yes	1	Yes	
42	Christ Hospital, Cincinnati	32.1	0.0	10	2	3	2	2	1	2	2	3,540	2.1	Yes	4	8	No	1	Yes	
42	Robert Wood Johnson University Hospital, New Brunswick, N.J.	32.1	1.9	7	1	1	1	2	2	2	2	3,094	2.3	Yes	5	8	Yes	1	Yes	
44	Froedtert Hospital, Milwaukee	32.0	0.0	9	2	1	2	1	3	3	1	2,856	2.0	Yes	5	8	Yes	1	Yes	
45	Rush University Medical Center, Chicago	31.9	0.8	9	1	2	2	1	2	1	1	2,433	2.0	Yes	5	8	Yes	1	Yes	
45	University Hospital, Cincinnati	31.9	0.7	9	1	3	1	1	1	1	1	2,466	2.0	No	5	8	Yes	1	Yes	
47	Cedars-Sinai Medical Center, Los Angeles	31.8	0.9	7	3	3	3	2	2	2	2	5,075	2.4	Yes	6	8	Yes	1	Yes	
47	Harborview Medical Center, Seattle	31.8	1.2	8	2	2	2	2	2	2	1	1,267	2.4	No	5	7	Yes	1	Yes	
47	NYU Langone Medical Center, New York	31.8	0.6	8	2	2	1	2	2	3	3	2,675	1.9	Yes	5	8	Yes	1	Yes	
50	Baylor University Medical Center, Dallas	31.7	0.9	7	2	1	1	2	2	2	2	5,191	2.1	Yes	6	8	Yes	1	Yes	

Final IHQ-Driven Rankings 2011-12—Urology

2011 Rank	Hospital	U.S. News Score	Reputation (%)	Survival score (Best=10)	Patient safety score (Best=3)	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	Patient volume	Nurse staffing score (higher is better)	Nurse Magnet hospital	Technology score (Best=5)	Patient services score (Best=9)	Trauma center	Intensivists	Current AHA responder	
1	Johns Hopkins Hospital, Baltimore	100.0	63.0	10	2	3	1	2	3	2	1	971	2.1	Yes	5	9	Yes	1	Yes	
2	Cleveland Clinic	96.9	62.6	9	2	3	2	2	2	2	2	1,254	2.3	Yes	5	9	No	1	Yes	
3	Mayo Clinic, Rochester, Minn.	87.3	40.8	9	1	2	1	1	2	2	1	1,290	3.1	Yes	5	9	Yes	1	Yes	
4	Ronald Reagan UCLA Medical Center, Los Angeles	79.8	28.3	10	2	2	2	1	1	3	2	689	3.0	Yes	5	9	Yes	1	Yes	
5	Memorial Sloan-Kettering Cancer Center, New York	71.6	22.7	9	3	3	1	3	3	2	2	851	1.9	No	5	8	No	1	Yes	
6	UCSF Medical Center, San Francisco	69.9	19.7	10	2	1	3	1	3	2	2	824	2.5	No	5	9	No	1	Yes	
7	New York-Presbyterian University Hospital of Columbia and Cornell, N.Y.	69.6	16.2	10	2	2	1	2	2	2	1	1,975	2.0	No	5	9	Yes	1	Yes	
8	Duke University Medical Center, Durham, N.C.	67.3	18.2	8	2	2	1	2	2	2	3	889	2.0	Yes	5	9	Yes	1	Yes	
9	Vanderbilt University Medical Center, Nashville	64.8	15.9	8	2	2	1	2	1	2	2	916	2.1	Yes	5	9	Yes	1	Yes	
10	University of Texas M.D. Anderson Cancer Center, Houston	63.3	18.0	9	1	3	1	1	1	2	2	589	2.0	Yes	5	9	No	1	Yes	
11	Massachusetts General Hospital, Boston	60.0	13.4	7	2	3	1	2	3	2	1	734	2.1	Yes	5	9	Yes	1	Yes	+4 S.D.s
12	University of Texas Southwestern Medical Center, Dallas	55.3	9.8	10	2	2	3	1	2	2	1	460	1.7	No	5	9	No	0	Yes	
13	Hospital of the University of Pennsylvania, Philadelphia	55.0	8.3	9	2	2	2	2	2	2	2	645	1.8	Yes	5	9	Yes	1	Yes	
14	Indiana University Health, Indianapolis	54.2	6.7	10	1	2	2	2	1	1	2	1,302	2.2	Yes	5	9	Yes	1	Yes	
15	University of Michigan Hospitals and Health Centers, Ann Arbor	54.1	7.9	8	2	3	1	1	2	2	2	1,261	2.6	No	5	9	Yes	1	Yes	
16	Stanford Hospital and Clinics, Stanford, Calif.	53.2	8.0	9	1	2	1	1	3	1	1	506	2.6	Yes	5	9	Yes	1	Yes	
17	Barnes-Jewish Hospital/Washington University, St. Louis	53.0	7.7	8	2	2	2	2	1	2	2	1,015	2.1	Yes	5	9	Yes	1	Yes	
18	USC University Hospital, Los Angeles	50.9	4.9	10	2	3	2	1	1	2	2	142	2.2	No	5	9	No	1	Yes	
19	Brigham and Women's Hospital, Boston	50.2	5.9	9	2	3	1	2	2	2	1	687	2.2	No	5	9	Yes	1	Yes	+3 S.D.s
20	Northwestern Memorial Hospital, Chicago	47.7	4.4	9	2	2	1	1	2	2	3	801	1.5	Yes	5	9	Yes	1	Yes	
21	University of Iowa Hospitals and Clinics, Iowa City	47.5	3.9	9	2	3	3	2	1	1	1	478	1.7	Yes	5	9	Yes	1	Yes	
22	Lahey Clinic, Burlington, Mass.	47.1	5.3	8	2	2	1	1	1	3	1	654	1.3	Yes	5	9	Yes	1	Yes	
23	Methodist Hospital, Houston	46.7	4.8	8	1	2	1	1	2	1	3	932	1.8	Yes	5	9	No	1	Yes	
23	Shands at the University of Florida, Gainesville	46.7	3.3	10	1	1	1	1	1	1	1	999	1.6	Yes	5	9	Yes	1	Yes	
25	NYU Langone Medical Center, New York	46.5	4.2	9	2	2	1	2	2	3	3	460	1.9	Yes	5	9	Yes	1	Yes	
26	UPMC-University of Pittsburgh Medical Center	45.9	3.6	8	2	3	2	2	2	2	1	1,248	1.5	Yes	5	9	Yes	1	Yes	
27	University of Alabama Hospital at Birmingham	45.1	2.7	9	1	1	1	1	1	2	1	1,044	2.0	Yes	5	9	Yes	1	Yes	
28	Henry Ford Hospital, Detroit	44.2	3.4	8	1	2	1	1	1	3	2	1,198	1.8	No	5	9	Yes	1	Yes	
29	University of Washington Medical Center, Seattle	43.6	1.7	10	1	2	1	1	2	2	1	491	2.1	Yes	5	9	No	1	Yes	
30	University of California, Irvine Medical Center, Orange	43.1	1.7	10	2	2	1	1	2	3	1	311	2.5	Yes	5	9	Yes	1	Yes	
31	St. Luke's Episcopal Hospital, Houston	43.0	2.0	10	2	2	3	1	1	2	3	654	2.0	Yes	5	7	No	1	Yes	
32	Emory University Hospital, Atlanta	42.4	2.1	9	2	2	3	3	2	2	2	809	2.1	No	5	9	No	1	Yes	
33	Baylor University Medical Center, Dallas	42.3	2.0	9	2	1	1	2	2	2	2	559	2.1	Yes	5	8	Yes	1	Yes	
33	University of Chicago Medical Center	42.3	2.4	8	2	2	2	1	2	2	1	663	2.6	Yes	5	9	Yes	1	Yes	+2 S.D.s
35	Mount Sinai Medical Center, New York	41.7	1.8	8	2	2	2	2	2	2	1	1,029	2.0	Yes	5	9	Yes	1	Yes	
36	Cedars-Sinai Medical Center, Los Angeles	41.5	1.1	8	3	3	3	2	2	2	2	1,049	2.4	Yes	5	9	Yes	1	Yes	
37	University of Minnesota Medical Center, Fairview	40.9	0.4	10	2	3	2	2	2	2	1	601	2.0	Yes	5	9	Yes	1	Yes	
37	Wake Forest Baptist Medical Center, Winston-Salem, N.C.	40.9	1.9	8	2	1	3	1	1	2	3	756	1.8	Yes	5	9	Yes	1	Yes	
39	Rush University Medical Center, Chicago	40.8	0.3	10	1	2	2	1	2	1	1	612	2.0	Yes	5	9	Yes	1	Yes	
39	Tampa General Hospital	40.8	0.7	10	1	3	2	1	2	1	1	785	2.2	Yes	5	9	Yes	1	Yes	
39	University of Rochester Medical Center, Rochester, N.Y.	40.8	0.9	10	1	1	2	2	1	2	1	719	1.8	Yes	5	9	Yes	1	Yes	
42	University of Wisconsin Hospital and Clinics, Madison	40.4	1.0	9	2	3	1	1	3	1	2	777	1.9	Yes	5	8	Yes	1	Yes	
43	University of Miami, Jackson Memorial Hospital	40.3	3.7	6	2	2	2	2	2	3	1	788	1.6	No	5	9	Yes	1	Yes	
44	Beaumont Hospital, Royal Oak, Mich.	40.2	1.1	8	2	2	2	2	2	1	2	1,164	1.6	Yes	5	9	Yes	1	Yes	
44	University of Maryland Medical Center, Baltimore	40.2	0.7	9	2	1	2	1	2	3	1	747	2.0	Yes	5	9	Yes	1	Yes	
46	Ohio State University Hospital, Columbus	40.1	0.7	9	1	2	2	1	2	1	1	1,288	2.1	Yes	5	9	Yes	1	Yes	
46	Yale-New Haven Hospital, New Haven, Conn.	40.1	0.3	10	2	2	2	2	2	2	1	819	3.2	No	5	9	Yes	1	Yes	
48	Thomas Jefferson University Hospital, Philadelphia	39.8	1.9	7	3	2	3	2	2	2	3	648	2.2	Yes	5	9	Yes	1	Yes	
49	Loyola University Medical Center, Maywood, Ill.	39.7	1.3	9	2	2	1	2	1	2	1	538	2.0	Yes	4	8	Yes	1	Yes	
49	University Hospitals Case Medical Center, Cleveland	39.7	1.0	9	2	3	1	1	3	2	1	685	1.9	Yes	5	9	Yes	1	Yes	

Appendix F

2011-12 Reputation-Only Rankings

Final Reputation-Only Rankings 2011-12—Ophthalmology

Rank	Hospital	Reputation (%)	
1	Bascom Palmer Eye Institute at the University of Miami	78.1	
2	Wilmer Eye Institute, Johns Hopkins Hospital, Baltimore	77.1	
3	Wills Eye Hospital, Philadelphia	68.7	+3 S.D.s
4	Massachusetts Eye and Ear Infirmary, Massachusetts General Hospital, Boston	37.0	
5	Jules Stein Eye Institute, UCLA Medical Center, Los Angeles	36.7	+2 S.D.s
6	University of Iowa Hospitals and Clinics, Iowa City	23.3	
7	Duke University Medical Center, Durham, N.C.	18.7	+1 S.D.
8	New York Eye and Ear Infirmary, N.Y.	12.1	
9	Doheny Eye Institute, USC University Hospital, Los Angeles	11.5	
10	UCSF Medical Center, San Francisco	10.6	
11	Cleveland Clinic	10.5	
12	Barnes-Jewish Hospital/Washington University, St. Louis	10.3	
13	Mayo Clinic, Rochester, Minn.	9.7	
14	Cullen Eye Institute-Baylor, Methodist Hospital, Houston	7.8	
15	Emory University Hospital, Atlanta	7.2	
16	W.K. Kellogg Eye Center, University of Michigan, Ann Arbor	6.1	
17	Hospital of the University of Pennsylvania, Philadelphia	5.9	
18	New York-Presbyterian University Hospital of Columbia and Cornell, N.Y.	5.5	

Final Reputation-Only Rankings 2011-12—Psychiatry

011 Rank	Hospital	Reputation (%)	
1	Johns Hopkins Hospital, Baltimore	42.1	
1	Massachusetts General Hospital, Boston	42.1	
3	McLean Hospital, Belmont, Mass.	38.0	
4	New York-Presbyterian University Hospital of Columbia and Cornell, N.Y.	29.8	
5	Menninger Clinic, Houston	28.8	
6	Sheppard and Enoch Pratt Hospital, Baltimore	26.1	
7	Resnick Neuropsychiatric Hospital at UCLA, Los Angeles	25.0	+3 S.D.s
8	UPMC-University of Pittsburgh Medical Center	21.4	
9	Mayo Clinic, Rochester, Minn.	18.5	+2 S.D.s
10	Yale-New Haven Hospital, New Haven, Conn.	14.7	
11	Austen Riggs Center, Stockbridge, Mass.	13.2	
12	Hospital of the University of Pennsylvania, Philadelphia	13.0	
13	Barnes-Jewish Hospital/Washington University, St. Louis	10.8	+1 S.D.
14	Stanford Hospital and Clinics, Stanford, Calif.	9.8	
15	Emory University Hospital, Atlanta	9.3	
16	Duke University Medical Center, Durham, N.C.	7.4	
17	Cleveland Clinic	6.7	
18	Mount Sinai Medical Center, New York	5.5	
19	UC San Diego Medical Center	5.3	
20	University of Iowa Hospitals and Clinics, Iowa City	5.2	
20	University of Michigan Hospitals and Health Centers, Ann Arbor	5.2	
22	NYU Langone Medical Center, New York	5.0	

Final Reputation-Only Rankings 2011-12—Rehabilitation

2011 Rank	Hospital	Reputation (%)	
1	Rehabilitation Institute of Chicago	81.8	
2	Kessler Institute for Rehabilitation, West Orange, N.J.	49.1	
3	University of Washington Medical Center, Seattle	41.5	
4	TIRR Memorial Hermann, Houston	36.2	
5	Spaulding Rehabilitation Hospital, Massachusetts General Hospital, Boston	35.6	+3 S.D.s
6	Mayo Clinic, Rochester, Minn.	33.2	
7	Craig Hospital, Englewood, Colo.	23.8	+2 S.D.s
8	Rusk Institute, NYU Langone Medical Center, New York	21.0	
9	Moss Rehab, Elkins Park, Pa.	17.2	+1 S.D.
10	Shepherd Center, Atlanta	13.7	
11	Ohio State University Hospital, Columbus	12.0	
12	Thomas Jefferson University Hospital, Philadelphia	10.2	
13	National Rehabilitation Hospital, Washington, D.C.	9.1	
14	Mount Sinai Medical Center, New York	8.0	
15	Johns Hopkins Hospital, Baltimore	7.0	
16	UPMC-University of Pittsburgh Medical Center	6.9	
17	University of Michigan Hospitals and Health Centers, Ann Arbor	6.4	
18	Rancho Los Amigos National Rehabilitation Center, Downey, Calif.	5.9	
19	Cleveland Clinic	5.7	

Final Reputation-Only Rankings 2011-12—Rheumatology

2011 Rank	Hospital	Reputation (%)	
1	Johns Hopkins Hospital, Baltimore	53.3	
2	Hospital for Special Surgery, New York	49.8	
3	Cleveland Clinic	49.4	
4	Mayo Clinic, Rochester, Minn.	48.3	+3 S.D.s
5	Brigham and Women's Hospital, Boston	26.4	+2 S.D.s
6	Ronald Reagan UCLA Medical Center, Los Angeles	21.6	
7	Massachusetts General Hospital, Boston	21.1	
8	Hospital for Joint Diseases, NYU Langone Medical Center, New York	17.4	
9	UCSF Medical Center, San Francisco	16.5	
10	UPMC-University of Pittsburgh Medical Center	15.9	+1 S.D.
11	University of Alabama Hospital at Birmingham	13.5	
12	Duke University Medical Center, Durham, N.C.	13.4	
13	Stanford Hospital and Clinics, Stanford, Calif.	10.1	
14	Barnes-Jewish Hospital/Washington University, St. Louis	8.7	
15	University of Michigan Hospitals and Health Centers, Ann Arbor	6.9	
16	New York-Presbyterian University Hospital of Columbia and Cornell, N.Y.	6.1	
17	University of Colorado Hospital, Aurora	5.5	
18	Northwestern Memorial Hospital, Chicago	5.3	
19	Hospital of the University of Pennsylvania, Philadelphia	5.0	

Appendix G

The 2011-12 Honor Roll

Honor Roll 2011-12

Rank	Hospital	Points	Specialties
1	Johns Hopkins Hospital, Baltimore	30	15
2	Massachusetts General Hospital, Boston	29	15
3	Mayo Clinic, Rochester, Minn.	28	15
4	Cleveland Clinic	26	13
5	Ronald Reagan UCLA Medical Center, Los Angeles	25	14
6	New York-Presbyterian University Hospital of Columbia and Cornell, N.Y.	22	12
7	UCSF Medical Center, San Francisco	20	11
8	Brigham and Women's Hospital, Boston	18	12
9	Duke University Medical Center, Durham, N.C.	18	10
10	Hospital of the University of Pennsylvania, Philadelphia	17	12
11	Barnes-Jewish Hospital/Washington University, St. Louis	16	11
12	UPMC-University of Pittsburgh Medical Center	14	8
13	University of Washington Medical Center, Seattle	13	9
14	University of Michigan Hospitals and Health Centers, Ann Arbor	10	6
14	Vanderbilt University Medical Center, Nashville	10	6
16	Mount Sinai Medical Center, New York	8	6
17	Stanford Hospital and Clinics, Stanford, Calif.	7	6