



turning knowledge into practice

2009 Methodology: “America’s Best Hospitals”

Emily McFarlane

Joe Murphy

Murrey G. Olmsted

Edward M. Drozd

Craig Hill



To Whom It May Concern:

U.S. News & World Report's "America's Best Hospitals" study is the sole and exclusive property of U.S. News & World Report, which owns all rights, including but not limited to copyright, in and to the attached data and material. Any party wishing to cite, reference, publish, or otherwise disclose the information contained herein may do so only with the prior written consent of U.S. News. Any U.S. News-approved reference or citation must identify the source as "U.S. News & World Report's America's Best Hospitals" and, with the exception of academic journals, must include the following credit line: "Data reprinted with permission from U.S. News & World Report." For permission to cite or use in any other way, contact permissions@usnews.com or send a written request to Permissions Department, c/o Mary Lu Meixell, U.S. News & World Report, 1050 Thomas Jefferson Street, NW, Washington, DC 20007-3837. For custom reprints, please contact Wright's Reprints at 877.419.5725 or email .

Table of Contents

I.	Introduction.....	1
A.	Index of Hospital Quality.....	2
	Structure.....	3
	Process	3
	Outcomes	4
B.	Reputation-Only Rankings.....	4
C.	Report Outline.....	4
II.	The Index of Hospital Quality	5
A.	Eligibility	5
B.	Structure.....	9
	AHA Annual Survey.....	9
	External Organizations	17
	Trimming	19
	Weighting.....	20
C.	Outcomes	20
	Mortality Methodology.....	23
	Mortality Scoring.....	25
	Recoding Mortality Values for Hospitals with Low Volume.....	25
D.	Process	26
	Sample for the 2009 Survey.....	26
	Survey Procedure.....	27
	Survey Response Weighting.....	30
E.	Patient-Safety Index.....	32
	Background.....	32
	Development of the Patient Safety Measure.....	32
F.	Calculation of the Index.....	34
III.	Reputation-Only Specialties.....	36
A.	Eligibility	36
B.	Process	37
C.	Calculation of the Rankings.....	37
IV.	The Honor Roll.....	37
V.	Summary of Changes, 2005–2009.....	38
VI.	Future Improvements.....	40
	Contact Information	40
VII.	References	41

List of Tables

Table 1. Minimum Discharges by Specialty.....	7
Table 2. Eligible Hospitals That Did Not Meet Minimum Discharge Criteria but Were Eligible under the Non-Zero Reputation Rule.....	7
Table 3. Key Technologies by Specialty	13
Table 4. Patient Services by Specialty	17
Table 5. Percentage (%) of Structural Score by Specialty.....	21
Table 6. Physician Sample Mapping	28
Table 7. Physician Survey Mailing Schedule	29
Table 8. Yearly Response Rate by Specialty (2007–2009)	30
Table 9. Response Rates by Region and Specialty, 2009.....	31
Table 10. Comparison of the AHRQ PSI Index and the Best Hospitals Patient-Safety Index	33
Table 11. Means and Standard Deviations for the IHQ-Driven Specialties	36
Table 12. Means and Standard Deviations for the Reputation-Only Specialties.....	37

List of Figures

Figure 1. Eligibility and Analysis Process for the IHQ-Driven Specialties	8
---	---

List of Appendices

Appendix A 2009 Sample Physician Questionnaire.....	A-1
Appendix B 2007–2008 Sample Physician Questionnaire.....	B-1
Appendix C Structural Variable Map	C-1
Appendix D 2009 Diagnosis Related Group (DRG) Groupings, by Specialty	D-1
Appendix E 2009 Changes to DRG Groupings for Mortality	E-1
Appendix F 2009 Index of Hospital Quality (IHQ) Scores, by Specialty.....	F-1
Appendix G 2009 Reputation-Only Rankings.....	G-1
Appendix H The 2009 Honor Roll.....	H-1

I. Introduction

For families faced with a serious or complex medical problem, the choice of hospital can be critical. Yet they had few tools or resources beyond a doctor's recommendation to inform their decision until 1990, when *U.S. News & World Report* introduced "America's Best Hospitals." Initially, the annual assessments took the form of alphabetized lists in 12 specialties, but in 1993 and thereafter, hospitals were ranked within each specialty. This year's "America's Best Hospitals" draws from a universe of 4,861 medical facilities.* In 12 of the 16 adult specialty rankings, hospitals receive a composite score that is based on data from multiple sources. ("America's 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 <http://health.usnews.com/sections/health/best-hospitals/index.html>.

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

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. For 2009, a new measure related to patient safety was introduced, and the basic eligibility requirements were modified, potentially increasing the number of rankable hospitals.

The roster of specialties has been revised over the years. The AIDS specialty was dropped in 1998, for example, when it became clear that the majority of 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 rankings in 2009.

* 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.

For 2009, hospitals are ranked in 16 adult specialties:

- Cancer
- Diabetes & Endocrine Disorders
- Digestive Disorders
- Ear, Nose, & Throat
- Geriatric Care
- Gynecology
- Heart & Heart Surgery
- Kidney Disorders
- Neurology & Neurosurgery
- Ophthalmology
- Orthopedics
- Psychiatry
- Rehabilitation
- Respiratory Disorders
- Rheumatology
- Urology

A. Index of Hospital Quality

Twelve of the 16 specialty rankings are data driven; that is, rankings in these specialties are based largely on hard data. The other four rankings are based solely on reputation among relevant physicians, derived from a physician survey.

The data-driven rankings assign a score (the Index of Hospital Quality [IHQ]) to hospitals in the following 12 specialties: Cancer; Diabetes & Endocrine Disorders; Digestive Disorders; Ear, Nose, & Throat; Geriatric Care; Gynecology; Heart & Heart Surgery; Kidney Disorders; Neurology & Neurosurgery; Orthopedics; Respiratory Disorders; 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 is widely accepted. In a hospital, *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* by which care is delivered, encompassing diagnosis, treatment, prevention, and patient education.

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).

These and other factors do not necessarily sort neatly into one of the three dimensions. 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 American Hospital Association (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

This score is based on data related to the structural characteristics of each medical specialty within a given hospital. These 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 2009 rankings is the most recent AHA Annual Survey Database from fiscal year (FY) 2007. 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 2007, 2008, and 2009. 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 2009 rankings, see *Appendix A*.) In 2007, 2008, and again in 2009, a sample of 200 board-certified physicians was selected in each specialty. In 2007 and 2009, the sample was selected from the American Medical Association (AMA) Physician Masterfile, a database of more than 850,000 physicians.[§] In 2008, the sample was selected from the American Board of Medical Specialties (ABMS) database.

The physician sample was stratified by census region (West, Northeast, South, and Midwest) and by specialty to ensure appropriate representation. The final, aggregated sample

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

includes both federal and nonfederal medical and osteopathic physicians residing 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 predicted and actual mortality rates using the All Patient Refined Diagnosis Related Group (APR-DRG) method created by 3M Health Information Systems.⁶ APR-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 (2005, 2006, and 2007) of Medicare reimbursement claims made by hospitals to CMS.

B. Reputation-Only Rankings

The second ranking approach is used for the remaining four specialties—Ophthalmology, Psychiatry, Rehabilitation, and Rheumatology—and ranking scores 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; the associated rankings are referred to 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 exhaustive review of the foundation, development, and use of the individual measures and the composite index, see “Best Hospitals: A Description of the Methodology for the Index of Hospital Quality.”⁷)
- **Section III** describes the process used to develop the rankings for the four reputation-only specialties.
- **Section IV** presents the Honor Roll, an additional classification that denotes excellence across a broad range of specialties.

- *Section V* summarizes the methodology changes from 2007 to 2009.
- *Section VI* describes improvements under consideration.

II. The 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 2009 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 4,861^{**} community hospitals included in the FY2007 AHA universe are considered automatically for Best Hospitals ranking; they do not have to submit an application.

There are two stages of eligibility criteria for the IHQ-driven specialties. Hospitals must satisfy the requirements of each stage to be eligible for ranking in a given specialty. The eligibility criteria have been slightly revised this year; now, hospitals with at least 200 hospital beds are eligible for the rankings.

Stage 1. A hospital must meet *any* of the following criteria:

- Be a member of the Council of Teaching Hospitals (COTH)
- Be affiliated with a medical school (American Medical Association or American Osteopathic Association)
- Have at least 200 hospital beds set up and staffed
- Make available at least four of eight important key technologies (see *Key Technologies*) and have at least 100 hospital beds set up and staffed

Hospitals that did not respond to the 2007 AHA Annual Survey remained eligible in our database. For hospitals that did not respond in 2007 but responded in 2006 and 2005, we used survey data from 2006. 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 2,139 hospitals passed through the first stage of the eligibility process.

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

Stage 2. To *remain* eligible, hospitals needed a specified number of discharges in a selection of specialty-specific DRGs submitted for CMS reimbursement in 2005, 2006, and 2007 combined. Through 2002, the threshold for determining eligibility included all discharges, regardless of the balance of medical to surgical discharges.^{††} Since 2002, that proportion has been specified for Cancer; Digestive Disorders; 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. Prior to the start of RTI's involvement in the rankings in 2005, the minimum number of surgical discharges in Heart & Heart Surgery was set to 500. For all hospitals meeting the minimum number of surgical discharges, a ratio of total discharges to surgical discharges was calculated. The median of this ratio was then multiplied by 500 to determine the minimum number of all discharges. To maintain consistency with prior years' rankings, this threshold was used again in 2009. Minimums for all specialties will be reviewed for future rankings and will be adjusted as needed. **Table 1** presents the discharge volume and the number of hospitals meeting the criteria for the IHQ-driven specialties. A total of 1,845 hospitals met the volume criteria in at least one specialty.

A hospital with volume below the minimum number was considered eligible if it had received at least one nomination in the most recent three physician surveys *and* had at least 10 total discharges in the specified DRGs in 2005, 2006, and 2007 combined.

Table 2 shows the number of hospitals that did not pass the minimum discharge criteria but were eligible in a specialty because they had a non-zero reputational score and at least 10 discharges. Table 2 also shows the total number of hospitals eligible in each specialty that met either the minimum discharge criteria or the non-zero reputational score criteria.

^{††} The exception was Heart & Heart Surgery, where surgical discharges alone determined the threshold for eligibility. Beginning in 2002, both medical and surgical discharges determined eligibility.

Table 1. Minimum Discharges by Specialty

Specialty	Minimum Total Discharges	Minimum Surgical Discharges	Hospitals Meeting Volume Eligibility
Cancer	325	92	912
Diabetes & Endocrine Disorders	382	0	1,052
Digestive Disorders	695	133	1,469
Ear, Nose, & Throat	18	4	1,252
Geriatric Care	3264	0	1,433
Gynecology	37	32	1,489
Heart & Heart Surgery ^a	980	500	767
Kidney Disorders	152	0	1,570
Neurology & Neurosurgery	446	129	1,224
Orthopedics	417	395	1,557
Respiratory Disorders	969	0	1,582
Urology	89	51	1,465

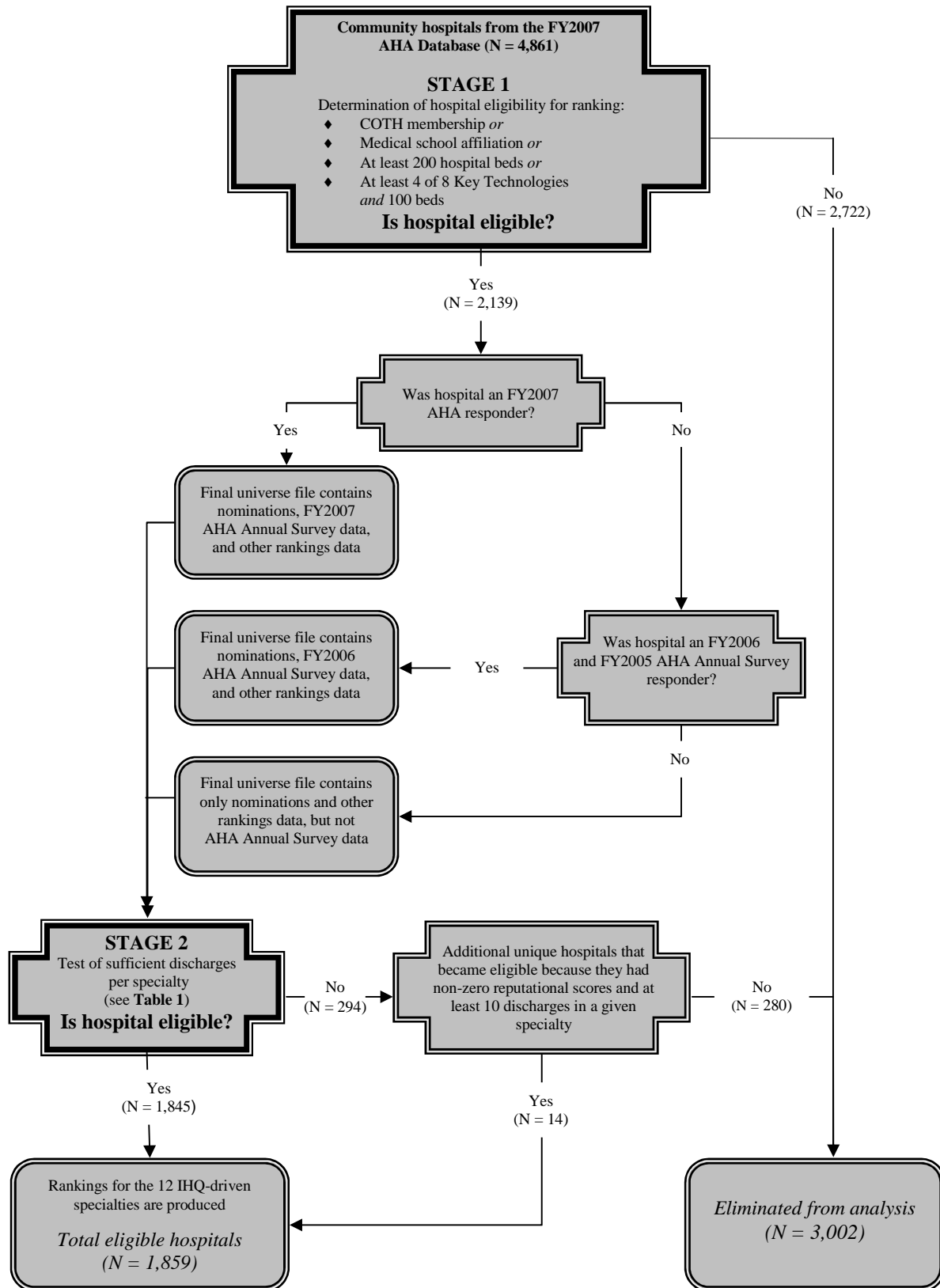
^a In addition to the discharge eligibility criteria, a hospital must offer cardiac intensive care, adult interventional cardiac catheterization, and adult cardiac surgery to be considered in this specialty.

Table 2. Eligible Hospitals That Did Not Meet Minimum Discharge Criteria but Were Eligible under the Non-Zero Reputation Rule

Specialty	Hospitals Meeting Non-Zero Reputation Eligibility	Total Eligible Hospitals
Cancer	12	924
Diabetes & Endocrine Disorders	16	1,068
Digestive Disorders	8	1,477
Ear, Nose, & Throat	4	1,256
Geriatric Care	17	1,450
Gynecology	15	1,504
Heart & Heart Surgery	0	767
Kidney Disorders	5	1,575
Neurology & Neurosurgery	8	1,232
Orthopedics	14	1,571
Respiratory Disorders	14	1,596
Urology	8	1,473

For the 2009 rankings, a total of 1,859 unique hospitals were deemed eligible for at least one of the IHQ-driven specialties under the full criteria. We then conducted separate analyses for each of the 12 IHQ-driven specialties. The top 50 hospitals in each IHQ specialty are published in the print edition of *U.S. News & World Report*. **Figure 1** illustrates the eligibility and analysis process for the IHQ-driven specialties, as described in the steps above.

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



B. Structure

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

For the 2009 index, most structural elements were derived from the 2007 AHA Annual Survey Database. Additional components came from external organizations including NCI, ANCC, the Foundation for the Accreditation of Cellular Therapy (FACT), the National Institute on Aging (NIA), the National Association of Epilepsy Centers (NAEC), and CMS.

AHA Annual Survey

The AHA has surveyed hospitals annually since 1946. The survey is the most comprehensive and dependable database of information on institutional healthcare,⁸ with an average annual response rate for the most recent five surveys 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 C*.) The following items taken from the AHA Annual Survey Database are used to develop the majority of the structural score for the IHQ.

Key Technologies

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 key technologies that are relevant in one or more specialties, 8 comprise the index that is one of the eligibility doorways. A hospital must provide at least 4 of the 8 to be eligible for ranking (see *Section II.A. Eligibility*).

For 2009, the roster of 15 technologies was altered in several ways: Infection isolation room was removed and listed as a patient service instead. Positron emission tomography/computed tomography (PET/CT) scanners replaced PET scanners. Robotic surgery was removed in Neurology & Neurosurgery; its use is currently limited to clinical trials in this specialty. Robotic surgery was added to Cancer, Kidney Disorders, and Gynecology; it is currently used to treat gynecologic cancers, kidney cancer, and vaginal prolapse; to perform hysterectomies; and to remove fibroids. Transplant services were expanded to include bone marrow, heart, liver, lung, and kidney transplants. In Geriatric Care, the technology index was removed; the technologies are specific not to older populations but to the conditions such patients present. Three measures were added to the Digestive Disorders specialty: endoscopic ultrasound, ablation of Barrett's esophagus, and endoscopic retrograde cholangiopancreatography (ERCP). Endoscopic ultrasound and ERCP have been adopted as part of the standard gastroenterology practice.

Brief descriptions of the key technologies in the 2009 index follow. The definitions are taken largely from the AHA Annual Survey, expanded if needed:

- **Ablation of Barrett's esophagus.** A premalignant condition that can lead to adenocarcinoma of the esophagus. The nonsurgical ablation of premalignant tissue in Barrett's esophagus is done by the application of thermal energy or light through an endoscope passed from the mouth into the esophagus.
- **Cardiac intensive care unit (ICU).** A part of the hospital in which support and treatment equipment are provided for patients who, because of congestive heart failure, open-heart surgery, or other serious cardiovascular conditions, require intense, comprehensive observation and care.
- **Computer-assisted orthopedic surgery (CAOS).** A group of orthopedic devices that produce three-dimensional images to assist in surgical procedures.
- **Diagnostic radioisotope services.** A procedure that uses radioactive isotopes (radiopharmaceuticals) as tracers to detect abnormal conditions or diseases.
- **Endoscopic retrograde cholangiopancreatography (ERCP).** A procedure in which a catheter is introduced through an endoscope into the bile and pancreatic ducts. Injection of contrast material permits detailed x-ray of these structures. The

procedure is used diagnostically as well as therapeutically to relieve obstruction or remove stones.

- **Endoscopic ultrasound.** A specially designed endoscope that incorporates an ultrasound transducer to obtain detailed images of organs in the chest and abdomen. The endoscope can be passed through the mouth or the anus. Combined with needle biopsy, the procedure can assist in diagnosis of disease and staging of cancer.
- **Full-field digital mammography (FFDM).** A procedure that combines x-ray generators and tubes used in analog screen-film mammography with a detector plate that converts the x-rays into a digital signal to help diagnose breast cancer.
- **Image-guided radiation therapy (IGRT).** An automated system that provides high-resolution x-ray images to pinpoint tumor sites, adjust patient positioning as necessary, and complete treatment within the standard treatment time slot, allowing for more effective cancer treatments.
- **Multislice spiral computed tomography (CT).** A procedure that uses x-rays and data processing to produce multiple narrow slices that can be recombined into detailed three-dimensional pictures of the internal anatomy.^{‡‡}
- **PET/CT scanner.** A machine that combines PET and CT capabilities in one device to provide metabolic functional information and images of physical structures in the body for diagnostics and monitoring chemotherapy, radiotherapy, and surgical planning.
- **Robotic surgery.** The use of computer-guided imaging and manipulative devices to perform surgery without the surgeon's direct intervention.
- **Shaped-beam radiation.** A noninvasive procedure that delivers a therapeutic dose of radiation to a defined area of a tumor to shrink or destroy cancerous cells.
- **Single-photon-emission CT.** A nuclear medicine imaging technology that combines radioactive material with CT imaging to highlight blood flow to tissues and organs.
- **Stereotactic radiosurgery.** A radiotherapy modality that delivers a high dosage of radiation to a discrete treatment area in as few as one treatment session. Variants include Gamma knife and Cyberknife.

^{‡‡} 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.

- **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 transplants, Digestive Disorders includes liver transplant, Heart & Heart Surgery includes heart transplant and tissue transplant, Kidney Disorders includes kidney transplant, Respiratory Disorders 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 2009.

Volume

The volume index reflects medical and surgical discharges in indicated specialty-specific DRG groupings submitted for CMS reimbursement in 2005, 2006, and 2007 combined. The list of DRGs in each specialty is displayed in **Appendix D**. Volume is part of the structural score in all 12 IHQ-driven specialties. 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**).

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 in full-time equivalents (FTEs) (e.g., two half-time nurses equal one FTE). Only nurses who have RN degrees from approved nursing schools and have 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.

Table 3. Key Technologies by Specialty

Technology	Key Technology Index	Cancer	Diabetes & Endocrine Disorders	Digestive Disorders	Ear, Nose, & Throat	Geriatric Care	Gynecology	Heart & Heart Surgery	Kidney Disorders	Neurology & Neurosurgery	Orthopedics	Respiratory Disorders	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	4	7	1	0	5	7^{§§}	7	5	2	6	5

● Included in the index for the specialty.

◆ New in the specialty for 2009.

§§ While only 6 measures are listed, hospitals can receive up to 7 points in Heart & Heart Surgery. Hospitals may receive up to 2 points for transplants, 1 point for heart transplant and 1 point for tissue transplant.

As with volume, calculation of nurse staffing uses an 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 the resultant high factor loadings supported inclusion of these data in Digestive Disorders; Ear, Nose, & Throat; Heart & Heart Surgery; Kidney Disorders; Neurology & Neurosurgery; Orthopedics; Respiratory Disorders; 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) level of the trauma center. 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 patient/community services) is updated each year. Its components encompass major conveniences for patients, such as translators; advanced degree or sophistication of care; an essential service 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 of the items are taken from the AHA Annual Survey.

For 2009, several changes were made: Rehabilitation care was removed from all specialties. The intent of the measure was to give credit for hospitals providing rehabilitation services to patients receiving inpatient care across disease areas; the AHA survey variable used

until 2009 indicates whether a hospital has a dedicated inpatient rehabilitation unit offering rehabilitation services. Because this is not the intent of the patient services variable, we removed the rehabilitation indicator. Wound-management services was added to all specialties. This service is offered on both an inpatient and outpatient basis, and the intensity of services required is highly variable depending on the characteristics of the wounds. Wounds can be the result of surgery, diabetes, poor circulation, improper seating, and immunocompromising conditions. Wound care focuses on the stages of healing, reducing and eliminating infections, and increasing function.

Brief descriptions of patient services included in the 2009 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 Geriatric Care 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.

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 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 the management of critically ill patients in hospital ICUs. Recent research indicates better outcomes are associated with the presence of intensivists.^{9,10} For 2009, an intensivists measure was added. 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	Diabetes & Endocrine Disorders	Digestive Disorders	Ear, Nose, & Throat	Geriatric Care	Gynecology	Heart & Heart Surgery	Kidney Disorders	Neurology & Neurosurgery	Orthopedics	Respiratory Disorders	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	8	8	8	9	9	7	8	9	7	8	9

● Included in the index for the specialty.

◆ New in the specialty for 2009.

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. The NCI, an arm of the National Institutes of Health (NIH), is the principal federal agency for 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 cancer centers and comprehensive cancer centers as of March 1, 2009, were awarded one point. NCI updates the list throughout the year. The current list can be accessed at www3.cancer.gov/cancercenters/centerslist.html.

Nurse Magnet Hospital

The Nurse Magnet hospital index, added to all specialties in 2004, is a formal designation by the ANCC, an arm of the American Nursing Association (ANA), for hospitals that meet certain quality indicators on specific standards of nursing excellence. The list of Nurse Magnet hospitals is updated throughout the year as hospitals apply for designation and redesignation status. Hospitals accorded Nurse Magnet hospital status by ANCC as of March 1, 2009, received one point. 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, 2009. 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 Geriatric Care in 2007 and to Neurology & Neurosurgery in 2008. Evaluation and certification are conducted by the National Institute on Aging, an arm of the National Institutes of Health 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, 2009, 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 Credit^{§§}

FACT accreditation was added to Cancer this year. This designation indicates that, as of March 1, 2009, a hospital met standards set by FACT for transplanting bone marrow or other cellular tissue to treat cancer. Half a 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. A full point was 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 new trimming process, introduced 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 2009.

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 in the rankings. 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. Using raw mortality rates would, therefore, unfairly penalize hospitals treating patients who have a high mortality risk for a given level of quality of care. In principle, we would like to compare the mortality rate of the same set of patients in all hospitals in the Best Hospital's universe. This hypothetical is infeasible 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 equal to what the hospital's mortality rate would be were patients sharing the same diagnoses to have the mortality risk of the Best Hospital's

universe instead of the hospital’s own 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. Percentage (%) of Structural Score by Specialty

Item	Cancer	Diabetes & Endocrine Disorders	Digestive Disorders	Ear, Nose, & Throat	Geriatric Care	Gynecology	Heart & Heart Surgery	Kidney Disorders	Neurology & Neurosurgery	Orthopedics	Respiratory Disorders	Urology
Epilepsy center									11.6			
FACT credit	15.5											
Intensivists	9.5	16.4	13.7	13.8	19.6	14.8	13.1	13.2	10.5	13.4	14.4	12.9
Key technologies	15.1	22.7	19.3	15.8		21.3	19.5	20.1	14.3	16.4	20.4	18.5
NCI cancer center	14.7											
NIA Alzheimer’s center					18.1				10.1			
Nurse Magnet hospital	10.2	14.3	11.6	11.8	20.3	14.0	14.0	11.5	9.6	13.0	11.7	11.6
Nurse staffing	9.3	12.2	11.5	12.0	19.5	13.3	11.1	9.0	7.4	12.3	9.2	11.9
Patient services	11.8	22.2	17.6	16.2	22.5	19.8	16.2	18.1	14.4	15.4	19.9	17.6
Trauma center			14.3	14.5			14.8	13.9	11.2	14.9	14.8	13.8
Volume	13.9	12.2	11.9	15.8		16.7	11.4	14.2	10.9	14.6	9.7	13.7

Expected mortality rates were provided by the Healthcare Division of Thomson Reuters using the pooled 2005, 2006, and 2007 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 All Patient Refined Diagnosis Related Groups (APR-DRGs) software, which aggregates the 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 also includes the CMS DRG assigned to each case for Medicare payment. Each MedPAR record is based on the patient's diagnosis, surgery (or other medical procedure), age, sex, and discharge destination.²⁵ DRGs classify the more than 10,000 *International Classification of Diseases, Ninth Revision, Clinical Modification* (ICD-9-CM) diagnosis codes into more meaningful patient groups based on clinical and cost similarity. The ICD-9-CM is the official system used by the National Center for Health Statistics and CMS to assign codes to diagnoses and procedures associated with hospital utilization in the United States.²⁶

Because DRGs are generally relatively homogeneous groups of diagnoses (and, in some cases, procedures and patient age groups), we use DRGs as the basic unit for defining the cases to be included in each specialty's mortality and volume measures. The DRG groupings used in the rankings are reviewed and adjusted annually for each specialty (see *Appendix D* for the DRGs used for 2009). The DRG groupings are applied to each year of data included in the analysis.

For the purposes of the Best Hospitals rankings, only DRGs that represent challenging and critical procedures are included. (For example, tonsillectomies are too common to be included in the DRG groupings for Ear, Nose, & Throat.) The process used to identify DRGs is outlined below.^{†††}

1. Exclude DRGs for very-low-intensity cases.
2. Exclude DRGs not generally appropriate for a Medicare or elderly population the for Geriatric Care specialty.
 - Reevaluate excluded and included DRGs based on their embedded diagnoses.
 - Further refine the excluded and included categorizations based on the within-DRG variation in diagnostic complexity.
 - Reevaluate DRGs not assigned to a specific specialty to determine whether they would be better categorized more specifically.
 - Perform a final evaluation for clinical consistency.

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

3. Attribute 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 the list of DRGs by taking into account severity of illness, as measured by comorbidities and interaction with the principal diagnosis.

An annual review of the DRG process and groupings ensures that changes in advancement of medicine are reflected. Based on the review process, various DRGs and ICD-9-CM diagnoses or procedure codes were added or deleted in each category for 2009. *Appendix E* identifies the changes for each specialty.

Mortality Methodology

A number of 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 Geriatric Care population) or more general issues that can affect mortality outcomes (such as exclusion of transfers, switching from inpatient to 30-day mortality). Brief descriptions of these special considerations are described briefly below.

1. Definition of the Geriatric Care patient population. Rankings in Geriatric Care were 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 DRGs typical of geriatric patients, we elected to focus on how well hospitals treat older patients across a wider range of DRGs. Therefore, the Geriatric Care specialty includes all DRGs used in the specialty rankings that are generally appropriate for a Medicare or elderly population. The sample for the mortality analysis for the Geriatric Care specialty is limited to patients 75 years of 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. Starting in 2007, all patient transfers into the hospital were 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 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.

3. Move from inpatient to 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.

4. Adjustments to MedPAR data to improve representativeness. The MedPAR data represent the frequency of DRGs 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 DRGs among all patients. Ideally, we would use data on all patients to estimate case-mix-adjusted mortality outcomes.

Unfortunately, there is no comprehensive national database of all-payer claims data. 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 DRG. 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 2009 rankings, weights were calculated based on the 2005 and 2006 HCUP National Inpatient Sample data sets. The DRG-specific weights are equal to the relative frequency of the 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 Geriatric Care, which is adequately represented using Medicare data for those age 75 years and older. The weights for each DRG are shown in *Appendix D*.

Mortality Scoring

As in previous years, risk-adjusted mortality ratios (i.e., the mortality index in the rankings tables) were computed by dividing the actual mortality rate by the expected rate after adjusting for case complexity using APR-DRG severity of illness and risk of mortality. The expected 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. Mortality ratios greater than 1 suggest that more patients died than expected; mortality ratios less than 1 suggest that fewer died than expected.

Only the most recent 3-year mortality score is listed in the rankings tables. However, for calculating the IHQ, we transformed mortality ratios into mortality scores using 3 years' of data. Mortality scores were computed by subtracting each specialty-specific mortality ratio from 1. A mortality ratio of 0.25 produced a mortality score of 0.75, a ratio of 0.05 produced a score 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 mortality scores. As with volume and nurse staffing in the structural component, we transformed scores to eliminate the influence of extreme variation.

Recoding Mortality Values for Hospitals with Low Volume

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 based on low volume, we recoded mortality for hospitals not meeting a specialty-specific volume threshold. Mortality at or below the 25th percentile was recoded to the 25th percentile. Mortality between the 25th and 75th percentiles was recoded to the 50th percentile. Mortality at or above the 75th percentile was recoded to the 75th percentile.^{§§§} This recoding helped reduce the effect of mortality outliers associated with low volume.

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 2009, we pooled nominations for the three most recent surveys (2007, 2008, and 2009) 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.

Sample for the 2009 Survey

The 2009^{****} 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 268,780 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

^{§§§} For specialties where the 75th percentile on 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.

^{****} For information on the 2006 and 2005 samples, please see the respective methodology reports at www.rti.org/besthospitals.

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.

Eligibility Requirements

To define a probability sample of physicians who properly represent the 16 specialty groupings, we linked each of the 16 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 16 specialties (or affiliated subspecialties) were eligible for the survey. **Table 6** displays the association among the specialty listed in “America’s Best Hospitals,” the ABMS subspecialties, and the corresponding member board.

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 2007, 2008, and 2009, sampled physicians in each specialty were mailed a one-page, single-sided questionnaire containing a single hospital nomination element. Respondents were asked to select as many as five hospitals in their specialty that provide the best care to patients with serious conditions, regardless of location or expense (see **Appendices A** and **B**). 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). For the 2009 survey, an experiment was conducted giving a portion of the physicians the option of mailing, faxing, or submitting their completed surveys online. The remaining physicians were only given the option of mailing or faxing their surveys. Providing the web option for responding to the survey did not increase response rates and was associated with a decrease in response rates for physicians in the adult specialties.³¹

Table 6. Physician Sample Mapping

America's Best Hospitals Specialty	American Board of	AMA Subspecialties
Cancer	Internal Medicine	Hematology
		Hematology/Oncology
		Medical Oncology
		Surgical Oncology
	Musculoskeletal Oncology	
	Obstetrics & Gynecology	Gynecologic Oncology
	Radiology	Radiation Oncology
Diabetes & Endocrine Disorders	Internal Medicine	Diabetes & Endocrine Disorders
		Diabetes
Digestive Disorders	Internal Medicine	Gastroenterology
		Hepatology
		Proctology
		Abdominal Surgery
		Colon and Rectal Surgery
Ear, Nose, & Throat	Otolaryngology	Otolaryngology
		Plastic–Head and Neck
		Otology/Neurotology
Geriatric Care	Internal Medicine	Geriatrics
Gynecology	Obstetrics & Gynecology	Gynecology
		Obstetrics
		Obstetrics and Gynecology
		Maternal and Fetal Medicine
Heart & Heart Surgery	Internal Medicine	Cardiovascular Diseases
		Interventional Cardiology
		Cardiac Electrophysiology
	Surgery	Thoracic Surgery
Kidney Disorders	Internal Medicine	Nephrology
Neurology & Neurosurgery	Psychiatry & Neurology	Neurology
		Neurological Surgery
		Neurology/Diagnostic Radiology
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
Respiratory Disorders	Internal Medicine	Pulmonary Diseases
Rheumatology	Internal Medicine	Rheumatology
Urology	Urology	Urological Surgery

Mailings

The physician survey mailings were conducted in stages over several weeks at the beginning of 2009. 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 business reply envelope. (See **Table 7** for a simplified schedule of the physician survey mailing.)

Table 7. Physician Survey Mailing Schedule

Materials Mailed	Sent via	Sent to	Date
1st copy of physician survey	USPS, First Class mail	Full physician sample	January 6, 2009
2nd copy of physician survey	USPS, First Class mail	Sample members who did not respond	January 20, 2009
3rd copy of physician survey	USPS, Priority mail	Sample members who did not respond	February 3, 2009
4th copy of physician survey	USPS, Priority mail, or Federal Express	Sample members who did not respond	February 17, 2009

Response Rates

Table 8 shows the response rate by specialty for the 3 years of survey data used in the 2009 rankings. The average response rate for the 3 years of data collection was 44.2%, using American Association for Public Opinion Research (AAPOR) Standard Response Rate 6,^{†††} which treats undeliverables as ineligible cases. **Table 9** shows the response rate for 2009 by region and specialty.

^{†††} Standard definitions are located on the web at www.aapor.org/uploads/Standard_Definitions_04_08_Final.pdf.

Table 8. Yearly Response Rate by Specialty (2007–2009)

Specialty	2007		2008		2009		3-Year Total	
	n	%	n	%	n	%	n	%
Cancer	96	50.0	73	38.6	79	41.1	248	43.2
Diabetes & Endocrine Disorders	93	49.7	61	33.0	92	47.2	246	43.3
Digestive Disorders	89	45.6	76	39.8	108	55.4	273	46.9
Ear, Nose, & Throat	101	51.5	83	45.9	115	58.4	299	51.9
Geriatric Care ^a	106	54.4	56	29.0	101	52.6	263	45.3
Gynecology	70	37.2	67	38.6	82	42.3	219	39.4
Heart & Heart Surgery	82	43.4	78	40.4	83	42.6	243	42.1
Kidney Disorders	72	37.5	60	31.4	80	41.9	212	36.9
Neurology & Neurosurgery	91	48.9	77	43.3	104	53.3	272	48.5
Ophthalmology	110	56.1	92	47.2	105	54.1	307	52.5
Orthopedics	67	34.4	52	27.5	85	43.1	204	35.0
Psychiatry	73	38.6	48	27.7	73	37.8	194	34.7
Rehabilitation	91	49.5	96	49.2	105	54.7	292	51.1
Respiratory Disorders	82	42.9	67	35.4	86	44.1	235	40.8
Rheumatology	90	47.6	78	41.1	93	48.9	261	45.9
Urology	97	50.8	95	48.7	104	50.8	296	50.1
Overall Response Rate^b	1,410	46.2	1,159	38.5	1,491	48.0	4,060	44.2

^a Although Geriatric Care was not ranked in 2006, the physician survey was still conducted.

^b The overall response rate for each year was calculated using AAPOR Standard Response Rate 6.

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. Response Rates by Region and Specialty, 2009

Specialty	West		Northeast		South		Midwest	
	n	%	n	%	n	%	n	%
Cancer	16	32.0	22	44.9	22	47.8	19	40.4
Diabetes & Endocrine Disorders	23	47.9	24	49.0	20	40.8	25	51.0
Digestive Disorders	31	63.3	24	49.0	27	55.1	26	54.4
Ear, Nose, & Throat	29	59.2	30	61.2	29	58.0	27	55.1
Geriatric Care	25	53.2	24	50.0	28	57.1	24	50.0
Gynecology	21	42.9	22	46.8	15	30.6	24	49.0
Heart & Heart Surgery	16	32.0	21	43.8	27	55.1	19	39.6
Kidney Disorders	10	40.4	21	42.9	17	35.4	23	48.9
Neurology & Neurosurgery	28	58.3	29	60.4	19	38.8	28	56.0
Ophthalmology	27	56.3	26	53.1	29	60.4	23	46.9
Orthopedics	20	40.0	21	42.0	22	45.8	22	44.9
Psychiatry	21	42.9	17	34.0	17	35.4	18	39.1
Rehabilitation	29	60.4	26	55.3	26	54.2	24	49.0
Respiratory Disorders	21	44.7	18	36.0	21	42.9	26	53.1
Rheumatology	25	52.1	25	52.1	20	41.7	23	50.0
Urology	24	48.0	26	52.0	23	46.9	27	56.3
Overall Response Rate^a	375	48.3	376	48.2	362	46.6	378	49.0

^a The overall response rate includes in the numerator all physicians who returned a questionnaire with at least one item completed; it subtracts ineligible cases from the denominator.

E. Patient-Safety Index

An important aspect of both outcomes and reputation is a patient's safety. It is a critical component in evaluating and determining the best hospitals. For 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, the only outcomes measure used to determine the rankings was mortality, and mortality is obviously an important outcome. However, there are other adverse events that befall patients in hospitals that may not result in death. In its 2000 report *To Err is Human*,³² the Institute of Medicine (IOM) identified three domains of quality: (1) safety, (2) practice consistent with current medical knowledge, and (3) customization to the patient's values and expectations. The first of these domains, patient safety, is defined by the IOM as "freedom from accidental injury." Preventable adverse events have been identified by the IOM 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.³³ As we describe below, we are using a subset of these indicators to add to the methodology to identify adverse outcomes likely associated with less-than-desirable quality of care.

Development of the Patient Safety Measure

The patient-safety index was developed by RTI using the framework described in the *Patient Safety Quality Indicators Composite Measure Workshop Final Report*,³⁴ 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*³⁵ and *National Healthcare Disparities Report*,³⁶ 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
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. 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 patient-safety index includes two additional PSIs. PSIs 02 and 04 (Death in Low-Mortality DRGs and Failure to Rescue, respectively) were included because these PSIs identify deaths that are generally deemed to be avoidable. Additional indicators may be added to the patient-safety index in future years, as the measures become more refined.

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 02: Death in Low-Mortality DRGs		✓
PSI 03: Decubitus Ulcer	✓	
PSI 04: Failure to Rescue		✓
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	✓	✓

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. Weights equal to the population at risk make the PSI index analogous to the mortality measure—a hospital’s observed-versus-

expected mortality rate is a weighted average of the observed-versus-expected mortality rates by DRG, with weights equal to the proportion of patients in each DRG.

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 within-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 reliably estimated a particular PSI is for a given hospital, relative to the other PSIs, the less weight is put on that PSI for that hospital.

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

Patients with complex medical conditions require more complex care. Assuming the same level of quality with every "touch" from a hospital staff person, the more complex the care, the greater the likelihood that an error will be made. 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 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 quintiles with 1 indicating lowest and 5 highest quality.

F. Calculation of the Index

In previous years, the rankings for the IHQ-driven specialties—structure, process, and outcomes—each received one-third of the weight. For 2009, the weights have been altered slightly to adjust for the patient-safety index. The patient-safety index is worth 5% of the total score. Conceptually, however, it is tied to the outcomes and process components of the rankings.

As a result, its weight has been evenly distributed between the outcomes and process components, such that each of these components has a total weight of 35% and structure has a weight of 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 would any of the three elements 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.

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.

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

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):

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

Means and standard deviations (SDs) of the IHQ for the 12 IHQ-driven specialties are listed in **Table 11**. These data illustrate that the spread of IHQ scores produces a very small

number of hospitals that are 2 and 3 SDs above the mean. Horizontal lines in the 12 specialty lists in *Appendix F* indicate cutoff points of 2 and 3 SDs above the mean.

Table 11. Means and Standard Deviations for the IHQ-Driven Specialties

Specialty	Mean	SD	2 SDs Above the Mean	3 SDs Above the Mean
Cancer	12.89	7.51	27.90	35.41
Diabetes & Endocrine Disorders	12.72	6.05	24.82	30.86
Digestive Disorders	10.55	5.32	21.19	26.52
Ear, Nose, & Throat	9.04	6.56	22.16	28.73
Geriatric Care	12.38	6.50	25.37	31.87
Gynecology	13.80	7.30	28.40	35.70
Heart & Heart Surgery	14.35	7.34	29.03	36.36
Kidney Disorders	14.65	7.82	30.28	38.10
Neurology & Neurosurgery	13.82	7.47	28.76	36.23
Orthopedics	10.83	6.33	23.49	29.82
Respiratory Disorders	13.38	6.56	26.51	33.07
Urology	11.35	6.23	23.80	30.02

III. Reputation-Only Specialties

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

A. Eligibility

Hospitals ranked solely by reputation do not have to meet the same eligibility standards as the IHQ-driven specialties. For these four specialties, a hospital is eligible if it receives one or more physician nominations. Only hospitals representing 3% or more of the total nominations in a specialty are published in print.

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 G*). Although the four reputation-only specialties are ranked without IHQ scores, SDs of the reputational scores remain useful in identifying truly superior hospitals (in terms of statistically relevant nomination scores). *Table 12* presents the means and SDs of the reputation-only scores.

Table 12. Means and Standard Deviations for the Reputation-Only Specialties

Specialty	Mean	SD	2 SDs Above the Mean	3 SDs Above the Mean
Ophthalmology	4.19	11.82	27.83	39.65
Psychiatry	2.68	5.46	13.60	19.06
Rehabilitation	2.70	7.80	18.29	26.08
Rheumatology	3.81	9.35	22.51	31.86

IV. The Honor Roll

This year, 174 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 rank at least two standard deviations above the mean in at least 6 of the 16 specialties. For 2009, 21 hospitals are listed on the Honor Roll. A hospital's ranking on the Honor Roll is based on points assigned by specialty, as follows:

- A hospital that ranks 3 or more standard deviations above the mean receives 2 points.
- A hospital that ranks at least 2 but less than 3 standard deviations above the mean receives one point.

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 H* lists this year's 21 Honor Roll hospitals.

V. Summary of Changes, 2005–2009

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

- **Added external organizations.** Hospitals in the Cancer specialty now receive points for accreditation by FACT as a Cellular Therapy Facility. Hospitals in Geriatric Care now receive points if they are recognized by NIA for having an Alzheimer's Center.
- **Updated DRG groupings.** DRG groupings were updated for all specialties, consistent with typical year-to-year changes.
- **Excluded transfers.** Patients transferred into a hospital or out to another hospital are excluded from mortality and volume calculations to reduce the likelihood of either benefiting or suffering from “dumping” of patients.
- **Introduced 30-day mortality rates.** Thirty-days-from-admission mortality rates were introduced in all IHQ-driven specialties (except Cancer) instead of death-at-discharge mortality rates.

- **Weighted mortality.** 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.
- **Moved neonatologists.** Neonatologists were removed from the Gynecology sample and included in the Pediatrics sample instead.

Summary of 2008 Changes

- **Updated advanced technologies.** The elements in this index were updated for a few specialties to remain consistent with the advanced technologies expected from a best hospital.
- **Updated patient services.** The elements in these services were updated for a few specialties to remain consistent with the patient services expected from a best hospital.
- **Dropped trauma center certification.** Trauma center certification was dropped from the Gynecology specialty.
- **Added Alzheimer's disease center.** This element was added to the Neurology & Neurosurgery specialty.
- **Added 30-day mortality rates for Cancer.** Thirty-days-from-admission mortality rates were introduced in all IHQ-driven specialties except Cancer in 2007. For 2009, 30-day mortality was used in Cancer as well.

Summary of 2009 Changes

- **Updated eligibility criteria.** Hospitals with a minimum number of hospital beds may now be eligible for the rankings (see *Section II.A*).
- **Updated key technologies.** 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*).
- **Added intensivists as a structural measure.** Hospitals now receive credit in all data-driven specialties for having intensivists on staff (see *Section II.B*).
- **Added patient-safety index.** A Best Hospitals patient-safety index was created and applied to all data-driven specialties (see *Section II.E*).
- **Updated DRG groupings.** DRG groupings were updated for all data-driven specialties, consistent with typical year-to-year changes (see *Section II.C*).

VI. Future Improvements

The “America’s Best Hospitals” methodology is examined 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, implemented by CMS in 2008, evaluates patients’ feedback on the quality of care they received during a recent hospital stay. Such programs may offer useful data.
- **Incorporate structural data into reputation-only specialties.** We are examining resources and measures that would add structural data to the current reputation-only specialties in order 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 and the Joint Commission.
- **Consider the Medicare-Severity DRGs (MS-DRGs).** We will incorporate the MS-DRGs into the analysis of 2008 data used in next year’s rankings to reflect the Medicare program’s adoption of MS-DRGs in FY2008. We will review the mappings of MS-DRGs to specialties and establish thresholds for the volume and mortality calculations based on MS-DRGs.

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, Winfield 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, Winfield 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/abtcd9.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. McFarlane E, Murphy J, Olmsted M, Severance J. *The effects of web and mail mixed-mode approaches on response rates in a survey of physicians*. Presented at the 64th Annual Conference of the American Association for Public Opinion Research, Hollywood, FL, May 14-17, 2009.
32. Institute of Medicine (IOM). *To err is human: Building a safer health system*. Washington, DC: National Academy Press; 2000.
33. 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.
34. 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.
35. 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.

36. 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

2009 Sample Physician Questionnaire



America's Best Hospitals

Your nominations will be reflected in the 2009 *U.S. News & World Report* <<specialty>> 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 inpatient care for the most complex or difficult medical <<fill>> associated with <<specialty>>.

	Hospital and/or affiliated medical school	City	State
a.	<input type="text"/>	<input type="text"/>	<input type="text"/>
b.	<input type="text"/>	<input type="text"/>	<input type="text"/>
c.	<input type="text"/>	<input type="text"/>	<input type="text"/>
d.	<input type="text"/>	<input type="text"/>	<input type="text"/>
e.	<input type="text"/>	<input type="text"/>	<input type="text"/>

Please send your response in the enclosed postpaid envelope, or by fax (800-476-9721), or fill out the survey online at <http://americasbesthospitals.rti.org/>. Your username is <<username>> and password is <<id>>.

Conducted by:



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

Appendix B

2007–2008 Sample Physician Questionnaire

America's Best Hospitals

THIS SURVEY OF PHYSICIANS' JUDGMENTS PROVIDES THE
BASIS FOR THE REPUTATIONAL COMPONENT OF THE ANNUAL
RANKINGS OF HOSPITALS FOR *U.S. NEWS & WORLD REPORT*.



Research Triangle Institute

List the five U.S. hospitals (and/or affiliated medical schools) that in your opinion provide the best care for patients with the most serious or difficult medical problems associated with <<SPECIALTY>>, without considering location or expense. (Please do not list any hospital where you currently practice.)

	Hospital and/or affiliated medical school	City	State
a.	<input type="text"/>	<input type="text"/>	<input type="text"/>
b.	<input type="text"/>	<input type="text"/>	<input type="text"/>
c.	<input type="text"/>	<input type="text"/>	<input type="text"/>
d.	<input type="text"/>	<input type="text"/>	<input type="text"/>
e.	<input type="text"/>	<input type="text"/>	<input type="text"/>

Thank you for your participation.

***RTI International
3040 Cornwallis Road, P.O. Box 12194
Research Triangle Park, NC 27709-2194***

Appendix C
Structural Variable Map

The following variables, used to construct structural elements of the 2009 IHQ, were taken from the 2007 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
AIRBHOS, AIRBSYS, AIRBNET, or AIRBVEN=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 & Endocrine Disorders 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

Digestive Disorders 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

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

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

Heart & 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

Kidney Disorders 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

Respiratory Disorders 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, PETCTSUS, PETCTNET, or PETCTVEN=1
ROBOHOS, ROBOSYS, ROBONET, or ROBOVEN=1
SRADHOS, SRADSYS, SRADNET, SRADVEN=1

Nursing 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, 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 & Endocrine Disorders 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

Digestive Disorders 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

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
PSYHOS, 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

Heart & 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

Kidney Disorders 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

Respiratory Disorders 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...
F'TMSIA, F'TCICA, F'TOICA, P'TMSIA, P'TCICA, P'TOICA, F'TEMSI, F'TECIC, or F'TEOIC > 0

Appendix D
2009 Diagnosis Related Group (DRG)
Groupings, by Specialty

Cancer

DRG	DRG Title	ICD-9-CM	Severity	Weight
10	NERVOUS SYSTEM NEOPLASMS W/CC	Include all	3	1.0000
11	NERVOUS SYSTEM NEOPLASMS W/O CC	Include all	3	1.0000
64	EAR, NOSE, MOUTH & THROAT MALIGNANCY	Include all	2	1.3027
82	RESPIRATORY NEOPLASMS	Include all	2	0.8964
172	DIGESTIVE MALIGNANCY W/CC	Include all	2	0.9376
173	DIGESTIVE MALIGNANCY W/O CC	Include all	2	1.1549
199	HEPATOBIILIARY DIAGNOSTIC PROCEDURE FOR MALIGNANCY	Include all	2	0.9937
203	MALIGNANCY OF HEPATOBIILIARY SYSTEM OR PANCREAS	Include all	2	0.9698
239	PATHOLOGICAL FRACTURES & MUSCULOSKELETAL & CONN TISS MALIGNANCY	Include all	2	0.7692
257	TOTAL MASTECTOMY FOR MALIGNANCY W/CC	Include all	2	0.9656
258	TOTAL MASTECTOMY FOR MALIGNANCY W/O CC	Include all	2	1.8849
259	SUBTOTAL MASTECTOMY FOR MALIGNANCY W/CC	Include all	2	0.8975
260	SUBTOTAL MASTECTOMY FOR MALIGNANCY W/O CC	Include all	2	1.2398
272	MAJOR SKIN DISORDERS W/CC	Include diag: 172, 1720-9	2	1.8091
273	MAJOR SKIN DISORDERS W/O CC	Include diag: 172, 1720-9	2	1.5635
274	MALIGNANT BREAST DISORDERS W/CC	Include all	2	1.2521
275	MALIGNANT BREAST DISORDERS W/O CC	Include all	2	1.2300
303	KIDNEY AND URETER PROCEDURES FOR NEOPLASM	Include all	3	0.8794
318	KIDNEY & URINARY TRACT NEOPLASMS W/CC	Include all	3	0.8225
319	KIDNEY & URINARY TRACT NEOPLASMS W/O CC	Include all	3	1.7245
338	TESTES PROCEDURES, FOR MALIGNANCY	Include all	2	1.1040
344	OTHER MALE REPRODUCTIVE SYSTEM OR PROCEDURES FOR MALIGNANCY	Include all	2	0.9034
346	MALIGNANCY, MALE REPRODUCTIVE SYSTEM, W/CC	Include all	2	0.7744
347	MALIGNANCY, MALE REPRODUCTIVE SYSTEM, W/O CC	Include all	2	0.8611
354	UTERINE,ADNEXA PROC FOR NON-OVARIAN/ADNEXAL MALIG W/CC	Include all	2	1.1201
355	UTERINE,ADNEXA PROC FOR NON-OVARIAN/ADNEXAL MALIG W/O CC	Include all	2	2.0169
357	UTERINE & ADNEXA PROC FOR OVARIAN OR ADNEXAL MALIGNANCY	Include all	2	1.3961
363	D&C, CONIZATION & RADIO-IMPLANT, FOR MALIGNANCY	Include all	2	1.3163
366	MALIGNANCY, FEMALE REPRODUCTIVE SYSTEM W/CC	Include all	2	1.1455
367	MALIGNANCY, FEMALE REPRODUCTIVE SYSTEM W/O CC	Include all	2	2.0881
401	LYMPHOMA & NON-ACUTE LEUKEMIA W OTHER OR PROC W/CC	Include all	2	0.9290
402	LYMPHOMA & NON-ACUTE LEUKEMIA W OTHER OR PROC W/O CC	Include all	2	1.4792
403	LYMPHOMA & NON-ACUTE LEUKEMIA W/CC	Include all	2	0.8346
404	LYMPHOMA & NON-ACUTE LEUKEMIA W/O CC	Include all	2	1.1124
406	MYELOPROLIF DISORD OR POORLY DIFF NEOPL W/MAJ OR PROC W/CC	Include all	2	1.2600
407	MYELOPROLIF DISORD OR POORLY DIFF NEOPL W/MAJ OR PROC W/O CC	Include all	2	1.8595
408	MYELOPROLIF DISORD OR POORLY DIFF NEOPL W OTHER OR PROC	Include all	2	1.1648
410	CHEMOTHERAPY W/O ACUTE LEUKEMIA AS SECONDARY DIAGNOSIS	Include all	3	1.7919
413	OTHER MYELOPROLIF DIS OR POORLY DIFF NEOPL DIAG W/CC	Include all	3	0.9803
414	OTHER MYELOPROLIF DIS OR POORLY DIFF NEOPL DIAG W/O CC	Include all	3	2.0816
473	ACUTE LEUKEMIA W/O MAJOR OR PROCEDURE AGE >17	Include all	2	1.0643
481	BONE MARROW TRANSPLANT	Include all	1	2.3001
492	CHEMOTHERAPY W ACUTE LEUKEMIA AS SECONDARY DIAGNOSIS	Include all	2	2.3001

DRG	DRG Title	ICD-9-CM	Severity	Weight
539	LYMPHOMA & LEUKEMIA W MAJOR OR PROCEDURE W CC	Include all	2	1.0851
540	LYMPHOMA & LEUKEMIA W MAJOR OR PROCEDURE W/O CC	Include all	2	1.5815
543	CRANIOTOMY WITH MAJOR DEVICE IMPLANT OR ACUTE COMPLEX CNS PRINCIPAL DIAGNOSIS	Include proc: 0010	2	1.4641
546	SPINAL FUSION EXCEPT CERVICAL W CURVATURE OF SPINE OR MALIGNANCY	Include diag: 1702, 1985	2	1.0000
574	MAJOR HEMATOLOGIC/IMMUNOLOGIC DIAGNOSES EXCEPT SICKLE CELL CRISIS AND COAGULATION DISORDERS	Include diag: 99985	1	1.0000

Diabetes & Endocrine Disorders

DRG	DRG Title	ICD-9-CM	Severity	Weight
286	ADRENAL & PITUITARY PROCEDURES	Include all	2	2.1940
287	SKIN GRAFTS & WOUND DEBRID FOR ENDOC, NUTRIT & METAB DISORDERS	Include all	2	1.1401
288	OR PROCEDURES FOR OBESITY	Include all	2	2.7135
289	PARATHYROID PROCEDURES	Exclude proc: 0613	2	1.0637
290	THYROID PROCEDURES	Exclude proc: 0610-3; 0619	2	1.8779
292	OTHER ENDOCRINE, NUTRIT & METAB OR PROC W CC	Include all	2	1.0031
293	OTHER ENDOCRINE, NUTRIT & METAB OR PROC W/O CC	Include all	2	1.9912
294	DIABETES AGE >35	Include all	3	0.9994
296	NUTRITIONAL & MISC METABOLIC DISORDERS AGE >17 W CC	Include all	3	0.7730
300	ENDOCRINE DISORDERS W CC	Include all	3	0.9037

Digestive Disorders

DRG	DRG Title	ICD-9-CM	Severity	Weight
146	RECTAL RESECTION W CC	Include all	1	1.0535
147	RECTAL RESECTION W/O CC	Include all	2	1.6658
149	MAJOR SMALL & LARGE BOWEL PROCEDURES W/O CC	Include all	2	1.7948
150	PERITONEAL ADHESIOLYSIS W CC	Include all	2	1.0933
151	PERITONEAL ADHESIOLYSIS W/O CC	Include all	2	2.2257
152	MINOR SMALL & LARGE BOWEL PROCEDURES W CC	Include all	2	1.2070
153	MINOR SMALL & LARGE BOWEL PROCEDURES W/O CC	Exclude proc: 4511, 4515, 4521, 4821	3	2.2868
155	STOMACH, ESOPHAGEAL & DUODENAL PROCEDURES AGE >17 W/O CC	Include all	3	1.7891
170	OTHER DIGESTIVE SYSTEM OR PROCEDURES W CC	Include all	2	1.0070
171	OTHER DIGESTIVE SYSTEM OR PROCEDURES W/O CC	Include all	3	1.4945
172	DIGESTIVE MALIGNANCY W CC	Include all	2	0.9940
173	DIGESTIVE MALIGNANCY W/O CC	Include all	2	1.2244
174	G.I. HEMORRHAGE W CC	Include all	2	0.7834
175	G.I. HEMORRHAGE W/O CC	Include all	2	0.9955
176	COMPLICATED PEPTIC ULCER	Include all	2	0.9286
177	UNCOMPLICATED PEPTIC ULCER W CC	Include all	3	0.8238
179	INFLAMMATORY BOWEL DISEASE	Include all	2	2.1069
180	G.I. OBSTRUCTION W CC	Include all	3	0.7493
182	ESOPHAGITIS, GASTROENT & MISC DIGEST DISORDERS AGE >17 W CC	Include all	3	0.8155
188	OTHER DIGESTIVE SYSTEM DIAGNOSES AGE >17 W CC	Include all	2	0.8985

DRG	DRG Title	ICD-9-CM	Severity	Weight
191	PANCREAS, LIVER & SHUNT PROCEDURES W CC	Include all	1	1.4269
192	PANCREAS, LIVER & SHUNT PROCEDURES W/O CC	Include all	2	2.2868
193	BILIARY TRACT PROC EXCEPT ONLY CHOLECYST W OR W/O C.D.E. W CC	Include all	2	1.0673
194	BILIARY TRACT PROC EXCEPT ONLY CHOLECYST W OR W/O C.D.E W/O CC	Include all	3	1.0000
195	CHOLECYSTECTOMY W.C.D.E. W CC	Include all	2	0.9832
196	CHOLECYSTECTOMY W.C.D.E. W/O CC	Include all	2	2.1376
197	CHOLECYSTECTOMY EXCEPT BY LAPAROSCOPE W/O C.D.E. W CC	Include all	2	1.0055
199	HEPATOBILIARY DIAGNOSTIC PROCEDURE FOR MALIGNANCY	Include all	2	1.0535
200	HEPATOBILIARY DIAGNOSTIC PROCEDURE FOR NON-MALIGNANCY	Include all	2	1.5518
201	OTHER HEPATOBILIARY OR PANCREAS OR PROCEDURES	Exclude proc: 4011	3	1.0816
202	CIRRHOSIS & ALCOHOLIC HEPATITIS	Include all	2	1.8074
203	MALIGNANCY OF HEPATOBILIARY SYSTEM OR PANCREAS	Include all	2	1.0282
204	DISORDERS OF PANCREAS EXCEPT MALIGNANCY	Include all	2	1.4842
205	DISORDERS OF LIVER EXCEPT MALIG,CIRR,ALC HEPA W CC	Exclude diag: 7948	2	1.4303
480	LIVER TRANSPLANT	Include all	1	2.2868
493	LAPAROSCOPIC CHOLECYSTECTOMY W/O C.D.E. W CC	Include all	3	1.0229
567	STOMACH ESOPHAGEAL & DUODENAL PROCEDURES AGE >17 WITH COMPLICATIONS/COMORBIDITY WITH MAJOR GASTROINTESTINAL DIAGNOSIS	Include all	2	1.1190
568	STOMACH ESOPHAGEAL & DUODENAL PROCEDURES AGE >17 WITH COMPLICATIONS/COMORBIDITY WITHOUT MAJOR GASTROINTESTINAL DIAGNOSIS	Include all	2	1.0808
569	MAJOR SMALL & LARGE BOWEL PROCEDURES WITH CC WITH MAJOR GASTROINTESTINAL DIAGNOSIS	Include all	2	1.0928
570	MAJOR SMALL & LARGE BOWEL PROCEDURES WITH CC WITHOUT MAJOR GASTROINTESTINAL DIAGNOSIS	Include all	2	1.0056
571	MAJOR ESOPHAGEAL DISORDERS	Include all	2	1.1609
572	MAJOR DIGESTIVE DISORDERS AND PERITONEAL INFECTIONS	Include all	2	0.9099

Ear, Nose, & Throat

DRG	DRG Title	ICD-9-CM	Severity	Weight
49	MAJOR HEAD & NECK PROCEDURES	Include all	2	1.1069
51	SALIVARY GLAND PROCEDURES EXCEPT SIALOADENECTOMY	Include all	3	1.0000
57	T&A PROC, EXCEPT TONSILLECTOMY &/OR ADENOIDECTOMY ONLY, AGE >17	Include all	3	1.9342
63	OTHER EAR, NOSE, MOUTH & THROAT OR PROCEDURES	Include all	3	1.9856
64	EAR, NOSE, MOUTH & THROAT MALIGNANCY	Include all	2	1.1464
67	EPIGLOTTITIS	Include all	3	1.6257
68	OTITIS MEDIA & URI AGE >17 W CC	Include all	3	0.7093
71	LARYNGOTRACHEITIS	Include all	3	2.5719
72	NASAL TRAUMA & DEFORMITY	Include all	3	0.7056
73	OTHER EAR, NOSE, MOUTH & THROAT DIAGNOSES AGE >17	Include all	3	0.7113
482	TRACHEOSTOMY FOR FACE, MOUTH & NECK DIAGNOSES	Include all	2	1.2673

Geriatric Care

DRG	DRG Title	ICD-9-CM	Severity	Weight
1	CRANIOTOMY AGE >17 W CC	Include all	1	1.0180
2	CRANIOTOMY AGE >17 W/O CC	Include all	1	1.0293
6	CARPAL TUNNEL RELEASE	Include all	3	0.9399
7	PERIPH & CRANIAL NERVE & OTHER NERV SYST PROC W CC	Include all	2	1.0036
8	PERIPH & CRANIAL NERVE & OTHER NERV SYST PROC W/O CC	Include all	2	0.9839
9	SPINAL DISORDERS & INJURIES	Include all	2	1.0497
10	NERVOUS SYSTEM NEOPLASMS W CC	Include all	2	1.0249
11	NERVOUS SYSTEM NEOPLASMS W/O CC	Include all	2	1.0618
12	DEGENERATIVE NERVOUS SYSTEM DISORDERS	Include all	2	1.0067
13	MULTIPLE SCLEROSIS & CEREBELLAR ATAXIA	Include all	2	1.0006
14	INTRACRANIAL HEMORRHAGE & STROKE W INFARCT	Include all	2	1.0090
15	NONSPECIFIC CVA & PRECEREBRAL OCCLUSION W/O INFARCT	Include all	2	0.9962
16	NONSPECIFIC CEREBROVASCULAR DISORDERS W CC	Include all	2	0.9982
17	NONSPECIFIC CEREBROVASCULAR DISORDERS W/O CC	Include all	3	0.9975
18	CRANIAL & PERIPHERAL NERVE DISORDERS W CC	Include all	2	0.9867
19	CRANIAL & PERIPHERAL NERVE DISORDERS W/O CC	Include all	2	0.9918
21	VIRAL MENINGITIS	Include all	2	0.9876
22	HYPERTENSIVE ENCEPHALOPATHY	Include all	2	0.9339
23	NONTRAUMATIC STUPOR & COMA	Include all	2	1.0131
27	TRAUMATIC STUPOR & COMA, COMA >1 HR	Include all	1	1.0888
28	TRAUMATIC STUPOR & COMA, COMA <1 HR AGE >17 W CC	Include all	2	1.0323
29	TRAUMATIC STUPOR & COMA, COMA <1 HR AGE >17 W/O CC	Include all	2	1.0589
31	CONCUSSION AGE >17 W CC	Include all	3	1.0979
32	CONCUSSION AGE >17 W/O CC	Include all	3	0.9399
34	OTHER DISORDERS OF NERVOUS SYSTEM W CC	Include all	3	1.0094
35	OTHER DISORDERS OF NERVOUS SYSTEM W/O CC	Include all	3	1.1201
36	RETINAL PROCEDURES	Include all	3	1.0368
37	ORBITAL PROCEDURES	Include all	2	1.0687
38	PRIMARY IRIS PROCEDURES	Include all	3	0.9399
39	LENS PROCEDURES WITH OR WITHOUT VITRECTOMY	Include all	3	0.9399
40	EXTRAOCULAR PROCEDURES EXCEPT ORBIT AGE >17	Include all	3	1.0086
41	EXTRAOCULAR PROCEDURES EXCEPT ORBIT AGE 0-17	Include all	3	1.0000
42	INTRAOCULAR PROCEDURES EXCEPT RETINA, IRIS & LENS	Include all	3	1.1416
43	HYPHEMA	Include all	3	0.9399
44	ACUTE MAJOR EYE INFECTIONS	Include all	2	1.0157
45	NEUROLOGICAL EYE DISORDERS	Include all	3	1.0326
46	OTHER DISORDERS OF THE EYE AGE >17 W CC	Include all	2	1.0038
47	OTHER DISORDERS OF THE EYE AGE >17 W/O CC	Include all	2	0.9857
49	MAJOR HEAD & NECK PROCEDURES	Include all	2	0.9981
50	SIALOADENECTOMY	Include all	3	0.9399
51	SALIVARY GLAND PROCEDURES EXCEPT SIALOADENECTOMY	Include all	3	0.9399

DRG	DRG Title	ICD-9-CM	Severity	Weight
53	SINUS & MASTOID PROCEDURES AGE >17	Include all	2	1.0115
55	MISCELLANEOUS EAR, NOSE, MOUTH & THROAT PROCEDURES	Include all	3	1.1260
56	RHINOPLASTY	Include all	3	1.1416
57	T&A PROC, EXCEPT TONSILLECTOMY &/OR ADENOIDECTOMY ONLY, AGE >17	Include all	3	0.9399
59	TONSILLECTOMY &/OR ADENOIDECTOMY ONLY, AGE >17	Include all	3	1.0000
61	MYRINGOTOMY W/TUBE INSERTION AGE >17	Include all	3	0.9399
63	OTHER EAR, NOSE, MOUTH & THROAT O.R. PROCEDURES	Include all	3	1.0022
64	EAR, NOSE, MOUTH & THROAT MALIGNANCY	Include all	2	1.0644
65	DYSEQUILIBRIUM	Include all	3	0.9876
66	EPISTAXIS	Include all	3	1.0483
67	EPIGLOTTITIS	Include all	3	1.0879
68	OTITIS MEDIA & URI AGE >17 W/CC	Include all	3	0.9865
69	OTITIS MEDIA & URI AGE >17 W/O CC	Include all	3	1.1087
72	NASAL TRAUMA & DEFORMITY	Include all	3	1.0949
73	OTHER EAR, NOSE, MOUTH & THROAT DIAGNOSES AGE >17	Include all	3	0.9870
75	MAJOR CHEST PROCEDURES	Include all	2	1.0081
76	OTHER RESP SYSTEM O.R. PROCEDURES W/CC	Include all	2	0.9999
77	OTHER RESP SYSTEM O.R. PROCEDURES W/O CC	Include all	3	1.1190
78	PULMONARY EMBOLISM	Include all	1	0.9989
79	RESPIRATORY INFECTIONS & INFLAMMATIONS AGE >17 W/CC	Include all	2	0.9919
80	RESPIRATORY INFECTIONS & INFLAMMATIONS AGE >17 W/O CC	Include all	2	1.0041
82	RESPIRATORY NEOPLASMS	Include all	2	1.0470
83	MAJOR CHEST TRAUMA W/CC	Include all	1	1.1416
84	MAJOR CHEST TRAUMA W/O CC	Include all	1	1.1416
85	PLEURAL EFFUSION W/CC	Include all	3	0.9954
86	PLEURAL EFFUSION W/O CC	Include all	3	0.9399
87	PULMONARY EDEMA & RESPIRATORY FAILURE	Include all	2	1.0132
88	CHRONIC OBSTRUCTIVE PULMONARY DISEASE	Include all	3	0.9954
89	SIMPLE PNEUMONIA & PLEURISY AGE >17 W/CC	Include all	3	0.9901
90	SIMPLE PNEUMONIA & PLEURISY AGE >17 W/O CC	Include all	3	1.0057
92	INTERSTITIAL LUNG DISEASE W/CC	Include all	3	0.9931
93	INTERSTITIAL LUNG DISEASE W/O CC	Include all	3	0.9399
94	PNEUMOTHORAX W/CC	Include all	2	1.0423
95	PNEUMOTHORAX W/O CC	Include all	2	1.0217
96	BRONCHITIS & ASTHMA AGE >17 W/CC	Include all	3	0.9825
97	BRONCHITIS & ASTHMA AGE >17 W/O CC	Include all	3	0.9709
99	RESPIRATORY SIGNS & SYMPTOMS W/CC	Include all	3	1.0050
100	RESPIRATORY SIGNS & SYMPTOMS W/O CC	Include all	3	1.0559
101	OTHER RESPIRATORY SYSTEM DIAGNOSES W/CC	Include all	3	1.0216
102	OTHER RESPIRATORY SYSTEM DIAGNOSES W/O CC	Include all	3	0.9399
103	HEART TRANSPLANT	Include all	1	1.1416
104	CARDIAC VALVE & OTH MAJOR CARDIOTHORACIC PROC W/CARD CATH	Include all	2	1.0000

DRG	DRG Title	ICD-9-CM	Severity	Weight
105	CARDIAC VALVE & OTH MAJOR CARDIOTHORACIC PROC W/O CARD CATH	Include all	2	0.9970
106	CORONARY BYPASS W PTCA	Include all	2	1.0110
107	CORONARY BYPASS W CARDIAC CATH	Include all	2	1.0054
108	OTHER CARDIOTHORACIC PROCEDURES	Include all	2	1.0112
109	CORONARY BYPASS W/O PTCA OR CARDIAC CATH	Include all	2	0.9970
110	MAJOR CARDIOVASCULAR PROCEDURES W CC	Include all	2	1.0027
111	MAJOR CARDIOVASCULAR PROCEDURES W/O CC	Include all	2	1.0138
113	AMPUTATION FOR CIRC SYSTEM DISORDERS EXCEPT UPPER LIMB & TOE	Include all	2	0.9859
114	UPPER LIMB & TOE AMPUTATION FOR CIRC SYSTEM DISORDERS	Include all	2	0.9987
115	PRM CARD PACEM IMPL W AMI/HR/SHOCK OR AICD LEAD OR GNRTR	Include all	2	0.9820
116	OTHER PERMANENT CARDIAC PACEMAKER IMPLANT	Include all	3	0.9959
117	CARDIAC PACEMAKER REVISION EXCEPT DEVICE REPLACEMENT	Include all	2	0.9962
118	CARDIAC PACEMAKER DEVICE REPLACEMENT	Include all	3	0.9905
119	VEIN LIGATION & STRIPPING	Include all	3	0.9652
120	OTHER CIRCULATORY SYSTEM O.R. PROCEDURES	Include all	2	0.9824
121	CIRCULATORY DISORDERS W AMI & MAJOR COMP, DISCHARGED ALIVE	Include all	2	0.9984
122	CIRCULATORY DISORDERS W AMI W/O MAJOR COMP, DISCHARGED ALIVE	Include all	2	1.0042
123	CIRCULATORY DISORDERS W AMI, EXPIRED	Include all	2	1.0110
124	CIRCULATORY DISORDERS EXCEPT AMI, W CARD CATH & COMPLEX DIAG	Include all	2	1.0033
125	CIRCULATORY DISORDERS EXCEPT AMI, W CARD CATH W/O COMPLEX DIAG	Include all	3	1.0142
126	ACUTE & SUBACUTE ENDOCARDITIS	Include all	2	0.9913
127	HEART FAILURE & SHOCK	Include all	2	0.9946
128	DEEP VEIN THROMBOPHLEBITIS	Include all	3	0.9726
129	CARDIAC ARREST, UNEXPLAINED	Include all	2	1.0124
130	PERIPHERAL VASCULAR DISORDERS W CC	Include all	2	0.9961
131	PERIPHERAL VASCULAR DISORDERS W/O CC	Include all	2	1.0038
132	ATHEROSCLEROSIS W CC	Include all	3	1.0004
133	ATHEROSCLEROSIS W/O CC	Include all	3	0.9399
134	HYPERTENSION	Include all	3	1.0041
135	CARDIAC CONGENITAL & VALVULAR DISORDERS AGE >17 W CC	Include all	2	0.9973
136	CARDIAC CONGENITAL & VALVULAR DISORDERS AGE >17 W/O CC	Include all	2	1.0483
138	CARDIAC ARRHYTHMIA & CONDUCTION DISORDERS W CC	Include all	2	0.9938
139	CARDIAC ARRHYTHMIA & CONDUCTION DISORDERS W/O CC	Include all	2	0.9986
140	ANGINA PECTORIS	Include all	3	1.0072
141	SYNCOPE & COLLAPSE W CC	Include all	2	0.9981
142	SYNCOPE & COLLAPSE W/O CC	Include all	2	1.0105
143	CHEST PAIN	Include all	3	0.9961
144	OTHER CIRCULATORY SYSTEM DIAGNOSES W CC	Include all	2	1.0025
145	OTHER CIRCULATORY SYSTEM DIAGNOSES W/O CC	Include all	3	1.0697
146	RECTAL RESECTION W CC	Include all	1	1.0004
147	RECTAL RESECTION W/O CC	Include all	2	0.9998
149	MAJOR SMALL & LARGE BOWEL PROCEDURES W/O CC	Include all	2	1.0003

DRG	DRG Title	ICD-9-CM	Severity	Weight
150	PERITONEAL ADHESIOLYSIS W CC	Include all	2	0.9992
151	PERITONEAL ADHESIOLYSIS W/O CC	Include all	2	0.9973
152	MINOR SMALL & LARGE BOWEL PROCEDURES W CC	Include all	2	0.9918
153	MINOR SMALL & LARGE BOWEL PROCEDURES W/O CC	Include all	3	1.0000
155	STOMACH, ESOPHAGEAL & DUODENAL PROCEDURES AGE >17 W/O CC	Include all	3	1.0640
157	ANAL & STOMAL PROCEDURES W CC	Include all	2	1.0047
158	ANAL & STOMAL PROCEDURES W/O CC	Include all	2	1.0155
159	HERNIA PROCEDURES EXCEPT INGUINAL & FEMORAL AGE >17 W CC	Include all	2	0.9979
160	HERNIA PROCEDURES EXCEPT INGUINAL & FEMORAL AGE >17 W/O CC	Include all	2	0.9814
161	INGUINAL & FEMORAL HERNIA PROCEDURES AGE >17 W CC	Include all	3	0.9871
162	INGUINAL & FEMORAL HERNIA PROCEDURES AGE >17 W/O CC	Include all	3	0.9399
164	APPENDECTOMY W COMPLICATED PRINCIPAL DIAG W CC	Include all	3	1.0161
165	APPENDECTOMY W COMPLICATED PRINCIPAL DIAG W/O CC	Include all	3	0.9399
166	APPENDECTOMY W/O COMPLICATED PRINCIPAL DIAG W CC	Include all	3	0.9731
167	APPENDECTOMY W/O COMPLICATED PRINCIPAL DIAG W/O CC	Include all	3	1.0000
168	MOUTH PROCEDURES W CC	Include all	3	0.9718
169	MOUTH PROCEDURES W/O CC	Include all	3	0.9399
170	OTHER DIGESTIVE SYSTEM O.R. PROCEDURES W CC	Include all	2	0.9984
171	OTHER DIGESTIVE SYSTEM O.R. PROCEDURES W/O CC	Include all	3	0.9399
172	DIGESTIVE MALIGNANCY W CC	Include all	2	1.0466
173	DIGESTIVE MALIGNANCY W/O CC	Include all	2	1.0928
174	G.I. HEMORRHAGE W CC	Include all	2	0.9913
175	G.I. HEMORRHAGE W/O CC	Include all	2	1.0041
176	COMPLICATED PEPTIC ULCER	Include all	2	0.9946
177	UNCOMPLICATED PEPTIC ULCER W CC	Include all	3	0.9916
178	UNCOMPLICATED PEPTIC ULCER W/O CC	Include all	3	0.9399
179	INFLAMMATORY BOWEL DISEASE	Include all	2	0.9937
180	G.I. OBSTRUCTION W CC	Include all	3	0.9925
181	G.I. OBSTRUCTION W/O CC	Include all	3	0.9399
182	ESOPHAGITIS, GASTROENT & MISC DIGEST DISORDERS AGE >17 W CC	Include all	3	0.9868
183	ESOPHAGITIS, GASTROENT & MISC DIGEST DISORDERS AGE >17 W/O CC	Include all	3	0.9931
185	DENTAL & ORAL DIS EXCEPT EXTRACTIONS & RESTORATIONS, AGE >17	Include all	3	1.0031
187	DENTAL EXTRACTIONS & RESTORATIONS	Include all	3	0.9399
188	OTHER DIGESTIVE SYSTEM DIAGNOSES AGE >17 W CC	Include all	2	0.9982
189	OTHER DIGESTIVE SYSTEM DIAGNOSES AGE >17 W/O CC	Include all	2	0.9983
191	PANCREAS, LIVER & SHUNT PROCEDURES W CC	Include all	1	1.0380
192	PANCREAS, LIVER & SHUNT PROCEDURES W/O CC	Include all	2	1.0856
193	BILIARY TRACT PROC EXCEPT ONLY CHOLECYST W OR W/O C.D.E. W CC	Include all	2	1.0054
194	BILIARY TRACT PROC EXCEPT ONLY CHOLECYST W OR W/O C.D.E. W/O CC	Include all	3	1.0000
195	CHOLECYSTECTOMY W C.D.E. W CC	Include all	2	1.0163
196	CHOLECYSTECTOMY W C.D.E. W/O CC	Include all	2	1.0126
197	CHOLECYSTECTOMY EXCEPT BY LAPAROSCOPE W/O C.D.E. W CC	Include all	2	1.0021

DRG	DRG Title	ICD-9-CM	Severity	Weight
198	CHOLECYSTECTOMY EXCEPT BY LAPAROSCOPE W/O C.D.E. W/O CC	Include all	2	0.9830
199	HEPATOBIILIARY DIAGNOSTIC PROCEDURE FOR MALIGNANCY	Include all	2	1.0270
200	HEPATOBIILIARY DIAGNOSTIC PROCEDURE FOR NON-MALIGNANCY	Include all	2	1.0016
201	OTHER HEPATOBIILIARY OR PANCREAS O.R. PROCEDURES	Include all	3	1.0185
202	CIRRHOSIS & ALCOHOLIC HEPATITIS	Include all	2	1.0269
203	MALIGNANCY OF HEPATOBIILIARY SYSTEM OR PANCREAS	Include all	2	1.0415
204	DISORDERS OF PANCREAS EXCEPT MALIGNANCY	Include all	2	1.0005
205	DISORDERS OF LIVER EXCEPT MALIG,CIRR,ALC HEPA W CC	Include all	2	1.0252
206	DISORDERS OF LIVER EXCEPT MALIG,CIRR,ALC HEPA W/O CC	Include all	2	1.0298
207	DISORDERS OF THE BILIARY TRACT W CC	Include all	3	0.9962
208	DISORDERS OF THE BILIARY TRACT W/O CC	Include all	3	0.9399
209	MAJOR JOINT & LIMB REATTACHMENT PROCEDURES OF LOWER EXTREMITY	Include all	2	0.9889
210	HIP & FEMUR PROCEDURES EXCEPT MAJOR JOINT AGE >17 W CC	Include all	2	0.9980
211	HIP & FEMUR PROCEDURES EXCEPT MAJOR JOINT AGE >17 W/O CC	Include all	3	1.0073
213	AMPUTATION FOR MUSCULOSKELETAL SYSTEM & CONN TISSUE DISORDERS	Include all	2	1.0085
216	BIOPSIES OF MUSCULOSKELETAL SYSTEM & CONNECTIVE TISSUE	Include all	3	0.9799
217	WND DEBRID & SKN GRFT EXCEPT HAND, FOR MUSCSKELET & CONN TISS DIS	Include all	2	1.0083
218	LOWER EXTREM & HUMER PROC EXCEPT HIP, FOOT, FEMUR AGE >17 W CC	Include all	2	1.0343
219	LOWER EXTREM & HUMER PROC EXCEPT HIP, FOOT, FEMUR AGE >17 W/O CC	Include all	3	1.0916
223	MAJOR SHOULDER/ELBOW PROC, OR OTHER UPPER EXTREMITY PROC W CC	Include all	2	1.0282
224	SHOULDER, ELBOW OR FOREARM PROC, EXC MAJOR JOINT PROC, W/O CC	Include all	2	1.0304
225	FOOT PROCEDURES	Include all	3	1.0097
226	SOFT TISSUE PROCEDURES W CC	Include all	3	0.9922
227	SOFT TISSUE PROCEDURES W/O CC	Include all	3	1.1416
228	MAJOR THUMB OR JOINT PROC, OR OTH HAND OR WRIST PROC W CC	Include all	3	1.0497
229	HAND OR WRIST PROC, EXCEPT MAJOR JOINT PROC, W/O CC	Include all	3	0.9399
230	LOCAL EXCISION & REMOVAL OF INT FIX DEVICES OF HIP & FEMUR	Include all	3	1.0525
232	ARTHROSCOPY	Include all	3	0.9399
233	OTHER MUSCULOSKELET SYS & CONN TISS O.R. PROC W CC	Include all	3	0.9891
234	OTHER MUSCULOSKELET SYS & CONN TISS O.R. PROC W/O CC	Include all	3	0.9844
235	FRACTURES OF FEMUR	Include all	2	1.0029
236	FRACTURES OF HIP & PELVIS	Include all	2	1.0034
237	SPRAINS, STRAINS, & DISLOCATIONS OF HIP, PELVIS & THIGH	Include all	3	0.9937
238	OSTEOMYELITIS	Include all	3	0.9931
239	PATHOLOGICAL FRACTURES & MUSCULOSKELETAL & CONN TISS MALIGNANCY	Include all	2	0.9925
240	CONNECTIVE TISSUE DISORDERS W CC	Include all	3	0.9803
241	CONNECTIVE TISSUE DISORDERS W/O CC	Include all	3	0.9399
242	SEPTIC ARTHRITIS	Include all	2	0.9747
243	MEDICAL BACK PROBLEMS	Include all	3	1.0087
244	BONE DISEASES & SPECIFIC ARTHROPATHIES W CC	Include all	2	0.9912

DRG	DRG Title	ICD-9-CM	Severity	Weight
245	BONE DISEASES & SPECIFIC ARTHROPATHIES W/O CC	Include all	2	0.9954
246	NON-SPECIFIC ARTHROPATHIES	Include all	3	1.0253
247	SIGNS & SYMPTOMS OF MUSCULOSKELETAL SYSTEM & CONN TISSUE	Include all	3	0.9990
248	TENDONITIS, MYOSITIS & BURSTITIS	Include all	3	0.9975
249	AFTERCARE, MUSCULOSKELETAL SYSTEM & CONNECTIVE TISSUE	Include all	3	0.9898
250	FX, SPRN, STRN & DISL OF FOREARM, HAND, FOOT AGE >17 W CC	Include all	3	1.0021
251	FX, SPRN, STRN & DISL OF FOREARM, HAND, FOOT AGE >17 W/O CC	Include all	3	0.9399
253	FX, SPRN, STRN & DISL OF UPARM, LOW LEG EX FOOT AGE >17 W CC	Include all	3	1.0082
254	FX, SPRN, STRN & DISL OF UPARM, LOW LEG EX FOOT AGE >17 W/O CC	Include all	3	1.1214
256	OTHER MUSCULOSKELETAL SYSTEM & CONNECTIVE TISSUE DIAGNOSES	Include all	3	1.0012
257	TOTAL MASTECTOMY FOR MALIGNANCY W CC	Include all	2	0.9850
258	TOTAL MASTECTOMY FOR MALIGNANCY W/O CC	Include all	2	1.0028
259	SUBTOTAL MASTECTOMY FOR MALIGNANCY W CC	Include all	2	1.0030
260	SUBTOTAL MASTECTOMY FOR MALIGNANCY W/O CC	Include all	2	0.9399
261	BREAST PROC FOR NON-MALIGNANCY EXCEPT BIOPSY & LOCAL EXCISION	Include all	3	0.9399
262	BREAST BIOPSY & LOCAL EXCISION FOR NON-MALIGNANCY	Include all	3	0.9399
263	SKIN GRAFT &/OR DEBRID FOR SKN ULCER OR CELLULITIS W CC	Include all	2	0.9919
264	SKIN GRAFT &/OR DEBRID FOR SKN ULCER OR CELLULITIS W/O CC	Include all	2	0.9856
265	SKIN GRAFT &/OR DEBRID EXCEPT FOR SKIN ULCER OR CELLULITIS W CC	Include all	2	1.0077
266	SKIN GRAFT &/OR DEBRID EXCEPT FOR SKIN ULCER OR CELLULITIS W/O CC	Include all	2	1.0036
267	PERIANAL & PILONIDAL PROCEDURES	Include all	3	0.9399
268	SKIN, SUBCUTANEOUS TISSUE & BREAST PLASTIC PROCEDURES	Include all	3	1.0179
269	OTHER SKIN, SUBCUT TISS & BREAST PROC W CC	Include all	2	0.9871
270	OTHER SKIN, SUBCUT TISS & BREAST PROC W/O CC	Include all	2	0.9899
271	SKIN ULCERS	Include all	2	0.9962
272	MAJOR SKIN DISORDERS W CC	Include all	2	0.9900
273	MAJOR SKIN DISORDERS W/O CC	Include all	2	0.9743
274	MALIGNANT BREAST DISORDERS W CC	Include all	2	1.1147
275	MALIGNANT BREAST DISORDERS W/O CC	Include all	2	1.0581
276	NON-MALIGANT BREAST DISORDERS	Include all	3	0.9581
277	CELLULITIS AGE >17 W CC	Include all	2	0.9892
278	CELLULITIS AGE >17 W/O CC	Include all	2	1.0013
280	TRAUMA TO THE SKIN, SUBCUT TISS & BREAST AGE >17 W CC	Include all	2	1.0275
281	TRAUMA TO THE SKIN, SUBCUT TISS & BREAST AGE >17 W/O CC	Include all	2	1.0369
283	MINOR SKIN DISORDERS W CC	Include all	3	0.9987
284	MINOR SKIN DISORDERS W/O CC	Include all	3	1.0000
285	AMPUTAT OF LOWER LIMB FOR ENDOCRINE, NUTRIT, & METABOL DISORDERS	Include all	2	1.0035
286	ADRENAL & PITUITARY PROCEDURES	Include all	2	1.0007
287	SKIN GRAFTS & WOUND DEBRID FOR ENDOC, NUTRIT & METAB DISORDERS	Include all	2	0.9965
288	O.R. PROCEDURES FOR OBESITY	Include all	2	0.9920
289	PARATHYROID PROCEDURES	Include all	2	0.9807

DRG	DRG Title	ICD-9-CM	Severity	Weight
290	THYROID PROCEDURES	Include all	2	1.0084
291	THYROGLOSSAL PROCEDURES	Include all	2	0.9399
292	OTHER ENDOCRINE, NUTRIT & METAB O.R. PROC W CC	Include all	2	0.9932
293	OTHER ENDOCRINE, NUTRIT & METAB O.R. PROC W/O CC	Include all	2	1.0367
294	DIABETES AGE >35	Include all	3	1.0059
296	NUTRITIONAL & MISC METABOLIC DISORDERS AGE >17 W CC	Include all	3	0.9927
297	NUTRITIONAL & MISC METABOLIC DISORDERS AGE >17 W/O CC	Include all	3	0.9891
299	INBORN ERRORS OF METABOLISM	Include all	3	0.9872
300	ENDOCRINE DISORDERS W CC	Include all	3	0.9959
301	ENDOCRINE DISORDERS W/O CC	Include all	3	0.9399
302	KIDNEY TRANSPLANT	Include all	1	1.0202
303	KIDNEY AND URETER PROCEDURES FOR NEOPLASM	Include all	2	1.0082
304	KIDNEY AND URETER PROCEUDRES FOR NON-NEOPLASM WITH CC	Include all	2	1.0163
305	KIDNEY AND URETER PROCEDUES FOR NON-NEOPLASM WITHOUT CC	Include all	3	1.0604
306	PROSTATECTOMY W CC	Include all	3	1.0041
307	PROSTATECTOMY W/O CC	Include all	3	1.0000
308	MINOR BLADDER PROCEDURES W CC	Include all	3	0.9941
309	MINOR BLADDER PROCEDURES W/O CC	Include all	3	0.9399
310	TRANSURETHRAL PROCEDURES W CC	Include all	3	1.0028
311	TRANSURETHRAL PROCEDURES W/O CC	Include all	3	0.9399
312	URETHRAL PROCEDURES, AGE >17 W CC	Include all	3	0.9851
313	URETHRAL PROCEDURES, AGE >17 W/O CC	Include all	3	0.9399
315	OTHER KIDNEY & URINARY TRACT O.R. PROCEDURES	Include all	3	1.0085
316	RENAL FAILURE	Include all	2	1.0004
317	ADMIT FOR RENAL DIALYSIS	Include all	3	1.0042
318	KIDNEY & URINARY TRACT NEOPLASMS W CC	Include all	2	1.0533
319	KIDNEY & URINARY TRACT NEOPLASMS W/O CC	Include all	3	0.9399
320	KIDNEY & URINARY TRACT INFECTIONS AGE >17 W CC	Include all	2	0.9884
321	KIDNEY & URINARY TRACT INFECTIONS AGE >17 W/O CC	Include all	3	0.9978
323	URINARY STONES W CC, &/OR ESW LITHOTRIPSY	Include all	3	0.9890
324	URINARY STONES W/O CC	Include all	3	0.9399
325	KIDNEY & URINARY TRACT SIGNS & SYMPTOMS AGE >17 W CC	Include all	3	1.0007
326	KIDNEY & URINARY TRACT SIGNS & SYMPTOMS AGE >17 W/O CC	Include all	3	0.9399
328	URETHRAL STRICTURE AGE >17 W CC	Include all	3	1.0476
329	URETHRAL STRICTURE AGE >17 W/O CC	Include all	3	1.0000
331	OTHER KIDNEY & URINARY TRACT DIAGNOSES AGE >17 W CC	Include all	3	1.0008
332	OTHER KIDNEY & URINARY TRACT DIAGNOSES AGE >17 W/O CC	Include all	3	1.0079
334	MAJOR MALE PELVIC PROCEDURES W CC	Include all	2	1.0145
335	MAJOR MALE PELVIC PROCEDURES W/O CC	Include all	2	1.0250
336	TRANSURETHRAL PROSTATECTOMY W CC	Include all	2	0.9932
337	TRANSURETHRAL PROSTATECTOMY W/O CC	Include all	3	0.9399
338	TESTES PROCEDURES, FOR MALIGNANCY	Include all	2	1.0375

DRG	DRG Title	ICD-9-CM	Severity	Weight
339	TESTES PROCEDURES, NON-MALIGNANCY AGE >17	Include all	3	1.0215
341	PENIS PROCEDURES	Include all	3	1.0874
342	CIRCUMCISION AGE >17	Include all	3	1.0225
344	OTHER MALE REPRODUCTIVE SYSTEM O.R. PROCEDURES FOR MALIGNANCY	Include all	2	1.0119
345	OTHER MALE REPRODUCTIVE SYSTEM O.R. PROC EXCEPT FOR MALIGNANCY	Include all	3	0.9881
346	MALIGNANCY, MALE REPRODUCTIVE SYSTEM, W CC	Include all	2	1.0978
347	MALIGNANCY, MALE REPRODUCTIVE SYSTEM, W/O CC	Include all	2	1.1374
348	BENIGN PROSTATIC HYPERTROPHY W CC	Include all	3	1.0090
349	BENIGN PROSTATIC HYPERTROPHY W/O CC	Include all	3	1.1416
350	INFLAMMATION OF THE MALE REPRODUCTIVE SYSTEM	Include all	3	1.0073
352	OTHER MALE REPRODUCTIVE SYSTEM DIAGNOSES	Include all	3	1.0167
353	PELVIC EVISCERATION, RADICAL HYSTERECTOMY & RADICAL VULVECTOMY	Include all	1	0.9956
354	UTERINE, ADNEXA PROC FOR NON-OVARIAN/ADNEXAL MALIG W CC	Include all	2	0.9906
355	UTERINE, ADNEXA PROC FOR NON-OVARIAN/ADNEXAL MALIG W/O CC	Include all	2	1.0049
356	FEMALE REPRODUCTIVE SYSTEM RECONSTRUCTIVE PROCEDURES	Include all	3	0.9808
357	UTERINE & ADNEXA PROC FOR OVARIAN OR ADNEXAL MALIGNANCY	Include all	2	1.0160
358	UTERINE & ADNEXA PROC FOR NON-MALIGNANCY W CC	Include all	2	0.9942
359	UTERINE & ADNEXA PROC FOR NON-MALIGNANCY W/O CC	Include all	3	1.1416
360	VAGINA, CERVIX & VULVA PROCEDURES	Include all	3	0.9610
363	D&C, CONIZATION & RADIO-IMPLANT, FOR MALIGNANCY	Include all	2	1.0031
364	D&C, CONIZATION EXCEPT FOR MALIGNANCY	Include all	3	1.0306
365	OTHER FEMALE REPRODUCTIVE SYSTEM O.R. PROCEDURES	Include all	2	1.0142
366	MALIGNANCY, FEMALE REPRODUCTIVE SYSTEM W CC	Include all	2	1.0594
367	MALIGNANCY, FEMALE REPRODUCTIVE SYSTEM W/O CC	Include all	2	1.1416
368	INFECTIONS, FEMALE REPRODUCTIVE SYSTEM	Include all	3	0.9896
369	MENSTRUAL & OTHER FEMALE REPRODUCTIVE SYSTEM DISORDERS	Include all	3	0.9759
392	SPLENECTOMY AGE >17	Include all	2	0.9945
394	OTHER O.R. PROCEDURES OF THE BLOOD AND BLOOD FORMING ORGANS	Include all	3	1.0083
395	RED BLOOD CELL DISORDERS AGE >17	Include all	3	0.9881
397	COAGULATION DISORDERS	Include all	2	0.9973
398	RETICULOENDOTHELIAL & IMMUNITY DISORDERS W CC	Include all	2	0.9963
399	RETICULOENDOTHELIAL & IMMUNITY DISORDERS W/O CC	Include all	2	1.0352
401	LYMPHOMA & NON-ACUTE LEUKEMIA W OTHER O.R. PROC W CC	Include all	2	1.0073
402	LYMPHOMA & NON-ACUTE LEUKEMIA W OTHER O.R. PROC W/O CC	Include all	2	0.9852
403	LYMPHOMA & NON-ACUTE LEUKEMIA W CC	Include all	2	1.0129
404	LYMPHOMA & NON-ACUTE LEUKEMIA W/O CC	Include all	2	1.0252
406	MYELOPROLIF DISORD OR POORLY DIFF NEOPL W MAJ O.R.PROC W CC	Include all	2	1.0295
407	MYELOPROLIF DISORD OR POORLY DIFF NEOPL W MAJ O.R.PROC W/O CC	Include all	2	0.9399
408	MYELOPROLIF DISORD OR POORLY DIFF NEOPL W OTHER O.R.PROC	Include all	2	1.0093
409	RADIOTHERAPY	Include all	3	0.9588
410	CHEMOTHERAPY W/O ACUTE LEUKEMIA AS SECONDARY DIAGNOSIS	Include all	3	1.0205

DRG	DRG Title	ICD-9-CM	Severity	Weight
411	HISTORY OF MALIGNANCY W/O ENDOSCOPY	Include all	3	0.9399
412	HISTORY OF MALIGNANCY W ENDOSCOPY	Include all	3	1.0000
413	OTHER MYELOPROLIF DIS OR POORLY DIFF NEOPL DIAG W CC	Include all	3	1.0291
414	OTHER MYELOPROLIF DIS OR POORLY DIFF NEOPL DIAG W/O CC	Include all	3	0.9399
418	POSTOPERATIVE & POST-TRAUMATIC INFECTIONS	Include all	2	0.9994
419	FEVER OF UNKNOWN ORIGIN AGE >17 W CC	Include all	2	0.9841
420	FEVER OF UNKNOWN ORIGIN AGE >17 W/O CC	Include all	2	1.0037
421	VIRAL ILLNESS AGE >17	Include all	2	0.9920
423	OTHER INFECTIOUS & PARASITIC DISEASES DIAGNOSES	Include all	2	0.9839
424	O.R. PROCEDURE W PRINCIPAL DIAGNOSES OF MENTAL ILLNESS	Include all	3	0.9841
425	ACUTE ADJUSTMENT REACTION & PSYCHOSOCIAL DYSFUNCTION	Include all	3	1.0013
426	DEPRESSIVE NEUROSES	Include all	3	0.9873
427	NEUROSES EXCEPT DEPRESSIVE	Include all	3	0.9843
428	DISORDERS OF PERSONALITY & IMPULSE CONTROL	Include all	3	1.0450
429	ORGANIC DISTURBANCES & MENTAL RETARDATION	Include all	3	1.0112
430	PSYCHOSES	Include all	3	1.0013
431	CHILDHOOD MENTAL DISORDERS	Include all	3	1.0078
432	OTHER MENTAL DISORDER DIAGNOSES	Include all	3	1.1416
433	ALCOHOL/DRUG ABUSE OR DEPENDENCE, LEFT AMA	Include all	3	1.1416
439	SKIN GRAFTS FOR INJURIES	Include all	2	0.9844
440	WOUND DEBRIDEMENTS FOR INJURIES	Include all	2	1.0455
441	HAND PROCEDURES FOR INJURIES	Include all	3	1.1376
442	OTHER O.R. PROCEDURES FOR INJURIES W CC	Include all	2	1.0074
443	OTHER O.R. PROCEDURES FOR INJURIES W/O CC	Include all	2	0.9829
444	TRAUMATIC INJURY AGE >17 W CC	Include all	2	1.0171
445	TRAUMATIC INJURY AGE >17 W/O CC	Include all	2	1.0218
447	ALLERGIC REACTIONS AGE >17	Include all	3	0.9815
449	POISONING & TOXIC EFFECTS OF DRUGS AGE >17 W CC	Include all	2	1.0034
450	POISONING & TOXIC EFFECTS OF DRUGS AGE >17 W/O CC	Include all	3	1.1416
452	COMPLICATIONS OF TREATMENT W CC	Include all	3	0.9987
453	COMPLICATIONS OF TREATMENT W/O CC	Include all	3	1.0181
454	OTHER INJURY, POISONING & TOXIC EFFECT DIAG W CC	Include all	3	1.0124
455	OTHER INJURY, POISONING & TOXIC EFFECT DIAG W/O CC	Include all	3	0.9399
461	O.R. PROC W DIAGNOSES OF OTHER CONTACT W HEALTH SERVICES	Include all	3	0.9897
462	REHABILITATION	Include all	3	0.9849
463	SIGNS & SYMPTOMS W CC	Include all	3	1.0153
464	SIGNS & SYMPTOMS W/O CC	Include all	3	1.0367
465	AFTERCARE W HISTORY OF MALIGNANCY AS SECONDARY DIAGNOSIS	Include all	3	1.0600
466	AFTERCARE W/O HISTORY OF MALIGNANCY AS SECONDARY DIAGNOSIS	Include all	3	1.0759
467	OTHER FACTORS INFLUENCING HEALTH STATUS	Include all	3	1.1416
468	EXTENSIVE O.R. PROCEDURE UNRELATED TO PRINCIPAL DIAGNOSIS	Include all	2	1.0039
471	BILATERAL OR MULTIPLE MAJOR JOINT PROCS OF LOWER EXTREMITY	Include all	2	1.0044

DRG	DRG Title	ICD-9-CM	Severity	Weight
473	ACUTE LEUKEMIA W/O MAJOR O.R. PROCEDURE AGE >17	Include all	2	1.0254
476	PROSTATIC O.R. PROCEDURE UNRELATED TO PRINCIPAL DIAGNOSIS	Include all	3	1.0037
477	NON-EXTENSIVE O.R. PROCEDURE UNRELATED TO PRINCIPAL DIAGNOSIS	Include all	3	0.9946
478	OTHER VASCULAR PROCEDURES W/CC	Include all	2	0.9864
479	OTHER VASCULAR PROCEDURES W/O CC	Include all	2	0.9964
480	LIVER TRANSPLANT	Include all	1	1.0000
481	BONE MARROW TRANSPLANT	Include all	2	0.9399
482	TRACHEOSTOMY FOR FACE, MOUTH & NECK DIAGNOSES	Include all	1	1.0710
484	CRANIOTOMY FOR MULTIPLE SIGNIFICANT TRAUMA	Include all	1	1.1416
485	LIMB REATTACHMENT, HIP AND FEMUR PROC FOR MULTIPLE SIGNIFICANT TRA	Include all	1	1.0551
486	OTHER O.R. PROCEDURES FOR MULTIPLE SIGNIFICANT TRAUMA	Include all	2	1.1416
487	OTHER MULTIPLE SIGNIFICANT TRAUMA	Include all	2	1.1416
488	HIV W/EXTENSIVE O.R. PROCEDURE	Include all	1	1.1005
489	HIV W/MAJOR RELATED CONDITION	Include all	1	0.9851
490	HIV W/OR W/O OTHER RELATED CONDITION	Include all	2	1.0775
491	MAJOR JOINT & LIMB REATTACHMENT PROCEDURES OF UPPER EXTREMITY	Include all	1	0.9966
492	CHEMOTHERAPY W/ACUTE LEUKEMIA OR W/USE OF HI DOSE CHEMOAGENT	Include all	2	1.0381
493	LAPAROSCOPIC CHOLECYSTECTOMY W/O C.D.E. W/CC	Include all	3	1.0098
494	LAPAROSCOPIC CHOLECYSTECTOMY W/O C.D.E. W/O CC	Include all	3	1.1207
495	LUNG TRANSPLANT	Include all	1	1.0000
496	COMBINED ANTERIOR/POSTERIOR SPINAL FUSION	Include all	2	1.0302
497	SPINAL FUSION EXCEPT CERVICAL W/CC	Include all	2	1.0011
498	SPINAL FUSION EXCEPT CERVICAL W/O CC	Include all	2	1.0065
499	BACK & NECK PROCEDURES EXCEPT SPINAL FUSION W/CC	Include all	3	1.0082
500	BACK & NECK PROCEDURES EXCEPT SPINAL FUSION W/O CC	Include all	2	1.0025
501	KNEE PROCEDURES W/PDX OF INFECTION W/CC	Include all	2	0.9934
502	KNEE PROCEDURES W/PDX OF INFECTION W/O CC	Include all	2	0.9972
503	KNEE PROCEDURES W/O PDX OF INFECTION	Include all	3	0.9633
504	EXTENSIVE 3RD DEGREE BURNS W/SKIN GRAFT	Include all	1	1.0270
505	EXTENSIVE 3RD DEGREE BURNS W/O SKIN GRAFT	Include all	1	1.1416
506	FULL THICKNESS BURN W/SKIN GRAFT OR INHAL INJ W/CC OR SIG TRAUMA	Include all	1	1.1105
507	FULL THICKNESS BURN W/SKIN GRFT OR INHAL INJ W/O CC OR SIG TRAUMA	Include all	2	1.0446
508	FULL THICKNESS BURN W/O SKIN GRFT OR INHAL INJ W/CC OR SIG TRAUMA	Include all	1	1.0981
509	FULL THICKNESS BURN W/O SKIN GRFT OR INH INJ W/O CC OR SIG TRAUMA	Include all	2	1.0631
510	NON-EXTENSIVE BURNS W/CC OR SIGNIFICANT TRAUMA	Include all	1	1.0280
511	NON-EXTENSIVE BURNS W/O CC OR SIGNIFICANT TRAUMA	Include all	2	1.0352
512	SIMULTANEOUS PANCREAS/KIDNEY TRANSPLANT	Include all	1	1.0000
513	PANCREAS TRANSPLANT	Include all	1	1.0000
515	CARDIAC DEFIBRILLATOR IMPLANT W/O CARDIAC CATH	Include all	1	0.9990

DRG	DRG Title	ICD-9-CM	Severity	Weight
516	PERCUTANEOUS CARDIOVASC PROC W AMI	Include all	2	1.0049
517	PERC CARDIO PROC W NON-DRUG ELUTING STENT W/O AMI	Include all	3	0.9884
518	PERC CARDIO PROC W/O CORONARY ARTERY STENT OR AMI	Include all	3	0.9902
519	CERVICAL SPINAL FUSION W CC	Include all	2	1.0187
520	CERVICAL SPINAL FUSION W/O CC	Include all	2	1.0181
521	ALCOHOL/DRUG ABUSE OR DEPENDENCE W CC	Include all	3	0.9936
522	ALC/DRUG ABUSE OR DEPEND W REHABILITATION THERAPY W/O CC	Include all	3	1.0000
523	ALC/DRUG ABUSE OR DEPEND W/O REHABILITATION THERAPY W/O CC	Include all	3	0.9399
524	TRANSIENT ISCHEMIA	Include all	3	0.9877
525	HEART ASSIST SYSTEM IMPLANT	Include all	1	1.0007
526	PERCUTNEOUS CARDIOVASULAR PROC W DRUG ELUTING STENT W AMI	Include all	3	1.0039
527	PERCUTNEOUS CARDIOVASULAR PROC W DRUG ELUTING STENT W/O AMI	Include all	3	0.9875
528	INTRACRANIAL VASCULAR PROC W PDX HEMORRHAGE	Include all	1	1.0272
529	VENTRICULAR SHUNT PROCEDURES W CC	Include all	2	0.9882
530	VENTRICULAR SHUNT PROCEDURES W/O CC	Include all	2	1.0048
531	SPINAL PROCEDURES W CC	Include all	2	1.0295
532	SPINAL PROCEDURES W/O CC	Include all	2	1.0455
533	EXTRACRANIAL PROCEDURES W CC	Include all	2	0.9923
534	EXTRACRANIAL PROCEDURES W/O CC	Include all	3	0.9997
535	CARDIAC DEFIB IMPLANT W CARDIAC CATH W AMI/HF/SHOCK	Include all	1	0.9947
536	CARDIAC DEFIB IMPLANT W CARDIAC CATH W/O AMI/HF/SHOCK	Include all	3	1.0087
537	LOCAL EXCIS & REMOV OF INT FIX DEV EXCEPT HIP & FEMUR W CC	Include all	2	1.0110
538	LOCAL EXCIS & REMOV OF INT FIX DEV EXCEPT HIP & FEMUR W/O CC	Include all	3	0.9399
539	LYMPHOMA & LEUKEMIA W MAJOR OR PROCEDURE W CC	Include all	2	0.9911
540	LYMPHOMA & LEUKEMIA W MAJOR OR PROCEDURE W/O CC	Include all	2	1.0612
541	ECMO OR TRACH W/MV 96+HRS OR PDX EXC FACE, MOUTH, & NECK DX W/MAJ OR	Include all	1	1.0416
542	ECMO OR TRACH W/MV 96+HRS OR PDX EXC FACE, MOUTH, & NECK DX W/O MJ OR	Include all	1	1.0398
543	CRANIOTOMY WITH MAJOR DEVICE IMPLANT OR ACUTE COMPLEX CNS PRINCIPAL DIAGNOSIS	Include all	1	1.0358
544	MAJOR JOINT & LIMB REATTACHMENT PROCEDURES OF LOWER EXTREMITY	Include all	2	0.9964
545	REVISION OF HIP OR KNEE REPLACEMENT	Include all	3	0.9901
546	SPINAL FUSION EXCEPT CERVICAL W CURVATURE OF SPINE OR MALIGNANCY	Include all	2	1.0031
547	CORONARY BYPASS W CARDIAC CATH W MCV	Include all	2	1.0086
548	CORONARY BYPASS W CARDIAC CATH W/O MCV	Include all	3	1.0090
549	CORONARY BYPASS W/O PTCA OR CARDIAC CATH W MCV	Include all	2	1.0103
550	CORONARY BYPASS W/O PTCA OR CARDIAC CATH W/O MCV	Include all	3	1.0072
551	PRM CARD PACEM IMPL W MCV OR AICD LEAD OR GNRTR W MCV	Include all	2	0.9938
552	PRM CARD PACEM IMPL W/O MCV	Include all	3	1.0006
553	OTHER VASCULAR PROCEDURES W CC W MCV	Include all	2	0.9973
554	OTHER VASCULAR PROCEDURES W CC W/O MCV	Include all	3	1.0013
555	PERCUTANEOUS CARDIOVASC PROC W MCV	Include all	2	1.0048

DRG	DRG Title	ICD-9-CM	Severity	Weight
556	PERC CARDIO PROC W NON-DRUG ELUTING STENT W/O MCV	Include all	3	0.9940
557	PERCUTNEOUS CARDIOVASCULAR PROC W DRUG ELUTING STENT W/MCV	Include all	2	1.0048
558	PERCUTNEOUS CARDIOVASCULAR PROC W DRUG ELUTING STENT W/O MCV	Include all	3	1.0196
559	ACUTE ISCHEMIC STROKE W THROMBOLYTIC AGENT	Include all	2	1.0281
560	BACTERIAL & TUBERCULOSIS INFECTIONS OF NERVOUS SYSTEM	Include all	2	0.9900
561	NON-BACTERIAL INFECTIONS OF NERVOUS SYSTEM EXCEPT VIRAL MENINGITIS	Include all	2	1.0420
562	SEIZURE AGE > 17 WITH CC	Include all	2	0.9967
563	SEIZURE AGE > 17 WITHOUT CC	Include all	3	1.0694
564	HEADACHES AGE > 17	Include all	3	1.0482
565	RESPIRATORY SYSTEM DIAGNOSIS WITH VENTILATOR SUPPORT 96+ HOURS	Include all	2	1.0030
566	RESPIRATORY SYSTEM DIAGNOSIS WITH VENTILATOR SUPPORT <96 HOURS	Include all	2	1.0161
567	STOMACH ESOPHAGEAL & DUODENAL PROCEDURES AGE >17 WITH COMPLICATIONS/COMORBIDITY WITH MAJOR GASTROINTESTINAL DIAGNOSIS	Include all	2	1.0134
568	STOMACH ESOPHAGEAL & DUODENAL PROCEDURES AGE >17 WITH COMPLICATIONS/COMORBIDITY WITHOUT MAJOR GASTROINTESTINAL DIAGNOSIS	Include all	2	1.0202
569	MAJOR SMALL & LARGE BOWEL PROCEDURES WITH CC WITH MAJOR GASTROINTESTINAL DIAGNOSIS	Include all	2	1.0070
570	MAJOR SMALL & LARGE BOWEL PROCEDURES WITH CC WITHOUT MAJOR GASTROINTESTINAL DIAGNOSIS	Include all	2	1.0097
571	MAJOR ESOPHAGEAL DISORDERS	Include all	2	1.0165
572	MAJOR GASTROINTESTINAL DISORDERS AND PERITONEAL INFECTIONS	Include all	2	0.9997
573	MAJOR BLADDER PROCEDURES	Include all	2	1.0105
574	MAJOR HEMATOLOGIC/IMMUNOLOGIC DIAGNOSES EXCEPT SICKLE CELL CRISIS AND COAGULATION DISORDERS	Include all	2	0.9756
575	SEPTICEMIA WITH MECHANICAL VENTILATION 96+ HOURS AGE >17	Include all	1	1.0344
576	SEPTICEMIA WITHOUT MECHANICAL VENTILATION 96+ HOURS AGE >17	Include all	1	1.0011
577	CAROTID ARTERY STENT PROCEDURE	Include all	2	1.0039
578	INFECTIOUS AND PARASITIC DISEASES WITH O.R. PROCEDURE	Include all	2	1.0030
579	POSTOPERATIVE OR POST-TRAUMATIC INFECTION WITH O.R. PROCEDURE	Include all	2	0.9900

Gynecology

DRG	DRG Title	ICD-9-CM	Severity	Weight
353	PELVIC EVISCERATION, RADICAL HYSTERECTOMY & RADICAL VULVECTOMY	Include all	1	0.8859
354	UTERINE,ADNEXA PROC FOR NON-OVARIAN/ADNEXAL MALIG W CC	Include all	2	0.5799
355	UTERINE,ADNEXA PROC FOR NON-OVARIAN/ADNEXAL MALIG W/O CC	Include all	2	1.0442
357	UTERINE & ADNEXA PROC FOR OVARIAN OR ADNEXAL MALIGNANCY	Include all	2	0.7228
358	UTERINE & ADNEXA PROC FOR NON-MALIGNANCY W CC	Include all	2	1.5264
359	UTERINE & ADNEXA PROC FOR NON-MALIGNANCY W/O CC	Include all	3	1.6024
360	VAGINA, CERVIX & VULVA PROCEDURES	Exclude proc: 7021-7024, 7029	3	0.5501
363	D&C, CONIZATION & RADIO-IMPLANT, FOR MALIGNANCY	Include all	2	0.6815

DRG	DRG Title	ICD-9-CM	Severity	Weight
365	OTHER FEMALE REPRODUCTIVE SYSTEM OR PROCEDURES	Include all	2	1.1447
366	MALIGNANCY, FEMALE REPRODUCTIVE SYSTEM W/CC	Include all	2	0.5930
367	MALIGNANCY, FEMALE REPRODUCTIVE SYSTEM W/O CC	Include all	2	1.0811
368	INFECTIONS, FEMALE REPRODUCTIVE SYSTEM	Include all	3	0.4625
369	MENSTRUAL & OTHER FEMALE REPRODUCTIVE SYSTEM DISORDERS	Include all	3	0.6050

Heart & Heart Surgery

DRG	DRG Title	ICD-9-CM	Severity	Weight
75	MAJOR CHEST PROCEDURES	Incl. Procs: 3712, 3724, 3731, 3791, 3805, 3815, 3835, 3845, 3855, 3865, 3885, 3954, 3173, 3175, 3179, 3209, 321, 3221-2, 3228-9, 323-6, 329- 31, 3321, 3325, 3328, 3334, 3339, 3341-3, 3348-9, 3392, 3398-9, 3402, 3427, 3451, 3459, 346, 3473-4, 3481-5, 3489, 3493	2	1.7722
103	HEART TRANSPLANT	Include all	1	1.8693
104	CARDIAC VALVE & OTH MAJOR CARDIOTHORACIC PROC W CARD CATH	Include all	2	1.0913
105	CARDIAC VALVE & OTH MAJOR CARDIOTHORACIC PROC W/O CARD CATH	Include all	2	1.2582
106	CORONARY BYPASS W PTCA	Include all	2	1.5431
107	CORONARY BYPASS W CARDIAC CATH	Include all	2	1.3318
108	OTHER CARDIOTHORACIC PROCEDURES	Include all	2	1.8693
109	CORONARY BYPASS W/O PTCA OR CARDIAC CATH	Include all	2	1.2841
110	MAJOR CARDIOVASCULAR PROCEDURES W CC	Include all	2	1.1541
111	MAJOR CARDIOVASCULAR PROCEDURES W/O CC	Include all	2	1.4669
115	PRM CARD PACEM IMPL W AMI, HRT FAIL OR SHK, OR AICD LEAD OR GN	Include all	2	0.8824
116	OTHER PERMANENT CARDIAC PACEMAKER IMPLANT	Include all	3	0.8191
117	CARDIAC PACEMAKER REVISION EXCEPT DEVICE REPLACEMENT	Include all	2	0.9881
121	CIRCULATORY DISORDERS W AMI & MAJOR COMP, DISCHARGED ALIVE	Include all	2	0.8756
122	CIRCULATORY DISORDERS W AMI W/O MAJOR COMP, DISCHARGED ALIVE	Include all	2	1.2086
123	CIRCULATORY DISORDERS W AMI, EXPIRED	Include all	2	0.8375
124	CIRCULATORY DISORDERS EXCEPT AMI, W CARD CATH & COMPLEX DIAG	Include all	2	1.1976
126	ACUTE & SUBACUTE ENDOCARDITIS	Include all	2	1.3429
127	HEART FAILURE & SHOCK	Include all	2	0.8910
135	CARDIAC CONGENITAL & VALVULAR DISORDERS AGE >17 W CC	Include all	2	0.9518
138	CARDIAC ARRHYTHMIA & CONDUCTION DISORDERS W CC	Include all	2	0.9473
144	OTHER CIRCULATORY SYSTEM DIAGNOSES W CC	Include all	2	1.1941
145	OTHER CIRCULATORY SYSTEM DIAGNOSES W/O CC	Include all	3	1.8693
478	OTHER VASCULAR PROCEDURES W/ CC	Include all	2	0.9653

DRG	DRG Title	ICD-9-CM	Severity	Weight
515	CARDIAC DEFIBRILLATOR IMPLANT W/O CARDIAC CATH	Include all	1	1.0666
516	PERCUTANEOUS CARDIOVASCULAR PROC W AMI	Include all	2	1.2444
517	PERC CARDIO PROC W NON-DRUG ELUTING STENT W/O AMI	Include all	3	1.0273
518	PERC CARDIO PROC W/O CORONARY ARTERY STENT OR AMI	Include all	3	1.1599
525	HEART ASSIST SYSTEM IMPLANT	Include all	1	1.4122
526	PERCUT. CV PROC W/DRUG ELUTING STENT W/AMI	Include all	3	1.0811
527	PERCUT. CV PROC W/DRUG ELUTING STENT W/O AMI	Include all	3	1.0311
535	CARDIAC DEFIBRILLATOR IMPLANT W CATH W AMI, HEART FAILURE, OR SHOCK	Include all	1	1.1056
536	CARDIAC DEFIBRILLATOR IMPLANT W CATH W/O AMI, HEART FAILURE, OR SHOCK	Include all	3	1.1904
547	CORONARY BYPASS W CARDIAC CATH W MCV	Include all	2	1.3308
548	CORONARY BYPASS W CARDIAC CATH W/O MCV	Include all	3	1.2648
549	CORONARY BYPASS W/O PTCA OR CARDIAC CATH W MCV	Include all	2	1.2017
550	CORONARY BYPASS W/O PTCA OR CARDIAC CATH W/O MCV	Include all	3	1.1907
551	PRM CARD PACEM IMPL W MCV OR AICD LEAD OR GNRTR W MCV	Include all	2	0.8438
552	PRM CARD PACEM IMPL W/O MCV	Include all	3	0.8372
553	OTHER VASCULAR PROCEDURES W CC W MCV	Include all	2	0.9202
554	OTHER VASCULAR PROCEDURES W CC W/O MCV	Include all	3	0.9792
555	PERCUTANEOUS CARDIOVASC PROC W MCV	Include all	2	1.1853
556	PERC CARDIO PROC W NON-DRUG ELUTING STENT W/O MCV	Include all	3	0.9702
557	PERCUTNEOUS CARDIOVASULAR PROC W DRUG ELUTING STENT W MCV	Include all	2	1.1949
558	PERCUTNEOUS CARDIOVASULAR PROC W DRUG ELUTING STENT W/O MCV	Include all	3	1.0234

Kidney Disorders

DRG	DRG Title	ICD-9-CM	Severity	Weight
302	KIDNEY TRANSPLANT	Include all	1	1.1376
303	KIDNEY AND URETER PROCEDURES FOR NEOPLASM	Ind. Proc: 3924, 5501-4, 5511-2, 5521-4, 5529, 5531, 5539, 5551-4, 5561, 5569, 557, 5581-7, 5589, 5591, 5597-9	2	1.2635
304	KIDNEY AND URETER PROCEUDRES FOR NON-NEOPLASM WITH CC	See DRG 303	2	1.4142
305	KIDNEY AND URETER PROCEDUES FOR NON-NEOPLASM WITHOUT CC	See DRG 303	3	2.4583
315	OTHER KIDNEY & URINARY TRACT OR PROCEDURES	Excl. Proc: 0681, 0689, 3328, 3402, 3972, 640, 6495-7, 7740-9	3	1.0566
316	RENAL FAILURE	Include all	2	0.9494
318	KIDNEY & URINARY TRACT NEOPLASMS W CC	Ind. Diag: 189, 1890-4, 1898-9, 198, 1980-8, 19881-2, 19889, 223, 2230-3, 2238, 22381, 22389, 2239	2	1.1572
319	KIDNEY & URINARY TRACT NEOPLASMS W/O CC	See DRG #318	3	1.0000

DRG	DRG Title	ICD-9-CM	Severity	Weight
320	KIDNEY & URINARY TRACT INFECTIONS AGE >17 W CC	Include diag: 0160, 01600-6, 0162, 01620-6, 0786, 0954	2	1.0000
325	KIDNEY & URINARY TRACT SIGNS & SYMPTOMS AGE >17 W CC	Include All	3	0.8612
331	OTHER KIDNEY & URINARY TRACT DIAGNOSES AGE >17 W CC	Include diag: 2504, 25040-3, 27410-1, 27419, 40300-1, 40310-1, 40390-1, 4401, 4421, 44323, 44581, 4473, 4533, 580, 5800, 5804, 58081, 58089, 5809, 581, 5810-3, 58181, 58189, 5819, 582, 5820-2, 5824, 58281, 58289, 5829, 583, 5830-2, 5834, 5836, 58381, 58389, 5839, 587-8, 5880-1, 5888, 58881, 58889, 5889, 589, 5890-1, 5899, 5930-2, 5936, 866, 8660, 86600-3, 8661, 86610-3, v420, v594	3	1.1541
332	OTHER KIDNEY & URINARY TRACT DIAGNOSES AGE >17 W/O CC	See DRG 331	3	2.4583
512	SIMULTANEOUS PANCREAS/KIDNEY TRANSPLANT	Include All	1	1.2352
573	MAJOR BLADDER PROCEDURES	Include All	2	1.1484

Neurology & Neurosurgery

DRG	DRG Title	ICD-9-CM	Severity	Weight
1	CRANIOTOMY AGE >17 W CC	Include all	1	1.3469
2	CRANIOTOMY AGE >17 W/O CC	Include all	1	2.2131
7	PERIPH & CRANIAL NERVE & OTHER NERV SYST PROC W CC	Include all	2	1.0743
8	PERIPH & CRANIAL NERVE & OTHER NERV SYST PROC W/O CC	Include all	2	1.9891
9	SPINAL DISORDERS & INJURIES	Include all	2	1.4182
10	NERVOUS SYSTEM NEOPLASMS W CC	Include all	2	1.2288
11	NERVOUS SYSTEM NEOPLASMS W/O CC	Include all	2	1.3946
12	DEGENERATIVE NERVOUS SYSTEM DISORDERS	Include all	2	0.7043
13	MULTIPLE SCLEROSIS & CEREBELLAR ATAXIA	Include all	2	1.4516
14	INTRACRANIAL HEIMORRHAGE & STROKE W INFARCT	Include all	2	0.8264
15	NONSPECIFIC CVA & PRECEREBRAL OCCLUSION W/O INFARCT	Include all	2	0.7605
16	NONSPECIFIC CEREBROVASCULAR DISORDERS W CC	Include all	2	0.7892
18	CRANIAL & PERIPHERAL NERVE DISORDERS W CC	Include all	2	1.0343
19	CRANIAL & PERIPHERAL NERVE DISORDERS W/O CC	Include all	2	1.3858
21	VIRAL MENINGITIS	Include all	2	3.3379
22	HYPERTENSIVE ENCEPHALOPATHY	Include all	2	0.9841
23	NONTRAUMATIC STUPOR & COMA	Include all	2	0.9033
27	TRAUMATIC STUPOR & COMA, COMA >1 HR	Include all	1	2.0916

DRG	DRG Title	ICD-9-CM	Severity	Weight
28	TRAUMATIC STUPOR & COMA, COMA <1 HR AGE >17 W CC	Include all	2	0.9612
29	TRAUMATIC STUPOR & COMA, COMA <1 HR AGE >17 W/O CC	Include all	2	1.4201
34	OTHER DISORDERS OF NERVOUS SYSTEM W CC	Include all	3	0.9570
35	OTHER DISORDERS OF NERVOUS SYSTEM W/O CC	Include all	3	1.4599
484	CRANIOTOMY FOR MULTIPLE SIGNIFICANT TRAUMA	Include all	1	3.3379
496	COMBINED ANTERIOR/POSTERIOR SPINAL FUSION	Include all	2	2.9045
497	SPINAL FUSION EXCEPT CERVICAL W CC	Include all	2	1.2779
498	SPINAL FUSION EXCEPT CERVICAL W/O CC	Include all	2	1.8160
499	BACK & NECK PROCEDURES EXCEPT SPINAL FUSION W CC	Include all	3	0.8828
500	BACK & NECK PROCEDURES EXCEPT SPINAL FUSION W/O CC	Include all	3	1.3283
519	CERVICAL SPINAL FUSION W CC	Include all	2	1.4191
520	CERVICAL SPINAL FUSION W/O CC	Include all	2	2.2775
524	TRANSIENT ISCHEMIA	Include all	3	0.7061
528	INTRACRANIAL VASC PROC W PDX HEMORRHAGE	Include all	1	2.8418
529	VENTRICULAR SHUNT PROC W CC	Include all	2	1.0661
530	VENTRICULAR SHUNT PROC W/O CC	Include all	2	0.8685
531	SPINAL PROCEDURES W CC	Include all	2	1.8174
532	SPINAL PROCEDURES W/O CC	Include all	2	3.3379
533	EXTRACRANIAL VASCULAR PROC W CC	Include all	2	0.7473
543	CRANIOTOMY W MAJOR DEVICE IMPLANT OR ACUTE COMPLEX CNS PRINCIPAL DIAGNOSIS	Include all	1	1.4990
546	SPINAL FUSION EXC CERVICAL W CURVATURE OF SPINE OR MALIG.	Include all	2	1.8584
559	ACUTE ISCHEMIC STROKE W THROMBOLYTIC AGENT	Include all	2	0.9266
560	BACTERIAL & TUBERCULOSIS INFECTIONS OF NERVOUS SYSTEM	Include all	2	2.0517
561	NON-BACTERIAL INFECT. OF NERVOUS SYSTEM EXC VIRAL MENINGITIS	Include all	2	1.9338
562	SEIZURE AGE > 17 WITH CC	Include all	2	1.0933
577	CAROTID ARTERY STENT PROCEDURE	Include all	2	0.8008

Orthopedics

DRG	DRG Title	ICD-9-CM	Severity	Weight
209	MAJOR JOINT & LIMB REATTACHMENT PROCEDURES OF LOWER EXTREMITY	Include all	2	0.9372
210	HIP & FEMUR PROCEDURES EXCEPT MAJOR JOINT AGE >17 W CC	Include all	2	0.7506
211	HIP & FEMUR PROCEDURES EXCEPT MAJOR JOINT AGE >17 W/O CC	Include all	3	1.5098
218	LOWER EXTREM & HUMER PROC EXCEPT HIP, FOOT, FEMUR AGE >17 W CC	Include all	2	1.2936
219	LOWER EXTREM & HUMER PROC EXCEPT HIP, FOOT, FEMUR AGE >17 W/O CC	Include all	3	3.2780
223	MAJOR SHOULDER/ELBOW PROC, OR OTHER UPPER EXTREMITY PROC W CC	Include all	2	1.1855
225	FOOT PROCEDURES	Include all	3	1.3642
226	SOFT TISSUE PROCEDURES W CC	Include all	3	1.3138
228	MAJOR THUMB OR JOINT PROC, OR OTH HAND OR WRIST PROC W CC	Include all	3	1.3573
230	LOCAL EXCISION & REMOVAL OF INT FIX DEVICES OF HIP & FEMUR	Include all	3	1.1127

DRG	DRG Title	ICD-9-CM	Severity	Weight
233	OTHER MUSCULOSKELET SYS & CONN TISS OR PROC W CC	Include proc: 7601, 7631, 7639 7641-6, 765, 7661- 70, 7672, 7674 7676-7, 7679 7691-2, 7694, 7699- 7701, 7709, 7720-1, 7729-31, 7739, 7780-1, 7789-91, 7799-801, 7809-11, 7813, 7819-20, 7830, 7839-41, 7849-51, 7859, 7870-1, 7879, 7890- 91, 7899, 7910, 7919-20, 7929-30, 7939-40, 7959-60, 7969, 7980, 7989- 90, 810, 8019-20, 8040, 8049, 8090, 8118, 8120, 8129, 8159, 8165-6, 8196-7, 8199, 8429 8440, 8492-3, 8499	3	0.7766
234	OTHER MUSCULOSKELET SYS & CONN TISS OR PROC W/O CC	Include all	3	0.8805
235	FRACTURES OF FEMUR	Include all	2	1.2435
236	FRACTURES OF HIP & PELVIS	Include all	2	0.7551
238	OSTEOMYELITIS	Include all	3	0.9703
239	PATHOLOGICAL FRACTURES & MUSCULOSKELETAL & CONN TISS MALIGNANCY	Include diag: 7339, 73390-6, 73399	3	0.7548
471	BILATERAL OR MULTIPLE MAJOR JOINT PROCS OF LOWER EXTREMITY	Include all	2	1.1404
485	LIMB REATTACHMENT, HIP AND FEMUR PROC FOR MULTIPLE SIGNIFICANT TRAUMA	Include all	1	2.1651
491	MAJOR JOINT & LIMB REATTACHMENT PROCEDURES OF UPPER EXTREMITY	Include all	1	0.9310
496	COMBINED ANTERIOR/POSTERIOR SPINAL FUSION	Include all	2	3.0530
497	SPINAL FUSION EXCEPT CERVICAL W CC	Include all	2	1.3433
498	SPINAL FUSION EXCEPT CERVICAL W/O CC	Include all	2	1.9089
499	BACK & NECK PROCEDURES EXCEPT SPINAL FUSION W CC	Include all	2	1.0506
500	BACK & NECK PROCEDURES EXCEPT SPINAL FUSION W/O CC	Include all	2	1.5613
501	KNEE PROCEDURES W PDX OF INFECTION W CC	Include all	2	1.0983
502	KNEE PROCEDURES W PDX OF INFECTION W/O CC	Include all	2	2.0779
519	CERVICAL SPINAL FUSION W CC	Include all	2	1.4917
520	CERVICAL SPINAL FUSION W/O CC	Include all	2	2.3939
531	SPINAL PROCEDURES W CC	Include proc: 7781, 7791, 8050-1, 8059, 8100-9, 8130-9, 8161	3	2.2592
532	SPINAL PROCEDURES W/O CC	See DRG 531	3	3.2780
537	LOCAL EXCIS & REMOV OF INT FIX DEV EXCEPT HIP & FEMUR W CC	Include all	2	1.3070
538	LOCAL EXCIS & REMOV OF INT FIX DEV EXCEPT HIP & FEMUR W/O CC	Include all	3	3.2780
544	MAJOR JOINT & LIMB REATTACHMENT PROCEDURES OF LOWER EXTREMITY	Include all	2	0.9588
545	REVISION OF HIP OR KNEE REPLACEMENT	Include all	3	0.9083

DRG	DRG Title	ICD-9-CM	Severity	Weight
546	SPINAL FUSION EXCEPT CERVICAL W CURVATURE OF SPINE OR MALIGNANCY	Include all	2	1.9534

Respiratory Disorders

DRG	DRG Title	ICD-9-CM	Severity	Weight
75	MAJOR CHEST PROCEDURES	Include proc: 3712, 3724, 3731, 3791, 3805, 3815, 3835, 3845, 3855, 3865, 3885, 3954, 3173, 3175, 3179, 3209, 321, 3221-2, 3228-9, 323-6, 329-331, 3321, 3325, 3328, 3334, 3339, 3341-3, 3348- 9, 3392, 3398-9, 3402, 3427, 3451, 3459, 346, 3473-4, 3481-5, 3489, 3493	2	1.3939
76	OTHER RESP SYSTEM OR PROCEDURES W CC	Include all	2	1.1254
77	OTHER RESP SYSTEM OR PROCEDURES W/O CC	Include all	3	1.9874
78	PULMONARY EMBOLISM	Include all	1	1.3546
79	RESPIRATORY INFECTIONS & INFLAMMATIONS AGE >17 W CC	Exclude diag: V712, 7955	2	0.8587
80	RESPIRATORY INFECTIONS & INFLAMMATIONS AGE >17 W/O CC	Exclude diag: V712, 7955	2	1.1439
82	RESPIRATORY NEOPLASMS	Exclude diag: 2120-9, 2133	2	1.1271
83	MAJOR CHEST TRAUMA W CC	Include all	1	1.4359
84	MAJOR CHEST TRAUMA W/O CC	Include all	1	2.1311
85	PLEURAL EFFUSION W CC	Include all	3	0.9991
87	PULMONARY EDEMA & RESPIRATORY FAILURE	Include all	2	0.9407
88	CHRONIC OBSTRUCTIVE PULMONARY DISEASE	Include all	3	0.8879
89	SIMPLE PNEUMONIA & PLEURISY AGE >17 W CC	Include all	3	0.8595
92	INTERSTITIAL LUNG DISEASE W CC	Include all	3	0.9650
93	INTERSTITIAL LUNG DISEASE W/O CC	Include all	3	2.1311
94	PNEUMOTHORAX W CC	Exclude diag: 5121	2	1.7948
96	BRONCHITIS & ASTHMA AGE >17 W CC	Include all	3	1.0872
495	LUNG TRANSPLANT	Include all	1	2.1212
541	ECMO OR TRACH W MV 96+HRS OR PDX EXC FACE, MOUTH, & NECK DX W/MAJ OR	Include all	1	1.4754
542	ECMO OR TRACH W MV 96+HRS OR PDX EXC FACE, MOUTH, & NECK DX W/O MJ OR	Include all	1	1.1940
565	RESPIRATORY SYSTEM DIAGNOSIS WITH VENTILATOR SUPPORT 96+ HOURS	Include all	2	1.1276
566	RESPIRATORY SYSTEM DIAGNOSIS WITH VENTILATOR SUPPORT <96 HOURS	Include all	2	1.1212
575	SEPTICEMIA WITH MECHANICAL VENTILATION 96+ HOURS AGE >17	Include all	1	1.0387
576	SEPTICEMIA WITHOUT MECHANICAL VENTILATION 96+ HOURS AGE >17	Include all	1	0.9320

Urology

DRG	DRG Title	ICD-9-CM	Severity	Weight
303	KIDNEY AND URETER PROCEDURES FOR NEOPLASM	Exclude proc: 3924, 3926, 3955, 5501-4, 5511-2, 5524, 5529, 5531, 5539, 554, 5551-4, 5561, 5569, 557, 5581-9, 5591, 5597-9	2	1.0473
304	KIDNEY AND URETER PROCEUDRES FOR NON-NEOPLASM WITH CC	Exclude proc: 3924, 3926, 3955, 5501-4, 5511-2, 5521-5524, 5529, 5531, 5539, 554, 5551-4, 5561, 5569, 557, 5581-9, 5591, 5597-9	2	2.0104
305	KIDNEY AND URETER PROCEDUES FOR NON-NEOPLASM WITHOUT CC	See DRG 303	3	2.0676
306	PROSTATECTOMY W/CC	Include all	3	0.7614
308	MINOR BLADDER PROCEDURES W/CC	Include all	3	0.9957
309	MINOR BLADDER PROCEDURES W/O CC	Include all	3	2.0676
310	TRANSURETHRAL PROCEDURES W/CC	Include all	3	0.9483
312	URETHRAL PROCEDURES, AGE >17 W/CC	Include all	3	0.9899
315	OTHER KIDNEY & URINARY TRACT OR PROCEDURES	Include Proc: 6495-7	3	0.8337
318	KIDNEY & URINARY TRACT NEOPLASMS W/CC	Exclude Diag: 189, 1890-4, 1898-9, 198, 1980-8, 19881-2, 19889, 223, 2230-3, 2238, 22381, 22389, 2239	2	0.9331
319	KIDNEY & URINARY TRACT NEOPLASMS W/O CC	See DRG 318	3	1.0019
323	URINARY STONES W/CC, &/OR ESW LITHOTRIPSY	Include all	3	1.2777
328	URETHRAL STRICTURE AGE >17 W/CC	Include all	3	0.8934
331	OTHER KIDNEY & URINARY TRACT DIAGNOSES AGE >17 W/CC	Exclude diag: 2504, 25041-3, 27410-1, 27419, 40300-1, 40310-1, 40390-1, 4401, 4421, 44323, 44581, 4473, 4533, 580, 5800, 5804, 58081, 58089, 5809, 581, 5810-3, 58181, 58189, 5819, 582, 5820-2, 5824, 58281, 58289, 5829, 583, 5830-2, 5834, 5836, 58381, 58389, 5839, 587-8, 5880-1, 5888-9, 589, 5890, 5890-1, 5899, 5930-2, 5936, 866, 8660, 86600-3, 8661, 86610-3, v420, v594	3	0.9010
332	OTHER KIDNEY & URINARY TRACT DIAGNOSES AGE >17 W/O CC	See DRG 331	3	1.3900
334	MAJOR MALE PELVIC PROCEDURES W/CC	Include all	2	1.5287
335	MAJOR MALE PELVIC PROCEDURES W/O CC	Include all	2	2.0676
336	TRANSURETHRAL PROSTATECTOMY W/CC	Include all	2	0.7817

DRG	DRG Title	ICD-9-CM	Severity	Weight
338	TESTES PROCEDURES, FOR MALIGNANCY	Include all	2	1.3228
339	TESTES PROCEDURES, NON-MALIGNANCY AGE >17	Include all	3	1.3128
341	PENIS PROCEDURES	Include all	3	1.1478
344	OTHER MALE REPRODUCTIVE SYSTEM OR PROCEDURES FOR MALIGNANCY	Include all	2	1.0823
345	OTHER MALE REPRODUCTIVE SYSTEM O.R. PROC EXCEPT FOR MALIGNANCY	Include all	3	1.0088
346	MALIGNANCY, MALE REPRODUCTIVE SYSTEM, W/CC	Include all	2	0.9279
347	MALIGNANCY, MALE REPRODUCTIVE SYSTEM, W/O CC	Include all	2	1.0317
350	INFLAMMATION OF THE MALE REPRODUCTIVE SYSTEM	Include all	3	1.0638
352	OTHER MALE REPRODUCTIVE SYSTEM DIAGNOSES	Include all	3	1.2148
476	PROSTATIC O.R. PROCEDURE UNRELATED TO PRINCIPAL DIAGNOSIS	Include all	3	0.7348
573	MAJOR BLADDER PROCEDURES	Include all	2	1.1210

Appendix E

2009 Changes to DRG Groupings for Mortality

The changes to the DRGs used for the 2009 methodology are noted below. In cases where new DRGs have been created from older categories, both DRG groupings were used in the 2009 rankings: the older DRGs for previous years' data, the newer DRGs for the most recent data year. The older DRG groupings are listed in the 2007 and 2008 methodology reports, available at www.rti.org/besthospitals.

Specialty	DRGs Added	DRGs Removed
Cancer	574: MAJOR HEMATOLOGIC/IMMUNOLOGIC DIAGNOSES EXCEPT SICKLE CELL CRISIS AND COAGULATION DISORDERS	
Diabetes & Endocrine Disorders	No changes.	No changes.
Digestive Disorders	567: STOMACH ESOPHAGEAL & DUODENAL PROCEDURES AGE >17 WITH COMPLICATIONS/COMORBIDITY WITH MAJOR GASTROINTESTINAL DIAGNOSIS 568: STOMACH ESOPHAGEAL & DUODENAL PROCEDURES AGE >17 WITH COMPLICATIONS/COMORBIDITY WITHOUT MAJOR GASTROINTESTINAL DIAGNOSIS 569: MAJOR SMALL & LARGE BOWEL PROCEDURES WITH CC WITH MAJOR GASTROINTESTINAL DIAGNOSIS 570: MAJOR SMALL & LARGE BOWEL PROCEDURES WITH CC WITHOUT MAJOR GASTROINTESTINAL DIAGNOSIS 571: MAJOR ESOPHAGEAL DISORDERS 572: MAJOR DIGESTIVE DISORDERS AND PERITONEAL INFECTIONS	148: MAJOR SMALL & LARGE BOWEL PROCEDURES W CC 154: STOMACH, ESOPHAGEAL & DUODENAL PROCEDURES AGE >17 W CC
Ear, Nose, & Throat	No changes.	No changes.
Geriatrics	No changes.	No changes.
Gynecology	No changes.	No changes.
Heart & Heart Surgery	No changes.	No changes.
Kidney Disorders	573: MAJOR BLADDER PROCEDURES	No changes.
Neurology & Neurosurgery	560: BACTERIAL & TUBERCULOSIS INFECTIONS OF NERVOUS SYSTEM 561: NON-BACTERIAL INFECTIONS OF NERVOUS SYSTEM EXCEPT VIRAL MENINGITIS 562: SEIZURE AGE > 17 WITH CC 577: CAROTID ARTERY STENT PROCEDURE	4: SPINAL PROCEDURES 5: EXTRACRANIAL VASCULAR PROCEDURES 20: NERVOUS SYSTEM INFECTION EXCEPT VIRAL MENINGITIS 24: SEIZURE & HEADACHE AGE >17 W CC
Orthopedics	No changes.	
Respiratory Disorders	565: RESPIRATORY SYSTEM DIAGNOSIS WITH VENTILATOR SUPPORT 96+ HOURS 566: RESPIRATORY SYSTEM DIAGNOSIS WITH VENTILATOR SUPPORT <96 HOURS 575: SEPTICEMIA WITH MECHANICAL VENTILATION 96+ HOURS AGE >17 576: SEPTICEMIA WITHOUT MECHANICAL VENTILATION 96+ HOURS AGE >17	475: RESPIRATORY SYSTEM DIAGNOSIS WITH VENTILATOR SUPPORT 483: TRAC W MECH VENT 96+HRS OR PDX EXCEPT FACE, MOUTH & NECK DX
Urology	573: MAJOR BLADDER PROCEDURES	No changes.

Appendix F

2009 Index of Hospital Quality (IHQ)

Scores, by Specialty

Final IHQ-Driven Rankings 2009—Cancer

Rank	Hospital	US News		Patient safety			Discharges(3 years)	Nurse staffing	Nurse Magnet hospital	NQ cancer center	Key technologies (of		Patient services (of	
		Score	Reputation (%)	Mortality index	index (higher is better)	index					FACT credit	7)	8)	Intensivists
1	University of Texas MD Anderson Cancer Center, Houston	100.0	624	0.36	4	5,722	1.9	Yes	Yes	1.0	7	8	Yes	
2	Memorial Sloan-Kettering Cancer Center, New York	94.1	589	0.62	5	7,088	1.7	Nb	Yes	1.0	7	7	Yes	
3	Johns Hopkins Hospital, Baltimore	62.6	306	0.58	2	2,091	2.1	Yes	Yes	1.0	7	8	Yes	
4	Mayo Clinic, Rochester, Minn.	59.6	27.8	0.57	1	4,785	2.9	Yes	Yes	1.0	7	8	Yes	
5	Dana-Farber Cancer Institute, Boston	48.6	282	1.04	3	212	0.6	Yes	Yes	1.0	7	8	Nb	
6	University of Washington Medical Center, Seattle	47.7	18.7	0.63	1	1,127	2.1	Yes	Yes	1.0	7	8	Yes	
7	Massachusetts General Hospital, Boston	43.8	142	0.72	4	2,564	2.1	Yes	Yes	1.0	7	8	Yes	
8	University of California, San Francisco Medical Center	40.4	11.7	0.62	3	1,546	2.2	Nb	Yes	1.0	7	8	Yes	
9	Duke University Medical Center, Durham NC	38.3	103	0.76	3	2,635	2.0	Yes	Yes	1.0	7	8	Yes	
10	Stanford Hospital and Clinics, Stanford, Calif.	37.2	12.6	0.84	1	1,227	1.9	Yes	Yes	1.0	7	6	Yes	
11	Ronald Reagan UCLA Medical Center, Los Angeles	36.7	7.0	0.53	3	1,505	2.6	Yes	Yes	1.0	7	8	Yes	
12	Cleveland Clinic	35.7	7.6	0.70	2	2,972	1.9	Yes	Yes	1.0	7	8	Yes (+3SD)	
13	Vanderbilt University Medical Center, Nashville	34.1	5.6	0.66	5	1,464	1.9	Yes	Yes	1.0	7	8	Nb	
14	Hospital of the University of Pennsylvania, Philadelphia	33.7	5.1	0.62	3	1,909	1.5	Yes	Yes	1.0	7	8	Yes	
15	Brigham and Women's Hospital, Boston	31.6	5.4	0.75	2	2,112	2.4	Nb	Yes	1.0	7	8	Yes	
16	H Lee Moffitt Cancer Center and Research Institute, Tampa	31.0	4.2	0.54	1	2,126	1.2	Nb	Yes	1.0	6	8	Yes	
17	University of Chicago Medical Center	30.6	3.5	0.74	2	1,872	2.5	Yes	Yes	1.0	7	8	Yes	
18	Ohio State University James Cancer Hospital, Columbus	30.4	2.3	0.71	3	2,954	2.5	Yes	Yes	1.0	7	8	Yes	
19	University of Michigan Hospitals and Health Centers, Ann Arbor	30.3	4.2	0.72	2	2,302	2.7	Nb	Yes	1.0	7	8	Nb	
20	Fox Chase Cancer Center, Philadelphia	30.1	6.1	0.87	4	1,111	1.4	Yes	Yes	1.0	7	7	Yes	
21	Yale New Haven Hospital, New Haven, Conn.	29.7	2.5	0.65	2	1,715	2.7	Nb	Yes	1.0	7	8	Yes	
22	City of Hope, Duarte, Calif.	29.6	4.9	0.72	1	1,159	2.2	Nb	Yes	1.0	7	8	Nb	
23	University of Alabama Hospital at Birmingham	29.3	2.8	0.72	1	1,721	2.1	Yes	Yes	1.0	7	8	Yes	
24	Barnes-Jewish Hospital/Washington University, St. Louis	29.0	2.8	0.76	3	3,765	1.7	Yes	Yes	1.0	7	8	Nb	
25	NYU Langone Medical Center, New York	28.5	1.3	0.67	5	1,679	1.4	Yes	Yes	.5	7	7	Yes	
26	Wake Forest Univ. Baptist Medical Center, Winston-Salem, NC	28.4	0.5	0.68	4	1,766	1.6	Yes	Yes	1.0	7	8	Yes	
27	University of Iowa Hospitals and Clinics, Iowa City	28.3	1.0	0.56	1	1,321	1.6	Yes	Yes	1.0	7	8	Yes	
28	NY-Presbyterian University Hospital of Columbia and Cornell	28.2	1.7	0.71	2	4,077	2.0	Nb	Yes	1.0	7	8	Yes (+2SD)	
29	Methodist Hospital, Houston	27.9	1.2	0.56	3	2,082	1.8	Yes	Nb	1.0	7	8	Yes	
30	Thomas Jefferson University Hospital, Philadelphia	27.1	0.9	0.69	4	1,502	1.9	Nb	Yes	1.0	7	8	Nb	
31	Northwestern Memorial Hospital, Chicago	27.0	3.1	0.85	1	2,366	1.6	Yes	Yes	1.0	6	8	Yes	
32	Clarian Health, Indianapolis	26.8	1.5	0.80	1	2,240	2.1	Yes	Yes	1.0	7	8	Yes	
33	University of Maryland Medical Center, Baltimore	26.7	0.4	0.57	2	878	2.0	Nb	Yes	1.0	7	8	Yes	
34	University of Minnesota Medical Center-Fairview, Minneapolis	26.7	0.3	0.63	2	1,187	1.9	Yes	Yes	1.0	7	8	Nb	
35	University of Wisconsin Hospital and Clinics, Madison	26.7	2.1	0.76	2	1,253	2.0	Nb	Yes	1.0	7	7	Yes	
36	University Hospitals Case Medical Center, Cleveland	26.4	1.3	0.76	1	1,241	1.6	Yes	Yes	1.0	7	8	Yes	
37	University of North Carolina Hospitals, Chapel Hill	25.7	1.7	0.73	1	1,249	1.8	Nb	Yes	1.0	7	8	Nb	
38	Oregon Health and Science University, Portland	25.5	1.1	0.68	1	902	2.1	Nb	Yes	1.0	7	8	Nb	
39	University of Virginia Medical Center, Charlottesville	25.3	1.5	0.72	1	1,508	2.1	Yes	Yes	0	7	8	Nb	
40	Robert Wood Johnson University Hospital, New Brunswick, N.J.	25.2	0.4	0.87	5	1,575	2.0	Yes	Yes	1.0	7	8	Yes	
41	UPMC University of Pittsburgh Medical Center	25.1	2.3	0.86	2	2,580	2.0	Nb	Yes	1.0	7	8	Nb	
42	Mount Sinai Medical Center, New York	25.0	0.4	0.73	2	2,981	1.8	Yes	Nb	1.0	7	8	Yes	
43	Beth Israel Deaconess Medical Center, Boston	25.0	0.2	0.70	1	1,552	1.5	Nb	Yes	1.0	6	8	Yes	
44	Cedars-Sinai Medical Center, Los Angeles	24.8	1.3	0.83	5	2,341	2.2	Yes	Nb	1.0	7	7	Nb	
45	Shands at the University of Florida, Gainesville	24.7	2.5	0.81	1	1,469	1.6	Yes	Nb	1.0	7	8	Yes	
46	Emory University Hospital, Atlanta	24.7	2.0	0.79	3	1,441	2.0	Nb	Nb	1.0	6	8	Yes	
47	University of California, San Diego Medical Center	24.6	0.5	0.70	1	729	1.8	Nb	Yes	1.0	6	8	Yes	
48	USC Norris Cancer Hospital, Los Angeles	24.4	0.4	0.53	2	878	1.3	Nb	Yes	.5	7	6	Nb	
49	Mayo Clinic, Jacksonville, Fla.	24.2	0.8	0.77	4	995	2.6	Nb	Yes	1.0	3	7	Nb	
50	Dartmouth-Hitchcock Medical Center, Lebanon, NH	24.2	0.2	0.77	1	947	2.7	Yes	Yes	.5	7	8	Yes	

Final IHQ-Driven Rankings 2009—Diabetes & Endocrine Disorders

Rank	Hospital	US News		Patient safety		Discharges (3 years)	Nurse staffing	Nurse Magnet hospital	Key technologies (of 4)	Patient services (of 8)	Intensivists
		Score	Reputation (%)	Mortality index	index (higher is better)						
1	Mayo Clinic, Rochester, Minn.	100.0	82.2	0.50	1	1,965	29	Yes	4	8	Yes
2	Massachusetts General Hospital, Boston	79.4	63.4	0.73	4	1,480	21	Yes	4	8	Yes
3	Johns Hopkins Hospital, Baltimore	61.3	40.4	0.43	2	997	21	Yes	4	8	Yes
4	University of California, San Francisco Medical Center	48.0	27.9	0.52	3	780	22	Nb	4	8	Yes
5	NY-Presbyterian University Hospital of Columbia and Cornell	41.6	20.5	0.50	2	2,381	20	Nb	4	8	Yes
6	Cleveland Clinic	35.2	17.1	0.74	2	1,515	1.9	Yes	4	8	Yes
7	Brigham and Women's Hospital, Boston	30.9	9.6	0.53	2	1,085	24	Nb	4	8	Yes (+3SD)
8	Ronald Reagan UCLA Medical Center, Los Angeles	30.2	11.4	0.26	3	521	26	Yes	4	8	Yes
9	Yale-New Haven Hospital, New Haven, Conn.	29.7	6.8	0.43	2	1,719	27	Nb	4	8	Yes
10	Hospital of the University of Pennsylvania, Philadelphia	29.0	8.9	0.65	3	838	1.5	Yes	4	8	Yes
11	Barnes-Jewish Hospital Washington University, St. Louis	28.8	10.3	0.71	3	1,678	1.7	Yes	4	8	Nb
12	University of Virginia Medical Center, Charlottesville	28.4	14.2	0.83	1	1,057	2.1	Yes	4	8	Nb
13	Joslin Clinic and Beth Israel Deaconess Medical Center, Boston	26.8	6.2	0.55	1	1,380	1.5	Nb	4	8	Yes
14	University of Chicago Medical Center	25.5	6.8	0.74	2	917	2.5	Yes	4	8	Yes (+2SD)
15	Vanderbilt University Medical Center, Nashville	24.7	6.0	0.74	5	1,080	1.9	Yes	4	8	Nb
16	Washington Hospital Center, Washington, D.C.	24.4	3.3	0.53	3	1,595	1.8	Nb	4	8	Nb
17	University of Michigan Hospitals and Health Centers, Ann Arbor	23.0	1.3	0.45	2	1,072	2.7	Nb	4	8	Nb
18	Beaumont Hospital, Royal Oak, Mich.	22.9	0.0	0.51	4	1,535	1.6	Yes	4	8	Nb
19	Cedars-Sinai Medical Center, Los Angeles	22.9	1.2	0.63	5	1,453	2.2	Yes	4	7	Nb
20	University of Washington Medical Center, Seattle	22.6	11.6	1.22	1	442	2.1	Yes	4	8	Yes
21	University Hospitals Case Medical Center, Cleveland	22.6	1.0	0.59	1	1,127	1.6	Yes	4	8	Yes
22	Duke University Medical Center, Durham, N.C.	22.5	4.8	0.79	3	1,013	2.0	Yes	4	8	Yes
23	Baystate Medical Center, Springfield, Mass.	22.4	0.0	0.59	4	1,081	1.4	Yes	4	8	Yes
24	Methodist Hospital, Houston	22.4	0.0	0.61	3	1,395	1.8	Yes	4	8	Yes
25	Greenville Memorial Hospital, Greenville, S.C.	22.4	0.6	0.52	4	838	1.7	Nb	4	7	Yes
26	Christ Hospital, Cincinnati	22.4	0.0	0.41	3	895	1.9	Nb	3	8	Yes
27	Ohio State University Hospital, Columbus	22.3	1.4	0.69	3	999	2.5	Yes	4	8	Yes
28	Northwestern Memorial Hospital, Chicago	22.3	2.5	0.65	1	1,144	1.6	Yes	3	8	Yes
29	St. Luke's Episcopal Hospital, Houston	22.1	0.0	0.53	5	997	2.0	Yes	3	7	Nb
30	University of Colorado Hospital, Aurora	21.8	4.4	0.68	1	425	1.6	Yes	4	7	Yes
31	Emory University Hospital, Atlanta	21.8	1.4	0.64	3	970	2.0	Nb	4	8	Yes
32	Tampa General Hospital	21.7	0.0	0.59	2	626	2.3	Yes	4	8	Yes
33	Franklin Square Hospital Center, Baltimore	21.4	0.0	0.61	2	1,238	1.3	Yes	4	8	Yes
34	University of Minnesota Medical Center-Fairview, Minneapolis	21.4	2.2	0.65	2	702	1.9	Yes	4	8	Nb
35	Metropolitan Medical Center, Cleveland	21.2	0.0	0.48	1	610	0.7	Yes	4	8	Yes
36	Union Memorial Hospital, Baltimore	21.0	0.0	0.61	5	807	1.4	Nb	4	8	Yes
37	St. Barnabas Hospital, New York	21.0	0.0	0.41	5	705	0.5	Nb	3	6	Yes
38	Shands at the University of Florida, Gainesville	20.9	3.2	0.75	1	972	1.6	Yes	4	8	Yes
39	Montefiore Medical Center North Division, New York	20.9	0.0	0.43	4	717	1.0	Nb	4	8	Nb
40	Boston Medical Center	20.8	0.0	0.49	2	1,088	2.0	Nb	4	7	Nb
41	University of Texas MD Anderson Cancer Center, Houston	20.8	8.6	1.34	4	380	1.9	Yes	4	8	Yes
42	Grant Medical Center-OhioHealth, Columbus	20.8	0.0	0.65	3	609	2.0	Yes	4	8	Yes
43	Oregon Health and Science University, Portland	20.8	1.2	0.52	1	597	2.1	Nb	4	8	Nb
44	Johns Hopkins Bayview Medical Center, Baltimore	20.7	0.0	0.52	2	835	1.0	Nb	4	8	Yes
45	Santara Norfolk General Hospital, Norfolk, Va.	20.7	0.0	0.63	2	720	1.6	Yes	4	8	Yes
46	Riverside Methodist Hospital-OhioHealth, Columbus	20.7	0.0	0.67	2	1,069	1.9	Yes	4	8	Yes
47	Saint Michael's Medical Center, Newark, N.J.	20.6	0.0	0.56	5	787	2.2	Nb	2	6	Yes
48	Good Samaritan Hospital, Baltimore	20.6	0.0	0.50	3	1,019	1.2	Nb	2	8	Yes
49	University of Illinois Medical Center at Chicago	20.6	0.0	0.52	4	674	1.6	Nb	3	6	Yes
50	Christiana Care Health System, Newark, Del.	20.5	0.0	0.64	2	1,845	1.8	Nb	4	8	Yes

Final IHQ-Driven Rankings 2009—Digestive Disorders

Rank	Hospital	US News		Mortality index	Patient safety index (higher is better)	Discharges (3 years)	Nurse staffing	Nurse Magnet hospital	Key technologies (of 7)	Patient services (of 8)	Trauma center	Intensivists
		Score	Reputation (%)									
1	Mayo Clinic, Rochester, Minn.	100.0	56.0	0.73	1	7,340	2.9	Yes	7	8	Yes	Yes
2	Cleveland Clinic	61.3	31.7	0.89	2	4,461	1.9	Yes	7	8	Nb	Yes
3	Johns Hopkins Hospital, Baltimore	57.8	25.6	0.59	2	3,196	2.1	Yes	7	8	Yes	Yes
4	Massachusetts General Hospital, Boston	56.5	25.7	0.82	4	4,743	2.1	Yes	7	8	Yes	Yes
5	Ronald Reagan UCLA Medical Center, Los Angeles	37.5	12.1	0.77	3	2,278	2.6	Yes	7	8	Yes	Yes
6	University of Chicago Medical Center	36.7	12.9	0.85	2	2,714	2.5	Yes	7	8	Yes	Yes
7	Mount Sinai Medical Center, New York	34.8	14.7	0.99	2	6,010	1.8	Yes	7	8	Yes	Yes
8	Hospital of the University of Pennsylvania, Philadelphia	34.8	13.4	0.93	3	2,238	1.5	Yes	7	8	Yes	Yes
9	University of California, San Francisco Medical Center	32.9	10.8	0.81	3	2,131	2.2	Nb	7	8	Nb	Yes
10	Cedars-Sinai Medical Center, Los Angeles	28.2	7.0	0.87	5	5,044	2.2	Yes	7	7	Yes	Nb
11	Bigham and Women's Hospital, Boston	28.0	6.3	0.77	2	3,145	2.4	Nb	6	8	Yes	Yes
12	NY-Presbyterian University Hospital of Columbia and Cornell	27.9	8.1	0.90	2	7,147	2.0	Nb	7	8	Yes	Yes
13	Clarian Health, Indianapolis	27.4	6.6	0.87	1	5,234	2.1	Yes	7	8	Yes	Yes (+3SD)
14	University of Michigan Hospitals and Health Centers, Ann Arbor	26.5	7.2	0.88	2	3,866	2.7	Nb	7	8	Yes	Nb
15	Barnes-Jewish Hospital/Washington University, St. Louis	24.2	7.6	0.99	3	5,685	1.7	Yes	7	8	Yes	Nb
16	Methodist Hospital, Houston	23.7	2.2	0.69	3	3,827	1.8	Yes	7	8	Nb	Yes
17	Duke University Medical Center, Durham, NC	23.2	8.2	1.07	3	3,572	2.0	Yes	7	8	Yes	Yes
18	UPMC/University of Pittsburgh Medical Center	23.2	7.2	0.98	2	5,282	2.0	Nb	7	8	Yes	Nb
19	Beth Israel Deaconess Medical Center, Boston	22.8	2.7	0.75	1	4,122	1.5	Nb	7	8	Yes	Yes
20	Medical University of South Carolina, Charleston	22.7	8.5	1.07	5	2,101	2.0	Nb	7	7	Yes	Yes
21	Thomas Jefferson University Hospital, Philadelphia	22.5	3.8	0.86	4	2,945	1.9	Nb	7	8	Yes	Nb
22	Yale-New Haven Hospital, New Haven, Conn.	22.3	1.4	0.71	2	3,857	2.7	Nb	7	8	Yes	Yes (+2SD)
23	University of Texas MD Anderson Cancer Center, Houston	21.9	3.1	0.71	4	1,326	1.9	Yes	6	8	Nb	Yes
24	Mayo Clinic, Jacksonville, Fla.	20.8	2.5	0.78	4	3,197	2.6	Nb	4	7	Nb	Nb
25	University of Washington Medical Center, Seattle	20.6	3.3	0.72	1	1,459	2.1	Yes	7	8	Nb	Yes
26	Rush University Medical Center, Chicago	20.5	0.5	0.76	2	2,722	2.0	Yes	6	8	Yes	Yes
27	Henry Ford Hospital, Detroit	20.5	1.2	0.78	1	4,219	1.8	Nb	7	8	Yes	Yes
28	St. Luke's Episcopal Hospital, Houston	20.3	0.6	0.74	5	3,774	2.0	Yes	6	7	Nb	Nb
29	University of Minnesota Medical Center-Fairview, Minneapolis	20.1	0.2	0.68	2	2,050	1.9	Yes	7	8	Yes	Nb
30	Greenville Memorial Hospital, Greenville, SC	19.9	0.6	0.75	4	3,209	1.7	Nb	5	7	Yes	Yes
31	Franklin Square Hospital Center, Baltimore	19.9	0.0	0.61	2	3,433	1.3	Yes	6	8	Nb	Yes
32	Vanderbilt University Medical Center, Nashville	19.9	1.7	0.88	5	2,288	1.9	Yes	7	8	Yes	Nb
33	Abbott Northwestern Hospital, Minneapolis	19.8	0.0	0.70	2	3,172	2.1	Yes	6	8	Yes	Nb
34	University of Wisconsin Hospital and Clinics, Madison	19.6	0.8	0.78	2	2,281	2.0	Nb	7	7	Yes	Yes
35	Lenox Hill Hospital, New York	19.5	1.5	0.69	5	2,308	1.7	Nb	3	6	Nb	Nb
36	St. Francis Hospital, Roslyn, N.Y.	19.5	0.0	0.82	5	2,239	2.5	Yes	5	8	Yes	Yes
37	Christiana Care Health System, Newark, Del.	19.3	0.6	0.81	2	6,943	1.8	Nb	6	8	Yes	Yes
38	University Hospitals Case Medical Center, Cleveland	19.3	0.5	0.81	1	2,972	1.6	Yes	7	8	Yes	Yes
39	Beaumont Hospital, Royal Oak, Mich.	19.2	0.0	0.80	4	6,872	1.6	Yes	6	8	Yes	Nb
40	Lancaster General Hospital, Lancaster, Pa.	19.2	0.5	0.80	3	3,554	1.5	Yes	6	8	Yes	Nb
41	Hillcrest Hospital, Cleveland	19.2	0.0	0.70	4	3,160	1.4	Nb	6	8	Yes	Nb
42	Advocate Good Samaritan Hospital, Downers Grove, Ill.	19.0	0.0	0.71	3	2,643	1.9	Nb	6	8	Yes	Nb
43	Baltimore-Washington Medical Center, Gen. Burnie, Md.	18.9	0.0	0.73	4	2,951	1.5	Nb	6	8	Nb	Yes
44	Genesis Regional Medical Center, Grand Blanc, Mich.	18.9	0.2	0.70	5	2,979	1.8	Nb	3	7	Yes	Nb
45	Akron General Medical Center, Ohio	18.9	0.0	0.75	5	2,966	1.8	Nb	2	8	Yes	Yes
46	Mayo Clinic Hospital, Phoenix	18.8	1.8	0.85	3	2,872	3.0	Nb	7	7	Nb	Nb
47	Mary Washington Hospital, Fredericksburg, Va.	18.7	0.0	0.72	4	3,425	1.4	Nb	5	8	Nb	Yes
48	Sinai-Graze Hospital, Detroit	18.7	0.0	0.65	3	2,236	1.2	Nb	6	8	Yes	Nb
49	John Muir Medical Center, Walnut Creek, Calif.	18.6	0.0	0.80	2	2,190	2.0	Yes	5	8	Yes	Yes
50	Aurora St. Luke's Medical Center, Milwaukee	18.6	0.2	0.82	2	5,103	1.4	Yes	7	8	Nb	Yes

Final IHQ-Driven Rankings 2009—Ear, Nose & Throat

Rank	Hospital	US News		Patient safety		Discharges (3 years)	Nurse staffing	Nurse Magnet hospital	Key technology (of 1)	Patient services (of 8)	Trauma center	Intensivists
		Score	Reputation (%)	Mortality index	index (higher is better)							
1	Johns Hopkins Hospital, Baltimore	100.0	45.2	0.40	2	285	2.1	Yes	1	8	Yes	Yes
2	University of Texas MD Anderson Cancer Center, Houston	58.4	21.8	0.43	4	413	1.9	Yes	1	8	Nb	Yes
3	University of Iowa Hospitals and Clinics, Iowa City	57.5	20.8	0.13	1	240	1.6	Yes	1	8	Yes	Yes
4	UPMC University of Pittsburgh Medical Center	55.3	26.4	0.98	2	359	2.0	Nb	1	8	Yes	Nb
5	Massachusetts Eye and Ear Infirmary, Boston	53.7	20.4	0.28	5	207	1.5	Nb	0	5	Yes	Nb
6	Hospital of the University of Pennsylvania, Philadelphia	50.6	18.0	0.55	3	368	1.5	Yes	1	8	Yes	Yes
7	Mayo Clinic, Rochester, Minn.	46.8	14.5	0.30	1	508	2.9	Yes	1	8	Yes	Yes
8	Ronald Reagan UCLA Medical Center, Los Angeles	41.7	10.9	0.18	3	281	2.6	Yes	1	8	Yes	Yes
9	Cleveland Clinic	39.4	15.9	0.89	2	283	1.9	Yes	1	8	Nb	Yes
10	Barnes-Jewish Hospital/Washington University, St. Louis	38.4	13.1	0.72	3	343	1.7	Yes	1	8	Yes	Nb
11	University of Michigan Hospitals and Health Centers, Ann Arbor	37.1	13.6	0.79	2	411	2.7	Nb	1	8	Yes	Nb
12	University of Washington Medical Center, Seattle	35.1	10.3	0.57	1	193	2.1	Yes	1	8	Nb	Yes
13	Memorial Sloan-Kettering Cancer Center, New York	34.5	9.7	0.57	5	381	1.7	Nb	1	7	Nb	Yes
14	Stanford Hospital and Clinics, Stanford, Calif.	33.6	11.3	0.77	1	172	1.9	Yes	1	6	Yes	Yes
15	University of California, San Francisco Medical Center	32.1	9.1	0.62	3	172	2.2	Nb	1	8	Nb	Yes
16	Vanderbilt University Medical Center, Nashville	30.0	6.0	0.53	5	253	1.9	Yes	1	8	Yes	Nb (+3SD)
17	Mount Sinai Medical Center, New York	26.0	5.6	0.71	2	283	1.8	Yes	1	8	Yes	Yes
18	Ohio State University Hospital, Columbus	25.4	3.9	0.62	3	461	2.5	Yes	1	8	Yes	Yes
19	NY-Presbyterian University Hospital of Columbia and Cornell	24.8	3.8	0.53	2	353	2.0	Nb	1	8	Yes	Yes
20	University of Miami, Jackson Memorial Hospital	24.4	2.7	0.16	1	289	1.4	Nb	1	8	Yes	Yes
21	Methodist Hospital, Houston	23.5	5.4	0.90	3	147	1.8	Yes	1	8	Nb	Yes
22	Emory University Hospital, Atlanta	22.3	1.7	0.34	3	264	2.0	Nb	1	8	Nb	Yes (+2SD)
23	University of Wisconsin Hospital and Clinics, Madison	21.7	2.2	0.50	2	191	2.0	Nb	1	7	Yes	Yes
24	University of Chicago Medical Center	21.5	1.4	0.54	2	185	2.5	Yes	1	8	Yes	Yes
25	Yale-New Haven Hospital, New Haven, Conn.	21.3	0.7	0.39	2	421	2.7	Nb	1	8	Yes	Yes
26	Clarian Health, Indianapolis	21.3	1.2	0.52	1	397	2.1	Yes	1	8	Yes	Yes
27	University Hospital, Cincinnati	21.1	3.8	0.66	1	213	1.8	Nb	1	8	Yes	Nb
28	Massachusetts General Hospital, Boston	20.6	0.5	0.56	4	249	2.1	Yes	1	8	Yes	Yes
29	University of Minnesota Medical Center-Fairview, Minneapolis	20.2	1.0	0.46	2	168	1.9	Yes	1	8	Yes	Nb
30	Henry Ford Hospital, Detroit	20.1	1.2	0.46	1	190	1.8	Nb	1	8	Yes	Yes
31	University of Maryland Medical Center, Baltimore	20.1	0.5	0.42	2	268	2.0	Nb	1	8	Yes	Yes
32	Washington Hospital Center, Washington, D.C.	20.0	1.0	0.39	3	168	1.8	Nb	1	8	Yes	Nb
33	University of Kentucky Chandler Hospital, Lexington	19.9	0.0	0.24	1	174	1.7	Yes	1	6	Yes	Yes
34	Thomas Jefferson University Hospital, Philadelphia	19.6	1.8	0.63	4	275	1.9	Nb	1	8	Yes	Nb
35	Medical University of South Carolina, Charleston	19.4	0.6	0.59	5	239	2.0	Nb	1	7	Yes	Yes
36	University of Kansas Hospital, Kansas City	19.3	1.0	0.58	3	204	2.1	Yes	1	7	Yes	Nb
37	Brigham and Women's Hospital, Boston	18.7	0.4	0.55	2	227	2.4	Nb	1	8	Yes	Yes
38	Shands at the University of Florida, Gainesville	18.3	1.2	0.67	1	263	1.6	Yes	1	8	Yes	Yes
39	St. Joseph's Hospital, Marshfield, Wis.	18.3	0.0	0.24	4	114	1.9	Yes	1	7	Yes	Yes
40	Beth Israel Deaconess Medical Center, Boston	18.1	0.0	0.42	1	198	1.5	Nb	1	8	Yes	Yes
41	Beth Israel Medical Center, New York	18.1	2.0	0.73	3	364	1.3	Nb	1	8	Yes	Yes
42	Charleston Area Medical Center, Charleston, W.Va.	18.0	0.0	0.56	4	186	1.7	Nb	1	8	Yes	Yes
43	Norton Healthcare, Louisville, Ky.	18.0	0.0	0.37	4	153	1.0	Yes	0	8	Yes	Nb
44	University Hospital, Newark, N.J.	18.0	0.7	0.36	2	114	2.0	Nb	1	8	Yes	Yes
45	Ochsner Medical Center, New Orleans	17.9	0.5	0.14	3	77	1.3	Yes	1	8	Yes	Yes
46	Dartmouth-Hitchcock Medical Center, Lebanon, NH	17.8	0.2	0.20	1	94	2.7	Yes	1	8	Yes	Yes
47	University of Virginia Medical Center, Charlottesville	17.8	3.7	0.87	1	174	2.1	Yes	1	8	Yes	Nb
48	Mayo Clinic, Jacksonville, Fla.	17.7	1.2	0.53	4	128	2.6	Nb	1	7	Nb	Nb
49	New York Eye and Ear Infirmary	17.4	1.2	0.00	5	47	1.3	Nb	1	8	Yes	Nb
50	Rush University Medical Center, Chicago	17.4	1.6	0.57	2	131	2.0	Yes	1	8	Yes	Yes

Final IHQ-Driven Rankings 2009—Geriatric Care

Rank	Hospital	US News		Patient safety index (higher is better)		Discharges (3 years)	Nurse staffing	Nurse Magnet hospital	NA Alzheimer's center	Patient services (of 9)	Intensivists
		Score	Reputation (%)	Mortality index							
1	Ronald Reagan UCLA Medical Center, Los Angeles	100.0	50.8	0.65	3	7,811	2.6	Yes	Yes	9	Yes
2	Johns Hopkins Hospital, Baltimore	86.4	39.2	0.57	2	10,108	2.1	Yes	Yes	9	Yes
3	Mount Sinai Medical Center, New York	83.8	39.5	0.86	2	27,238	1.8	Yes	Yes	9	Yes
4	Massachusetts General Hospital, Boston	58.0	19.4	0.68	4	22,272	2.1	Yes	Yes	9	Yes
5	Duke University Medical Center, Durham, N.C.	53.8	20.3	0.88	3	11,732	2.0	Yes	Yes	9	Yes
6	Mayo Clinic, Rochester, Minn.	47.0	12.4	0.67	1	32,303	2.9	Yes	Yes	9	Yes
7	Yale-New Haven Hospital, New Haven, Conn.	46.4	16.0	0.73	2	17,196	2.7	Nb	Nb	7	Yes
8	UPMC-University of Pittsburgh Medical Center	40.5	12.6	0.87	2	23,810	2.0	Nb	Yes	9	Nb
9	University of California, San Francisco Medical Center	39.4	11.6	0.81	3	7,270	2.2	Nb	Yes	9	Yes
10	Cleveland Clinic	37.0	7.9	0.57	2	18,080	1.9	Yes	Nb	9	Yes
11	Johns Hopkins Bayview Medical Center, Baltimore	36.4	10.6	0.73	2	9,464	1.0	Nb	Nb	9	Yes
12	NY-Presbyterian University Hospital of Columbia and Cornell	36.4	6.6	0.71	2	38,623	2.0	Nb	Yes	9	Yes
13	Emory University Hospital, Atlanta	34.5	8.0	0.86	3	12,362	2.0	Nb	Yes	8	Yes
14	University of Washington Medical Center, Seattle	34.4	8.1	0.74	1	4,134	2.1	Yes	Yes	9	Yes
15	University of Michigan Hospitals and Health Centers, Ann Arbor	34.0	7.0	0.78	2	11,979	2.7	Nb	Yes	9	Nb
16	University of Alabama Hospital at Birmingham	33.8	9.8	0.89	1	8,468	2.1	Yes	Yes	9	Yes
17	Beth Israel Deaconess Medical Center, Boston	33.6	8.7	0.79	1	18,916	1.5	Nb	Nb	9	Yes
18	NYU Medical Center, New York	32.7	2.8	0.58	5	17,724	1.4	Yes	Yes	8	Yes
19	Northwestern Memorial Hospital, Chicago	32.1	3.7	0.69	1	14,099	1.6	Yes	Yes	9	Yes
20	Hospital of the University of Pennsylvania, Philadelphia	32.0	6.2	0.72	3	8,129	1.5	Yes	Yes	9	Yes (+3 SD)
21	Boston Medical Center	31.7	8.2	0.85	2	6,921	2.0	Nb	Yes	7	Nb
22	Barnes-Jewish Hospital/Washington University, St. Louis	31.0	3.6	0.77	3	18,297	1.7	Yes	Yes	9	Nb
23	Brigham and Women's Hospital, Boston	29.8	2.6	0.71	2	13,369	2.4	Nb	Yes	9	Yes
24	Rush University Medical Center, Chicago	29.6	1.6	0.62	2	9,893	2.0	Yes	Yes	9	Yes
25	Shands at the University of Florida, Gainesville	28.4	5.8	0.87	1	12,489	1.6	Yes	Nb	9	Yes
26	Washington Hospital Center, Washington, D.C.	27.5	4.2	0.69	3	15,743	1.8	Nb	Nb	7	Nb
27	Clarian Health, Indianapolis	26.8	0.7	0.78	1	17,068	2.1	Yes	Yes	8	Yes
28	Methodist Hospital, Houston	26.6	1.0	0.59	3	17,534	1.8	Yes	Nb	8	Yes
29	St. Louis University Hospital	26.5	10.1	0.99	1	4,086	1.4	Nb	Nb	8	Nb
30	Hackensack University Medical Center, N.J.	26.4	2.0	0.84	5	25,707	2.0	Yes	Nb	9	Yes
31	St. Francis Hospital, Roslyn, N.Y.	26.2	0.0	0.62	5	17,333	2.5	Yes	Nb	8	Yes
32	Mount Sinai Medical Center, Miami Beach, Fla.	25.8	1.1	0.68	5	16,975	1.2	Nb	Yes	6	Nb (+2 SD)
33	Cedars-Sinai Medical Center, Los Angeles	24.8	0.7	0.72	5	25,349	2.2	Yes	Nb	6	Nb
34	University of Chicago Medical Center	24.5	3.0	0.68	2	7,560	2.5	Yes	Nb	9	Yes
35	University of Miami, Jackson Memorial Hospital	24.5	5.2	1.01	1	7,599	1.4	Nb	Yes	9	Yes
36	Beaumont Hospital, Royal Oak, Mich.	24.3	0.7	0.74	4	41,877	1.6	Yes	Nb	8	Nb
37	Sarasota Memorial Health Care System, Fla.	23.7	1.5	0.93	3	22,919	1.5	Yes	Yes	8	Yes
38	Aurora St. Luke's Medical Center, Milwaukee	23.6	0.6	0.78	2	32,245	1.4	Yes	Nb	8	Yes
39	Franklin Square Hospital Center, Baltimore	23.5	0.5	0.73	2	16,711	1.3	Yes	Nb	8	Yes
40	University Hospitals Case Medical Center, Cleveland	23.5	1.6	0.82	1	13,583	1.6	Yes	Nb	9	Yes
41	St. Luke's Episcopal Hospital, Houston	23.1	0.0	0.68	5	15,475	2.0	Yes	Nb	5	Nb
42	Union Memorial Hospital, Baltimore	23.0	0.0	0.65	5	9,983	1.4	Nb	Nb	9	Yes
43	Mayo Clinic, Jacksonville, Fla.	23.0	0.7	0.85	4	14,145	2.6	Nb	Yes	6	Nb
44	Lehigh Valley Hospital, Allentown, Pa.	22.9	0.0	0.80	1	23,399	2.1	Yes	Nb	9	Yes
45	Sentara Norfolk General Hospital, Norfolk, Va.	22.9	2.3	0.80	2	8,735	1.6	Yes	Nb	9	Yes
46	Christ Hospital, Cincinnati	22.9	0.3	0.62	3	11,227	1.9	Nb	Nb	7	Yes
47	Tampa General Hospital	22.8	2.3	0.78	2	8,473	2.3	Yes	Nb	7	Yes
48	Stanford Hospital and Clinics, Stanford, Calif.	22.7	5.8	0.98	1	9,388	1.9	Yes	Nb	6	Yes
49	Abbott Northwestern Hospital, Minneapolis	22.7	0.3	0.78	2	18,951	2.1	Yes	Nb	9	Nb
50	Loyola University Hospital, Maywood, Ill.	22.6	1.1	0.68	1	11,397	2.1	Nb	Nb	9	Nb

Final IHQ-Driven Rankings 2009—Gynecology

Rank	Hospital	US News		Patient safety		Discharges (3 years)	Nurse staffing	Nurse Magnet hospital	Key technologies (of 5)	Patient services (of 9)	Intensivists
		Score	Reputation (%)	Mortality index	index (higher is better)						
1	Brigham and Women's Hospital, Boston	100.0	26.9	0.31	2	733	24	Nb	5	9	Yes
2	Johns Hopkins Hospital, Baltimore	79.0	21.3	0.73	2	317	2.1	Yes	5	9	Yes
3	Mayo Clinic, Rochester, Minn.	76.4	18.4	0.41	1	1,177	2.9	Yes	5	9	Yes
4	Duke University Medical Center, Durham, N.C.	66.2	14.4	0.34	3	488	2.0	Yes	5	9	Yes
5	University of California, San Francisco Medical Center	59.5	12.3	0.19	3	277	2.2	Nb	5	9	Yes
6	Cleveland Clinic	56.0	10.5	0.22	2	691	1.9	Yes	5	9	Yes
7	Magee-Women's Hospital of UPMC, Pittsburgh	51.7	11.4	0.48	1	507	1.4	Nb	5	9	Nb
8	NY-Presbyterian University Hospital of Columbia and Cornell	51.2	9.9	0.37	2	552	2.0	Nb	5	9	Yes
9	Massachusetts General Hospital, Boston	51.2	9.2	0.41	4	447	2.1	Yes	5	9	Yes
10	Ronald Reagan UCLA Medical Center, Los Angeles	48.9	7.7	0.08	3	247	2.6	Yes	5	9	Yes
11	Parkland Memorial Hospital, Dallas	45.8	12.9	1.14	1	135	1.9	Nb	1	8	Yes
12	University of Texas MD. Anderson Cancer Center, Houston	44.2	6.3	0.30	4	442	1.9	Yes	5	9	Yes
13	Memorial Sloan-Kettering Cancer Center, New York	43.3	6.9	0.39	5	669	1.7	Nb	5	7	Yes
14	Stanford Hospital and Clinics, Stanford, Calif.	43.2	6.9	0.30	1	259	1.9	Yes	5	7	Yes
15	University of Washington Medical Center, Seattle	42.3	6.0	0.20	1	350	2.1	Yes	5	8	Yes
16	Vanderbilt University Medical Center, Nashville	42.0	6.5	0.47	5	451	1.9	Yes	5	9	Nb
17	Hospital of the University of Pennsylvania, Philadelphia	39.0	5.8	0.49	3	282	1.5	Yes	5	9	Yes
18	Northwestern Memorial Hospital, Chicago	37.6	5.8	0.53	1	350	1.6	Yes	4	9	Yes
19	Yale-New Haven Hospital, New Haven, Conn.	37.4	5.6	0.55	2	681	2.7	Nb	5	9	Yes
20	Ohio State University Hospital, Columbus	35.9	4.8	0.63	3	585	2.5	Yes	5	9	Yes (+3SD)
21	Beth Israel Deaconess Medical Center, Boston	35.6	5.0	0.31	1	235	1.5	Nb	4	9	Yes
22	Tampa General Hospital	34.5	4.0	0.45	2	308	2.3	Yes	4	9	Yes
23	University of Michigan Hospitals and Health Centers, Ann Arbor	33.2	4.0	0.43	2	417	2.7	Nb	5	9	Nb
24	University of North Carolina Hospitals, Chapel Hill	33.0	5.0	0.56	1	413	1.8	Nb	5	9	Nb
25	Inova Fairfax Hospital, Falls Church, Va.	31.7	2.3	0.35	1	647	2.0	Yes	5	9	Yes
26	University of Alabama Hospital at Birmingham	31.6	5.2	0.89	1	836	2.1	Yes	5	9	Yes
27	Shands at the University of Florida, Gainesville	31.1	3.5	0.56	1	333	1.6	Yes	5	9	Yes
28	Mount Sinai Medical Center, New York	31.0	2.6	0.48	2	492	1.8	Yes	5	9	Yes
29	University of California, Irvine Medical Center, Orange	31.0	3.6	0.55	2	161	2.1	Yes	4	9	Yes
30	USC University Hospital, Los Angeles	29.9	4.4	0.00	3	19	1.8	Nb	5	5	Nb
31	Barnes-Jewish Hospital/Washington University, St. Louis	29.6	3.4	0.66	3	693	1.7	Yes	5	9	Nb
32	Baylor University Medical Center, Dallas	29.3	3.4	0.64	2	760	1.8	Yes	5	8	Nb
33	University of Texas Southwestern Medical Center, Dallas	28.8	4.5	0.76	4	297	1.6	Nb	5	8	Nb
34	University of Utah Health Care, Salt Lake City	28.7	3.1	0.34	1	283	1.4	Nb	4	8	Nb (+2SD)
35	Methodist Hospital, Houston	28.1	1.8	0.52	3	349	1.8	Yes	5	9	Yes
36	University of Iowa Hospitals and Clinics, Iowa City	27.9	1.5	0.42	1	448	1.6	Yes	5	9	Yes
37	Dartmouth-Hitchcock Medical Center, Lebanon, NH	27.9	0.4	0.12	1	303	2.7	Yes	5	9	Yes
38	Cleveland Clinic Florida, Weston	27.8	0.7	0.00	5	327	1.8	Nb	3	8	Yes
39	Banner Good Samaritan Medical Center, Phoenix	27.7	2.5	0.51	1	201	1.6	Yes	4	9	Yes
40	University of Kentucky Chandler Hospital, Lexington	27.6	2.7	0.61	1	589	1.7	Yes	4	7	Yes
41	University of Colorado Hospital, Aurora	27.2	1.7	0.38	1	214	1.6	Yes	4	8	Yes
42	Advocate Lutheran General Hospital, Park Ridge, Ill.	27.1	0.0	0.11	4	333	1.6	Yes	5	8	Yes
43	Medical University of South Carolina, Charleston	26.7	1.3	0.41	5	283	2.0	Nb	4	8	Yes
44	Emory University Hospital, Atlanta	26.5	3.4	0.79	3	378	2.0	Nb	4	9	Yes
45	Albany Medical Center, Albany, N.Y.	26.3	1.3	0.09	2	338	1.8	Nb	5	4	Nb
46	Wake Forest Univ. Baptist Medical Center, Winston-Salem, N.C.	26.2	0.7	0.47	4	421	1.6	Yes	5	9	Yes
47	University of Chicago Medical Center	26.2	2.4	0.74	2	313	2.5	Yes	5	9	Yes
48	University of Minnesota Medical Center-Fairview, Minneapolis	26.0	0.4	0.23	2	431	1.9	Yes	5	9	Nb
49	Cedars-Sinai Medical Center, Los Angeles	25.9	4.6	1.18	5	560	2.2	Yes	5	8	Nb
50	Rush University Medical Center, Chicago	25.5	0.4	0.30	2	530	2.0	Yes	2	9	Yes

Final IHQ-Driven Rankings 2009—Heart & Heart Surgery

Rank	Hospital	US News		Patient safety index (higher is better)		Discharges (3 years)	Nurse staffing	Nurse Magnet hospital	Key technologies (of 7)	Patient services (of 7)	Trauma center	Intensivists
		Score	Reputation (%)	Mortality index	index (higher is better)							
1	Cleveland Clinic	1000	655	0.48	2	14,415	1.9	Yes	7	7	Nb	Yes
2	Mayo Clinic, Rochester, Minn.	81.4	503	0.71	1	14,270	2.9	Yes	7	7	Yes	Yes
3	Johns Hopkins Hospital, Baltimore	520	238	0.59	2	4,550	2.1	Yes	7	7	Yes	Yes
4	Massachusetts General Hospital, Boston	497	21.5	0.69	4	8,890	2.1	Yes	7	7	Yes	Yes
5	Texas Heart Institute at St. Luke's Episcopal Hospital, Houston	463	202	0.65	5	10,525	2.0	Yes	6	6	Nb	Nb
6	Bighamand Women's Hospital, Boston	450	194	0.68	2	6,153	2.4	Nb	7	7	Yes	Yes
7	NY Presbyterian University Hospital of Columbia and Cornell	432	167	0.63	2	17,377	2.0	Nb	7	7	Yes	Yes (+3SD)
8	Duke University Medical Center, Durham, NC	358	11.4	0.79	3	7,470	2.0	Yes	7	7	Yes	Yes
9	Hospital of the University of Pennsylvania, Philadelphia	340	9.8	0.73	3	4,466	1.5	Yes	7	7	Yes	Yes
10	Ronald Reagan UCLA Medical Center, Los Angeles	333	6.9	0.55	3	3,297	2.6	Yes	6	7	Yes	Yes
11	NYU Medical Center, New York	306	5.8	0.67	5	6,165	1.4	Yes	6	6	Yes	Yes
12	Barnes Jewish Hospital/Washington University, St. Louis	303	5.4	0.66	3	10,173	1.7	Yes	7	7	Yes	Nb
13	Emory University Hospital, Atlanta	294	10.8	0.92	3	6,379	2.0	Nb	6	7	Nb	Yes
14	Stanford Hospital and Clinics, Stanford, Calif.	294	11.4	0.98	1	3,330	1.9	Yes	7	6	Yes	Yes (+2SD)
15	Cedars-Sinai Medical Center, Los Angeles	289	4.4	0.73	5	8,217	2.2	Yes	7	6	Yes	Nb
16	University of Michigan Hospitals and Health Centers, Ann Arbor	289	6.4	0.72	2	6,318	2.7	Nb	7	7	Yes	Nb
17	Vanderbilt University Medical Center, Nashville	274	3.8	0.74	5	3,869	1.9	Yes	7	7	Yes	Nb
18	Mount Sinai Medical Center, New York	273	3.7	0.77	2	11,240	1.8	Yes	7	7	Yes	Yes
19	Methodist Hospital, Houston	268	2.8	0.68	3	7,890	1.8	Yes	7	7	Nb	Yes
20	Washington Hospital Center, Washington, DC	265	2.0	0.57	3	12,479	1.8	Nb	7	7	Yes	Nb
21	Beaumont Hospital, Royal Oak, Mich.	264	4.5	0.79	4	17,435	1.6	Yes	5	7	Yes	Nb
22	Northwestern Memorial Hospital, Chicago	264	3.1	0.66	1	5,280	1.6	Yes	6	7	Yes	Yes
23	St. Francis Hospital, Roslyn, N.Y.	259	0.4	0.69	5	13,371	2.5	Yes	5	7	Yes	Yes
24	Shands at the University of Florida, Gainesville	258	3.9	0.81	1	7,329	1.6	Yes	7	7	Yes	Yes
25	University of Chicago Medical Center	252	0.4	0.62	2	3,721	2.5	Yes	7	7	Yes	Yes
26	Sentara Norfolk General Hospital-Sentara Heart Hospital, Norfolk, Va.	248	0.0	0.62	2	6,932	1.6	Yes	7	7	Yes	Yes
27	University of Alabama Hospital at Birmingham	247	3.7	0.85	1	5,047	2.1	Yes	7	7	Yes	Yes
28	Hadassah University Medical Center, N.J.	242	0.0	0.76	5	10,501	2.0	Yes	6	7	Yes	Yes
29	Lenox Hill Hospital, New York	241	2.8	0.58	5	6,728	1.7	Nb	5	4	Nb	Nb
30	Rush University Medical Center, Chicago	241	0.3	0.59	2	3,598	2.0	Yes	6	6	Yes	Yes
31	University of California, San Francisco Medical Center	240	4.9	0.83	3	2,654	2.2	Nb	7	6	Nb	Yes
32	UPMC University of Pittsburgh Medical Center	240	5.3	0.91	2	10,016	2.0	Nb	7	7	Yes	Nb
33	Christ Hospital, Cincinnati	238	1.5	0.65	3	6,439	1.9	Nb	6	7	Nb	Yes
34	Tampa General Hospital	238	1.3	0.74	2	4,150	2.3	Yes	6	7	Yes	Yes
35	Yale New Haven Hospital, New Haven, Conn.	238	2.5	0.77	2	6,401	2.7	Nb	6	6	Yes	Yes
36	Robert Wood Johnson University Hospital, New Brunswick, N.J.	237	0.0	0.80	5	8,241	2.0	Yes	7	7	Yes	Yes
37	Ohio State University Hospital, Columbus	236	0.9	0.82	3	6,363	2.5	Yes	7	7	Yes	Yes
38	Abbott Northwestern Hospital, Minneapolis	236	0.9	0.71	2	8,903	2.1	Yes	6	7	Yes	Nb
39	University of Kansas Hospital, Kansas City	235	0.0	0.56	3	2,592	2.1	Yes	6	6	Yes	Nb
40	Banner Good Samaritan Medical Center, Phoenix	234	0.0	0.61	1	4,476	1.6	Yes	6	7	Yes	Yes
41	Beth Israel Deaconess Medical Center, Boston	231	3.2	0.74	1	7,280	1.5	Nb	4	7	Yes	Yes
42	Union Memorial Hospital, Baltimore	229	0.0	0.62	5	6,400	1.4	Nb	4	7	Yes	Yes
43	Greenville Memorial Hospital, Greenville, SC	228	0.0	0.61	4	8,520	1.7	Nb	4	6	Yes	Yes
44	Virginia Commonwealth University Health System Richmond	227	0.6	0.76	2	3,722	2.2	Yes	7	6	Yes	Yes
45	Loyola University Hospital, Maywood, Ill.	226	0.3	0.57	1	5,363	2.1	Nb	6	7	Yes	Nb
46	Harper University Hospital, Detroit	225	0.3	0.57	4	5,243	1.8	Nb	6	7	Nb	Nb
47	Newark Beth Israel Medical Center	225	0.0	0.57	5	5,561	1.5	Nb	6	7	Nb	Nb
48	Ochsner Medical Center, New Orleans	225	2.2	0.86	3	3,210	1.3	Yes	7	7	Yes	Yes
49	Inova Fairfax Hospital, Falls Church, Va.	224	0.0	0.78	1	8,698	2.0	Yes	7	7	Yes	Yes
50	Henry Ford Hospital, Detroit	224	0.6	0.73	1	7,680	1.8	Nb	7	7	Yes	Yes

Final IHQ-Driven Rankings 2009—Kidney Disorders

Rank	Hospital	US News		Patient safety		Discharges (3 years)	Nurse staffing	Nurse Magnet hospital	Key technologies (of 7)	Patient services (of 8)	Trauma center	Intensivists
		Score	Reputation (%)	Mortality index	index (higher is better)							
1	Bigham and Women's Hospital, Boston	100.0	34.8	0.72	2	1,288	24	Nb	7	8	Yes	Yes
2	NY-Presbyterian University Hospital of Columbia and Cornell	87.4	28.4	0.67	2	3,540	20	Nb	7	8	Yes	Yes
3	Mayo Clinic, Rochester, Minn.	86.8	27.0	0.57	1	2,657	29	Yes	7	8	Yes	Yes
4	Massachusetts General Hospital, Boston	84.6	27.2	0.79	4	1,629	21	Yes	7	8	Yes	Yes
5	Cleveland Clinic	82.9	25.7	0.58	2	2,336	1.9	Yes	7	8	Nb	Yes
6	Johns Hopkins Hospital, Baltimore	79.3	23.0	0.44	2	1,663	21	Yes	7	8	Yes	Yes
7	Ronald Reagan UCLA Medical Center, Los Angeles	69.4	18.3	0.49	3	1,190	26	Yes	7	8	Yes	Yes
8	Barnes-Jewish Hospital/Washington University, St. Louis	58.7	15.4	0.75	3	3,018	1.7	Yes	7	8	Yes	Nb
9	Vanderbilt University Medical Center, Nashville	56.5	12.3	0.42	5	1,246	1.9	Yes	7	8	Yes	Nb
10	University of California, San Francisco Medical Center	55.7	13.1	0.52	3	1,345	22	Nb	7	8	Nb	Yes
11	Duke University Medical Center, Durham, N.C.	52.8	12.2	0.75	3	1,492	20	Yes	7	8	Yes	Yes
12	UPMC University of Pittsburgh Medical Center	46.4	9.8	0.67	2	1,827	20	Nb	7	8	Yes	Nb
13	University of Alabama Hospital at Birmingham	46.3	8.2	0.58	1	2,138	21	Yes	7	8	Yes	Yes
14	Hospital of the University of Pennsylvania, Philadelphia	45.6	7.9	0.55	3	994	1.5	Yes	7	8	Yes	Yes
15	University of Colorado Hospital, Aurora	41.2	6.8	0.55	1	607	1.6	Yes	6	7	Yes	Yes
16	University of Washington Medical Center, Seattle	39.8	6.7	0.65	1	675	2.1	Yes	7	8	Nb	Yes (+3SD)
17	University of Chicago Medical Center	35.9	3.3	0.50	2	1,255	2.5	Yes	7	8	Yes	Yes
18	University of Michigan Hospitals and Health Centers, Ann Arbor	36.5	4.2	0.54	2	1,988	2.7	Nb	7	8	Yes	Nb
19	Yale New Haven Hospital, New Haven, Conn.	36.3	5.1	0.74	2	1,609	2.7	Nb	7	8	Yes	Yes
20	Cedars-Sinai Medical Center, Los Angeles	36.2	3.2	0.57	5	1,689	2.2	Yes	7	7	Yes	Nb
21	Stanford Hospital and Clinics, Stanford, Calif.	36.0	5.9	0.78	1	674	1.9	Yes	7	6	Yes	Yes
22	University of Minnesota Medical Center-Fairview, Minneapolis	35.9	3.3	0.31	2	909	1.9	Yes	7	8	Yes	Nb
23	University of Texas Southwestern Medical Center, Dallas	34.2	4.5	0.62	4	867	1.6	Nb	7	7	Nb	Nb
24	Beth Israel Deaconess Medical Center, Boston	34.0	3.9	0.64	1	1,673	1.5	Nb	6	8	Yes	Yes
25	Emory University Hospital, Atlanta	34.0	5.1	0.79	3	1,384	2.0	Nb	6	8	Nb	Yes
26	Wake Forest Univ. Baptist Medical Center, Winston-Salem, N.C.	33.4	2.2	0.66	4	1,946	1.6	Yes	7	8	Yes	Yes
27	Methodist Hospital, Houston	32.3	1.6	0.51	3	1,419	1.8	Yes	7	8	Nb	Yes
28	University of North Carolina Hospitals, Chapel Hill	32.3	4.3	0.75	1	1,275	1.8	Nb	7	8	Yes	Nb
29	Rush University Medical Center, Chicago	32.2	1.6	0.46	2	1,133	2.0	Yes	5	8	Yes	Yes
30	Mount Sinai Medical Center, New York	31.6	2.4	0.75	2	2,344	1.8	Yes	7	8	Yes	Yes
31	University of Wisconsin Hospital and Clinics, Madison	31.4	1.2	0.40	2	1,697	2.0	Nb	7	7	Yes	Yes
32	University of Maryland Medical Center, Baltimore	31.3	1.1	0.32	2	1,203	2.0	Nb	7	8	Yes	Yes
33	Ohio State University Hospital, Columbus	31.2	1.1	0.66	3	1,704	2.5	Yes	7	8	Yes	Yes
34	University of Iowa Hospitals and Clinics, Iowa City	31.0	1.7	0.57	1	709	1.6	Yes	7	8	Yes	Yes
35	Medical University of South Carolina, Charleston	31.0	1.5	0.61	5	1,087	2.0	Nb	6	7	Yes	Yes (+2SD)
36	Memorial Hermann-Texas Medical Center, Houston	29.9	1.4	0.43	2	1,001	2.0	Nb	6	8	Yes	Nb
37	Tampa General Hospital	29.6	0.0	0.40	2	1,072	2.3	Yes	6	8	Yes	Yes
38	Clarian Health, Indianapolis	29.6	0.2	0.55	1	2,474	2.1	Yes	7	8	Yes	Yes
39	Northwestern Memorial Hospital, Chicago	29.5	1.0	0.62	1	1,841	1.6	Yes	6	8	Yes	Yes
40	St. Luke's Episcopal Hospital, Houston	29.5	0.7	0.52	5	1,461	2.0	Yes	6	7	Nb	Nb
41	NYU Medical Center, New York	29.5	0.4	0.60	5	835	1.4	Yes	7	7	Yes	Yes
42	Sentara Norfolk General Hospital, Norfolk, Va.	29.4	0.0	0.48	2	1,236	1.6	Yes	7	8	Yes	Yes
43	University of California, San Diego Medical Center	29.3	1.9	0.61	1	651	1.8	Nb	6	8	Yes	Yes
44	Virginia Commonwealth University Health System, Richmond	29.2	0.7	0.60	2	729	2.2	Yes	7	7	Yes	Yes
45	Hackensack University Medical Center, N.J.	29.0	0.4	0.73	5	1,487	2.0	Yes	7	8	Yes	Yes
46	Banner Good Samaritan Medical Center, Phoenix	28.8	0.0	0.35	1	754	1.6	Yes	7	8	Yes	Yes
47	Baylor University Medical Center, Dallas	28.6	0.7	0.64	2	1,630	1.8	Yes	7	8	Yes	Nb
48	University of Kansas Hospital, Kansas City	28.1	0.0	0.40	3	763	2.1	Yes	6	7	Yes	Nb
49	Hennepin County Medical Center, Minneapolis	28.1	1.3	0.40	1	659	1.5	Nb	3	8	Yes	Yes
50	University Medical Center, Tucson, Ariz.	27.9	0.0	0.46	1	572	2.2	Yes	6	8	Yes	Yes

Final IHQ-Driven Rankings 2009—Neurology & Neurosurgery

Rank	Hospital	US News		Patient safety index (higher is better)		Discharges (3 years)	Nurse staffing	Nurse Magnet hospital	Epilepsy center	NAAZahrner's center	Key technologies (of 5)	Patient services (of 9)	Trauma center	Intensivists
		Score	Reputation (%)	Mortality index	Letter									
1	Mayo Clinic, Rochester, Minn.	1000	437	0.84	1	5661	29	Yes	Yes	Yes	5	9	Yes	Yes
2	Johns Hopkins Hospital, Baltimore	984	401	0.57	2	3670	21	Yes	Yes	Yes	5	9	Yes	Yes
3	University of California, San Francisco Medical Center	860	364	0.84	3	2731	22	No	Yes	Yes	5	9	No	Yes
4	Massachusetts General Hospital, Boston	831	353	0.95	4	4051	21	Yes	Yes	Yes	5	9	Yes	Yes
5	NY Presbyterian University Hospital of Columbia and Cornell	766	298	0.81	2	6294	20	No	Yes	Yes	5	9	Yes	Yes
6	Quest Diagnostics	735	275	0.64	2	4402	19	Yes	Yes	No	5	9	No	Yes
7	Ronald Reagan UCLA Medical Center, Los Angeles	449	143	1.01	3	1926	26	Yes	Yes	Yes	5	9	Yes	Yes
8	Barnes-Jewish Hospital/Washington University, St. Louis	446	110	0.86	3	4754	17	Yes	Yes	Yes	5	9	Yes	No
9	St. Joseph's Hospital and Medical Center, Phoenix	419	189	1.38	2	4251	18	No	Yes	Yes	5	8	Yes	Yes
10	NYU Medical Center, New York	386	35	0.54	5	3669	14	Yes	Yes	Yes	5	8	Yes	Yes (+3SD)
11	Northwestern Memorial Hospital, Chicago	361	38	0.64	1	2831	16	Yes	Yes	Yes	4	9	Yes	Yes
12	Rush University Medical Center, Chicago	343	18	0.44	2	2989	20	Yes	Yes	Yes	3	9	Yes	Yes
13	Methodist Hospital, Houston	338	29	0.56	3	5289	18	Yes	Yes	No	5	8	No	Yes
14	Emory University Hospital, Atlanta	328	57	0.91	3	4039	20	No	Yes	Yes	5	9	No	Yes
15	Cedars-Sinai Medical Center, Los Angeles	325	22	0.67	5	4407	22	Yes	Yes	No	5	7	Yes	No
16	Mount Sinai Medical Center, New York	318	21	0.70	2	3222	18	Yes	No	Yes	5	9	Yes	Yes
17	UPMC University of Pittsburgh Medical Center	316	76	1.02	2	5977	20	No	Yes	Yes	5	9	Yes	No
18	Duke University Medical Center, Durham, NC	312	62	1.03	3	3599	20	Yes	Yes	Yes	5	9	Yes	Yes
19	University of Chicago Medical Center	307	18	0.68	2	1766	25	Yes	Yes	No	5	9	Yes	Yes
20	University of Texas Southwestern Medical Center, Dallas	307	19	0.69	4	2237	16	No	Yes	Yes	5	8	No	No
21	Hospital of the University of Pennsylvania, Philadelphia	296	96	1.22	3	2216	15	Yes	Yes	Yes	5	9	Yes	Yes (+2SD)
22	University of Iowa Hospitals and Clinics, Iowa City	287	17	0.74	1	2052	16	Yes	Yes	No	5	9	Yes	Yes
23	Brigham and Women's Hospital, Boston	287	66	1.07	2	3054	24	No	Yes	Yes	5	9	Yes	Yes
24	Hospital for Special Surgery, New York	285	00	0.04	5	1654	23	Yes	No	No	5	9	Yes	No
25	University of Washington Medical Center, Seattle	283	29	0.78	1	1091	21	Yes	Yes	Yes	5	9	No	Yes
26	Clarian Health, Indianapolis	276	10	0.86	1	4389	21	Yes	Yes	Yes	5	8	Yes	Yes
27	St. Luke's Episcopal Hospital, Houston	270	00	0.67	5	3029	20	Yes	Yes	No	4	7	No	No
28	Stanford Hospital and Clinics, Stanford, Calif.	267	53	0.98	1	2472	19	Yes	Yes	No	5	6	Yes	Yes
29	Haper University Hospital, Detroit	267	00	0.43	4	1952	18	No	Yes	No	4	8	No	No
30	Yale New Haven Hospital, New Haven, Conn.	260	27	0.90	2	2651	27	No	Yes	No	5	8	Yes	Yes
31	Abott Northwestern Hospital, Minneapolis	259	00	0.78	2	4882	21	Yes	Yes	No	5	9	Yes	No
32	Pennsylvania Hospital, Philadelphia	258	00	0.59	5	1688	16	No	No	No	5	9	No	Yes
33	Mount Sinai Medical Center, Miami Beach, Fla.	255	00	0.65	5	1983	12	No	No	Yes	5	5	No	No
34	Ben Secours Cottage Health Services, Grosse Pointe, Mich.	254	00	0.68	5	1687	13	No	No	No	5	9	Yes	Yes
35	Christ Hospital, Cincinnati	249	00	0.56	3	2180	19	No	No	No	4	8	No	Yes
36	Henry Ford Hospital, Detroit	248	03	0.80	1	3728	18	No	Yes	No	5	9	Yes	Yes
37	Sinai-Greech Hospital, Detroit	243	00	0.62	3	1888	12	No	No	No	5	9	Yes	No
38	Sinai Hospital of Baltimore	242	00	0.65	2	2481	16	Yes	No	No	4	7	Yes	No
39	Lerox Hill Hospital, New York	242	00	0.55	5	1990	17	No	No	No	4	6	No	No
40	Beaumont Hospital, Royal Oak, Mich.	242	03	0.82	4	6799	16	Yes	No	No	5	9	Yes	No
41	Genesys Regional Medical Center, Grand Blanc, Mich.	241	00	0.71	5	2919	18	No	No	No	3	8	Yes	No
42	Baptist Medical Center, Jacksonville, Fla.	239	00	0.65	3	2284	16	Yes	No	No	4	8	No	No
43	Baltimore-Washington Medical Center, Gen. Burnie, Md.	238	00	0.74	4	2800	15	No	No	No	5	9	No	Yes
44	Greenville Memorial Hospital, Greenville, SC	238	00	0.78	4	3239	17	No	No	No	5	7	Yes	Yes
45	USC University Hospital, Los Angeles	237	15	0.30	3	952	18	No	Yes	Yes	5	5	No	No
46	Long Island Jewish Medical Center, New Hyde Park, N.Y.	237	00	0.77	4	2044	14	No	No	No	5	9	Yes	Yes
47	Staten Island University Hospital, Staten Island, N.Y.	237	00	0.75	5	2073	11	No	No	No	4	8	Yes	Yes
48	St. John Hospital and Medical Center, Detroit	236	00	0.71	4	3488	14	No	No	No	4	7	Yes	No
49	Beaumont Hospital, Troy, Mich.	236	00	0.76	4	2646	17	No	No	No	5	9	Yes	No
50	St. Barnabas Medical Center, Livingston, N.J.	235	00	0.83	4	2017	19	No	Yes	No	5	9	No	Yes

Final IHQ-Driven Rankings 2009—Orthopedics

Rank	Hospital	US News		Patient safety index (higher is better)		Discharges (3 years)	Nurse staffing	Nurse Magnet hospital	Key technologies (of 2)	Patient services (of 7)	Trauma center	Intensivists
		Score	Reputation (%)	Mortality index								
1	Mayo Clinic, Rochester, Minn.	100.0	40.5	0.44	1	9,688	29	Yes	2	7	Yes	Yes
2	Hospital for Special Surgery, New York	99.4	39.5	0.11	5	12,621	23	Yes	2	7	Yes	Nb
3	Massachusetts General Hospital, Boston	73.5	26.3	0.55	4	4,422	21	Yes	2	7	Yes	Yes
4	Cleveland Clinic	63.7	22.1	0.54	2	4,604	1.9	Yes	2	7	Nb	Yes
5	Johns Hopkins Hospital, Baltimore	42.9	12.4	0.73	2	1,535	21	Yes	2	7	Yes	Yes
6	Duke University Medical Center, Durham, NC	41.3	11.2	0.78	3	3,259	20	Yes	2	7	Yes	Yes
7	NY-Presbyterian University Hospital of Columbia and Cornell	40.5	10.7	0.68	2	4,032	20	Nb	2	7	Yes	Yes
8	University of Iowa Hospitals and Clinics, Iowa City	38.6	8.7	0.45	1	2,170	1.6	Yes	2	7	Yes	Yes
9	NYU Hospital for Joint Diseases, New York	37.7	7.8	0.60	5	4,910	1.4	Yes	2	6	Yes	Yes
10	UPMC University of Pittsburgh Medical Center	36.5	9.2	0.72	2	4,880	20	Nb	2	7	Yes	Nb
11	Barnes-Jewish Hospital/Washington University, St. Louis	34.3	7.3	0.70	3	3,588	1.7	Yes	2	7	Yes	Nb
12	Rush University Medical Center, Chicago	33.9	5.7	0.40	2	4,715	20	Yes	1	7	Yes	Yes
13	Ronald Reagan UCLA Medical Center, Los Angeles	33.8	8.3	0.55	3	529	2.6	Yes	0	7	Yes	Yes
14	Brigham and Women's Hospital, Boston	31.4	5.1	0.55	2	3,060	2.4	Nb	2	7	Yes	Yes
15	University of Washington Medical Center, Seattle	30.1	6.8	0.65	1	1,549	2.1	Yes	1	7	Nb	Yes
16	Stanford Hospital and Clinics, Stanford, Calif.	30.1	4.7	0.62	1	3,460	1.9	Yes	2	5	Yes	Yes (+3SD)
17	Thomas Jefferson University Hospital, Philadelphia	29.1	4.1	0.58	4	4,418	1.9	Nb	2	7	Yes	Nb
18	Harborview Medical Center, Seattle	28.8	8.0	1.08	1	1,201	2.3	Nb	2	6	Yes	Yes
19	University of California, San Francisco Medical Center	28.7	4.2	0.51	3	2,082	2.2	Nb	2	7	Nb	Yes
20	University Hospitals Case Medical Center, Cleveland	27.7	3.4	0.61	1	2,750	1.6	Yes	2	7	Yes	Yes
21	Mount Sinai Medical Center, New York	25.9	3.9	0.83	2	2,502	1.8	Yes	2	7	Yes	Yes
22	Northwestern Memorial Hospital, Chicago	25.8	2.1	0.56	1	3,108	1.6	Yes	2	7	Yes	Yes
23	New England Baptist Hospital, Boston	24.5	1.4	0.26	4	6,824	1.7	Nb	2	7	Nb	Nb
24	Clarian Health, Indianapolis	24.1	1.1	0.61	1	3,466	2.1	Yes	2	7	Yes	Yes
25	Hospital of the University of Pennsylvania, Philadelphia	23.8	4.6	1.04	3	739	1.5	Yes	2	7	Yes	Yes
26	Cedars-Sinai Medical Center, Los Angeles	23.8	0.4	0.55	5	5,004	2.2	Yes	2	5	Yes	Nb
27	Tampa General Hospital	23.7	0.0	0.41	2	3,765	2.3	Yes	2	6	Yes	Yes
28	Union Memorial Hospital, Baltimore	23.5	0.8	0.42	5	2,585	1.4	Nb	1	7	Yes	Yes (+2SD)
29	Methodist Hospital, Houston	23.3	0.0	0.39	3	5,760	1.8	Yes	2	7	Nb	Yes
30	Holy Cross Hospital, Fort Lauderdale, Fla.	23.3	1.7	0.66	5	4,043	1.1	Yes	1	6	Nb	Yes
31	University of Michigan Hospitals and Health Centers, Ann Arbor	23.3	3.1	0.79	2	2,103	2.7	Nb	2	7	Yes	Nb
32	Grant Medical Center-Ohio Health, Columbus	23.0	0.8	0.70	3	2,919	2.0	Yes	2	7	Yes	Yes
33	Pennsylvania Hospital, Philadelphia	22.9	0.1	0.31	5	3,575	1.6	Nb	2	7	Nb	Yes
34	Dartmouth-Hitchcock Medical Center, Lebanon, NH	22.8	1.3	0.73	1	2,562	2.7	Yes	2	7	Yes	Yes
35	Central DuPage Hospital, Winfield, Ill.	22.8	0.0	0.44	5	3,160	1.3	Nb	2	7	Yes	Yes
36	Abbott Northwestern Hospital, Minneapolis	22.7	0.0	0.49	2	5,644	2.1	Yes	2	7	Yes	Nb
37	Hackensack University Medical Center, N.J.	22.4	0.0	0.65	5	4,063	2.0	Yes	1	7	Yes	Yes
38	Sentara Leigh Hospital, Norfolk, Va.	22.3	0.0	0.47	4	3,745	1.2	Nb	2	7	Yes	Yes
39	John Muir Medical Center, Walnut Creek, Calif.	22.2	0.0	0.47	2	3,173	2.0	Yes	1	6	Yes	Yes
40	Texas Orthopedic Hospital, Houston	22.1	1.0	0.40	5	2,074	2.2	Nb	0	5	Yes	Nb
41	Ohio State University Hospital, Columbus	21.8	3.1	0.89	3	889	2.5	Yes	2	7	Yes	Yes
42	Route Valley Hospital, Fort Collins, Colo.	21.7	0.5	0.70	3	4,043	2.7	Yes	1	5	Yes	Yes
43	Beaumont Hospital, Royal Oak, Mich.	21.6	0.9	0.65	4	8,399	1.6	Yes	0	6	Yes	Nb
44	Long Beach Memorial Medical Center, Long Beach, Calif.	21.3	0.0	0.43	2	2,105	1.4	Nb	2	7	Yes	Yes
45	Virginia Commonwealth University Health System, Richmond	21.2	0.5	0.72	2	1,988	2.2	Yes	2	6	Yes	Yes
46	St. Joseph Hospital, Orange, Calif.	21.1	0.0	0.56	2	2,460	2.0	Yes	2	6	Nb	Yes
47	Bon Secours Cottage Health Services, Grosse Pointe, Mich.	21.1	0.0	0.28	5	2,136	1.3	Nb	0	6	Yes	Yes
48	Christ Hospital, Cincinnati	20.8	0.0	0.46	3	2,198	1.9	Nb	2	6	Nb	Yes
49	Greenville Memorial Hospital, Greenville, S.C.	20.6	0.7	0.69	4	3,062	1.7	Nb	1	5	Yes	Yes
50	Good Samaritan Hospital, Baltimore	20.6	0.0	0.43	3	2,439	1.2	Nb	2	7	Nb	Yes

Final IHQ-Driven Rankings 2009—Respiratory Disorders

Rank	Hospital	US News		Patient safety		Discharges (3 years)	Nurse staffing	Nurse Magnet hospital	Key technologies (of 6)	Patient services (of 8)	Trauma center	Intensivists
		Score	Reputation (%)	Mortality index	index (higher is better)							
1	National Jewish Health, Denver	100.0	45.3	0.51	3	12	1.4	Nb	2	2	Nb	Nb
2	Mayo Clinic, Rochester, Minn.	89.4	33.9	0.79	1	5,989	2.9	Yes	6	8	Yes	Yes
3	Johns Hopkins Hospital, Baltimore	70.2	25.4	0.72	2	2,208	2.1	Yes	6	8	Yes	Yes
4	Cleveland Clinic	61.8	19.6	0.72	2	3,291	1.9	Yes	6	8	Nb	Yes
5	Massachusetts General Hospital, Boston	61.8	18.4	0.75	4	4,673	2.1	Yes	6	8	Yes	Yes
6	Duke University Medical Center, Durham NC	49.1	15.1	0.94	3	4,074	2.0	Yes	6	8	Yes	Yes
7	UPMC/University of Pittsburgh Medical Center	48.9	14.3	0.84	2	5,216	2.0	Nb	6	8	Yes	Nb
8	Hospital of the University of Pennsylvania, Philadelphia	47.8	13.5	0.80	3	2,007	1.5	Yes	6	8	Yes	Yes
9	Barnes-Jewish Hospital/Washington University, St. Louis	47.7	13.9	0.89	3	4,932	1.7	Yes	6	8	Yes	Nb
10	University of California, San Francisco Medical Center	46.4	16.0	0.89	3	1,913	2.2	Nb	6	8	Nb	Yes
11	NY-Presbyterian University Hospital of Columbia and Cornell	44.6	10.6	0.77	2	7,556	2.0	Nb	6	8	Yes	Yes
12	University of Colorado Hospital, Aurora	42.3	11.3	0.83	1	1,567	1.6	Yes	6	7	Yes	Yes
13	Brigham and Women's Hospital, Boston	42.3	9.5	0.77	2	3,599	2.4	Nb	6	8	Yes	Yes
14	University of California, San Diego Medical Center	40.7	11.1	0.73	1	1,302	1.8	Nb	5	8	Yes	Yes
15	University of Michigan Hospitals and Health Centers, Ann Arbor	39.0	9.4	0.86	2	3,621	2.7	Nb	6	8	Yes	Nb
16	University of Washington Medical Center, Seattle	37.4	11.2	0.91	1	1,277	2.1	Yes	6	8	Nb	Yes
17	Ronald Reagan UCLA Medical Center, Los Angeles	37.3	7.7	0.72	3	1,874	2.6	Yes	6	8	Yes	Yes
18	Vanderbilt University Medical Center, Nashville	36.3	6.5	0.83	5	2,563	1.9	Yes	6	8	Yes	Nb
19	Yale-New Haven Hospital, New Haven, Conn.	34.4	5.0	0.71	2	4,240	2.7	Nb	5	8	Yes	Yes (+3SD)
20	Wake Forest Univ. Baptist Medical Center, Winston-Salem NC	30.1	2.6	0.79	4	3,369	1.6	Yes	5	8	Yes	Yes
21	University of Alabama Hospital at Birmingham	29.5	3.1	0.83	1	3,025	2.1	Yes	6	8	Yes	Yes
22	Methodist Hospital, Houston	27.3	0.9	0.70	3	3,736	1.8	Yes	6	8	Nb	Yes
23	Ohio State University Hospital, Columbus	27.1	1.6	0.85	3	3,257	2.5	Yes	6	8	Yes	Yes
24	NYU Medical Center, New York	27.0	0.7	0.74	5	2,728	1.4	Yes	5	7	Yes	Yes (+2SD)
25	Henry Ford Hospital, Detroit	25.6	1.5	0.82	1	4,312	1.8	Nb	6	8	Yes	Yes
26	Clarian Health, Indianapolis	25.6	0.0	0.76	1	5,500	2.1	Yes	6	8	Yes	Yes
27	Thomas Jefferson University Hospital, Philadelphia	25.3	0.9	0.75	4	2,737	1.9	Nb	5	8	Yes	Nb
28	University of Chicago Medical Center	25.3	3.8	0.99	2	2,035	2.5	Yes	6	8	Yes	Yes
29	Cedars-Sinai Medical Center, Los Angeles	24.8	1.8	0.92	5	5,352	2.2	Yes	6	7	Yes	Nb
30	Beaumont Hospital, Royal Oak, Mich.	24.6	0.0	0.78	4	8,171	1.6	Yes	5	8	Yes	Nb
31	Franklin Square Hospital Center, Baltimore	24.6	0.0	0.69	2	4,526	1.3	Yes	5	8	Nb	Yes
32	Northwestern Memorial Hospital, Chicago	24.6	0.6	0.78	1	3,084	1.6	Yes	4	8	Yes	Yes
33	Fairview Hospital, Cleveland	24.3	0.0	0.69	3	2,597	1.2	Yes	5	8	Yes	Nb
34	University of Maryland Medical Center, Baltimore	24.2	1.8	0.71	2	1,632	2.0	Nb	6	8	Yes	Yes
35	Christ Hospital, Cincinnati	24.0	0.0	0.60	3	2,952	1.9	Nb	4	8	Nb	Yes
36	Mercy Hospital, Miami	23.9	0.0	0.73	5	2,506	1.3	Yes	5	5	Nb	Yes
37	St. Luke's Episcopal Hospital, Houston	23.9	0.0	0.71	5	3,279	2.0	Yes	4	7	Nb	Nb
38	San Diego Mercy Hospital, San Diego	23.8	0.0	0.73	2	3,113	1.8	Nb	5	7	Yes	Yes
39	St. Elizabeth Medical Center, Edgewood, Ky.	23.8	0.0	0.83	3	4,159	1.5	Yes	5	8	Yes	Yes
40	Good Samaritan Hospital and Health Center, Dayton, Ohio	23.8	0.0	0.71	3	3,717	1.3	Yes	4	7	Yes	Nb
41	Hillcrest Hospital, Cleveland	23.8	0.4	0.78	4	3,926	1.4	Nb	5	8	Yes	Nb
42	University Hospitals Case Medical Center, Cleveland	23.7	0.4	0.82	1	2,835	1.6	Yes	5	8	Yes	Yes
43	Genesys Regional Medical Center, Grand Blanc, Mich.	23.7	0.0	0.70	5	4,946	1.8	Nb	3	7	Yes	Nb
44	St. Alexius Medical Center, Hoffman Estates, Ill.	23.5	0.0	0.75	4	2,520	1.2	Nb	4	8	Yes	Yes
45	Akron General Medical Center, Ohio	23.4	0.4	0.83	5	4,126	1.8	Nb	3	8	Yes	Yes
46	Maimonides Medical Center, Brooklyn, NY	23.4	0.5	0.73	2	3,515	1.4	Nb	5	7	Nb	Yes
47	Johns Hopkins Bayview Medical Center, Baltimore	23.3	0.0	0.73	2	2,759	1.0	Nb	5	8	Yes	Yes
48	University of Minnesota Medical Center-Fairview, Minneapolis	23.3	1.3	0.69	2	1,858	1.9	Yes	6	8	Yes	Nb
49	Medical University of South Carolina, Charleston	23.3	1.0	0.75	5	1,684	2.0	Nb	5	7	Yes	Yes
50	Robert Wood Johnson University Hospital, New Brunswick, N.J.	23.1	0.9	0.92	5	3,140	2.0	Yes	5	8	Yes	Yes

Final IHQ-Driven Rankings 2009—Urology

Rank	Hospital	US News		Mortality index	Patient safety index (higher is better)	Discharges (3 years)	Nurse staffing	Nurse Magnet hospital	Key technologies (of 5)	Patient services (of 9)	Trauma center	Intensivists
		Score	Reputation (%)									
1	Johns Hopkins Hospital, Baltimore	100.0	59.9	0.42	2	1,331	21	Yes	5	9	Yes	Yes
2	Cleveland Clinic	96.9	59.3	0.57	2	1,300	1.9	Yes	5	9	Nb	Yes
3	Mayo Clinic, Rochester, Minn.	62.6	30.6	0.37	1	2,611	2.9	Yes	5	9	Yes	Yes
4	Ronald Reagan UCLA Medical Center, Los Angeles	57.0	25.9	0.38	3	813	2.6	Yes	5	9	Yes	Yes
5	University of California, San Francisco Medical Center	50.8	22.5	0.35	3	864	2.2	Nb	5	9	Nb	Yes
6	Duke University Medical Center, Durham, NC	45.9	20.5	0.77	3	1,051	2.0	Yes	5	9	Yes	Yes
7	NY-Presbyterian University Hospital of Columbia and Cornell	45.1	17.7	0.37	2	2,559	2.0	Nb	5	9	Yes	Yes
8	Memorial Sloan-Kettering Cancer Center, New York	41.7	17.4	0.65	5	1,463	1.7	Nb	5	7	Nb	Yes
9	University of Texas MD Anderson Cancer Center, Houston	38.1	12.0	0.41	4	800	1.9	Yes	5	9	Nb	Yes
10	Vanderbilt University Medical Center, Nashville	35.9	10.8	0.58	5	1,110	1.9	Yes	5	9	Yes	Nb
11	Massachusetts General Hospital, Boston	32.3	10.4	0.85	4	1,091	2.1	Yes	5	9	Yes	Yes
12	Hospital of the University of Pennsylvania, Philadelphia	31.1	6.2	0.36	3	820	1.5	Yes	5	9	Yes	Yes
13	Methodist Hospital, Houston	31.0	9.1	0.72	3	976	1.8	Yes	5	9	Nb	Yes
14	University of Michigan Hospitals and Health Centers, Ann Arbor	30.2	7.9	0.59	2	1,393	2.7	Nb	5	9	Yes	Nb (+3SD)
15	University of Texas Southwestern Medical Center, Dallas	28.9	7.4	0.47	4	528	1.6	Nb	5	8	Nb	Nb
16	Clarian Health, Indianapolis	28.2	4.7	0.51	1	1,421	2.1	Yes	5	9	Yes	Yes
17	Stanford Hospital and Clinics, Stanford, Calif.	25.9	4.2	0.54	1	499	1.9	Yes	5	7	Yes	Yes
18	University of California, Irvine Medical Center, Orange	25.7	2.5	0.30	2	430	2.1	Yes	4	9	Yes	Yes
19	Brigham and Women's Hospital, Boston	25.6	3.6	0.55	2	913	2.4	Nb	5	9	Yes	Yes
20	NYUMedical Center, New York	24.4	1.5	0.52	5	742	1.4	Yes	5	8	Yes	Yes
21	Barnes-Jewish Hospital/Washington University, St. Louis	24.3	4.8	0.80	3	1,208	1.7	Yes	5	9	Yes	Nb
22	Northwestern Memorial Hospital, Chicago	23.8	2.2	0.54	1	1,155	1.6	Yes	4	9	Yes	Yes
23	Ohio State University Hospital, Columbus	23.8	0.6	0.51	3	1,239	2.5	Yes	5	9	Yes	Yes (+2SD)
24	University of Alabama Hospital at Birmingham	23.7	0.6	0.39	1	972	2.1	Yes	5	9	Yes	Yes
25	St. Luke's Episcopal Hospital, Houston	23.6	2.3	0.50	5	715	2.0	Yes	4	7	Nb	Nb
26	University of Wisconsin Hospital and Clinics, Madison	23.4	1.3	0.40	2	843	2.0	Nb	5	8	Yes	Yes
27	Shands at the University of Florida, Gainesville	23.3	1.2	0.49	1	992	1.6	Yes	5	9	Yes	Yes
28	University of Maryland Medical Center, Baltimore	23.2	0.6	0.25	2	677	2.0	Nb	5	9	Yes	Yes
29	Tampa General Hospital	23.2	0.0	0.27	2	666	2.3	Yes	4	9	Yes	Yes
30	University of Washington Medical Center, Seattle	22.9	1.0	0.30	1	552	2.1	Yes	5	8	Nb	Yes
31	Rush University Medical Center, Chicago	22.8	0.3	0.30	2	644	2.0	Yes	3	9	Yes	Yes
32	Stony Brook University Medical Center, Stony Brook, N.Y.	22.7	0.3	0.23	3	453	2.0	Nb	5	8	Yes	Yes
33	Inova Fairfax Hospital, Falls Church, Va.	22.5	0.6	0.48	1	571	2.0	Yes	5	9	Yes	Yes
34	Beaumont Hospital, Royal Oak, Mich.	22.3	1.1	0.62	4	1,431	1.6	Yes	5	9	Yes	Nb
35	Henry Ford Hospital, Detroit	22.0	0.5	0.44	1	1,266	1.8	Nb	5	9	Yes	Yes
36	City of Hope, Duarte, Calif.	21.8	1.4	0.34	1	907	2.2	Nb	5	8	Nb	Nb
37	St. Luke's Hospital, Kansas City, Mo.	21.7	0.0	0.25	4	379	1.9	Yes	3	8	Yes	Nb
38	Cedars-Sinai Medical Center, Los Angeles	21.6	0.8	0.71	5	1,478	2.2	Yes	5	8	Yes	Nb
39	University of California, San Diego Medical Center	21.3	0.9	0.41	1	360	1.8	Nb	4	9	Yes	Yes
40	Ochsner Medical Center, New Orleans	21.2	0.0	0.48	3	319	1.3	Yes	5	9	Yes	Yes
41	Wake Forest Univ. Baptist Medical Center, Winston-Salem, NC	21.2	0.0	0.62	4	548	1.6	Yes	5	9	Yes	Yes
42	University of Minnesota Medical Center-Fairview, Minneapolis	21.2	0.4	0.57	2	757	1.9	Yes	5	9	Yes	Nb
43	Methodist Medical Center of Illinois, Peoria, Ill.	21.1	0.0	0.36	3	465	1.2	Yes	3	7	Yes	Yes
44	Emory University Hospital, Atlanta	21.1	2.3	0.71	3	914	2.0	Nb	4	9	Nb	Yes
45	Yale-New Haven Hospital, New Haven, Conn.	21.1	0.0	0.54	2	709	2.7	Nb	5	9	Yes	Yes
46	St. John's Hospital, St. Paul, Minn.	21.0	0.0	0.28	4	755	1.8	Nb	5	8	Nb	Nb
47	Geisinger Medical Center, Danville, Pa.	21.0	0.3	0.55	2	468	1.5	Yes	5	9	Yes	Yes
48	University of Chicago Medical Center	21.0	2.3	0.86	2	864	2.5	Yes	5	9	Yes	Yes
49	Lehigh Valley Hospital, Allentown, Pa.	21.0	0.0	0.61	1	816	2.1	Yes	5	9	Yes	Yes
50	Memorial Hermann-Texas Medical Center, Houston	20.9	0.0	0.20	2	452	2.0	Nb	4	9	Yes	Nb

Appendix G

2009 Reputation-Only Rankings

Final Reputation-Only Rankings 2009—Ophthalmology

Rank	Hospital	Reputation (%)
1	Bascom Palmer Eye Institute at the University of Miami	70.4
2	Wilmer Eye Institute, Johns Hopkins Hospital, Baltimore	64.3
3	Wills Eye Hospital, Philadelphia	52.4 (+3 SD)
4	Mass. Eye and Ear Infirmary, Massachusetts Gen. Hosp., Boston	30.2
5	Jules Stein Eye Institute, UCLA Medical Center, Los Angeles	28.8 (+2 SD)
6	University of Iowa Hospitals and Clinics, Iowa City	16.2
7	Duke University Medical Center, Durham, N.C.	13.8
8	Doheny Eye Institute, USC University Hospital, Los Angeles	13.5
9	Emory University Hospital, Atlanta	8.7
10	University of California, San Francisco Medical Center	8.4
11	Cleveland Clinic	8.4
12	Mayo Clinic, Rochester, Minn.	6.3
13	Cullen Eye Institute, Methodist Hospital, Houston	6.2
14	Barnes-Jewish Hospital/Washington University, St. Louis	5.3
15	New York Eye and Ear Infirmary	4.4
16	W.K. Kellogg Eye Center, University of Michigan, Ann Arbor	4.1
17	University of Illinois Medical Center at Chicago	3.1

Final Reputation-Only Rankings 2009—Psychiatry

Rank	Hospital	Reputation (%)
1	Massachusetts General Hospital, Boston	32.7
2	Johns Hopkins Hospital, Baltimore	29.4
3	McLean Hospital, Belmont, Mass.	23.4
4	NY-Presbyterian University Hospital of Columbia and Cornell	21.4
5	UCLA's Neuropsychiatric Hospital, Los Angeles	20.5 (+3 SD)
6	Sheppard and Enoch Pratt Hospital, Baltimore	15.0
7	Mayo Clinic, Rochester, Minn.	14.7
8	UPMC-University of Pittsburgh Medical Center	14.6
9	Menninger Clinic, Houston	14.5 (+2 SD)
10	Emory University Hospital, Atlanta	9.6
11	Yale-New Haven Hospital, New Haven, Conn.	8.7
12	Austen Riggs Center, Stockbridge, Mass.	8.4
13	Duke University Medical Center, Durham, N.C.	7.9
14	Barnes-Jewish Hospital/Washington University, St. Louis	7.2
15	Stanford Hospital and Clinics, Stanford, Calif.	6.5
16	Hospital of the University of Pennsylvania, Philadelphia	5.9
17	University of California, San Francisco Medical Center	5.6
18	NYU Medical Center, New York	5.6
19	Hartford Hospital's Institute of Living, Hartford, Conn.	5.0
20	University of California, San Diego Medical Center	3.9
21	Mount Sinai Medical Center, New York	3.6
22	Methodist Hospital, Houston	3.2

Final Reputation-Only Rankings 2009—Rehabilitation

Rank	Hospital	Reputation (%)
1	Rehabilitation Institute of Chicago	68.0
2	Kessler Institute for Rehabilitation, West Orange, N.J.	40.5
3	University of Washington Medical Center, Seattle	37.2
4	TIRR Memorial Hermann, Houston	30.2 (+3 SD)
5	Mayo Clinic, Rochester, Minn.	24.3
6	Spaulding Rehabilitation Hospital, Boston	18.5 (+2 SD)
7	Craig Hospital, Englewood, Colo.	15.6
8	NYU Rusk Institute of Rehabilitation Medicine, New York	13.0
9	Shepherd Center, Atlanta	9.4
10	Ohio State University Hospital, Columbus	8.5
11	Thomas Jefferson University Hospital, Philadelphia	8.0
12	National Rehabilitation Hospital, Washington, D.C.	6.8
13	Baylor Institute for Rehabilitation, Dallas	6.6
14	UPMC-University of Pittsburgh Medical Center	6.5
15	MossRehab, Elkins Park, Pa.	5.7
16	Johns Hopkins Hospital, Baltimore	5.4
17	University of Colorado Hospital, Aurora	5.3
18	Rancho Los Amigos National Rehabilitation Center, Downey, Calif.	5.1
19	Mount Sinai Medical Center, New York	5.1
20	Virginia Commonwealth University Health System, Richmond	3.9
21	University of Michigan Hospitals and Health Centers, Ann Arbor	3.9
22	Hospital of the University of Pennsylvania, Philadelphia	3.7
23	Cleveland Clinic	3.7

Final Reputation-Only Rankings 2009—Rheumatology

Rank	Hospital	Reputation (%)
1	Johns Hopkins Hospital, Baltimore	55.8
2	Cleveland Clinic	45.4
3	Hospital for Special Surgery, New York	43.2
4	Mayo Clinic, Rochester, Minn.	40.9 (+3 SD)
5	Ronald Reagan UCLA Medical Center, Los Angeles	25.2 (+2 SD)
6	Massachusetts General Hospital, Boston	22.1
7	Brigham and Women's Hospital, Boston	18.1
8	University of Alabama Hospital at Birmingham	16.4
9	University of California, San Francisco Medical Center	14.6
10	UPMC-University of Pittsburgh Medical Center	14.3
11	NYU Hospital for Joint Diseases, New York	10.2
12	Northwestern Memorial Hospital, Chicago	8.9
13	University of Michigan Hospitals and Health Centers, Ann Arbor	7.6
14	Stanford Hospital and Clinics, Stanford, Calif.	7.5
15	Hospital of the University of Pennsylvania, Philadelphia	7.5
16	Medical University of South Carolina, Charleston	6.0
17	Duke University Medical Center, Durham, N.C.	5.6
18	Barnes-Jewish Hospital/Washington University, St. Louis	4.9
19	University of Colorado Hospital, Aurora	4.3
20	NY-Presbyterian University Hospital of Columbia and Cornell	4.2
21	University of California, San Diego Medical Center	4.0
22	University of Washington Medical Center, Seattle	3.7
23	Methodist Hospital, Houston	3.4
24	Boston Medical Center	3.1

Appendix H

The 2009 Honor Roll

Honor Roll 2009

Rank	Hospital	Points	Specialties
1	Johns Hopkins Hospital, Baltimore	30	15
2	Mayo Clinic, Rochester, Minn.	28	15
3	Ronald Reagan UCLA Medical Center, Los Angeles	26	15
4	Cleveland Clinic	26	13
5	Massachusetts General Hospital, Boston	25	13
6	NY-Presbyterian University Hospital of Columbia and Cornell	24	13
7	University of California, San Francisco Medical Center	21	11
8	Hospital of the University of Pennsylvania, Philadelphia	19	12
9	Barnes-Jewish Hospital/Washington University, St. Louis	17	12
10	Brigham and Women's Hospital, Boston	17	10
10	Duke University Medical Center, Durham, N.C.	17	10
12	University of Washington Medical Center, Seattle	16	8
13	UPMC-University of Pittsburgh Medical Center	13	8
14	University of Michigan Hospitals and Health Centers, Ann Arbor	12	8
15	Stanford Hospital and Clinics, Stanford, Calif.	11	7
16	Vanderbilt University Medical Center, Nashville	11	6
17	NYU Langone Medical Center, New York	10	7
17	Yale-New Haven Hospital, New Haven, Conn.	10	7
19	Mount Sinai Medical Center, New York	9	7
20	Methodist Hospital, Houston	8	7
21	Ohio State University Hospital, Columbus	7	6

