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The 2002 Index of Hospital Quality

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1050 Thomas Jefferson Street, N.W., Washington, DC 20007-3837
Tel: 202-955-2000
U.S. News Online: http://www.usnews.com

NORC 6075

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I Introduction

Health care providers and consumers today face a dynamic and often puzzling array of choices with few tools to inform their critical decisions about quality of care. No single standard measure of quality of care is available for the 6,045 hospitals in the United States. In 1993, the National Opinion Research Center at the University of Chicago (NORC) developed such a measure. This "report card" is supported and published annually by *U.S. News & World Report* in an issue entitled "America's Best Hospitals" that identifies centers of exceptional capability in 17 medical specialties.

In the NORC report card, each hospital receives a score called the Index of Hospital Quality (IHQ) that assesses hospital quality by taking into account the three fundamental dimensions of health care delivery: structure, process, and outcome (the Donabedian paradigm[1,2]). None of these dimensions alone can completely and accurately represent quality of care; all three must be combined to produce a comprehensive measure. Care starts with the structural characteristics of an institution (such as the number of patients served and the range of medical technology available), moves through the process of delivering care, and produces results, or outcomes, for the patients served. To be most useful to the consumer and provider of care, the IHQ combines robust and sensitive measures of each of these dimensions for the universe of tertiary-care hospitals across a wide range of medical and surgical practice specialties. The IHQ draws from secondary sources, such as the American Hospital Association (AHA) Annual Survey of Hospitals, for data concerning various quality dimensions. We continually try to improve the specificity and sensitivity of the measures we use to rank hospitals and to identify the best possible sources of data.

The following sections define the universe of tertiary-care hospitals for the purpose of this project, describe and define the standardized mortality ratios and the structural components, and explain how process-related data are collected. A description of the changes made for the 2002 IHQ is also provided. A short description of each of the component of the index is provided below:

Reputation

The reputational score is based on cumulative information from three NORC surveys of physicians carried out in 2000, 2001, and 2002. For the 2000 and 2001 surveys, the samples consisted of 2,550 board-certified physicians selected from the American Medical Association (AMA) Physician Masterfile of approximately 811,000 physicians. The 2000 and 2001 samples of 2,550 physicians for each year were stratified by region and by specialty within region. We selected a sample of 150 physicians for each of the 17 specialty areas in both 2000 and 2001.

In 2002, the overall sample size for the physician survey was increased from 2,550 to 3,060 (180 in each specialty rather than 150). Thirty physicians in each specialty received a short form of the questionnaire with the hospital nomination as the only item.

The final aggregated sample includes both non-federal and federal medical and osteopathic physicians residing in the fifty states and the District of Columbia.

Structure

The structural score is based on data related to the structural characteristics of each specialty within each hospital. These elements represent volume of work, technology, and other characteristics of the hospital environment. The majority of the data elements are derived from the 2000 AHA Annual Survey. The volume data are taken from the Centers for Medicare and Medicaid Service (CMS – formerly HCFA) MEDPARS database, which contains information on all Medicare discharges in each specialty.

Mortality

> The outcomes measure is based on CMS's MEDPARS database. An adjusted mortality rate for each hospital and specialty is computed based on predicted and actual mortality rates using the All Patient Refined Diagnosis Related Group (APR-DRG) method designed by 3M Health Information Systems. The APR-DRG adjusts expected deaths for severity of illness by means of principal diagnosis and categories of secondary diagnoses. The method is applied to the pooled 1998, 1999 and 2000 set of Medicare reimbursement claims made to CMS by hospitals.

A detailed description of these components follows in Section II of this report. For a more exhaustive review of the foundation as well as the 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."[3]

II The Index of Hospital Quality (IHQ)

A. Universe Definition

We have implemented a two-stage approach to defining eligible hospitals for each of the IHQ specialty lists. First, eligible hospitals must be considered tertiary-care centers. To be identified as a tertiary-care hospital, a hospital must meet *at least one* of the following criteria:

1) Council of Teaching Hospitals (COTH) membership, *or*

2) Medical school affiliation, *or*

3) A score of 9 or higher on the hospital wide high-technology index (see Part II, Section B)

Using these criteria, we identified 1,958 tertiary-care hospitals that were eligible in 2002 for any of the 13 IHQ-based rankings. Once the eligible hospitals were identified, data for these hospitals were drawn from the 2000 AHA Annual Survey database.

As with any data collection effort, the AHA Annual Survey database is incomplete due to non-responding hospitals. We have a procedure to allow eligible hospitals that are non-responders to the current AHA Annual Survey to remain in our database. First, for all previously ranked hospitals that are non-responders to the current survey, we average the two prior years of data and substitute the result for the missing data. Two-year non-responders lacking data both from the current survey *and* from one of the previous two surveys are ranked without any structure data. Although non-responding hospitals need to be treated separately for the IHQ analysis, it is unnecessary to do so for the four reputation-only lists.

We then created separate analytic universes for each of the 13 IHQ-driven specialties, using criteria such as specialty-specific technology or facilities. Hospitals had to have at least a specified number of discharges across appropriate DRGs. Hospitals with insufficient volume (discharges) were considered eligible for ranking if they had any nominations (a non-zero reputational score).

In past years, the discharges threshold that determined eligibility included all discharges, both medical and surgical, regardless of the mix.[1] This year the mix was specified in certain specialties. For Cancer, Digestive Disorders, Ear, Nose, and Throat, Gynecology, Neurology and Neurosurgery, Orthopedics, and Urology, the median ratio of surgical to total discharges for hospitals surpassing the all-discharges threshold was multiplied by total discharges to obtain a minimum for surgical discharges.

For Heart and Heart Surgery, the minimum number of surgical discharges for eligibility was set at 500. To obtain a minimum threshold for all discharges, this number was multiplied by the median ratio of all discharges to surgical discharges for all hospitals surpassing the surgical discharges threshold. This resulted in a minimum of 1,351 total discharges. Previously, the variable used for Heart and Heart Surgery included only surgical discharges. With the inclusion of a total discharge minimum, this specialty now matches the others in this respect.

We regularly examine the impact of hospital mergers on our rankings. Ranking hospitals responding as new corporate entities for the first time in the AHA database are treated as a single unit and listed in this report. For this release, no mergers among hospitals previously ranked as independent entities appear on the lists.

Figure 1 presents the eligibility criteria and number of hospitals meeting these criteria from the 2000 AHA Annual Survey and Figure 2 illustrates the eligibility process.

[1] The exception in years past was Heart and Heart Surgery. Previously for this specialty, surgical discharges alone were used to determine the threshold for eligibility. Beginning in 2002, both medical and surgical discharges are used to determine eligibility.

Figure 1. Universe Definition* by Specialty

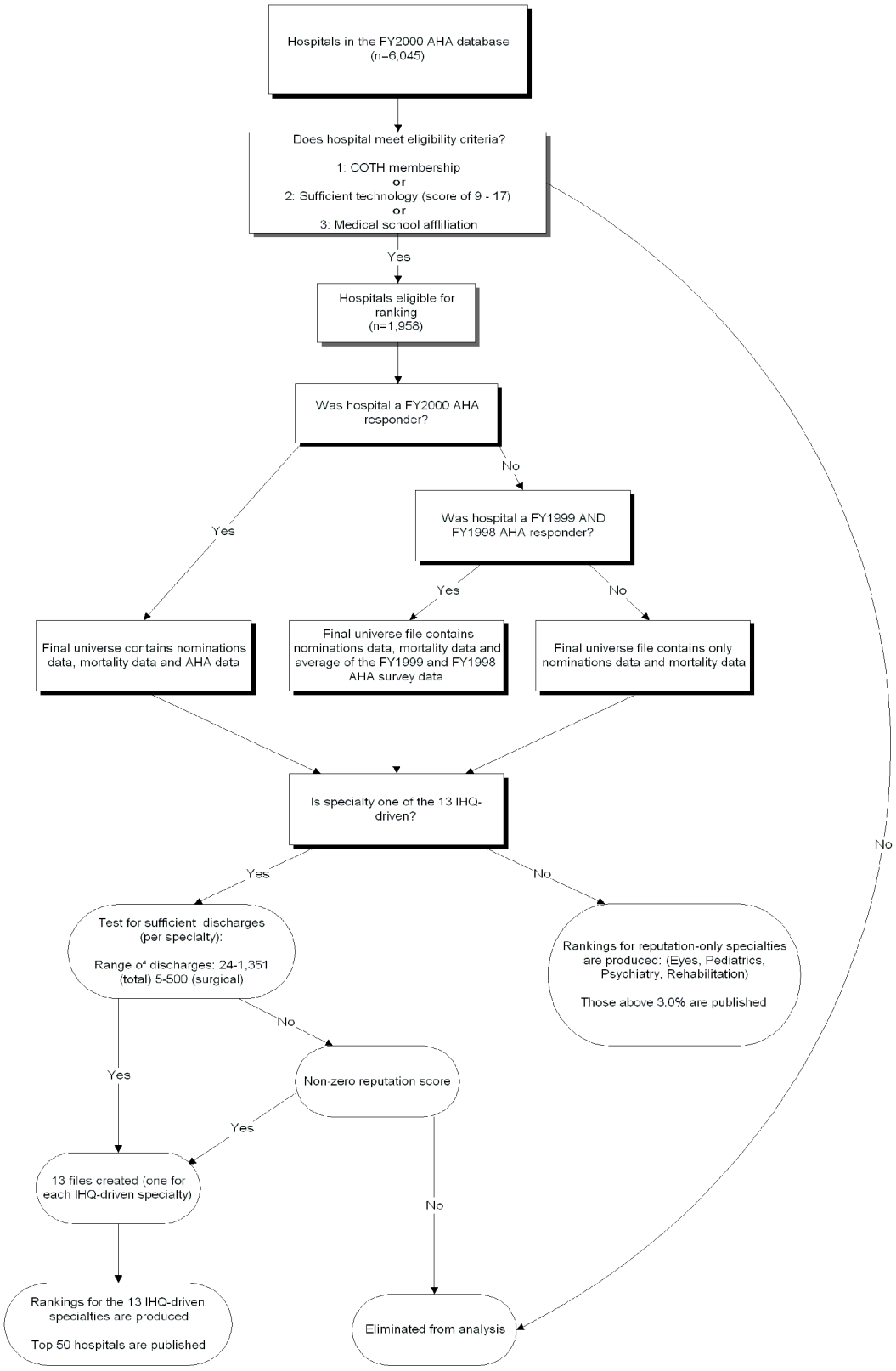
Specialty	Minimum Discharges in Specialty	Minimum Surgical Discharges in Specialty	Number of Eligible Hospitals
Cancer	381	76	812
Digestive Disorders	790	237	1,283
Ear, Nose, and Throat	40	5	1,157
Geriatrics**	6,675	--	1,272
Gynecology	53	51	1,353
Heart and Heart Surgery***	1,351	500	728
Hormonal Disorders	379	--	948
Kidney Disease	210	--	1,398
Neurology and Neurosurgery	500	95	1,137
Orthopedics	449	391	1,371
Respiratory disorders	932	--	1,414
Rheumatology	24	--	1,394
Urology	135	119	1,350

* Regardless of discharges or other eligibility criteria, a hospital is eligible if it receives a non-zero reputation score in a particular specialty.

** In addition to the discharge eligibility criteria, a hospital must have a score of 1 or more on the Geriatrics service index for inclusion in the Geriatrics universe. Discharges for Geriatrics are calculated on a hospital-wide basis and are not DRG-specific.

*** In addition to the discharge eligibility criteria, a hospital must have a cardiac catheterization lab, offer open-heart surgery, or offer angioplasty for inclusion in the Heart and Heart Surgery universe.

Figure 2. Analysis Procedure for "America's Best Hospitals 2002"



B. Composite Measure of Structure

The structural dimension defines the tools and environment available to care providers in treating patients. It represents the possibilities of care for a patient and physician. Health care research overwhelmingly supports the use of a measure of structure in assessing quality of care. However, no prior research has revealed a single indicator of quality that summarizes all others or that adequately represents the structure construct on its own. Thus, the structural component must be represented by a composite variable comprising different measures that are specialty-specific and are weighted relative to each other.

For the 2002 index, most structural elements other than volume are derived from the 2000 AHA Annual Survey of Hospitals database and are described below. For the specific mapping of variables to the AHA data elements, see Appendix A.

1) *Technology indices:*

For 2002, technology elements for all specialties are unchanged. Since the 1996 version of the index, our technology indices have reflected the real cost of high-technology services. While providing a service inside the hospital is convenient for patients, the cost may be unacceptable to some hospitals. Many hospitals provide access to technology services through the hospital's health system, a local community network, or a contractual arrangement or joint venture with another provider in the community. We take this into account by giving hospitals that provide a service such as ultrasound one full point if it is provided on-site; hospitals that provide the service locally through a formal arrangement receive a half-point. A hospital receives no more than one point for each element of the index. Figure 3 presents the complete list of technologies considered for each specialty.

Figure 3. Technology Indices by Specialty

Technology	All Hospital Index*	Cancer	Digestive Disorders	Ear, Nose, and Throat	Heart and Heart Surgery	Hormonal Disorders	Geriatrics	Gynecology	Kidney Disease	Neurology and Neurosurgery	Orthopedics	Respiratory Disorders	Rheumatology	Urology
1) Angioplasty	✓				✓									
2) Cardiac Catheterization Lab	✓				✓		✓							
3) Cardiac Intensive Care Beds	✓				✓		✓							
4) Computed Tomography Scanner	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5) Diagnostic Radioisotope Facility	✓		✓			✓			✓	✓		✓		✓
6) Diagnostic Mammography Services	✓							✓						
7) Extracorporeal Shock Wave Lithiotripter	✓		✓						✓					✓
8) Magnetic Resonance Imaging	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓		✓	✓
9) Medical/Surgical Intensive Care	✓													
10) Neonatal Intensive Care	✓							✓						
11) Oncology Services		✓												
12) Open Heart Surgery	✓				✓									
13) Pediatric Intensive Care Beds	✓	✓												
14) Positron Emission Tomography Scanner	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓		✓	✓
15) Reproductive Health	✓													
16) Single Photon Emission Computed Tomography	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓		✓	✓
17) Transplant Services									✓					
18) Ultrasound	✓		✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
19) X-ray Radiation Therapy	✓	✓	✓	✓		✓	✓	✓		✓		✓		✓
TOTAL ELEMENTS	17	7	8	5	9	7	8	8	5	7	5	4	5	8

* The All Hospital Index is used to define the universe of eligible hospitals.

2) *Volume:*

The volume measure reflects the total number of medical and surgical discharges in the appropriate specialty-specific DRG groupings submitted for CMS reimbursement. The measure is incorporated into the structure score for all data-driven specialties other than Geriatrics and Rheumatology.

Previously in the Heart and Heart Surgery specialty, surgical discharges indicated volume. For 2002, the volume variable was changed to include both medical and surgical discharges. The methodology now matches the other specialties in this respect.

Volumes at the extreme in for particular hospitals and specialties were trimmed to eliminate the influence of very wide variation. Figure 4 shows the percentile at which each of the volume distributions was trimmed.

3) *RNs to beds:*

A hospital's number of beds is defined by the AHA as beds set up and staffed at the end of the reporting period. Only nurses with RN degrees from approved schools of nursing and are currently registered by their state are considered. Nurses must be full-time (35 hours/week or more), and on staff. Private-duty nurses, staff nurses whose salary is financed entirely by outside sources (e.g., an agency or a research grant), and LPNs are not counted. Registered nurses more appropriately classified in other occupational categories (e.g., supervisory nurses, facility administrators) are also not counted.

As with volume, RNs to beds ratios were trimmed to eliminate the influence of very wide variation. Figure 4 shows the percentile at which each of the RNs to beds distributions was trimmed.

Figure 4. Percentile Where Volume and RNs/Beds Distributions Were Trimmed

Specialty	Volume Percentile	RNs/Beds Percentile
Cancer	90	95
Digestive Disorders	90	95
Ear, Nose, and Throat	95	95
Geriatrics	--	90
Gynecology	90	95
Heart and Heart Surgery	90	95
Hormonal Disorders	no trimming	95
Kidney Disease	no trimming	95
Neurology and Neurosurgery	no trimming	95
Orthopedics	90	90
Respiratory Disorders	90	95
Rheumatology	--	90
Urology	95	90

A second round of standardization is performed after trimming extremes. Restandardization restores balance so that trimmed and untrimmed measures have the same influence on the final score.

4) *Trauma:*

In 1992, the annual U.S. News survey of board-certified physicians ranked the presence of an emergency room and a hospital's trauma provider level high on a list of hospital quality indicators. Physicians in nine specialties ranked trauma as one of the top five indicators of quality. The indications of these specialists and resultant high factor loadings supported the inclusion of these data for Digestive Disorders, Ear, Nose, and Throat, Heart and Heart Surgery, Hormonal Disorders, Gynecology, Kidney Disease, Neurology and Neurosurgery, Orthopedics, Respiratory Disorders, and Urology.

The trauma indicator is dichotomous and derived from two variables in the AHA database: whether the hospital has a certified trauma center in the hospital and the level of the trauma center. To receive credit for trauma services, hospitals must provide either Level 1 or Level 2 trauma services in-hospital (as opposed to providing trauma services only as part of a health system, network, or joint venture). Level 1 trauma service is defined 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."[4] Level 2 is defined by the AHA as "a community trauma center, which is capable of providing trauma care to all but the most severely injured patients who require highly specialized care."[4]

5) *Discharge planning:*

The three elements of discharge planning are patient-education services, case management services, and patient representative services. A service must be provided in-hospital to receive credit.

6) *Service mix:*

This indicator ranges from 0 to 10 points and comprises alcohol/drug abuse or dependency inpatient care, hospice, home health services, social work services, reproductive health services, psychiatric education services, women's health center/services, and psychiatric consultation/liaison services. Services must be provided within the hospital.

7) *Geriatric services:*

This indicator ranges from 0 to 7 points and comprises arthritis treatment centers, adult day care programs, patient representative services, geriatric services, meals on wheels, assisted living, and transportation to health facilities. Again, to receive credit for a service, it must be provided in-hospital.

8) *Gynecology services:*

This indicator was introduced in 1997.[5] It provides a means to better rate the quality of services a hospital provides for its gynecological and obstetric patients. High factor loadings provide support for this variable's inclusion. With a range of 0 to 4, the services included are obstetric care, reproductive health care, birthing rooms, and women's health center. We do not award a half-point for items in this measure.

9) *Medical/surgical intensive care beds:*

This indicator is included as an important factor in the Kidney Disease specialty. The AHA database provides the number of medical and surgical intensive care beds per facility. To be counted, beds must be physically located within the hospital and set up and staffed at the end of the reporting period.

10) *National Cancer Institute (NCI) indicator*

This indicator is new in 2002. The NCI is the principal federal agency for cancer research and training. NCI-designated cancer centers are the principal deliverers of medical advances to patients and families, and the chief educators of health care professionals and the public.[6]

There are three classifications of NCI-designated cancer centers. Cancer Center is the first level, denoting a facility that conducts a high volume of advanced laboratory research with federal funding. Clinical Cancer Centers, the next level up, add clinical cancer research activities. The highest level is Comprehensive Cancer Center. These institutions add prevention research, community outreach and service activities.[6]

For the NCI indicator, we award one point to NCI-designated Clinical and Comprehensive Cancer Centers. All other hospitals receive zero points.

11) *Hospice/palliative care indicator:*

This is a new structural component this year. It addresses a hospital's ability in certain specialties to meet the needs of patients whose lives are ending or who are experiencing acute or chronic pain or other symptoms of illness. A qualifying hospice program provides care (including pain relief) and supportive services for the terminally ill and their families. A qualifying palliative care program provides care by specially trained physicians and other clinicians for relief of acute or chronic pain, or to control symptoms of illness; in addition, supportive services such as counseling on advance directives are provided for patients with advanced disease. In the specialties of Cancer, Geriatrics, Heart and Heart Surgery, and Respiratory Disorders, hospitals receive 1 point if they have a qualifying hospice or palliative care program and 2 points if they have both. In Rheumatology, hospitals receive 1 point if they have a qualifying palliative care program; hospice is not considered. Hospitals that provide either service locally through a formal arrangement receive a full point for each applicable component of the indicator (rather than a half-point as in several other components of the structural dimension).

COTH membership:

This variable, which was a structural element in previous years, indicates membership in the Council of Teaching Hospitals. Because the COTH variable is used as a basis for eligibility in the full universe of hospitals, this variable is no longer included in the structural score for 2002.

To combine these structural variables, we weight the elements to create a final composite measure. Using factor analysis, we force a one-factor solution and use the resultant loadings as “weight” values for each variable in the composite structural measure. The relative weight assigned to each element varies from specialty to specialty and from one release to the next within specialty. Figure 5 provides the factor weights assigned to each element for 2002.

Figure 5. Factor Loading by Specialty

Specialty	Tech. Indices	Volume	RNs/ Beds	Trauma	Dis-charge Planning	Service Mix	Geriatric Services	Gyne-cology Services	Medical/ Surgical Beds	NCI Desig-nation	Hospice/ Palliative Care
Cancer	65	73	59							67	49
Digestive Disorders	64	62	56	66							
Ear, Nose, and Throat	66	62	56	68							
Geriatrics	56		30		53	72	67				56
Gynecology	79	53	41	61				77			
Heart and Heart Surgery	65	65	52	55							52
Hormonal Disorders	63	55	59	71							
Kidney Disease	73	60	46	56	62				76		
Neurology and Neurosurgery	62	63	55	68							
Orthopedics	56	63	58	68							
Respiratory disorders	80	31	20	48	79						62
Rheumatology	84		27		83						53*
Urology	62	68	58	65							

* Rheumatology includes palliative care, but not hospice.

C. Process

The process dimension of the quality equation is the net effect of physicians' clinical decision-making. Clinical choices about the use of medication or diagnostic tests, admission to a hospital or one of its units, and length of stay account for a large proportion of the outcomes experienced by patients. However, national measurements of process are extremely difficult to obtain. We therefore rely on an alternative measure to act as a proxy. We contend that when a qualified expert identifies a hospital as one of the "best," he or she is, in essence, endorsing the process choices made at that hospital. Thus, we use the "nomination" of a hospital by a board-certified specialist as a measure of process. To collect these nominations, NORC conducts an annual survey of board-certified physicians. As in past releases, we have pooled nominations for the past three years (2000-2002) to arrive at the process measure.

Survey sample

The sample for the 2002 survey consists of 3,060 board-certified physicians selected from the American Medical Association (AMA) Physician Masterfile of approximately 811,000 physicians. The sample size for 2002 was increased from 2,550 in 2000 and 2001. From within the Masterfile, we selected a target population of 195,819 board-certified physicians who met the eligibility requirements listed in Figure 6. Stratifying by region and by specialty within region, we selected a probability (random) sample of 180 physicians from each of 17 specialty areas, for a total of 3,060 (for 2000 and 2001, 150 physicians were selected from each of the 17 specialty areas). The final sample includes non-federal and federal medical and osteopathic physicians residing in the 50 states and the District of Columbia. Figure 6 displays the list of specialties surveyed in 2002.

Eligibility requirements

We defined a probability sample of physicians who could properly represent the 17 specialty groupings delineated by *U.S. News & World Report*. We used two rules of eligibility: one related to a mapping between the 17 specialties and the AMA's list of 85 self-designated specialties, and the second to a mapping between these 85 specialties and the 23 member boards of the American Boards of Medical Specialties (ABMS).

Under the first rule, we linked each of the 17 specialties to one or more relevant AMA specialties from the list of AMA self-designated practice specialty codes. Physicians who designated a primary specialty in one of the 17 specialties were preliminarily eligible for the survey. Under the second rule, the physicians must also be certified by the corresponding member board of the ABMS. Figure 6 displays the correspondence between the specialty specified for *U.S. News & World Report*, AMA self-designated specialty, and the corresponding member board.

Figure 6. Physician Sample Mapping

"America's Best Hospitals" Specialty	AMA Key Code	AMA Self-Designated Specialty	American Board of:
Cancer	HEM/22	Hematology	Internal Medicine
	ON/24	Oncology	
Digestive Disorders	GE/17	Gastroenterology	Internal Medicine
Ear, Nose, and Throat	OTO/48	Otolaryngology	Otolaryngology
Eyes	OPH/46	Ophthalmology	Ophthalmology
Geriatrics	FPG/38, IMG/38	Geriatrics	Internal Medicine
Gynecology	GYN/21	Gynecology	Obstetrics & Gynecology
	OBG/42	Obstetrics & Gynecology	
Heart and Heart Surgery	CD/08	Cardiovascular Diseases	Internal Medicine
	CDS/08	Cardiovascular Surgery	Surgery
Hormonal Disorders	END/14	Endocrinology	Internal Medicine
	DIA/12	Diabetes	
Kidney Disease	NEP	Nephrology	Internal Medicine
Neurology and Neurosurgery	N/36	Neurology	Psychiatry & Neurology
	NS	Neurological Surgery	
Orthopedics	ORS/85	Orthopedic Surgery	Orthopedic Surgery
Pediatrics	PD/55	Pediatrics	Pediatrics
	ADL/01	Adolescent Medicine	
Psychiatry	P/63	Psychiatry	Psychiatry &
Rehabilitation	PM/62	Physical Medicine &	Physical Medicine &
Respiratory Disorders	PUD	Pulmonary Diseases	Internal Medicine
Rheumatology	RHU/74	Rheumatology	Internal Medicine
Urology	U/91	Urological Surgery	Urology

Stratification

To compensate for the widely varying number of eligible physicians across the targeted specialties, we used different probabilities of selection for each grouping and proportionate stratification across the four United States Census regions (Northeast, Midwest, South, and West). Within each of the 17 strata, we achieved a sample that was also geographically representative of the spread of physicians across the country.

2002 physician survey

As in years past, 150 sampled physicians per specialty were mailed a three-page questionnaire (see Appendix B). In 2002, an additional 30 physicians per specialty were mailed a one-page questionnaire containing only the hospital nomination item (see Appendix C). In 2001, half of the questionnaires made explicit reference to the *U.S. News & World Report* publication and half simply indicated that the questionnaire was for an annual survey of physicians. In 2002, all questionnaires made reference to *U.S. News & World Report*.

Along with the questionnaires, physicians were also sent a cover letter, a prepaid return envelope, and a token incentive in the form of a two-dollar bill. One week after the initial survey mailing, a reminder postcard was sent to the sampled physicians. Two weeks following the reminder mailing, we sent a United States Postal Service Priority mailing to non-respondents including the questionnaire, a cover letter and a business reply envelope. Three weeks after the second mailing, a third mailing was sent via Federal Express and included the questionnaire, a cover letter, and a business reply envelope. One month after the third mailing, an additional reminder postcard was sent to all non-responders.

Response rate

Of the 3,060 physicians sampled for this year's report, 1,484 (48.5%) filled out and returned a questionnaire. In accordance with standard practice, any member of the sample found to be ineligible was removed from the denominator of the response rate equation. Subtracting 37 physicians ineligible because they had retired or died resulted in an overall response rate of 49.1%. For the purposes of the reputational component, 1,427 of the 1,484 questionnaires contained at least one nomination for a hospital (this represents 47.2% of the eligible physicians in the sample). Figure 7 shows response rates by specialty for the three years used in the 2002 index.

Figure 7. Response Rate by Year*

Specialty	2000		2001		2002		3-year total	
	n	%	n	%	n	%	n	%
Cancer	59	39.3	82	54.7	71	39.4	212	44.2
Digestive Disorders	60	40.0	79	52.7	81	45.0	220	45.8
Ear, Nose, and Throat	84	56.0	90	60.0	104	57.8	278	57.9
Eyes	73	48.7	91	60.7	102	56.7	266	55.4
Geriatrics	82	54.7	90	60.0	93	51.7	265	55.2
Gynecology	58	38.7	77	51.3	80	44.4	215	44.8
Heart and Heart Disease	55	36.7	81	54.0	74	41.1	210	43.8
Hormonal Disorders	55	36.7	74	49.3	80	44.4	209	43.6
Kidney Disease	53	35.3	72	48.0	73	40.6	198	41.3
Neurology and Neurosurgery	71	47.3	79	52.7	92	51.1	242	50.4
Orthopedics	60	40.0	72	48.0	92	51.1	224	46.7
Pediatrics	72	48.0	80	53.3	95	52.8	247	51.5
Psychiatry	61	40.7	86	57.3	84	46.7	231	48.1
Rehabilitation	76	50.7	81	54.0	88	48.9	245	51.0
Respiratory Disorders	59	39.3	74	49.3	89	49.4	222	46.3
Rheumatology	78	52.0	86	57.3	103	57.2	267	55.6
Urology	67	44.7	83	55.3	83	46.1	233	48.6
TOTAL	1,123	44.0	1,377	54.0	1,484	48.5	3,984	48.9
Overall Response Rate**		**46.3**		**55.0**		**49.1**		**50.1**

* In 2000 and 2001, 150 physicians were sampled for each specialty; in 2002, 180 were sampled per specialty.

** The numerator of the overall response rate includes all physicians who returned a questionnaire with at least one item completed and subtracts ineligible cases from the denominator.

2002 experiments

NORC conducted two experiments as part of the physician survey for 2002. The first was a continuation of the Web version of the survey, permitting direct online response for physicians. As with the experimental Web version in 2000 and 2001, this year's version was used successfully by a small number of respondents. The Web survey was offered as an option in the third mailing to non-responders. The set-up costs for the Web questionnaire were minimal, so it remained a valuable resource for collecting information on those physicians who did not respond via mail.

The second experiment involved a comparison of response rates between the standard three-page questionnaire and the short one-page form. Response rates for the short form were generally higher by specialty for the short form than for the long form; overall, the response rate for the short form was 5.0% higher than for the long form. We plan to evaluate the effectiveness of these experiments for possible implementation in the future.

Weighting

Weighting was carried out in two steps. First, weights were assigned to physicians that reflected the probabilities of selection within specialty groups and the overall rates of response within these groups. Second, the weights from the first step were post-stratified using the two-dimensional contingency table of specialty (17 categories) by census region (Northeast, Midwest, South, and West). To check the weights, we confirmed that the sum across the sample of the weights in each cell of the classifications (specialty x region) equaled the population size.

In 2002, weighting across the three years of survey data was modified. In previous rankings, weights were assigned to physicians for each year individually as described in the paragraph above, and these year-specific weights were applied to the nominations for the three years contributing to the reputation score (2000, 2001, and 2002). According to the this method, a nomination in region X and specialty Y could have a different weight from another nomination in the same region and specialty if it was made in a different year. In 2002, physicians were pooled together for all three years (2000, 2001, and 2002), and weights were then assigned as described in the paragraph above. Using this new method, all nominations in region

X and specialty Y have the same weight, regardless of the year in which the nomination was made. Post-stratification was carried out to the current (2002) contingency table of specialty by census region counts rather than the mean counts for the three years. This new method was implemented to reduce the range in weights across specialty and region and between years.

D. Outcome

Many healthcare professionals have decried the use of mortality rates because of limitations in the methods used to adjust for risk. Nonetheless, research strongly suggests a positive correlation between a better-than-average risk-adjusted mortality rate and overall quality of care.[7-16] Based on these findings, we used adjusted mortality rate as the outcome measure for our quality of care model. Predicted mortality rates were calculated using the All Patient Refined Diagnosis Related Group (APR-DRG) method designed by 3M Health Information Systems. The APR-DRG adjusts expected deaths for severity of illness by means of principle diagnosis and categories of secondary diagnoses. A detailed description of the full APR-DRG methodology in provided in Appendix D. The method was applied to the pooled 1998, 1999, and 2000 MEDPARS data set of reimbursement claims made to CMS by hospitals. These complete data sets were the most current available for analysis.

2002 DRG refinements

We annually review the DRG groupings for every specialty. The DRG groupings are important because they define the cases included in the mortality measures as well as the volume measure in the structural component. In 2002, we conducted a thorough examination of the DRG groupings in Cancer, Heart and Heart Surgery, and Respiratory Disease. Several physicians independently conducted reviews of the DRG groupings (two for Cancer, two for Heart and Heart Surgery, and one for Respiratory Disorders). Additions to the groupings were also made in Ear, Nose, and Throat and Orthopedics. Based on the review and recommendations, the changes in Figure 8 were made for 2002.

Figure 8. Changes to Specialty Definitions for Mortality

Specialty	DRGs Added	DRGs Deleted
Cancer	318: KIDNEY & URINARY TRACT NEOPLASMS W CC	(none)
	319: KIDNEY & URINARY TRACT NEOPLASMS W/O CC	
	354: UTERINE, ADNEXA PROC FOR NON-OVARIAN/ADNEXAL MALIG W CC	
	355: UTERINE, ADNEXA PROC FOR NON-OVARIAN/ADNEXAL MALIG W/O CC	
Ear, Nose, and Throat	59: TONSILLECTOMY &/OR ADENOIDECTOMY ONLY, AGE >17	(none)
Heart and Heart Surgery	75: MAJOR CHEST PROCEDURES	103: HEART TRANSPLANT
	134: HYPERTENSION	112: PERCUTANEOUS CARDIOVASCULAR PROCEDURES
	514: CARDIAC DEFIBRILLATOR IMPLANT W CARDIAC CATH	128: DEEP VEIN THROMBOPHLEBITIS
	515:CARDIAC DEFIBRILLATOR IMPLANT W/O CARDIAC CATH	129: CARDIAC ARREST, UNEXPLAINED
	516: PERCUTANEOUS CARDIOVASCULAR PROC W AMI	130: PERIPHERAL VASCULAR DISORDERS W CC
	517: PERC CARDIO PROC W CORONARY ARTERY STENT W/O AMI	131: PERIPHERAL VASCULAR DISORDERS W/O CC
	518: PERC CARDIO PROC W/O CORONARY ARTERY STENT OR AMI	141:SYNCOPE & COLLAPSE W CC
		142: SYNCOPE & COLLAPSE W/O CC
Orthopedics	248: TENDONITIS, MYOSITIS & BURSITIS	(none)
	250: FX, SPRN, STRN & DISL OF FOREARM, HAND, FOOT AGE >17 W CC	
	251: FX, SPRN, STRN & DISL OF FOREARM, HAND, FOOT AGE >17 W/O CC	
	252: FX, SPRN, STRN & DISL OF FOREARM, HAND, FOOT AGE 0-17	
	253: FX, SPRN, STRN & DISL OF UPARM,LOWLEG EX FOOT AGE >17 W CC	
	254: FX, SPRN, STRN & DISL OF UPARM,LOWLEG EX FOOT AGE >17 W/O CC	
	255: FX, SPRN, STRN & DISL OF UPARM, LOWLEG EX FOOT AGE 0-17	
Respiratory Disorders	128: DEEP VEIN THROMBOPHLEBITIS	(none)

As in previous years, we used an "all-cases" mortality rate for four specialties (Ear, Nose, and Throat, Geriatrics, Gynecology and Rheumatology) rather than a specialty-specific rate, either because the number of hospitals with sufficient discharges in the particular DRG grouping was too low or because the DRG groupings proved to be less robust than was desired. Appendix E lists the DRGs for each specialty.

Mortality scores

Mortality scores are computed by subtracting each specialty-specific mortality ratio from 1. Using this "reverse scoring," a mortality ratio of 0.25 produces a score of 0.75, a ratio of 0.05 produces a score of 0.95, and so on. This method maintains the magnitudes of the differences and avoids extreme values. To dampen the effect of year-to-year fluctuations, mortality scores are averaged over three years.

As with volume and RNs/beds ratios in the structural component, scores at the extreme in mortality were trimmed to eliminate the influence of very wide variation. Figure 9 shows the percentile at which each of the mortality distributions was trimmed.

Figure 9. Percentile Where Mortality Distributions Were Trimmed

Specialty	Percentile
Cancer	95
Digestive Disorders	99
Ear, Nose, and Throat	95
Geriatrics	99
Gynecology	99
Heart and Heart Surgery	95
Hormonal Disorders	95
Kidney Disease	99
Neurology and Neurosurgery	99
Orthopedics	95
Respiratory Disorders	99
Rheumatology	99
Urology	90

As with volume and RNs/beds, restandardization is performed on the mortality scores after trimming extremes.

E. Calculation of the Index

The calculation of the IHQ for each hospital (other than in specialties ranked solely on reputation) considers equally the three dimensions of quality of care: structure, process, and outcome. Although all three measures represent a specific aspect of quality, a single score provides an easier-to-use result and yields a more accurate portrayal of overall quality than would the three aspects individually.

Therefore, in computing the final scores for a particular specialty, reputational score, mortality score, and the collective set of structural indicators receive arithmetically equivalent importance.

The total formula for calculation of the specialty-specific IHQs is:

$$IHQ_i = \{[(S_1 * F_1) + (S_2 * F_2) + (...S_n * F_n)] + [P_i * \sum F_{1-n}] + [M * \sum F_{1-n}]\}$$

where:

IHQ_i = Index for Hospital Quality for specialty *i*
S_{1-n} = Structural indicators (STRUCTURE)
F = Factor loading
P = Nomination score (PROCESS)
M = Standardized mortality score (OUTCOME)

The general formula for deriving the index scores for tertiary-level hospitals is the same as when it began in 1993. Each of the three components (structure, process, and outcome) is considered equally in determining the final, overall score. For presentation purposes, we standardize raw scores, then equate the raw IHQ scores as computed above to a 100-point scale, where the top hospital in each specialty receives a score of 100.

The mean and standard deviation of each of the 17 specialties are listed in Figure 10. For the four reputation-only rankings, mean and standard deviation of the reputation score are presented. These data further illustrate that the spread of IHQ scores produces a very small number of hospitals two and three standard deviations above the mean. Horizontal lines in each of the 17 specialty lists in Appendices F and G indicate the cutoff points of two and three standard deviations above the mean.

IHQ scores for the specialties of Eyes, Pediatrics, Psychiatry, and Rehabilitation cannot be calculated, because data for robust and meaningful structural and outcome measures are not available for these specialties. Thus, as shown in Appendix G, we rank hospitals in these specialties solely by reputation. Although the four reputation-only specialties are ranked without the Index of Hospital Quality, standard deviations of the reputation scores are still useful in identifying truly superior hospitals (in terms of statistically relevant nomination scores).

Figure 10. Mean and Standard Deviations of IHQ and Reputation Scores

IHQ Score					
Specialty	Mean	Standard deviation	1 SD above the mean	2 SDs above the mean	3 SDs above the mean
Cancer	19.99	7.35	27.33	34.68	42.02
Digestive Disorders	16.47	5.53	21.99	27.52	33.04
Ear, Nose, and Throat	19.27	6.71	25.98	32.69	39.40
Geriatrics	18.19	6.09	24.29	30.38	36.47
Gynecology	19.07	6.79	25.86	32.65	39.44
Heart and Heart Surgery	20.53	7.10	27.63	34.73	41.83
Hormonal Disorders	20.31	6.31	26.62	32.93	39.24
Kidney Disease	32.42	6.99	39.41	46.40	52.39
Neurology and Neurosurgery	20.34	6.19	26.54	32.73	38.93
Orthopedics	21.01	5.28	26.29	31.57	36.85
Respiratory disorders	18.69	5.89	24.58	30.47	36.35
Rheumatology	17.59	6.28	23.88	30.16	36.44
Urology	21.64	5.15	26.79	31.94	37.10
Reputation Score					
Specialty	Mean	Standard deviation	1 SD above the mean	2 SDs above the mean	3 SDs above the mean
Eyes	4.00	11.88	15.87	27.75	39.62
Pediatrics	2.91	6.93	9.84	16.77	23.70
Psychiatry	2.78	6.13	8.91	15.03	21.16
Rehabilitation	3.42	8.77	12.19	20.96	29.73

F. Summary of Changes for 2002

- The overall sample size of the physician survey was raised to 3,060 from 2,550 by increasing the number of physicians surveyed to 180 per specialty from the previous 150 (p. 2).

- A minimum number of surgical discharges was added to the hospital eligibility criteria in Cancer, Digestive Disorders, Ear, Nose and Throat, Gynecology, Neurology and Neurosurgery, Orthopedics, and Urology (p. 5).

- An all-discharges minimum was added to the hospital eligibility criteria in Heart and Heart Surgery (p. 5), and the volume variable in the structural measures was updated in Heart and Heart Surgery to include all discharges instead of only surgical discharges (p. 10).

- Designation as a Clinical or Comprehensive Cancer Center by the National Cancer Institute was added to the structural measures in Cancer (p. 13).

- Hospice/palliative care was added to the structural measures in several specialties (p. 14).

- Membership in the Council of Teaching Hospitals was dropped from the structural measures (p. 14).

- All physician survey questionnaires rather than half made explicit reference to U.S. News & World Report (p. 20).

- A short form of the questionnaire was introduced (p. 23).

- Physician sample weights were computed across all three years of survey data rather than individually for each year (p. 23).

- DRG groupings were updated in Cancer, Ear, Nose, and Throat, Heart and Heart Surgery, Orthopedics, and Respiratory Disease (p. 26).

III Directions for Future Releases

Since its inception, the U.S. News Index has used the most rigorous methodology available to define, measure, and combine the components of quality incorporated in its construction. Over the next few years we will continue to re-examine each of the components (structure, process, and outcome). Continued research will address the way in which reputational score is used to define process; transformations of the raw scores; measures of technology for the structural component, and refinement of the definitions of non-fatal outcomes.

We will also continue to investigate the availability and quality of 30-day mortality rates as compared to death-at-discharge rates. The ability to measure the outcomes of procedures after a patient's release from the hospital would enhance the quality of the rankings. Before implementing such a measure, however, we must assess the quality of the data available for input.

As in years past, we welcome input from users of the index in charting new directions. Readers and users are encouraged to contact the authors with suggestions and questions.

IV 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. *Med Care.*1968; 6:181.

3. Hill, CA., Winfrey, KL., Rudolph, BA. "Best Hospitals": A description of the methodology for the index of hospital quality. *Inquiry*. 1997; 34(1)80-90.

4. American Hospital Association. *1996 Annual Survey of Hospitals Data Base Documentation Manual.*

5. Ehrlich, RH, Hill CA, Winfrey, KL. *1997 Survey of Best Hospitals*. Chicago: NORC; 1997.

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

7 . United States 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:USGPO; 1987.

8. Blumberg MS. Comments on HCFA hospital death rate statistical outliers. HSR: *Health Services Research*. 1987; 21:715-40.

9. Dubois RW, Brook RH, Rogers WH. Adjusted hospital death rates: a potential screen or the quality of medical care. *AJPH.* 1987; 77:1162-6.

10. Gillis KD, Hixson JS. Efficacy of statistical outlier analysis for monitoring quality of care. *Journal of Business and Economic Statistics.* 1991; 9:241-52.

11. Green J, Wintfield N, Sharkey P, Passman LJ. The importance of severity of illness in assessing hospital mortality. *JAMA.* 1990; 263:241-6.

12. Green J, Passman LJ, Wintfield N. Analyzing hospital mortality: the consequences of diversity in patient mix. *JAMA.* 1991; 265:1849-53.

13. Greenfield S, Aronow HU, Elashoff RM, Watanabe D. Flaws in mortality data: the hazards of ignoring comorbid disease. *JAMA.* 1988; 260:2253-7.

14. Rosen HM, Green BA. The HCFA excess mortality lists: a methodological critique. *Hospital and Health Services Administration*. 1987; 2:119-24.

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

16. Iezzoni LI, Ash AS, Coffman GA, Moskowitz MA. Predicting in-hospital mortality: a comparison of severity measurement approaches. *Med Care.* 1992; 30:347-59.

V Appendices

Appendix A

Structural Variable Map

The following variables, used to construct structural elements of the 2002 IHQ, were taken from the 2000 Annual Survey of Hospitals Data Base published by the American Hospital Association.

All Hospital Index (used to define hospital eligibility)

1 point if ANGIOHOS=1, half point if ANGIOSYS, ANGIONET, or ANGIOVEN=1
1 point if CCLABHOS=1, half point if CCLABSYS, CCLABNET, or CCLABVEN=1
1 point if CICBDHOS=1, half point if CICBDSYS, CICBDNET, or CICBDVEN=1
1 point if CTSCNHOS=1, half point if CTSCNSYS, CTSCNNET, or CTSCNVEN=1
1 point if DRADFHOS=1, half point if DRADFSYS, DRADFNET, or DRADFVEN=1
1 point if ESWLHOS=1, half point if ESWLSYS, ESWLNET, or ESWLVEN=1
1 point if MAMMSHOS=1, half point if MAMMSSYS, MAMMSNET, or MAMMSVEN=1
1 point if MRIHOS=1, half point if MRISYS, MRINET, or MRIVEN=1
1 point if MSICHOS=1, half point if MSICSYS, MSICNET, or MSICVEN=1
1 point if NICBDHOS=1, half point if NICBDSYS, NICBDNET, or NICBDVEN=1
1 point if OHSRGHOS=1, half point if OHSRGSYS, OHSRGNET, or OHSRGVEN=1
1 point if PEDBDHOS=1, half point if PEDBDSYS, PEDBDNET, or PEDBDVEN=1
1 point if PETHOS=1, half point if PETSYS, PETNET, or PETVEN=1
1 point if RADTHHOS=1, half point if RADTHSYS, RADTHNET, or RADTHVEN=1
1 point if REPROHOS=1, half point if REPROSYS, REPRONET, or REPROVEN=1
1 point if SPECTHOS=1, half point if SPECTSYS, SPECTNET, or SPECTVEN=1
1 point if ULTSNHOS=1, half point if ULTSNSYS, ULTSNNET, or ULTSNVEN=1

Cancer Technology Index

1 point if CTSCNHOS=1, half point if CTSCNSYS, CTSCNNET, or CTSCNVEN=1
1 point if MRIHOS=1, half point if MRISYS, MRINET, or MRIVEN=1
1 point if ONCOLHOS=1, half point if ONCOLSYS, ONCOLNET, or ONCOLVEN=1
1 point if PEDICHOS=1, half point if PEDICSYS, PEDICNET, or PEDICVEN=1
1 point if PETHOS=1, half point if PETSYS, PETNET, or PETVEN=1
1 point if RADTHHOS=1, half point if RADTHSYS, RADTHNET, or RADTHVEN=1
1 point if SPECTHOS=1, half point if SPECTSYS, SPECTNET, or SPECTVEN=1

Digestive Disorders Technology Index

1 point if CTSCNHOS=1, half point if CTSCNSYS, CTSCNNET, or CTSCNVEN=1
1 point if DRADFHOS=1, half point if DRADFSYS, DRADFNET, or DRADFVEN=1
1 point if ESWLHOS=1, half point if ESWLSYS, ESWLNET, or ESWLVEN=1
1 point if MRIHOS=1, half point if MRISYS, MRINET, or MRIVEN=1
1 point if PETHOS=1, half point if PETSYS, PETNET, or PETVEN=1
1 point if RADTHHOS=1, half point if RADTHSYS, RADTHNET, or RADTHVEN=1
1 point if SPECTHOS=1, half point if SPECTSYS, SPECTNET, or SPECTVEN=1
1 point if ULTSNHOS=1, half point if ULTSNSYS, ULTSNNET, or ULTSNVEN=1

Ear, Nose, and Throat Technology Index

1 point if CTSCNHOS=1, half point if CTSCNSYS, CTSCNNET, or CTSCNVEN=1
1 point if MRIHOS=1, half point if MRISYS, MRINET, or MRIVEN=1
1 point if PETHOS=1, half point if PETSYS, PETNET, or PETVEN=1
1 point if RADTHHOS=1, half point if RADTHSYS, RADTHNET, or RADTHVEN=1
1 point if SPECTHOS=1, half point if SPECTSYS, SPECTNET, or SPECTVEN=1

Heart and Heart Surgery Technology Index

1 point if ANGIOHOS=1, half point if ANGIOSYS, ANGIONET, or ANGIOVEN=1
1 point if CCLABHOS=1, half point if CCLABSYS, CCLABNET, or CCLABVEN=1
1 point if CICHOS=1, half point if CICSYS, CICNET, or CICVEN=1
1 point if CTSCNHOS=1, half point if CTSCNSYS, CTSCNNET, or CTSCNVEN=1
1 point if MRIHOS=1, half point if MRISYS, MRINET, or MRIVEN=1
1 point if OHSRGHOS=1, half point if OHSRGSYS, OHSRGNET, or OHSRGVEN=1
1 point if PETHOS=1, half point if PETSYS, PETNET, or PETVEN=1
1 point if SPECTHOS=1, half point if SPECTSYS, SPECTNET, or SPECTVEN=1
1 point if ULTSNHOS=1, half point if ULTSNSYS, ULTSNNET, or ULTSNVEN=1

Hormonal Disorders Technology Index

1 point if CTSCNHOS=1, half point if CTSCNSYS, CTSCNNET, or CTSCNVEN=1
1 point if DRADFHOS=1, half point if DRADFSYS, DRADFNET, or DRADFVEN=1
1 point if MRIHOS=1, half point if MRISYS, MRINET, or MRIVEN=1
1 point if PETHOS=1, half point if PETSYS, PETNET, or PETVEN=1
1 point if RADTHHOS=1, half point if RADTHSYS, RADTHNET, or RADTHVEN=1
1 point if SPECTHOS=1, half point if SPECTSYS, SPECTNET, or SPECTVEN=1
1 point if ULTSNHOS=1, half point if ULTSNSYS, ULTSNNET, or ULTSNVEN=1

Geriatrics Technology Index

1 point if CCLABHOS=1, half point if CCLABSYS, CCLABNET, or CCLABVEN=1
1 point if CICHOS=1, half point if CICSYS, CICNET, or CICVEN=1
1 point if CTSCNHOS=1, half point if CTSCNSYS, CTSCNNET, or CTSCNVEN=1
1 point if MRIHOS=1, half point if MRISYS, MRINET, or MRIVEN=1
1 point if PETHOS=1, half point if PETSYS, PETNET, or PETVEN=1
1 point if RADTHHOS=1, half point if RADTHSYS, RADTHNET, or RADTHVEN=1
1 point if SPECTHOS=1, half point if SPECTSYS, SPECTNET, or SPECTVEN=1
1 point if ULTSNHOS=1, half point if ULTSNSYS, ULTSNNET, or ULTSNVEN=1

Gynecology Technology Index

1 point if CTSCNHOS=1, half point if CTSCNSYS, CTSCNNET, or CTSCNVEN=1
1 point if MAMMSHOS=1, half point if MAMMSSYS, MAMMSNET, or MAMMSVEN=1
1 point if MRIHOS=1, half point if MRISYS, MRINET, or MRIVEN=1
1 point if NICHOS=1, half point if NICSYS, NICNET, or NICVEN=1
1 point if PETHOS=1, half point if PETSYS, PETNET, or PETVEN=1
1 point if RADTHHOS=1, half point if RADTHSYS, RADTHNET, or RADTHVEN=1
1 point if SPECTHOS=1, half point if SPECTSYS, SPECTNET, or SPECTVEN=1
1 point if ULTSNHOS=1, half point if ULTSNSYS, ULTSNNET, or ULTSNVEN=1

Kidney Disease Technology Index

1 point if CTSCNHOS=1, half point if CTSCNSYS, CTSCNNET, or CTSCNVEN=1
1 point if DRADFHOS=1, half point if DRADFSYS, DRADFNET, or DRADFVEN=1
1 point if ESWLHOS=1, half point if ESWLSYS, ESWLNET, or ESWLVEN=1
1 point if TPLNTHOS=1, half point if TPLNTSYS, TPLNTNET, or TPLNTVEN=1
1 point if ULTSNHOS=1, half point if ULTSNSYS, ULTSNNET, or ULTSNVEN=1

Neurology and Neurosurgery Technology Index

1 point if CTSCNHOS=1, half point if CTSCNSYS, CTSCNNET, or CTSCNVEN=1
1 point if DRADFHOS=1, half point if DRADFSYS, DRADFNET, or DRADFVEN=1
1 point if MRIHOS=1, half point if MRISYS, MRINET, or MRIVEN=1
1 point if PETHOS=1, half point if PETSYS, PETNET, or PETVEN=1
1 point if RADTHHOS=1, half point if RADTHSYS, RADTHNET, or RADTHVEN=1
1 point if SPECTHOS=1, half point if SPECTSYS, SPECTNET, or SPECTVEN=1
1 point if ULTSNHOS=1, half point if ULTSNSYS, ULTSNNET, or ULTSNVEN=1

Orthopedics Technology Index

1 point if CTSCNHOS=1, half point if CTSCNSYS, CTSCNNET, or CTSCNVEN=1
1 point if MRIHOS=1, half point if MRISYS, MRINET, or MRIVEN=1
1 point if PETHOS=1, half point if PETSYS, PETNET, or PETVEN=1
1 point if SPECTHOS=1, half point if SPECTSYS, SPECTNET, or SPECTVEN=1
1 point if ULTSNHOS=1, half point if ULTSNSYS, ULTSNNET, or ULTSNVEN=1

Respiratory Disorders Technology Index

1 point if CTSCNHOS=1, half point if CTSCNSYS, CTSCNNET, or CTSCNVEN=1
1 point if DRADFHOS=1, half point if DRADFSYS, DRADFNET, or DRADFVEN=1
1 point if RADTHHOS=1, half point if RADTHSYS, RADTHNET, or RADTHVEN=1
1 point if ULTSNHOS=1, half point if ULTSNSYS, ULTSNNET, or ULTSNVEN=1

Rheumatology Technology Index

1 point if CTSCNHOS=1, half point if CTSCNSYS, CTSCNNET, or CTSCNVEN=1
1 point if MRIHOS=1, half point if MRISYS, MRINET, or MRIVEN=1
1 point if PETHOS=1, half point if PETSYS, PETNET, or PETVEN=1
1 point if SPECTHOS=1, half point if SPECTSYS, SPECTNET, or SPECTVEN=1
1 point if ULTSNHOS=1, half point if ULTSNSYS, ULTSNNET, or ULTSNVEN=1

Urology Technology Index

1 point if CTSCNHOS=1, half point if CTSCNSYS, CTSCNNET, or CTSCNVEN=1
1 point if DRADFHOS=1, half point if DRADFSYS, DRADFNET, or DRADFVEN=1
1 point if ESWLHOS=1, half point if ESWLSYS, ESWLNET, or ESWLVEN=1
1 point if MRIHOS=1, half point if MRISYS, MRINET, or MRIVEN=1
1 point if PETHOS=1, half point if PETSYS, PETNET, or PETVEN=1
1 point if RADTHHOS=1, half point if RADTHSYS, RADTHNET, or RADTHVEN=1
1 point if SPECTHOS=1, half point if SPECTSYS, SPECTNET, or SPECTVEN=1
1 point if ULTSNHOS=1, half point if ULTSNSYS, ULTSNNET, or ULTSNVEN=1

Discharge Planning

1 point if CMNGTHOS=1
1 point if PATEDHOS=1
1 point if PATRPHOS =1

Geriatric Services

1 point if ADULTHOS=1
1 point if ARTHCHOS=1
1 point if ASSTLHOS=1
1 point if GERSVHOS=1
1 point if MEALSHOS=1
1 point if PATRPHOS=1
1 point if TPORTHOS=1

Gynecology Services

1 point if BROOMHOS=1
1 point if OBLEV=2 or 3 *and* OBHOS=1
1 point if REPROHOS=1
1 point if WOMHCHOS=1

Service Mix

1 point if ALCHHOS=1
1 point if COUTRHOS=1
1 point if HOMEHHOS=1
1 point if HOSPCHOS=1
1 point if PSYEDHOS=1
1 point if PSYLSHOS=1
1 point if REPROHOS=1
1 point if SOCWKHOS=1
1 point if WOMHCHOS=1

R.N.'s to Beds

Full-time Registered Nurses (FTRNTF) divided by Total Hospital Beds (HOSPBD)

Trauma

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

NCI

"Yes" if a National Cancer Institute designated Comprehensive or Clinical Cancer Center

Hospice/Palliative Care

"H, P" if (HOSPCHOS=1 or HOSPCSYS=1 or HOSPCNET=1 or HOSPCVEN=1) and (PALHOS=1 or PALSYS=1 or PALNET=1 or PALVEN=1)

"H" if HOSPCHOS=1 or HOSPCSYS=1 or HOSPCNET=1 or HOSPCVEN=1 "P" if PALHOS=1 or PALSYS=1 or PALNET=1 or PALVEN=1

Palliative Care

"Yes" if PALHOS=1 or PALSYS=1 or PALNET=1 or PALVEN=1

Appendix B

2002 Sample Physician Questionnaire (Long Form)

NORC
UNIVERSITY OF CHICAGO

America's Best Hospitals

This survey of physicians' judgments provides the basis for the reputation component of the annual ranking of hospitals for U. S. News & World Report.

Conducted by the
National Opinion Research Center
at the University of Chicago
1155 East 60th Street, Chicago, IL 60637

Start Here

THE NATION'S BEST HOSPITALS

1 **Please list in the spaces below, the five hospitals (and/or affiliated medical schools) in the United States that you believe provide the best care for patients with the most serious or difficult medical problems associated with cancer regardless of location or expense** (we've provided space for both hospital and/or affiliated medical school in hopes that will make it easier to provide your answer)**:**

	Five hospitals/affiliated medical schools that provide the best care.	City	State
a.			
b.			
c.			
d.			
e.			

THE INTERNET AND MEDICAL PRACTICE

Answers to these questions will help us to understand the impact of the Internet on medical practices.

2 **Have you ever suggested to your patients that they go to the Internet for information about their conditions?**

- ☐ Yes
- ☐ No

3 **Have your patients been helped or hindered by the information they have obtained from the Internet *following your suggestion?***

- ☐ Helped
- ☐ Hindered
- ☐ Neither
- ☐ Both
- ☐ Does not apply

Continued

4 **Have your patients been helped or hindered by the information they have obtained from the Internet *by themselves?***

- ☐ Helped
- ☐ Hindered
- ☐ Neither
- ☐ Both
- ☐ I don't know

5 **In the area of medical information on the Internet, what one development, if any, has proven most beneficial to patients?**

6 **How often do you use the Internet?**

- ☐ Nearly every day
- ☐ A day or two a week
- ☐ Several times a month
- ☐ Less than once a month
- ☐ Never

7 **Do you ever access pharmaceutical company web sites?**

- ☐ Yes
- ☐ No
- ☐ Does not apply

8 **Do you ever access medical association web sites?**

- ☐ Yes
- ☐ No
- ☐ Does not apply

9 **What other medical sites, if any, do you sometimes access?**

10 **Do you think that the quality of information on the Internet is... ?**

- ☐ Very good
- ☐ Good
- ☐ Neither good nor bad
- ☐ Bad
- ☐ Very bad
- ☐ Don't know

11 **In the area of medical information on the Internet, what one development, if any, has proven most beneficial to physicians?**

12 **Do you/does your office have an electronic mail address?**

- ☐ Yes
- ☐ No

13 **Do you allow your patients to communicate with you via electronic mail?**

- ☐ Yes
- ☐ No
- ☐ Does not apply

14 **Do you encourage your patients to communicate with you via electronic mail?**

- ☐ Yes
- ☐ No
- ☐ Does not apply

Thank you again for your participation

National Opinion Research Center at the University of Chicago
1155 East 60th Street, Chicago, IL 60637

Appendix C

2002 Sample Physician Questionnaire (Short Form)

America's Best Hospitals

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

NORC

Please list in the spaces below, the five hospitals (and/or affiliated medical schools) in the United States that you believe provide the best care for patients with the most serious or difficult medical problems associated with cancer regardless of location or expense (we've provided space for both hospital and/or affiliated medical school in hopes that will make it easier to provide your answer):

	Five hospitals/affiliated medical schools that provide the best care.	City	State
a.			
b.			
c.			
d.			
e.			

Conducted by the National Opinion Research Center at the University of Chicago
1155 East 60th Street, Chicago, IL 60637

Thank you again for your participation

National Opinion Research Center at the University of Chicago
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Appendix D

Predicted Mortality: APR-DRG Methodology

Introduction to DRGs

The All Patient Refined Diagnosis Related Groups (APR-DRGs) were developed by 3M Health Information Systems (3M-HIS) in conjunction with the National Association of Children's Hospitals and Related Institutions (NACHRI). APR-DRGs expand the basic diagnosis-related group (DRG) structure to address patient severity of illness, risk of mortality, and resource intensity. The APR-DRG Version 14.0 uses the Health Care Financing Administration (HCFA) Version 14.0 DRG methodology. Because APR-DRGs are based on DRGs and All Patient DRGs (AP-DRGs), a brief explanation of both structures will be useful.

Current HCFA DRG Structure

Created from Adjacent Diagnosis Related Groups (ADGs) which combine patients into groups with common characteristics, DRGs were developed by Yale University in the 1970s to relate a hospital's case mix index to the resource demands and associated costs experienced by the hospital.

ADGs were created by subdividing an MDC[2] into two groups based on the presence or absence of an operating room procedure. Surgical patients, identified as those having an operating room procedure, were then classified by type of procedure to form surgical ADGs. Patients with multiple procedures were assigned to the highest surgical class. Medical patients were divided into smaller groups, based on their principal diagnosis, to form medical ADGs.

[2] Major Diagnostic Categories (MDCs) are broad medical and surgical categories one step hierarchically higher than DRGs (several DRGs roll-up into an MDC). MDCs are divided by body systems such as nervous; ear, nose, and throat; and respiratory.

DRGs use ADGs as a base and then further classify patients into selected disease and procedure categories based on whether or not they have substantial comorbidities or complications (CC). Approximately 3,000 diagnosis codes have been designated by HCFA as substantial CCs, (defined by a list of additional diagnosis codes that a panel of physicians felt would increase the length of stay by at least one day for 75 percent of the patients). This list covers a broad range of disease conditions, and no differentiation in severity or complexity level was made among the additional diagnoses. The patient's age and discharge status were sometimes used in the definition of DRGs.

Current AP-DRG Structure

In 1987, the New York State Department of Health entered into an agreement with 3M-HIS to evaluate the applicability of DRGs to a non-Medicare population with a specific focus on neonates and patients with Human Immunodeficiency Virus (HIV) infections. The DRG definitions developed by this relationship are referred to as the AP-DRGs.

The AP-DRGs are modeled after the HCFA DRGs and attempt to improve the DRGs in an effort to more accurately predict a hospital's resource demands and associated costs for all acute care patients. In the creation of AP-DRGs, the modifications made to the DRG structure can be summarized as follows:

- Except for neonates who die or are transferred within the first few days of life, AP-DRGs define six ranges of birth weight that represent distinct demands on hospital resources. Within each birth weight range, neonates are then subdivided based on the presence of a significant operating room procedure, and then further subdivided based on presence of multiple major, minor, or other problems.

- Assignment to neonatal MDC is based on age. Specifically, the AP-DRGs assign a patient to the neonatal MDC when the age of the patient is less than 29 days at admission regardless of the principal diagnosis.

- MDC 25 was created to account for the highly specialized treatment of multiple trauma patients. Patients assigned to MDC 25 have at least two significant trauma diagnoses from different body sites.

- MDC 20 for alcohol and substance abuse was restructured to differentiate patients based on the substance being abused.

- Across all MDCs, patient with a tracheostomy were put into either of two tracheostomy AP-DRGs: tracheostomy performed for therapeutic reasons and tracheostomy representing long-term ventilation.

- All liver, bone marrow, heart, kidney, and lung transplant patients were assigned to an AP-DRG independent of the MDC of the principal diagnosis.

- For several MDCs, a single major comorbidity and complication (CC) AP-DRG was formed across all surgical patients within an MDC and a single major CC AP-DRG was formed across all medical patients within an MDC.

The AP-DRGs introduced changes to the HCFA DRGs in an attempt to depart from using the principal diagnosis as the initial variable for assignment. The AP-DRGs were designed to more accurately group patients into like groups that provide an operational means of defining and measuring a hospital's case mix complexity.

All Patient Refined DRGs

APR-DRG Objectives

The primary objective of the HCFA DRG and AP-DRG patient classification systems was to relate the type of patients treated to the hospital resources they consumed. This limited focus on resource intensity does not allow providers to classify patients into other groups for meaningful analysis. The APR-DRG patient classification system goes beyond traditional resource intensity measures and was designed with the ability to address the following needs:

- Compare hospitals across a wide range of resource and outcome measures
- Evaluate differences in inpatient mortality rates
- Implement and support critical pathways
- Identify continuous quality improvement initiatives
- Support internal management and planning systems
- Manage capitated payment arrangements.

To meet these needs, the APR-DRG system classifies patients according to severity of illness, risk of mortality, and resource intensity. Therefore, in the APR-DRG classification system a patient is assigned three distinct descriptors: base APR-DRG, severity of illness subclass, and risk of mortality subclass.

Severity of illness can be defined as the extent of physiologic decompensation or organ system loss of function experienced by the patient. In contrast, risk of mortality is defined as the patient's likelihood of dying.

For analyses such as evaluating resource intensity or patient care outcomes, the base APR-DRGs in conjunction with the severity of illness subclass is used. For evaluating patient mortality, the base APR-DRGs in conjunction with the risk of mortality subclass is used.

Development of the APR-DRGs

The AP-DRGs were used as the base DRGs in the development of the APR-DRGs because they were representative of the entire inpatient population and accounted for populations not included in DRGs at the time of development. Several consolidations, additions, and modifications were made to the AP-DRGs to form the list of APR-DRGs used in the severity of illness and risk of mortality subclass assignments.

The following list summarizes the revisions made to the AP-DRGs in the creation of the APR-DRGs:

- All age, CC, and major CC splits were consolidated.
- Splits based on discharge status or death were consolidated.
- Definitions based on the presence or absence of a complicated principal diagnosis were consolidated.
- Additional APR-DRGs were created for pediatric patients.
- APR-DRGs for newborns were completely restructured to create medical and surgical hierarchies within each birth weight range.
- Low volume APR-DRGs were consolidated into other related APR-DRGs.
- APR-DRGs that could be explained by the severity of illness subclasses were consolidated into one APR-DRG.
- Due to risk of mortality subclasses, several APR-DRGs were split to account for significant differences in mortality between patient groups.

APR-DRG Severity of Illness Subclass Assignment

With the exception of neonatal patients, after a patient has been given an APR-DRG code, a Severity of Illness Subclass is assigned based on the level of the secondary diagnoses, presence of certain non-OR procedures, and the interaction among secondary diagnoses, age, APR-DRG and principal diagnosis. Neonatal patients have their own hierarchical method for determining severity of illness and will be discussed later. The four severity of illness subclasses are:

Subclass (PSC)	Severity of Illness
1	Minor (Includes non CC)
2	Moderate
3	Major
4	Extreme

The severity of illness subclass is used in conjunction with the patient's base APR-DRG for analysis such as evaluating resource intensity or patient care outcomes. A patient's severity of illness subclass should not be used with their DRG because several DRGs may form one APR-DRG. Therefore, since severity of illness subclasses correspond to the APR-DRG number and not the DRG, it is important to use the APR-DRG number to accurately interpret data.

The process for assigning a patient a severity of illness subclass is a three phase process and is summarized as follows:

Phase I

- Secondary diagnoses that are closely related to the principal diagnosis are eliminated from further analysis.

- Remaining secondary diagnoses are assigned one of four distinct Standard Severity of Illness Levels. Figure 1 presents examples of secondary diagnoses in each severity of illness level.

Figure 1. Examples of Secondary Diagnoses by Severity of Illness Level

Severity of Illness Level	Examples of Secondary Diagnoses
Minor	Benign hypertension, acute bronchitis, lumbago
Moderate	Chronic renal failure, viral pneumonia, diverticulitis
Major	Diabetic ketoacidosis, chronic heart failure, acute cholecystitis
Extreme	Septicemia, acute myocardial infarction, cerebral vascular accident

- The Standard Severity of Illness Level is modified for some secondary diagnoses based on age, APR-DRG, and presence of non-OR procedures. Figure 2 displays an example of modifications to the standard severity of illness level based on the APR-DRG.

Figure 2. Examples of Standard Severity of Illness Modifications

Secondary Diagnosis	Standard Severity of Illness Level	APR-DRG	Modified Severity of Illness Level
Stridor	Moderate	Bronchitis and asthma	Minor
Chronic renal failure	Moderate	Diabetes	Major
Cardiomegaly	Moderate	Chronic heart failure	Minor
Uncomplicated diabetes	Minor	Vaginal delivery	Moderate

Phase II

- All secondary diagnoses that are closely related to other secondary diagnoses are eliminated from further analysis, and the secondary diagnosis with the highest Severity of Illness Level is retained. This prevents double counting clinically similar diagnoses.

- The Base Severity of Illness Subclass of the patient is set to the highest Standard Severity of Illness Level of any of the secondary diagnoses.

- Patients with a Base Severity of Illness Subclass of major (3) or extreme (4), will be reduced to the next lower subclass unless the patient has multiple secondary diagnoses with a high Standard Severity of Illness Level. Figure 3 displays the requirements for keeping a severity of illness subclass of major or extreme.

Figure 3. Multiple Secondary Diagnoses Requirements

Base Severity of Illness Subclass	Multiple Secondary Diagnoses Requirements to Prevent Reduction of Severity of Illness Subclass
Major	Two or more secondary diagnoses that are major or one secondary diagnosis that is major and at least two secondary diagnoses that are moderate
Extreme	Two or more secondary diagnoses that are extreme or one secondary diagnosis that is extreme and at least two secondary diagnoses that are major

Phase III

- A minimum Severity of Illness Subclass is established based on the patient's principal diagnosis. This accounts for patients assigned to codes that contain both the underlying disease and an associated manifestation of the disease (i.e. diabetes with hyperosmolar coma), but is only assigned to the APR-DRG that accounts for the underlying disease.

- A minimum Severity of Illness Subclass is established based on combinations of principal diagnosis and age for specific APR-DRGs.

- A minimum Severity of Illness Subclass is established for some APR-DRGs with certain APR-DRG and non-OR procedure combinations as well as principal diagnosis and non-OR procedure combinations

- A minimum Severity of Illness Subclass is established based on the presence of certain combinations of secondary diagnoses. Figure 4 shows the combination of secondary diagnoses necessary to increase the severity of illness subclass to a minimum severity of illness level. For example, a type 1 combination would be a major bacterial infection with pleural effusion. If a diagnosis from both of these categories is present plus at least one other secondary diagnosis that is at least a major severity of illness level, then the minimum patient severity of illness subclass will be extreme.

Figure 4. Minimum Severity of Illness Requirements

Combination Type	Combination of Categories	Additional Secondary Diagnoses Required	Minimum Severity of Illness
1	Specified combinations of two major categories	At least one additional major secondary diagnosis	Extreme
2	Specified combinations of two moderate categories	At least one additional moderate secondary diagnosis	Major
3	Specified combinations of a moderate and a minor category	At least one additional moderate secondary diagnosis	Major
4	Specified combinations of two minor categories	At least two additional minor secondary diagnoses	Moderate
5	Specified combinations of two moderate categories	None	Major

- The final patient Severity of Illness Subclass is selected based on the maximum of the Phase II Base Patient Severity of Illness Subclass and the Phase III minimum Severity of Illness Subclass

Both medical and surgical patients are assigned a severity of illness level of 1-4 based on the assignment process outlined previously.

APR-DRG Risk of Mortality Subclass Assignment

Similar to the Severity of Illness Subclass assignment, the Risk of Mortality Subclass assignment is based on the level of the secondary diagnoses and the interaction among secondary diagnoses, age, APR-DRG, and principal diagnosis. In general, the patients Risk of Mortality Level and Subclass will be lower than the Severity of Illness Level and Subclass, respectively. Neonatal patients have their own hierarchical method for determining risk of mortality and will be discussed later. The four severity of illness subclasses are:

Subclass (PSC2)	Risk of Mortality
1	Minor (includes non CC)
2	Moderate
3	Major
4	Extreme

The risk of mortality subclass is used in conjunction with the patient's base APR-DRG for evaluating patient mortality. Like the severity of illness subclass, a patient's risk of mortality subclass should not be used with their DRG because several DRGs may form one APR-DRG. Therefore, since risk of mortality subclasses correspond to the APR-DRG number and not the DRG, it is important to use the APR-DRG number to accurately interpret data.

The process for assigning a patient a risk of mortality subclass is a three phase process and is summarized as follows:

Phase I

- Secondary diagnoses that are closely related to the principal diagnosis are eliminated from further analysis.

- Remaining secondary diagnoses are assigned one of four distinct Risk of Mortality Levels.

- The Risk of Mortality Level is modified for some secondary diagnosis based on the patients age and APR-DRG.

Phase II

- All secondary diagnoses that are closely related to other secondary diagnoses are eliminated from further analysis, and the secondary diagnosis with the highest Risk of Mortality Level is retained. This prevents double counting clinically-similar diagnoses.

- The Base Risk of Mortality Subclass of the patient is set to the highest Risk of Mortality Level of any of the secondary diagnoses.

- Patients with a Base Risk of Mortality Subclass of major (3) or extreme (4), will be reduced to the next lower subclass unless the patient has multiple secondary diagnoses with a high Risk of Mortality Level.

Phase III

- A minimum Risk of Mortality Subclass is established based on the patients principal diagnosis. This accounts for specific APR-DRGs that have a principal diagnosis indicative of a higher risk of mortality relative to the other principal diagnoses in the APR-DRG.

- A minimum Risk of Mortality Subclass is established based on the presence of certain combinations of secondary diagnoses.

- The final patient Risk of Mortality Subclass is selected based on the maximum of the Phase II Base Risk of Mortality Subclass and the Phase III minimum Risk of Mortality Subclass.

Appendix E

Diagnosis-Related Group (DRG) Groupings by Specialty

Cancer

#10 NERVOUS SYSTEM NEOPLASMS W CC
#11 NERVOUS SYSTEM NEOPLASMS W/O CC
#64 EAR, NOSE, MOUTH & THROAT MALIGNANCY
#82 RESPIRATORY NEOPLASMS
#172 DIGESTIVE MALIGNANCY W CC
#173 DIGESTIVE MALIGNANCY W/O CC
#199 HEPATOBILIARY DIAGNOSTIC PROCEDURE FOR MALIGNANCY
#203 MALIGNANCY OF HEPATOBILIARY SYSTEM OR PANCREAS
#239 PATHOLOGICAL FRACTURES & MUSCULOSKELETAL & CONN TISS MALIGNANCY
#257 TOTAL MASTECTOMY FOR MALIGNANCY W CC
#258 TOTAL MASTECTOMY FOR MALIGNANCY W/O CC
#259 SUBTOTAL MASTECTOMY FOR MALIGNANCY W CC
#260 SUBTOTAL MASTECTOMY FOR MALIGNANCY W/O CC
#274 MALIGNANT BREAST DISORDERS W CC
#275 MALIGNANT BREAST DISORDERS W/O CC
#318 KIDNEY & URINARY TRACT NEOPLASMS W CC
#319 KIDNEY & URINARY TRACT NEOPLASMS W/O CC
#338 TESTES PROCEDURES, FOR MALIGNANCY
#344 OTHER MALE REPRODUCTIVE SYSTEM O.R. PROCEDURES FOR MALIGNANCY
#346 MALIGNANCY, MALE REPRODUCTIVE SYSTEM, W CC
#347 MALIGNANCY, MALE REPRODUCTIVE SYSTEM, W/O CC
#354 UTERINE, ADNEXA PROC FOR NON-OVARIAN/ADNEXAL MALIG W CC
#355 UTERINE, ADNEXA PROC FOR NON-OVARIAN/ADNEXAL MALIG W/O CC
#357 UTERINE & ADNEXA PROC FOR OVARIAN OR ADNEXAL MALIGNANCY
#366 MALIGNANCY, FEMALE REPRODUCTIVE SYSTEM W CC
#367 MALIGNANCY, FEMALE REPRODUCTIVE SYSTEM W/O CC
#400 LYMPHOMA & LEUKEMIA W MAJOR O.R. PROCEDURE
#401 LYMPHOMA & NON-ACUTE LEUKEMIA W OTHER O.R. PROC W CC
#402 LYMPHOMA & NON-ACUTE LEUKEMIA W OTHER O.R. PROC W/O CC
#403 LYMPHOMA & NON-ACUTE LEUKEMIA W CC
#404 LYMPHOMA & NON-ACUTE LEUKEMIA W/O CC
#405 ACUTE LEUKEMIA W/O MAJOR O.R. PROCEDURE AGE 0-17
#409 RADIOTHERAPY
#410 CHEMOTHERAPY W/O ACUTE LEUKEMIA AS SECONDARY DIAGNOSIS
#411 HISTORY OF MALIGNANCY W/O ENDOSCOPY
#412 HISTORY OF MALIGNANCY W ENDOSCOPY
#413 OTHER MYELOPROLIF DIS OR POORLY DIFF NEOPL DIAG W CC
#414 OTHER MYELOPROLIF DIS OR POORLY DIFF NEOPL DIAG W/O CC
#473 ACUTE LEUKEMIA W/O MAJOR O.R. PROCEDURE AGE >17
#492 CHEMOTHERAPY W ACUTE LEUKEMIA AS SECONDARY DIAGNOSIS

Digestive Disorders

#146 RECTAL RESECTION W CC
#147 RECTAL RESECTION W/O CC
#148 MAJOR SMALL & LARGE BOWEL PROCEDURES W CC
#149 MAJOR SMALL & LARGE BOWEL PROCEDURES W/O CC
#150 PERITONEAL ADHESIOLYSIS W CC
#151 PERITONEAL ADHESIOLYSIS W/O CC
#152 MINOR SMALL & LARGE BOWEL PROCEDURES W CC
#153 MINOR SMALL & LARGE BOWEL PROCEDURES W/O CC
#154 STOMACH, ESOPHAGEAL & DUODENAL PROCEDURES AGE >17 W CC
#155 STOMACH, ESOPHAGEAL & DUODENAL PROCEDURES AGE >17 W/O CC
#156 STOMACH, ESOPHAGEAL & DUODENAL PROCEDURES AGE 0-17
#170 OTHER DIGESTIVE SYSTEM O.R. PROCEDURES W CC
#171 OTHER DIGESTIVE SYSTEM O.R. PROCEDURES W/O CC
#174 G.I. HEMORRHAGE W CC
#175 G.I. HEMORRHAGE W/O CC
#176 COMPLICATED PEPTIC ULCER
#177 UNCOMPLICATED PEPTIC ULCER W CC
#178 UNCOMPLICATED PEPTIC ULCER W/O CC
#179 INFLAMMATORY BOWEL DISEASE
#180 G.I. OBSTRUCTION W CC
#181 G.I. OBSTRUCTION W/O CC
#182 ESOPHAGITIS, GASTROENT & MISC DIGEST DISORDERS AGE >17 W CC
#183 ESOPHAGITIS, GASTROENT & MISC DIGEST DISORDERS AGE >17 W/O CC
#184 ESOPHAGITIS, GASTROENT & MISC DIGEST DISORDERS AGE 0-17
#188 OTHER DIGESTIVE SYSTEM DIAGNOSES AGE >17 W CC
#189 OTHER DIGESTIVE SYSTEM DIAGNOSES AGE >17 W/O CC
#190 OTHER DIGESTIVE SYSTEM DIAGNOSES AGE 0-17
#191 PANCREAS, LIVER & SHUNT PROCEDURES W CC
#192 PANCREAS, LIVER & SHUNT PROCEDURES W/O CC
#193 BILIARY TRACT PROC EXCEPT ONLY CHOLECYST W OR W/O C.D.E. W CC
#194 BILIARY TRACT PROC EXCEPT ONLY CHOLECYST W OR W/O C.D.E. W/O CC
#195 CHOLECYSTECTOMY W C.D.E. W CC
#196 CHOLECYSTECTOMY W C.D.E. W/O CC
#197 CHOLECYSTECTOMY EXCEPT BY LAPAROSCOPE W/O C.D.E. W CC
#198 CHOLECYSTECTOMY EXCEPT BY LAPAROSCOPE W/O C.D.E. W/O CC
#200 HEPATOBILIARY DIAGNOSTIC PROCEDURE FOR NON-MALIGNANCY
#201 OTHER HEPATOBILIARY OR PANCREAS O.R. PROCEDURES
#202 CIRRHOSIS & ALCOHOLIC HEPATITIS
#204 DISORDERS OF PANCREAS EXCEPT MALIGNANCY
#205 DISORDERS OF LIVER EXCEPT MALIG,CIRR,ALC HEPA W CC
#206 DISORDERS OF LIVER EXCEPT MALIG,CIRR,ALC HEPA W/O CC
#207 DISORDERS OF THE BILIARY TRACT W CC
#208 DISORDERS OF THE BILIARY TRACT W/O CC
#493 LAPAROSCOPIC CHOLECYSTECTOMY W/O C.D.E. W CC
#494 LAPAROSCOPIC CHOLECYSTECTOMY W/O C.D.E. W/O CC

Ear, Nose, and Throat

#49 MAJOR HEAD & NECK PROCEDURES
#50 SIALOADENECTOMY
#51 SALIVARY GLAND PROCEDURES EXCEPT SIALOADENECTOMY
#55 MISCELLANEOUS EAR, NOSE, MOUTH & THROAT PROCEDURES
#57 T&A PROC, EXCEPT TONSILLECTOMY &/OR ADENOIDECTOMY ONLY, AGE >17
#58 T&A PROC, EXCEPT TONSILLECTOMY &/OR ADENOIDECTOMY ONLY, AGE 0-17
#59 TONSILLECTOMY &/OR ADENOIDECTOMY ONLY, AGE >17
#61 MYRINGOTOMY W TUBE INSERTION AGE >17
#62 MYRINGOTOMY W TUBE INSERTION AGE 0-17
#63 OTHER EAR, NOSE, MOUTH & THROAT O.R. PROCEDURES
#65 DYSEQUILIBRIUM
#66 EPISTAXIS
#67 EPIGLOTTITIS
#68 OTITIS MEDIA & URI AGE >17 W CC
#69 OTITIS MEDIA & URI AGE >17 W/O CC
#70 OTITIS MEDIA & URI AGE 0-17
#71 LARYNGOTRACHEITIS
#72 NASAL TRAUMA & DEFORMITY
#73 OTHER EAR, NOSE, MOUTH & THROAT DIAGNOSES AGE >17
#74 OTHER EAR, NOSE, MOUTH & THROAT DIAGNOSES AGE 0-17

Geriatrics

ALL CASES

Gynecology

#353 PELVIC EVISCERATION, RADICAL HYSTERECTOMY & RADICAL VULVECTOMY
#356 FEMALE REPRODUCTIVE SYSTEM RECONSTRUCTIVE PROCEDURES
#358 UTERINE & ADNEXA PROC FOR NON-MALIGNANCY W CC
#359 UTERINE & ADNEXA PROC FOR NON-MALIGNANCY W/O CC
#360 VAGINA, CERVIX & VULVA PROCEDURES
#361 LAPAROSCOPY & INCISIONAL TUBAL INTERRUPTION
#362 ENDOSCOPIC TUBAL INTERRUPTION
#363 D&C, CONIZATION & RADIO-IMPLANT, FOR MALIGNANCY
#364 D&C, CONIZATION EXCEPT FOR MALIGNANCY
#365 OTHER FEMALE REPRODUCTIVE SYSTEM O.R. PROCEDURES
#368 INFECTIONS, FEMALE REPRODUCTIVE SYSTEM
#369 MENSTRUAL & OTHER FEMALE REPRODUCTIVE SYSTEM DISORDERS

Heart and Heart Surgery

#75 MAJOR CHEST PROCEDURES
#104 CARDIAC VALVE & OTHER MAJOR CARDIOTHORACIC PX W CARDIAC CATH
#105 CARDIAC VALVE & OTHER MAJOR CARDIOTHORACIC PX W/O CARDIAC CATH
#106 CORONARY BYPASS WITH PTCA
#107 CORONARY BYPASS WITH CARDIAC CATH
#108 OTHER CARDIOTHORACIC PROCEDURES
#110 MAJOR CARDIOVASCULAR PROCEDURES W CC
#111 MAJOR CARDIOVASCULAR PROCEDURES W/O CC
#115 PRM CARD PACEM IMPL W AMI,HRT FAIL OR SHK,OR AICD LEAD OR GNRTR PROC
#116 OTHER PERMANENT CARDIAC PACEMAKER IMPLANTATION
#117 CARDIAC PACEMAKER REVISION EXCEPT DEVICE REPLACEMENT
#118 CARDIAC PACEMAKER DEVICE REPLACEMENT
#121 CIRCULATORY DISORDERS W AMI & MAJOR COMP, DISCHARGED ALIVE
#122 CIRCULATORY DISORDERS W AMI W/O MAJOR COMP, DISCHARGED ALIVE
#123 CIRCULATORY DISORDERS W AMI, EXPIRED
#126 ACUTE & SUBACUTE ENDOCARDITIS
#127 HEART FAILURE & SHOCK
#132 ATHEROSCLEROSIS W CC
#133 ATHEROSCLEROSIS W/O CC
#134 HYPERTENSION
#135 CARDIAC CONGENITAL & VALVULAR DISORDERS AGE >17 W CC
#136 CARDIAC CONGENITAL & VALVULAR DISORDERS AGE >17 W/O CC
#137 CARDIAC CONGENITAL & VALVULAR DISORDERS AGE 0-17
#138 CARDIAC ARRHYTHMIA & CONDUCTION DISORDERS W CC
#139 CARDIAC ARRHYTHMIA & CONDUCTION DISORDERS W/O CC
#140 ANGINA PECTORIS
#143 CHEST PAIN
#144 OTHER CIRCULATORY SYSTEM DIAGNOSES W CC
#145 OTHER CIRCULATORY SYSTEM DIAGNOSES W/O CC
#514 CARDIAC DEFIBRILLATOR IMPLANT W CARDIAC CATH
#515 CARDIAC DEFIBRILLATOR IMPLANT W/O CARDIAC CATH
#516 PERCUTANEOUS CARDIOVASCULAR PROC W AMI
#517 PERC CARDIO PROC W CORONARY ARTERY STENT W/O AMI
#518 PERC CARDIO PROC W/O CORONARY ARTERY STENT OR AMI

Hormonal Disorders

#286 ADRENAL & PITUITARY PROCEDURES
#287 SKIN GRAFTS & WOUND DEBRID FOR ENDOC, NUTRIT & METAB DISORDERS
#288 O.R. PROCEDURES FOR OBESITY
#289 PARATHYROID PROCEDURES
#290 THYROID PROCEDURES
#292 OTHER ENDOCRINE, NUTRIT & METAB O.R. PROC W CC
#293 OTHER ENDOCRINE, NUTRIT & METAB O.R. PROC W/O CC
#294 DIABETES AGE >35
#295 DIABETES AGE 0-35
#296 NUTRITIONAL & MISC METABOLIC DISORDERS AGE >17 W CC
#297 NUTRITIONAL & MISC METABOLIC DISORDERS AGE >17 W/O CC
#298 NUTRITIONAL & MISC METABOLIC DISORDERS AGE 0-17
#299 INBORN ERRORS OF METABOLISM
#300 ENDOCRINE DISORDERS W CC
#301 ENDOCRINE DISORDERS W/O CC

Kidney Disease

#316 RENAL FAILURE
#317 ADMIT FOR RENAL DIALYSIS
#320 KIDNEY & URINARY TRACT INFECTIONS AGE >17 W CC
#321 KIDNEY & URINARY TRACT INFECTIONS AGE >17 W/O CC
#322 KIDNEY & URINARY TRACT INFECTIONS AGE 0-17
#325 KIDNEY & URINARY TRACT SIGNS & SYMPTOMS AGE >17 W CC
#326 KIDNEY & URINARY TRACT SIGNS & SYMPTOMS AGE >17 W/O CC
#327 KIDNEY & URINARY TRACT SIGNS & SYMPTOMS AGE 0-17
#331 OTHER KIDNEY & URINARY TRACT DIAGNOSES AGE >17 W CC
#332 OTHER KIDNEY & URINARY TRACT DIAGNOSES AGE >17 W/O CC
#333 OTHER KIDNEY & URINARY TRACT DIAGNOSES AGE 0-17

Neurology and Neurosurgery

#1 CRANIOTOMY AGE >17 EXCEPT FOR TRAUMA
#2 CRANIOTOMY FOR TRAUMA AGE >17
#3 CRANIOTOMY AGE 0-17
#4 SPINAL PROCEDURES
#5 EXTRACRANIAL VASCULAR PROCEDURES
#6 CARPAL TUNNEL RELEASE
#7 PERIPH & CRANIAL NERVE & OTHER NERV SYST PROC W CC
#8 PERIPH & CRANIAL NERVE & OTHER NERV SYST PROC W/O CC
#9 SPINAL DISORDERS & INJURIES
#12 DEGENERATIVE NERVOUS SYSTEM DISORDERS
#13 MULTIPLE SCLEROSIS & CEREBELLAR ATAXIA
#14 SPECIFIC CEREBROVASCULAR DISORDERS EXCEPT TIA
#15 TRANSIENT ISCHEMIC ATTACK & PRECEREBRAL OCCLUSIONS
#16 NONSPECIFIC CEREBROVASCULAR DISORDERS W CC
#17 NONSPECIFIC CEREBROVASCULAR DISORDERS W/O CC
#18 CRANIAL & PERIPHERAL NERVE DISORDERS W CC
#19 CRANIAL & PERIPHERAL NERVE DISORDERS W/O CC
#20 NERVOUS SYSTEM INFECTION EXCEPT VIRAL MENINGITIS
#21 VIRAL MENINGITIS
#22 HYPERTENSIVE ENCEPHALOPATHY
#23 NONTRAUMATIC STUPOR & COMA
#24 SEIZURE & HEADACHE AGE >17 W CC
#25 SEIZURE & HEADACHE AGE >17 W/O CC
#26 SEIZURE & HEADACHE AGE 0-17
#27 TRAUMATIC STUPOR & COMA, COMA >1 HR
#28 TRAUMATIC STUPOR & COMA, COMA <1 HR AGE >17 W CC
#29 TRAUMATIC STUPOR & COMA, COMA <1 HR AGE >17 W/O CC
#30 TRAUMATIC STUPOR & COMA, COMA <1 HR AGE 0-17
#31 CONCUSSION AGE >17 W CC
#32 CONCUSSION AGE >17 W/O CC
#33 CONCUSSION AGE 0-17
#34 OTHER DISORDERS OF NERVOUS SYSTEM W CC
#35 OTHER DISORDERS OF NERVOUS SYSTEM W/O CC

Orthopedics

#209 MAJOR JOINT & LIMB REATTACHMENT PROCEDURES OF LOWER EXTREMITY
#210 HIP & FEMUR PROCEDURES EXCEPT MAJOR JOINT AGE >17 W CC
#211 HIP & FEMUR PROCEDURES EXCEPT MAJOR JOINT AGE >17 W/O CC
#212 HIP & FEMUR PROCEDURES EXCEPT MAJOR JOINT AGE 0-17
#213 AMPUTATION FOR MUSCULOSKELETAL SYSTEM & CONN TISSUE DISORDERS
#216 BIOPSIES OF MUSCULOSKELETAL SYSTEM & CONNECTIVE TISSUE
#217 WND DEBRID & SKN GRFT EXCEPT HAND,FOR MUSCSKELET & CONN TISS DIS
#218 LOWER EXTREM & HUMER PROC EXCEPT HIP,FOOT,FEMUR AGE >17 W CC
#219 LOWER EXTREM & HUMER PROC EXCEPT HIP,FOOT,FEMUR AGE >17 W/O CC
#220 LOWER EXTREM & HUMER PROC EXCEPT HIP,FOOT,FEMUR AGE 0-17
#223 MAJOR SHOULDER/ELBOW PROC, OR OTHER UPPER EXTREMITY PROC W CC
#224 SHOULDER,ELBOW OR FOREARM PROC,EXC MAJOR JOINT PROC, W/O CC
#225 FOOT PROCEDURES
#226 SOFT TISSUE PROCEDURES W CC
#227 SOFT TISSUE PROCEDURES W/O CC
#228 MAJOR THUMB OR JOINT PROC,OR OTH HAND OR WRIST PROC W CC
#229 HAND OR WRIST PROC, EXCEPT MAJOR JOINT PROC, W/O CC
#230 LOCAL EXCISION & REMOVAL OF INT FIX DEVICES OF HIP & FEMUR
#231 LOCAL EXCISION & REMOVAL OF INT FIX DEVICES EXCEPT HIP & FEMUR
#232 ARTHROSCOPY
#233 OTHER MUSCULOSKELET SYS & CONN TISS O.R. PROC W CC
#234 OTHER MUSCULOSKELET SYS & CONN TISS O.R. PROC W/O CC
#235 FRACTURES OF FEMUR
#236 FRACTURES OF HIP & PELVIS
#237 SPRAINS, STRAINS, & DISLOCATIONS OF HIP, PELVIS & THIGH
#238 OSTEOMYELITIS
#240 CONNECTIVE TISSUE DISORDERS W CC
#241 CONNECTIVE TISSUE DISORDERS W/O CC
#248 TENDONITIS, MYOSITIS & BURSITIS
#250 FX, SPRN, STRN & DISL OF FOREARM, HAND, FOOT AGE >17 W CC
#251 FX, SPRN, STRN & DISL OF FOREARM, HAND, FOOT AGE >17 W/O CC
#252 FX, SPRN, STRN & DISL OF FOREARM, HAND, FOOT AGE 0-17
#253 FX, SPRN, STRN & DISL OF UPARM,LOWLEG EX FOOT AGE >17 W CC
#254 FX, SPRN, STRN & DISL OF UPARM,LOWLEG EX FOOT AGE >17 W/O CC
#255 FX, SPRN, STRN & DISL OF UPARM, LOWLEG EX FOOT AGE 0-17
#471 BILATERAL OR MULTIPLE MAJOR JOINT PROCS OF LOWER EXTREMITY
#485 LIMB REATTACHMENT, HIP AND FEMUR PROC FOR MULTIPLE SIGNIFICANT TRAUM
#491 MAJOR JOINT & LIMB REATTACHMENT PROCEDURES OF UPPER EXTREMITY
#496 COMBINED ANTERIOR/POSTERIOR SPINAL FUSION
#497 SPINAL FUSION EXCEPT CERVICAL W CC
#498 SPINAL FUSION EXCEPT CERVICAL W/O CC
#501 KNEE PROCEDURES W PDX OF INFECTION W CC
#502 KNEE PROCEDURES W PDX OF INFECTION W/O CC
#503 KNEE PROCEDURES W/O PDX OF INFECTION

Respiratory Disorders

#76 OTHER RESP SYSTEM O.R. PROCEDURES W CC
#77 OTHER RESP SYSTEM O.R. PROCEDURES W/O CC
#78 PULMONARY EMBOLISM
#79 RESPIRATORY INFECTIONS & INFLAMMATIONS AGE >17 W CC
#80 RESPIRATORY INFECTIONS & INFLAMMATIONS AGE >17 W/O CC
#81 RESPIRATORY INFECTIONS & INFLAMMATIONS AGE 0-17
#85 PLEURAL EFFUSION W CC
#86 PLEURAL EFFUSION W/O CC
#87 PULMONARY EDEMA & RESPIRATORY FAILURE
#88 CHRONIC OBSTRUCTIVE PULMONARY DISEASE
#89 SIMPLE PNEUMONIA & PLEURISY AGE >17 W CC
#90 SIMPLE PNEUMONIA & PLEURISY AGE >17 W/O CC
#91 SIMPLE PNEUMONIA & PLEURISY AGE 0-17
#92 INTERSTITIAL LUNG DISEASE W CC
#93 INTERSTITIAL LUNG DISEASE W/O CC
#94 PNEUMOTHORAX W CC
#95 PNEUMOTHORAX W/O CC
#96 BRONCHITIS & ASTHMA AGE >17 W CC
#97 BRONCHITIS & ASTHMA AGE >17 W/O CC
#98 BRONCHITIS & ASTHMA AGE 0-17
#99 RESPIRATORY SIGNS & SYMPTOMS W CC
#100 RESPIRATORY SIGNS & SYMPTOMS W/O CC
#101 OTHER RESPIRATORY SYSTEM DIAGNOSES W CC
#102 OTHER RESPIRATORY SYSTEM DIAGNOSES W/O CC
#128 DEEP VEIN THROMBOPHLEBITIS
#475 RESPIRATORY SYSTEM DIAGNOSIS WITH VENTILATOR SUPPORT

Rheumatology

#242 SEPTIC ARTHRITIS
#244 BONE DISEASES & SPECIFIC ARTHROPATHIES W CC
#245 BONE DISEASES & SPECIFIC ARTHROPATHIES W/O CC
#246 NON-SPECIFIC ARTHROPATHIES
#247 SIGNS & SYMPTOMS OF MUSCULOSKELETAL SYSTEM & CONN TISSUE
#256 OTHER MUSCULOSKELETAL SYSTEM & CONNECTIVE TISSUE DIAGNOSES

Urology

#302 KIDNEY TRANSPLANT
#303 KIDNEY,URETER & MAJOR BLADDER PROCEDURES FOR NEOPLASM
#304 KIDNEY,URETER & MAJOR BLADDER PROC FOR NON-NEOPL W CC
#305 KIDNEY,URETER & MAJOR BLADDER PROC FOR NON-NEOPL W/O CC
#306 PROSTATECTOMY W CC
#307 PROSTATECTOMY W/O CC
#308 MINOR BLADDER PROCEDURES W CC
#309 MINOR BLADDER PROCEDURES W/O CC
#310 TRANSURETHRAL PROCEDURES W CC
#311 TRANSURETHRAL PROCEDURES W/O CC
#312 URETHRAL PROCEDURES, AGE >17 W CC
#313 URETHRAL PROCEDURES, AGE >17 W/O CC
#314 URETHRAL PROCEDURES, AGE 0-17
#315 OTHER KIDNEY & URINARY TRACT O.R. PROCEDURES
#323 URINARY STONES W CC, &/OR ESW LITHOTRIPSY
#324 URINARY STONES W/O CC
#328 URETHRAL STRICTURE AGE >17 W CC
#329 URETHRAL STRICTURE AGE >17 W/O CC
#330 URETHRAL STRICTURE AGE 0-17
#334 MAJOR MALE PELVIC PROCEDURES W CC
#335 MAJOR MALE PELVIC PROCEDURES W/O CC
#336 TRANSURETHRAL PROSTATECTOMY W CC
#337 TRANSURETHRAL PROSTATECTOMY W/O CC
#339 TESTES PROCEDURES, NON-MALIGNANCY AGE >17
#340 TESTES PROCEDURES, NON-MALIGNANCY AGE 0-17
#341 PENIS PROCEDURES
#342 CIRCUMCISION AGE >17
#343 CIRCUMCISION AGE 0-17
#348 BENIGN PROSTATIC HYPERTROPHY W CC
#349 BENIGN PROSTATIC HYPERTROPHY W/O CC
#350 INFLAMMATION OF THE MALE REPRODUCTIVE SYSTEM
#351 STERILIZATION, MALE
#352 OTHER MALE REPRODUCTIVE SYSTEM DIAGNOSES

Appendix F

Index of Hospital Quality (IHQ) Scores by Specialty

2002 Cancer Best Hospital List

Rank	Hospital	U.S. News Index	Reputational score	Mortality rate	Discharges	R.N.'s to beds	Technology score (of 7)	NCI cancer center	Hospice, palliative care	
1	University of Texas, M. D. Anderson Cancer Center, Houston	100.0	75.8	0.81	4824	2.93	6.0	Yes	P	
2	Memorial Sloan-Kettering Cancer Center, New York	98.6	74.8	0.84	5171	2.04	6.0	Yes	H	
3	Johns Hopkins Hospital, Baltimore	69.4	38.1	0.58	1574	1.70	7.0	Yes	H, P	
4	Dana-Farber Cancer Institute, Boston	65.4	44.7	0.97	219	3.11	6.0	Yes	P	
5	Mayo Clinic, Rochester, Minn.	63.1	32.0	0.61	4219	1.47	7.0	Yes	H, P	(+3 SD)
6	University of Chicago Hospitals	40.8	8.7	0.72	1492	1.90	7.0	Yes	H, P	
7	Duke University Medical Center, Durham, N.C.	40.5	9.3	0.78	3375	2.19	7.0	Yes	H, P	
8	UCLA Medical Center, Los Angeles	39.6	8.6	0.64	1275	1.70	7.0	Yes		
9	University of Michigan Medical Center, Ann Arbor	36.5	3.4	0.45	1648	1.70	7.0	Yes	P	
10	H. Lee Moffitt Cancer Center, Tampa, Fla.	36.2	3.5	0.67	1591	2.29	6.0	Yes	H, P	
11	University of Pittsburgh Medical Center	36.0	2.1	0.52	2111	1.74	6.5	Yes	H, P	
12	Hospital of the University of Pennsylvania, Philadelphia	36.0	7.9	0.88	1748	1.63	6.0	Yes	H	
13	Clarian Health Partners (IU and Methodist Hospitals), Indianapolis	35.7	6.9	0.85	2241	1.46	7.0	Yes	H	
14	University of California, San Francisco Medical Center	35.3	5.0	0.69	644	1.75	7.0	Yes	H, P	(+2 SD)
15	University of North Carolina Hospitals, Chapel Hill	34.0	0.6	0.64	1374	1.60	7.0	Yes	H, P	
16	University of Washington Medical Center, Seattle	33.8	9.5	0.71	895	1.32	6.0	No	H	
17	University of Alabama Hospital at Birmingham	33.6	1.7	0.72	1650	1.47	7.0	Yes	H, P	
18	Stanford University Hospital, Stanford, Calif.	33.5	13.0	0.94	1041	1.50	4.0	No	H	
19	Massachusetts General Hospital, Boston	33.4	9.9	1.03	2032	1.70	7.0	No	H, P	
20	University Hospitals of Cleveland	33.4	0.6	0.62	1732	1.59	7.0	Yes	H	
21	Arthur G. James Cancer Hospital, Columbus, Ohio	33.3	0.0	0.56	2172	1.35	6.5	Yes	H, P	
22	University of Virginia Health Sciences Center, Charlottesville	32.9	0.6	0.67	1310	2.58	7.0	Yes	H	
23	Barnes-Jewish Hospital, St. Louis	32.6	1.6	0.71	2565	1.50	6.5	Yes	H	
24	University of Wisconsin Hospital and Clinics, Madison	32.3	2.2	0.66	1200	1.34	7.0	Yes		
25	University Medical Center, Tucson, Ariz.	32.2	2.0	0.48	485	2.03	6.0	Yes	H	
26	Vanderbilt University Hospital and Clinic, Nashville	31.9	2.4	0.80	1015	2.23	7.0	Yes	P	
27	Yale-New Haven Hospital, New Haven, Conn.	31.7	0.0	0.67	1285	1.55	7.0	Yes	H	
28	New York Presbyterian Hospital	31.6	4.9	1.05	3860	1.36	7.0	Yes	H, P	
29	Fox Chase Cancer Center, Philadelphia	31.5	5.1	0.93	929	1.54	5.0	Yes	H, P	
30	Georgetown University Hospital, Washington, D.C.	31.4	0.6	0.49	673	1.52	7.0	Yes	P	
31	Harper Hospital, Detroit	31.2	0.0	0.70	1650	1.23	6.0	Yes	H, P	
32	Cleveland Clinic	31.1	2.1	0.71	2226	2.14	7.0	No	H, P	
33	Northwestern Memorial Hospital, Chicago	30.9	2.7	0.99	2161	1.93	6.0	Yes	H, P	
34	Thomas Jefferson University Hospital, Philadelphia	30.8	1.2	0.79	2001	1.24	5.5	Yes	H, P	
35	University of Iowa Hospitals and Clinics, Iowa City	30.7	0.6	0.79	1205	1.31	7.0	Yes	H, P	
36	Roswell Park Cancer Institute, Buffalo	30.6	4.2	1.07	1371	2.83	5.0	Yes	H, P	
37	Fairview-University Medical Center, Minneapolis	30.4	0.6	0.64	1281	0.30	6.0	Yes	H, P	
38	Shands Hospital at the University of Florida, Gainesville	30.3	2.2	0.61	1302	1.61	6.0	No	P	
39	Dartmouth-Hitchcock Medical Center, Lebanon, N.H.	30.1	0.4	0.83	1150	1.73	6.0	Yes	H, P	
40	University Hospital, Denver	29.6	0.4	0.61	458	2.25	6.0	Yes		
41	UCSD Medical Center, San Diego	29.4	0.0	0.59	542	1.56	5.0	Yes	H	
42	North Carolina Baptist Hospital, Winston-Salem	29.1	2.0	0.82	1984	1.71	7.0	No	H, P	
43	Akron General Medical Center, Akron, Ohio	28.8	0.0	0.60	1218	1.35	6.5	No	H, P	
44	Lutheran General Healthsystem, Park Ridge, Ill.	28.7	0.0	0.59	1419	1.17	6.0	No	H, P	
45	University Hospital of Arkansas, Little Rock	28.6	1.2	0.61	1276	2.53	5.5	No		
46	Baylor University Medical Center, Dallas	28.4	2.0	0.81	1957	1.69	5.5	No	H, P	
47	Allegheny General Hospital, Pittsburgh	28.4	0.0	0.60	1097	2.12	6.0	No	H	
48	Summa Health System, Akron, Ohio	28.4	0.0	0.58	1288	1.25	5.5	No	H, P	
49	Henry Ford Hospital, Detroit	28.3	0.6	0.76	1386	1.82	6.0	No	H, P	
50	Baptist St. Anthony Health System, Amarillo, Texas	28.3	0.0	0.39	1689	1.23	5.0	No	H, P	

2002 Digestive Disorders Best Hospital List

Rank	Hospital	U.S. News Index	Reputational score	Mortality rate	Discharges	R.N.'s to beds	Technology score (of 8)	Trauma Center	
1	Mayo Clinic, Rochester, Minn.	100.0	66.0	0.64	7975	1.47	8.0	Yes	
2	Johns Hopkins Hospital, Baltimore	69.6	38.8	0.64	3285	1.70	7.5	Yes	
3	Cleveland Clinic	68.4	37.9	0.54	4442	2.14	8.0	No	
4	Massachusetts General Hospital, Boston	59.6	31.8	0.82	4501	1.70	8.0	Yes	
5	Mount Sinai Medical Center, New York	47.1	23.4	1.05	5834	1.70	8.0	Yes	
6	University of Chicago Hospitals	43.9	19.1	0.84	2009	1.90	8.0	Yes	
7	UCLA Medical Center, Los Angeles	42.1	17.5	0.88	2497	1.70	8.0	Yes	
8	Duke University Medical Center, Durham, N.C.	40.1	15.7	0.93	3977	2.19	8.0	Yes	
9	University of California, San Francisco Medical Center	35.1	11.9	0.74	1758	1.75	8.0	No	(+3 SD)
10	University of Pittsburgh Medical Center	31.6	6.0	0.74	4120	1.74	8.0	Yes	
11	Brigham and Women's Hospital, Boston	31.4	7.2	0.78	2549	1.55	7.5	Yes	
12	Barnes-Jewish Hospital, St. Louis	30.9	6.2	0.78	5697	1.50	8.0	Yes	
13	University of Michigan Medical Center, Ann Arbor	30.7	4.7	0.69	2933	1.70	8.0	Yes	
14	Medical University of South Carolina, Charleston	29.5	10.5	1.15	2551	1.94	5.5	Yes	
15	Yale-New Haven Hospital, New Haven, Conn.	28.9	4.2	0.74	2627	1.55	8.0	Yes	
16	Parkland Memorial Hospital, Dallas	28.8	5.9	0.76	947	1.71	8.0	Yes	
17	Clarian Health Partners (IU and Methodist Hospitals), Indianapolis	28.6	6.5	0.98	5686	1.46	8.0	Yes	
18	University of North Carolina Hospitals, Chapel Hill	28.4	3.8	0.76	3150	1.60	7.5	Yes	
19	Beth Israel Deaconess Medical Center, Boston	28.3	3.3	0.66	4218	1.30	7.0	Yes	
20	Hospital of the University of Pennsylvania, Philadelphia	27.9	8.9	1.20	2282	1.63	8.0	Yes	(+2 SD)
21	Lahey Clinic, Burlington, Mass.	26.8	0.4	0.57	2711	1.79	7.0	Yes	
22	Memorial Sloan-Kettering Cancer Center, New York	26.7	1.3	0.47	2895	2.04	7.0	No	
23	New York Presbyterian Hospital	26.6	6.5	1.11	5994	1.36	8.0	Yes	
24	University of Wisconsin Hospital and Clinics, Madison	26.4	1.6	0.63	2211	1.34	8.0	Yes	
25	Florida Hospital Medical Center, Orlando, Fla.	26.3	0.0	0.62	6003	1.62	8.0	Yes	
26	Shands Hospital at the University of Florida, Gainesville	26.3	2.4	0.79	3009	1.61	7.0	Yes	
27	William Beaumont Hospital, Royal Oak, Mich.	26.2	0.9	0.73	5978	1.90	8.0	Yes	
28	University of Virginia Health Sciences Center, Charlottesville	26.0	1.5	0.79	3021	2.58	8.0	Yes	
29	Lutheran General Healthsystem, Park Ridge, Ill.	25.7	0.0	0.54	3279	1.17	6.5	Yes	
30	University of Washington Medical Center, Seattle	25.7	4.4	0.70	1314	1.32	8.0	No	
31	St. Louis University Hospital	25.7	2.1	0.68	1757	1.37	7.5	Yes	
32	F.G. McGaw Hospital at Loyola University, Maywood, Ill.	25.4	1.6	0.74	2340	1.87	7.0	Yes	
33	Baylor University Medical Center, Dallas	25.2	2.4	0.88	4691	1.69	7.0	Yes	
34	ST JOSEPH'S HOSPITAL	25.1	0.0	0.69	3017	1.50	8.0	Yes	
35	Allegheny General Hospital, Pittsburgh	25.1	0.0	0.65	2551	2.12	7.0	Yes	
36	Georgetown University Hospital, Washington, D.C.	25.0	2.0	0.55	937	1.52	8.0	No	
37	University Hospitals of Cleveland	25.0	0.5	0.76	3052	1.59	8.0	Yes	
38	Loma Linda University Medical Center, Loma Linda, Calif.	24.8	0.0	0.58	1927	1.87	6.0	Yes	
39	University of Miami, Jackson Memorial Hospital	24.7	2.6	0.78	1745	1.46	7.0	Yes	
40	University of Texas, M. D. Anderson Cancer Center, Houston	24.5	4.3	0.83	1502	2.93	7.0	No	
41	Northwestern Memorial Hospital, Chicago	24.4	2.0	0.95	2999	1.93	8.0	Yes	
42	Stanford University Hospital, Stanford, Calif.	24.4	3.8	0.76	2119	1.50	5.5	No	
43	Augusta Health Care, Fishersville, Va.	24.1	0.0	0.67	2335	1.80	6.0	Yes	
44	Summa Health System, Akron, Ohio	24.0	0.0	0.70	4179	1.25	7.0	Yes	
45	Abbott Northwestern Hospital, Minneapolis	23.9	0.0	0.75	3846	1.25	8.0	Yes	
46	Spectrum Health-Butterworth Campus, Grand Rapids, Mich.	23.8	0.0	0.78	2905	2.63	7.0	Yes	
47	West Jefferson Medical Center, Marrero, La.	23.8	0.0	0.53	1374	1.08	7.0	Yes	
48	Rush North Shore Medical Center, Skokie, Ill.	23.8	0.0	0.54	1656	1.27	5.5	Yes	
49	Providence Hospital, Southfield, Mich.	23.7	0.0	0.61	3035	1.49	6.5	No	
50	New England Medical Center, Boston	23.7	2.0	0.81	1230	2.36	7.0	Yes	

2002 Ear, Nose, and Throat Best Hospital List

Rank	Hospital	U.S. News Index	Reputational score	Hospitalwide mortality rate	Discharges	R.N.'s to beds	Technology score (of 5)	Trauma Center	
1	Johns Hopkins Hospital, Baltimore	100.0	46.4	0.86	304	1.70	5.0	Yes	
2	University of Iowa Hospitals and Clinics, Iowa City	79.2	33.9	0.88	245	1.31	5.0	Yes	
3	Massachusetts Eye and Ear Infirmary, Boston	76.8	30.5	0.15	281	2.31	3.0	Yes	
4	University of Michigan Medical Center, Ann Arbor	63.0	21.9	0.82	292	1.70	5.0	Yes	
5	Mayo Clinic, Rochester, Minn.	62.3	21.1	0.76	618	1.47	5.0	Yes	
6	University of Pittsburgh Medical Center	57.4	18.9	0.87	343	1.74	5.0	Yes	
7	UCLA Medical Center, Los Angeles	56.9	18.3	0.85	307	1.70	5.0	Yes	
8	University of Texas, M. D. Anderson Cancer Center, Houston	46.8	15.7	0.94	120	2.93	5.0	No	
9	Hospital of the University of Pennsylvania, Philadelphia	45.2	13.9	1.07	290	1.63	5.0	Yes	
10	Cleveland Clinic	45.0	10.2	0.68	240	2.14	5.0	No	
11	Vanderbilt University Hospital and Clinic, Nashville	44.8	10.8	0.88	284	2.23	5.0	Yes	
12	University of Washington Medical Center, Seattle	43.9	13.0	0.82	113	1.32	5.0	No	
13	Barnes-Jewish Hospital, St. Louis	41.9	9.4	0.88	387	1.50	5.0	Yes	
14	Stanford University Hospital, Stanford, Calif.	40.9	12.5	0.91	157	1.50	3.0	No	(+3 SD)
15	Memorial Sloan-Kettering Cancer Center, New York	36.4	5.3	0.77	248	2.04	5.0	No	
16	University of California, San Francisco Medical Center	36.2	6.9	0.83	152	1.75	5.0	No	
17	Methodist Hospital, Houston	35.0	9.0	1.02	212	1.14	5.0	No	
18	Mount Sinai Medical Center, New York	34.6	8.6	1.20	409	1.70	5.0	Yes	
19	University of Virginia Health Sciences Center, Charlottesville	34.5	4.3	0.87	215	2.58	5.0	Yes	(+2 SD)
20	University of Cincinnati Hospital	32.5	4.3	0.85	165	1.10	5.0	Yes	
21	University of Wisconsin Hospital and Clinics, Madison	32.4	1.6	0.73	225	1.34	5.0	Yes	
22	University of North Carolina Hospitals, Chapel Hill	32.1	2.7	0.85	211	1.60	5.0	Yes	
23	North Carolina Baptist Hospital, Winston-Salem	31.9	3.6	0.94	219	1.71	5.0	Yes	
24	Northwestern Memorial Hospital, Chicago	31.5	3.0	0.94	237	1.93	5.0	Yes	
25	Shands Hospital at the University of Florida, Gainesville	31.5	2.9	0.84	198	1.61	4.0	Yes	
26	University of California, Davis Medical Center, Sacramento	31.1	2.0	0.81	151	2.89	5.0	Yes	
27	Duke University Medical Center, Durham, N.C.	30.8	3.9	0.97	152	2.19	5.0	Yes	
28	Parkland Memorial Hospital, Dallas	30.5	2.7	0.80	54	1.71	5.0	Yes	
29	Henry Ford Hospital, Detroit	30.4	0.3	0.74	224	1.82	4.0	Yes	
30	Ohio State University Medical Center, Columbus	30.3	3.9	0.79	88	1.07	3.5	Yes	
31	Clarian Health Partners (IU and Methodist Hospitals), Indianapolis	30.3	2.0	0.89	356	1.46	5.0	Yes	
32	Rush-Presbyterian-St. Luke's Medical Center, Chicago	30.2	2.5	0.73	156	1.18	5.0	No	
33	Lahey Clinic, Burlington, Mass.	29.8	0.8	0.60	130	1.79	4.0	Yes	
34	New York Eye and Ear Infirmary, New York	29.8	1.9	0.00	55	2.67	3.5	Yes	
35	University of Chicago Hospitals	29.7	2.6	0.88	104	1.90	5.0	Yes	
36	University of Miami, Jackson Memorial Hospital	29.7	2.7	0.90	161	1.46	5.0	Yes	
37	Summa Health System, Akron, Ohio	29.3	0.0	0.68	239	1.25	4.0	Yes	
38	Abbott Northwestern Hospital, Minneapolis	29.2	0.0	0.77	378	1.25	5.0	Yes	
39	University Hospitals of Cleveland	29.1	0.0	0.75	166	1.59	5.0	Yes	
40	Lutheran General Healthsystem, Park Ridge, Ill.	29.1	0.0	0.69	247	1.17	4.0	Yes	
41	Meridia Hillcrest Hospital, Cleveland, Ohio	29.0	0.0	0.74	191	1.28	5.0	Yes	
42	Akron General Medical Center, Akron, Ohio	29.0	0.0	0.77	219	1.35	5.0	Yes	
43	St. Louis University Hospital	29.0	0.8	0.74	112	1.37	5.0	Yes	
44	Florida Hospital Medical Center, Orlando, Fla.	28.9	0.0	0.78	193	1.62	5.0	Yes	
45	University of Illinois Hospital and Clinics, Chicago	28.7	2.7	0.82	86	1.88	2.5	Yes	
46	Loma Linda University Medical Center, Loma Linda, Calif.	28.7	1.0	0.80	145	1.87	4.0	Yes	
47	Yale-New Haven Hospital, New Haven, Conn.	28.7	1.2	0.91	266	1.55	5.0	Yes	
48	University Hospital, Denver	28.4	0.4	0.74	59	2.25	5.0	Yes	
49	Arthur G. James Cancer Hospital, Columbus, Ohio	28.4	0.0	0.66	128	1.35	5.0	Yes	
50	University of Alabama Hospital at Birmingham	28.4	2.6	1.02	309	1.47	5.0	Yes	

2002 Geriatrics Best Hospital List

Rank	Hospital	U.S. News Index	Reputational score	Hospitalwide mortality rate	R.N.'s to beds	Technology score (of 8)	Discharge planning (of 3)	Service mix (of 10)	Geriatric services (of 7)	Hospice, palliative care	
1	UCLA Medical Center, Los Angeles	100.0	47.8	0.85	1.70	8.0	3	6	4		
2	Johns Hopkins Hospital, Baltimore	91.7	41.5	0.86	1.70	8.0	3	7	4	H, P	
3	Mount Sinai Medical Center, New York	65.3	29.7	1.20	1.70	8.0	3	8	2	H, P	
4	Massachusetts General Hospital, Boston	59.8	22.4	0.93	1.70	8.0	3	8	4	H, P	
5	Duke University Medical Center, Durham, N.C.	54.8	19.8	0.97	2.19	8.0	3	9	3	H, P	
6	Mayo Clinic, Rochester, Minn.	48.5	12.1	0.76	1.47	8.0	3	10	6	H, P	
7	Cleveland Clinic	41.9	8.3	0.68	2.14	8.0	3	8	4	H, P	
8	Yale-New Haven Hospital, New Haven, Conn.	40.8	11.5	0.91	1.55	8.0	3	7	3	H	
9	St. Louis University Hospital	40.2	9.8	0.74	1.37	8.0	3	5	3	H	
10	University of Michigan Medical Center, Ann Arbor	38.6	8.4	0.82	1.70	8.0	3	8	4	P	(+3 SD)
11	University of Chicago Hospitals	34.4	5.7	0.88	1.90	8.0	3	9	4	H, P	
12	University of Washington Medical Center, Seattle	32.6	6.5	0.82	1.32	8.0	2	7	2	H	
13	University Hospitals of Cleveland	32.5	3.2	0.75	1.59	8.0	3	9	5	H	
14	Beth Israel Deaconess Medical Center, Boston	31.9	5.2	0.88	1.30	7.0	3	9	4	H	
15	North Carolina Baptist Hospital, Winston-Salem	31.9	4.3	0.94	1.71	8.0	3	10	5	H, P	
16	Rush-Presbyterian-St. Luke's Medical Center, Chicago	31.6	2.5	0.73	1.18	8.0	3	9	5	H	
17	Stanford University Hospital, Stanford, Calif.	30.6	6.1	0.91	1.50	6.0	3	8	2	H	
18	University of California, San Francisco Medical Center	30.6	3.5	0.83	1.75	8.0	3	6	4	H, P	(+2 SD)
19	Brigham and Women's Hospital, Boston	29.8	2.8	0.82	1.55	7.5	3	7	4	H, P	
20	Barnes-Jewish Hospital, St. Louis	29.7	4.2	0.88	1.50	8.0	3	6	4	H	
21	Georgetown University Hospital, Washington, D.C.	29.7	0.4	0.55	1.52	8.0	3	8	4	P	
22	Sparrow Hospital and Health System, Lansing, Mich.	29.4	0.0	0.69	1.12	7.0	3	10	6	H, P	
23	University of Pittsburgh Medical Center	29.0	1.3	0.87	1.74	8.0	3	8	7	H, P	
24	Summa Health System, Akron, Ohio	28.7	0.9	0.68	1.25	7.0	3	9	3	H, P	
25	Hospital of the University of Pennsylvania, Philadelphia	28.6	5.6	1.07	1.63	8.0	3	8	3	H	
26	University of North Carolina Hospitals, Chapel Hill	28.4	1.8	0.85	1.60	8.0	3	10	3	H, P	
27	Thomas Jefferson University Hospital, Philadelphia	28.3	2.7	0.89	1.24	7.0	3	9	4	H, P	
28	LAC-KING-DREW MEDICAL CENTER	28.2	0.3	0.49	1.97	8.0	3	7	4		
29	Cook County Hospital, Chicago	27.9	0.9	0.62	1.99	6.0	2	7	3	H, P	
30	Northwestern Memorial Hospital, Chicago	27.8	2.6	0.94	1.93	8.0	3	8	4	H, P	
31	Boston Medical Center	27.8	3.4	0.87	1.63	6.0	3	7	5		
32	University Hospital, Denver	27.7	2.7	0.74	2.25	7.0	3	5	3		
33	Fairview-University Medical Center, Minneapolis	27.6	1.8	0.84	0.30	7.0	3	9	5	H, P	
34	Christ Hospital, Cincinnati	27.4	0.0	0.62	1.06	7.5	3	6	3	H, P	
35	Lahey Clinic, Burlington, Mass.	27.2	0.0	0.60	1.79	7.0	3	7	4		
36	Parkland Memorial Hospital, Dallas	27.1	1.8	0.80	1.71	8.0	3	7	4		
37	New York Presbyterian Hospital	26.9	5.1	1.21	1.36	8.0	3	9	4	H, P	
38	University of Miami, Jackson Memorial Hospital	26.9	1.3	0.90	1.46	8.0	3	10	5	H	
39	Lutheran General Healthsystem, Park Ridge, Ill.	26.8	0.0	0.69	1.17	7.0	3	8	3	H, P	
40	University Hospital of Arkansas, Little Rock	26.7	3.2	0.87	2.53	7.5	3	6	3		
41	LA PORTE REGIONAL HEALTH SYST	26.6	0.0	0.72	0.72	7.0	3	9	5	H	
42	St. Luke's Hospital, Chesterfield, Mo.	26.5	0.0	0.71	1.05	7.0	3	6	6	H	
43	University of Wisconsin Hospital and Clinics, Madison	26.5	1.2	0.73	1.34	8.0	3	7	3		
44	ST JOHN DETROIT RIVERVIEW HOSP	26.4	0.0	0.64	0.89	5.0	3	7	4	H, P	
45	Augusta Health Care, Fishersville, Va.	26.4	0.0	0.69	1.80	5.0	3	8	5	H	
46	Miami Valley Hospital, Dayton, Ohio	26.3	0.0	0.70	1.03	8.0	3	7	4	P	
47	Akron General Medical Center, Akron, Ohio	26.3	0.0	0.77	1.35	8.0	3	9	3	H, P	
48	SCRIPPS MERCY HOSPITAL	26.3	0.0	0.80	1.46	7.0	3	8	5	H, P	
49	DANBURY HOSPITAL	26.2	0.5	0.80	1.34	8.0	3	8	3	H, P	
50	Memorial Hospital, Hollywood, Fla.	26.2	0.0	0.76	1.09	8.0	3	9	4	H	

2002 Gynecology Best Hospital List

Rank	Hospital	U.S. News Index	Reputational score	Hospitalwide mortality rate	Discharges	R.N.'s to beds	Technology score (of 8)	Trauma Center	Gynecology services (of 4)	
1	Johns Hopkins Hospital, Baltimore	100.0	30.7	0.86	270	1.70	8.0	Yes	4	
2	Mayo Clinic, Rochester, Minn.	94.4	27.9	0.76	1338	1.47	8.0	Yes	3	
3	Brigham and Women's Hospital, Boston	74.9	19.8	0.82	479	1.55	7.5	Yes	4	
4	University of Texas, M. D. Anderson Cancer Center, Houston	66.8	20.1	0.94	183	2.93	7.0	No	0	
5	UCLA Medical Center, Los Angeles	61.1	14.1	0.85	335	1.70	8.0	Yes	4	
6	Duke University Medical Center, Durham, N.C.	58.5	14.0	0.97	514	2.19	8.0	Yes	4	
7	Massachusetts General Hospital, Boston	52.5	11.2	0.93	382	1.70	8.0	Yes	4	
8	Parkland Memorial Hospital, Dallas	48.1	8.9	0.80	120	1.71	8.0	Yes	4	
9	Cleveland Clinic	45.7	7.2	0.68	669	2.14	7.5	No	3	
10	University of California, San Francisco Medical Center	44.8	8.8	0.83	80	1.75	8.0	No	3	
11	University of Michigan Medical Center, Ann Arbor	43.9	6.6	0.82	394	1.70	8.0	Yes	4	
12	Memorial Sloan-Kettering Cancer Center, New York	42.4	8.0	0.77	196	2.04	7.0	No	1	
13	Northwestern Memorial Hospital, Chicago	41.0	6.5	0.94	292	1.93	8.0	Yes	4	
14	University of North Carolina Hospitals, Chapel Hill	40.7	5.6	0.85	361	1.60	8.0	Yes	4	(+3 SD)
15	Stanford University Hospital, Stanford, Calif.	38.6	7.6	0.91	279	1.50	5.0	No	2	
16	New York Presbyterian Hospital	38.6	8.0	1.21	681	1.36	8.0	Yes	4	
17	Yale-New Haven Hospital, New Haven, Conn.	38.0	5.1	0.91	298	1.55	8.0	Yes	4	
18	Magee-Womens Hospital, Pittsburgh	37.1	3.0	0.47	509	1.37	7.0	No	4	
19	University of Chicago Hospitals	36.8	4.3	0.88	261	1.90	8.0	Yes	4	
20	Hospital of the University of Pennsylvania, Philadelphia	34.5	5.1	1.07	237	1.63	8.0	Yes	4	
21	Vanderbilt University Hospital and Clinic, Nashville	34.4	3.5	0.88	323	2.23	8.0	Yes	3	
22	University Hospital, Denver	33.8	2.4	0.74	94	2.25	8.0	Yes	4	
23	University of Washington Medical Center, Seattle	32.8	3.2	0.82	208	1.32	8.0	No	4	(+2 SD)
24	Methodist Hospital, Houston	32.5	5.2	1.02	472	1.14	7.0	No	3	
25	University of Virginia Health Sciences Center, Charlottesville	32.4	2.2	0.87	342	2.58	8.0	Yes	4	
26	Barnes-Jewish Hospital, St. Louis	32.1	2.4	0.88	584	1.50	7.5	Yes	4	
27	University of Miami, Jackson Memorial Hospital	32.0	2.5	0.90	314	1.46	8.0	Yes	4	
28	Georgetown University Hospital, Washington, D.C.	32.0	1.0	0.55	163	1.52	8.0	No	4	
29	University of California, Irvine Medical Center, Orange	31.7	4.3	0.82	84	1.14	6.0	Yes	1	
30	St. Joseph Hospital, Denver	31.6	1.5	0.53	255	0.96	7.0	No	3	
31	Los Angeles County-USC Medical Center	31.5	0.9	0.50	36	1.61	6.5	Yes	4	
32	University of Utah Hospitals and Clinics, Salt Lake City	31.5	2.4	0.81	177	1.12	7.0	Yes	4	
33	Rush-Presbyterian-St. Luke's Medical Center, Chicago	31.2	1.5	0.73	298	1.18	8.0	No	4	
34	University of Wisconsin Hospital and Clinics, Madison	31.0	2.0	0.73	217	1.34	7.0	Yes	2	
35	Miami Valley Hospital, Dayton, Ohio	30.7	0.5	0.70	465	1.03	8.0	Yes	4	
36	William Beaumont Hospital, Royal Oak, Mich.	30.3	1.5	0.89	607	1.90	8.0	Yes	4	
37	Florida Hospital Medical Center, Orlando, Fla.	30.2	0.6	0.78	768	1.62	8.0	Yes	4	
38	Thomas Jefferson University Hospital, Philadelphia	30.0	1.9	0.89	361	1.24	7.0	Yes	4	
39	Mount Sinai Medical Center, New York	29.9	4.0	1.20	316	1.70	8.0	Yes	4	
40	University of Alabama Hospital at Birmingham	29.7	2.5	1.02	480	1.47	8.0	Yes	4	
41	Akron General Medical Center, Akron, Ohio	29.7	0.6	0.77	362	1.35	7.5	Yes	4	
42	University Medical Center, Tucson, Ariz.	29.7	0.9	0.70	171	2.03	6.0	Yes	3	
43	Lahey Clinic, Burlington, Mass.	29.6	0.0	0.60	287	1.79	6.0	Yes	2	
44	University Hospitals of Cleveland	29.5	0.0	0.75	354	1.59	8.0	Yes	4	
45	Summa Health System, Akron, Ohio	29.5	0.0	0.68	316	1.25	6.5	Yes	4	
46	Sparrow Hospital and Health System, Lansing, Mich.	29.5	0.0	0.69	329	1.12	7.0	Yes	4	
47	Clarian Health Partners (IU and Methodist Hospitals), Indianapolis	29.4	1.6	0.89	618	1.46	8.0	Yes	3	
48	Cook County Hospital, Chicago	29.3	0.0	0.62	73	1.99	6.0	Yes	4	
49	Christ Hospital, Cincinnati	29.2	0.0	0.62	316	1.06	7.0	No	4	
50	Ohio State University Medical Center, Columbus	28.9	1.4	0.79	148	1.07	6.5	Yes	4	

2002 Heart and Heart Surgery Best Hospital List

Rank	Hospital	U.S. News Index	Reputational score	Mortality rate	Discharges	R.N.'s to beds	Technology score (of 9)	Trauma Center	Hospice, palliative care	
1	Cleveland Clinic	100.0	62.8	0.68	14311	2.14	9.0	No	H, P	
2	Mayo Clinic, Rochester, Minn.	87.5	52.2	0.83	16735	1.47	9.0	Yes	H, P	
3	Massachusetts General Hospital, Boston	63.5	29.2	0.80	11070	1.70	9.0	Yes	H, P	
4	Brigham and Women's Hospital, Boston	60.7	27.7	0.79	8057	1.55	8.5	Yes	H, P	
5	Duke University Medical Center, Durham, N.C.	58.9	27.1	0.91	12098	2.19	9.0	Yes	H, P	
6	Johns Hopkins Hospital, Baltimore	55.6	26.4	0.96	6212	1.70	9.0	Yes	H, P	(+3 SD)
7	Texas Heart Institute-St. Luke's Episcopal Hospital, Houston	38.1	13.6	0.97	11456	1.28	8.0	No	P	
8	Emory University Hospital, Atlanta	37.8	12.9	0.98	7619	1.40	9.0	No	P	
9	Stanford University Hospital, Stanford, Calif.	37.6	15.7	0.99	4829	1.50	7.0	No	H	(+2 SD)
10	Barnes-Jewish Hospital, St. Louis	34.5	5.8	0.89	12314	1.50	9.0	Yes	H	
11	UCLA Medical Center, Los Angeles	33.2	6.7	0.87	4357	1.70	9.0	Yes		
12	Florida Hospital Medical Center, Orlando, Fla.	32.8	0.4	0.75	21913	1.62	9.0	Yes	H, P	
13	Washington Hospital Center, Washington, D.C.	31.4	2.8	0.88	14122	1.56	8.0	Yes	H, P	
14	Henry Ford Hospital, Detroit	31.4	0.0	0.71	8456	1.82	8.0	Yes	H, P	
15	William Beaumont Hospital, Royal Oak, Mich.	31.3	1.9	0.91	18388	1.90	9.0	Yes	H, P	
16	Parkland Memorial Hospital, Dallas	31.0	3.3	0.70	1494	1.71	9.0	Yes		
17	University of California, San Francisco Medical Center	30.6	4.4	0.87	2733	1.75	9.0	No	H, P	
18	Summa Health System, Akron, Ohio	30.3	0.5	0.75	7567	1.25	8.0	Yes	H, P	
19	Thomas Jefferson University Hospital, Philadelphia	30.3	2.2	0.83	6919	1.24	8.0	Yes	H, P	
20	University of Pittsburgh Medical Center	30.1	2.5	0.97	8153	1.74	9.0	Yes	H, P	
21	New York Presbyterian Hospital	30.0	6.7	1.16	14528	1.36	9.0	Yes	H, P	
22	University Hospitals of Cleveland	29.9	0.0	0.74	5941	1.59	9.0	Yes	H	
23	Sentara Norfolk General Hospital, Norfolk, Va.	29.9	0.0	0.81	9194	1.26	8.5	Yes	H, P	
24	University of Alabama Hospital at Birmingham	29.8	6.2	1.14	8072	1.47	9.0	Yes	H, P	
25	Orlando Regional Medical Center, Orlando, Fla.	29.6	0.0	0.78	9716	1.15	9.0	Yes	P	
26	Abbott Northwestern Hospital, Minneapolis	29.6	1.0	0.80	10800	1.25	9.0	Yes		
27	REGIONAL MEDICAL CENTER	29.6	0.0	0.69	8507	1.18	9.0	No	H, P	
28	Hospital of the University of Pennsylvania, Philadelphia	29.3	5.2	1.03	5003	1.63	9.0	Yes	H	
29	Meridia Hillcrest Hospital, Cleveland, Ohio	29.3	0.0	0.75	5998	1.28	9.0	Yes	P	
30	Hackensack Medical Center, Hackensack, N.J.	29.3	0.0	0.91	10790	2.48	9.0	Yes	H, P	
31	North Carolina Baptist Hospital, Winston-Salem	29.1	0.9	0.94	8403	1.71	9.0	Yes	H, P	
32	Lehigh Valley Hospital, Allentown, Pa.	29.0	0.0	0.84	10021	1.23	8.5	Yes	H, P	
33	St. Louis University Hospital	28.9	1.3	0.79	3443	1.37	9.0	Yes	H	
34	Mount Sinai Medical Center, New York	28.8	5.3	1.18	9309	1.70	9.0	Yes	H, P	
35	Lutheran General Healthsystem, Park Ridge, Ill.	28.7	0.0	0.73	5309	1.17	8.0	Yes	H, P	
36	Lahey Clinic, Burlington, Mass.	28.6	0.4	0.63	5755	1.79	8.0	Yes		
37	Sparrow Hospital and Health System, Lansing, Mich.	28.6	0.0	0.61	5210	1.12	8.0	Yes	H, P	
38	University Medical Center, Tucson, Ariz.	28.6	1.0	0.78	3177	2.03	8.0	Yes	H	
39	SAINT JOSEPH HOSPITAL	28.5	0.0	0.77	7731	1.51	8.0	No	H, P	
40	Christ Hospital, Cincinnati	28.4	0.0	0.64	7485	1.06	8.5	No	H, P	
41	St. Luke's Hospital, Bethlehem, Pa.	28.2	0.0	0.77	9057	0.89	8.0	Yes	H	
42	University of Michigan Medical Center, Ann Arbor	28.2	1.9	0.93	5541	1.70	9.0	Yes	P	
43	MERCY MEDICAL CENTER	28.1	0.0	0.78	5188	1.16	9.0	Yes	H	
44	St. Vincent Hospital and Health Center, Indianapolis	28.0	0.9	0.91	13917	1.29	8.0	Yes	H, P	
45	University of California, Davis Medical Center, Sacramento	28.0	0.5	0.82	2788	2.89	9.0	Yes	H	
46	Wausau Hospital, Wausau, Wis.	27.9	0.0	0.75	4736	1.39	8.0	Yes	H	
47	Akron General Medical Center, Akron, Ohio	27.9	0.0	0.93	9137	1.35	9.0	Yes	H, P	
48	North Shore University Hospital, Manhasset, N.Y.	27.9	0.8	0.94	9934	1.13	9.0	Yes	H, P	
49	Sinai Hospital of Baltimore	27.9	0.0	0.81	5506	0.86	9.0	Yes	H, P	
50	University of Miami, Jackson Memorial Hospital	27.8	0.9	0.82	2603	1.46	9.0	Yes	H	

2002 Hormonal Disorders Best Hospital List

Rank	Hospital	U.S. News Index	Reputational score	Mortality rate	Discharges	R.N.'s to beds	Technology score (of 7)	Trauma Center	
1	Mayo Clinic, Rochester, Minn.	100.0	66.5	0.79	1632	1.47	7.0	Yes	
2	Massachusetts General Hospital, Boston	90.3	57.0	0.67	1237	1.70	7.0	Yes	
3	Johns Hopkins Hospital, Baltimore	63.3	33.1	0.67	801	1.70	7.0	Yes	
4	Brigham and Women's Hospital, Boston	48.0	19.7	0.65	692	1.55	6.5	Yes	
5	University of Virginia Health Sciences Center, Charlottesville	44.2	12.7	0.47	1097	2.58	7.0	Yes	
6	UCLA Medical Center, Los Angeles	43.0	13.4	0.56	799	1.70	7.0	Yes	
7	Beth Israel Deaconess Medical Center, Boston	41.8	13.0	0.54	999	1.30	6.0	Yes	
8	Cleveland Clinic	41.8	13.0	0.56	1162	2.14	7.0	No	
9	University of California, San Francisco Medical Center	40.9	15.9	0.75	514	1.75	7.0	No	
10	Barnes-Jewish Hospital, St. Louis	39.4	10.1	0.84	1843	1.50	7.0	Yes	(+3 SD)
11	University of Washington Medical Center, Seattle	36.7	10.9	0.43	349	1.32	7.0	No	
12	University of Michigan Medical Center, Ann Arbor	36.7	8.2	0.66	896	1.70	7.0	Yes	
13	Northwestern Memorial Hospital, Chicago	36.6	7.9	0.69	1005	1.93	7.0	Yes	
14	University of Chicago Hospitals	36.5	10.2	0.88	741	1.90	7.0	Yes	
15	New York Presbyterian Hospital	36.3	13.7	1.60	2076	1.36	7.0	Yes	
16	Parkland Memorial Hospital, Dallas	35.9	7.2	0.35	366	1.71	7.0	Yes	
17	Vanderbilt University Hospital and Clinic, Nashville	34.3	4.8	0.54	845	2.23	7.0	Yes	(+2 SD)
18	Henry Ford Hospital, Detroit	32.5	1.1	0.62	2045	1.82	6.0	Yes	
19	Florida Hospital Medical Center, Orlando, Fla.	32.1	0.0	0.47	1728	1.62	7.0	Yes	
20	Duke University Medical Center, Durham, N.C.	31.9	3.1	0.63	939	2.19	7.0	Yes	
21	University of Pittsburgh Medical Center	31.2	2.1	0.68	1279	1.74	7.0	Yes	
22	University Hospital, Denver	30.0	3.7	0.70	328	2.25	7.0	Yes	
23	Washington Hospital Center, Washington, D.C.	30.0	0.5	0.69	1774	1.56	6.0	Yes	
24	Hospital of the University of Pennsylvania, Philadelphia	29.8	4.1	0.89	858	1.63	7.0	Yes	
25	University of North Carolina Hospitals, Chapel Hill	29.8	1.6	0.60	817	1.60	7.0	Yes	
26	William Beaumont Hospital, Royal Oak, Mich.	29.7	0.5	0.72	1443	1.90	7.0	Yes	
27	University of Alabama Hospital at Birmingham	29.7	1.4	0.62	1038	1.47	7.0	Yes	
28	University Hospital, Portland, Ore.	29.7	3.4	0.42	391	0.91	6.5	Yes	
29	University of California, Davis Medical Center, Sacramento	29.5	0.4	0.44	588	2.89	7.0	Yes	
30	Los Angeles County-Harbor-UCLA Medical Center	29.4	2.5	0.00	167	1.75	5.5	Yes	
31	St. Louis University Hospital	29.4	1.0	0.47	674	1.37	7.0	Yes	
32	Ohio State University Medical Center, Columbus	29.0	2.6	0.53	753	1.07	5.5	Yes	
33	University of Miami, Jackson Memorial Hospital	28.6	2.0	0.66	626	1.46	7.0	Yes	
34	Froedtert Memorial Lutheran Hospital, Milwaukee	28.4	0.5	0.43	812	1.44	5.5	Yes	
35	Abbott Northwestern Hospital, Minneapolis	28.4	0.0	0.48	825	1.25	7.0	Yes	
36	University Hospitals of Cleveland	28.3	0.5	0.69	1044	1.59	7.0	Yes	
37	University of Texas Medical Branch Hospitals, Galveston	28.1	0.0	0.49	875	1.36	6.0	Yes	
38	Lahey Clinic, Burlington, Mass.	28.0	0.4	0.61	726	1.79	6.0	Yes	
39	University of Wisconsin Hospital and Clinics, Madison	28.0	0.0	0.32	605	1.34	7.0	Yes	
40	Catherine McAuley Health System, Ann Arbor, Mich.	28.0	0.0	0.52	960	1.30	6.0	Yes	
41	University Hospital, Albuquerque, N.M.	27.8	0.0	0.46	389	2.42	6.0	Yes	
42	Spectrum Health-Butterworth Campus, Grand Rapids, Mich.	27.8	0.0	0.61	840	2.63	6.0	Yes	
43	Yale-New Haven Hospital, New Haven, Conn.	27.8	2.4	0.88	823	1.55	7.0	Yes	
44	Augusta Health Care, Fishersville, Va.	27.8	0.0	0.44	581	1.80	5.0	Yes	
45	DEACONESS HOSPITAL	27.8	0.0	0.44	843	0.95	7.0	Yes	
46	Orlando Regional Medical Center, Orlando, Fla.	27.7	0.0	0.62	1124	1.15	7.0	Yes	
47	DANBURY HOSPITAL	27.6	0.0	0.49	553	1.34	7.0	Yes	
48	University of Cincinnati Hospital	27.6	0.4	0.52	695	1.10	7.0	Yes	
49	Fairfax Hospital, Falls Church, Va.	27.6	0.5	0.70	857	1.78	6.0	Yes	
50	Good Samaritan Regional Medical Center, Phoenix	27.6	0.9	0.17	561	0.94	6.5	Yes	

2002 Kidney Disease Best Hospital List

Rank	Hospital	U.S. News Index	Reputational score	Mortality rate	Discharges	R.N.'s to beds	Technology score (of 5)	Trauma Center	Discharge planning (of 3)	Medical/ Surgical Beds	
1	Massachusetts General Hospital, Boston	100.0	33.1	0.93	1109	1.70	5.0	Yes	3	66	
2	Brigham and Women's Hospital, Boston	96.0	30.6	0.57	727	1.55	5.0	Yes	3	30	
3	Mayo Clinic, Rochester, Minn.	92.7	26.8	0.70	1307	1.47	5.0	Yes	3	93	
4	New York Presbyterian Hospital	84.2	24.6	1.39	2110	1.36	5.0	Yes	3	107	
5	Cleveland Clinic	83.5	23.4	0.59	1138	2.14	5.0	No	3	44	
6	Johns Hopkins Hospital, Baltimore	80.9	23.1	0.82	831	1.70	4.5	Yes	3	44	
7	UCLA Medical Center, Los Angeles	74.7	17.8	0.61	1024	1.70	5.0	Yes	3	54	
8	Duke University Medical Center, Durham, N.C.	69.7	16.9	0.99	1118	2.19	5.0	Yes	3	59	
9	Barnes-Jewish Hospital, St. Louis	69.1	13.3	0.66	1870	1.50	5.0	Yes	3	76	
10	Vanderbilt University Hospital and Clinic, Nashville	66.3	14.1	0.57	881	2.23	4.5	Yes	3	28	
11	University Hospital, Denver	65.6	15.4	0.70	420	2.25	4.0	Yes	3	24	
12	Hospital of the University of Pennsylvania, Philadelphia	62.4	11.5	0.59	905	1.63	5.0	Yes	3	41	
13	University of Michigan Medical Center, Ann Arbor	59.7	9.4	0.56	951	1.70	5.0	Yes	3	50	
14	Parkland Memorial Hospital, Dallas	56.7	7.6	0.40	682	1.71	5.0	Yes	3	38	
15	University of Alabama Hospital at Birmingham	55.7	9.5	1.00	1288	1.47	4.0	Yes	3	61	
16	University of Washington Medical Center, Seattle	54.8	10.0	0.64	449	1.32	5.0	No	2	24	
17	University of California, San Francisco Medical Center	54.8	9.9	0.77	676	1.75	5.0	No	3	16	(+3 SD)
18	University of Pittsburgh Medical Center	52.2	6.4	0.92	1109	1.74	5.0	Yes	3	72	
19	Stanford University Hospital, Stanford, Calif.	51.8	9.5	0.92	549	1.50	4.5	No	3	23	
20	University of Chicago Hospitals	51.4	5.1	0.47	764	1.90	5.0	Yes	3	33	
21	Emory University Hospital, Atlanta	50.9	7.1	0.77	817	1.40	4.5	No	3	48	
22	Henry Ford Hospital, Detroit	49.9	2.1	0.53	1616	1.82	5.0	Yes	3	76	
23	Fairview-University Medical Center, Minneapolis	49.9	7.1	0.67	745	0.30	5.0	No	3	35	
24	University of Miami, Jackson Memorial Hospital	49.2	1.5	0.39	774	1.46	4.0	Yes	3	113	
25	Rush-Presbyterian-St. Luke's Medical Center, Chicago	48.9	4.2	0.54	1253	1.18	5.0	No	3	43	
26	New England Medical Center, Boston	48.5	5.7	0.77	381	2.36	5.0	Yes	3	30	
27	University of North Carolina Hospitals, Chapel Hill	48.2	4.4	0.62	1136	1.60	4.5	Yes	3	16	
28	Shands Hospital at the University of Florida, Gainesville	48.2	4.6	0.70	927	1.61	5.0	Yes	3	30	
29	University of Maryland Medical System, Baltimore	47.5	2.0	0.55	1069	1.87	5.0	Yes	3	63	
30	Florida Hospital Medical Center, Orlando, Fla.	46.7	0.0	0.55	1422	1.62	5.0	Yes	3	102	(+2 SD)
31	Beth Israel Deaconess Medical Center, Boston	46.4	5.4	0.81	1017	1.30	4.5	Yes	3	20	
32	Methodist Hospital, Houston	45.8	4.9	0.91	876	1.14	4.5	No	3	56	
33	University Hospitals and Clinics, Columbia, Mo.	45.5	3.0	0.55	358	1.68	3.5	Yes	2	60	
34	Hennepin County Medical Center, Minneapolis	45.5	1.6	0.28	648	0.76	5.0	Yes	3	33	
35	Hermann Hospital, Houston	45.2	1.1	0.43	722	0.84	5.0	Yes	3	68	
36	St. Louis University Hospital	44.7	1.3	0.41	667	1.37	4.5	Yes	3	43	
37	University of Wisconsin Hospital and Clinics, Madison	44.5	3.6	0.84	806	1.34	5.0	Yes	3	31	
38	Denver Health and Hospitals	44.5	0.0	0.00	215	1.96	3.5	Yes	3	31	
39	William Beaumont Hospital, Royal Oak, Mich.	44.3	1.0	0.84	1813	1.90	5.0	Yes	3	60	
40	Yale-New Haven Hospital, New Haven, Conn.	44.0	4.1	1.17	999	1.55	5.0	Yes	3	52	
41	University of Virginia Health Sciences Center, Charlottesville	43.9	1.5	0.71	1030	2.58	5.0	Yes	3	44	
42	Northwestern Memorial Hospital, Chicago	43.8	1.0	0.65	1032	1.93	5.0	Yes	3	52	
43	University of California, Irvine Medical Center, Orange	43.6	0.5	0.10	206	1.14	4.0	Yes	3	26	
44	University of Texas Medical Branch Hospitals, Galveston	43.5	0.5	0.46	950	1.36	5.0	Yes	3	38	
45	Clarian Health Partners (IU and Methodist Hospitals), Indianapolis	43.1	1.6	0.88	1437	1.46	5.0	Yes	3	48	
46	HURON HOSPITAL	43.0	0.0	0.06	230	0.94	3.5	Yes	3	34	
47	Tampa General Hospital, Tampa, Fla.	43.0	0.0	0.42	676	1.09	5.0	Yes	3	57	
48	Ohio State University Medical Center, Columbus	42.9	1.1	0.64	1018	1.07	4.0	Yes	3	57	
49	Froedtert Memorial Lutheran Hospital, Milwaukee	42.7	0.7	0.51	835	1.44	5.0	Yes	3	31	
50	University Health System of Bexar County, San Antonio	42.5	1.2	0.48	395	0.96	4.5	Yes	3	43	

2002 Neurology and Neurosurgery Best Hospital List

Rank	Hospital	U.S. News Index	Reputational score	Mortality rate	Discharges	R.N.'s to beds	Technology score (of 7)	Trauma Center	
1	Mayo Clinic, Rochester, Minn.	100.0	65.6	0.89	4984	1.47	7.0	Yes	
2	Massachusetts General Hospital, Boston	83.2	52.1	0.95	3539	1.70	7.0	Yes	
3	Johns Hopkins Hospital, Baltimore	78.9	47.4	0.83	2527	1.70	7.0	Yes	
4	New York Presbyterian Hospital	72.9	42.3	1.01	5186	1.36	7.0	Yes	
5	Cleveland Clinic	56.2	23.8	0.60	3268	2.14	7.0	No	
6	University of California, San Francisco Medical Center	51.5	26.7	0.96	1682	1.75	7.0	No	
7	Barnes-Jewish Hospital, St. Louis	44.8	14.6	0.89	4607	1.50	7.0	Yes	
8	UCLA Medical Center, Los Angeles	41.3	12.1	0.77	2126	1.70	7.0	Yes	(+3 SD)
9	Hospital of the University of Pennsylvania, Philadelphia	36.9	12.2	1.05	2238	1.63	7.0	Yes	
10	Methodist Hospital, Houston	36.2	9.6	0.85	3831	1.14	7.0	No	
11	Duke University Medical Center, Durham, N.C.	33.8	7.5	1.00	2930	2.19	7.0	Yes	(+2 SD)
12	Henry Ford Hospital, Detroit	32.4	1.9	0.70	3298	1.82	6.0	Yes	
13	Brigham and Women's Hospital, Boston	32.0	8.7	1.06	1847	1.55	6.5	Yes	
14	University of Virginia Health Sciences Center, Charlottesville	31.9	3.6	0.89	3328	2.58	7.0	Yes	
15	Florida Hospital Medical Center, Orlando, Fla.	31.5	0.0	0.81	5371	1.62	7.0	Yes	
16	Clarian Health Partners (IU and Methodist Hospitals), Indianapolis	31.5	0.9	0.80	4629	1.46	7.0	Yes	
17	Shands Hospital at the University of Florida, Gainesville	31.3	3.8	0.78	2003	1.61	6.0	Yes	
18	University Medical Center, Tucson, Ariz.	31.0	0.9	0.55	906	2.03	6.0	Yes	
19	Mount Sinai Medical Center, New York	30.9	4.0	0.92	2588	1.70	7.0	Yes	
20	Denver Health and Hospitals	30.8	0.4	0.03	370	1.96	5.5	Yes	
21	St. Joseph's Hospital and Medical Center, Phoenix	30.7	6.0	0.96	3213	1.17	5.0	Yes	
22	Northwestern Memorial Hospital, Chicago	30.6	2.1	0.78	2153	1.93	7.0	Yes	
23	Georgetown University Hospital, Washington, D.C.	30.5	0.9	0.42	1101	1.52	7.0	No	
24	William Beaumont Hospital, Royal Oak, Mich.	30.5	0.0	0.87	5073	1.90	7.0	Yes	
25	University of Illinois Hospital and Clinics, Chicago	30.5	1.3	0.54	811	1.88	4.5	Yes	
26	Summa Health System, Akron, Ohio	30.5	0.0	0.62	3173	1.25	6.0	Yes	
27	New York University Medical Center	30.4	2.1	0.79	3216	1.25	6.5	Yes	
28	University Hospital, Denver	30.3	1.2	0.63	669	2.25	7.0	Yes	
29	University of Michigan Medical Center, Ann Arbor	30.1	5.6	1.00	1707	1.70	7.0	Yes	
30	University of Texas, M. D. Anderson Cancer Center, Houston	30.0	1.4	0.51	362	2.93	7.0	No	
31	Miami Valley Hospital, Dayton, Ohio	29.9	0.0	0.59	2281	1.03	7.0	Yes	
32	Riverside Methodist Hospitals, Columbus, Ohio	29.9	0.5	0.77	3527	1.35	7.0	Yes	
33	West Jefferson Medical Center, Marrero, La.	29.8	0.0	0.27	950	1.08	6.0	Yes	
34	Stanford University Hospital, Stanford, Calif.	29.8	8.2	0.98	1862	1.50	5.0	No	
35	University Hospitals of Cleveland	29.7	1.7	0.82	2531	1.59	7.0	Yes	
36	Doctors Community Hospital, Lanham, Md.	29.7	0.0	0.22	902	1.17	5.5	Yes	
37	University of Iowa Hospitals and Clinics, Iowa City	29.5	1.8	0.77	2252	1.31	7.0	Yes	
38	St. Vincent Hospital and Health Center, Indianapolis	29.5	0.0	0.70	3316	1.29	6.0	Yes	
39	University of Chicago Hospitals	29.4	2.5	0.82	1263	1.90	7.0	Yes	
40	University of California, Davis Medical Center, Sacramento	29.3	0.8	0.70	1240	2.89	7.0	Yes	
41	INGALLS HOSPITAL	29.0	0.0	0.48	1517	0.53	6.0	Yes	
42	Parkland Memorial Hospital, Dallas	29.0	2.8	0.82	933	1.71	7.0	Yes	
43	Vanderbilt University Hospital and Clinic, Nashville	29.0	2.3	0.87	1778	2.23	7.0	Yes	
44	Abbott Northwestern Hospital, Minneapolis	29.0	0.5	0.78	3162	1.25	7.0	Yes	
45	Rush-Presbyterian-St. Luke's Medical Center, Chicago	28.8	0.4	0.55	1801	1.18	7.0	No	
46	THUNDERBIRD SAMARITAN MED CTR	28.7	0.0	0.46	936	1.36	6.5	No	
47	Loma Linda University Medical Center, Loma Linda, Calif.	28.7	0.8	0.74	1694	1.87	6.0	Yes	
48	Los Angeles County-USC Medical Center	28.7	0.4	0.58	476	1.61	5.5	Yes	
49	Lutheran General Healthsystem, Park Ridge, Ill.	28.6	0.0	0.66	2325	1.17	6.0	Yes	
50	Memorial Sloan-Kettering Cancer Center, New York	28.6	1.4	0.61	490	2.04	7.0	No	

2002 Orthopedics Best Hospital List

Rank	Hospital	U.S. News Index	Reputational score	Mortality rate	Discharges	R.N.'s to beds	Technology score (of 5)	Trauma Center	
1	Mayo Clinic, Rochester, Minn.	100.0	55.2	0.75	7973	1.47	5.0	Yes	
2	Hospital for Special Surgery, New York	86.0	43.0	0.12	7154	1.69	4.5	Yes	
3	Massachusetts General Hospital, Boston	68.9	33.3	1.04	3555	1.70	5.0	Yes	
4	Johns Hopkins Hospital, Baltimore	56.5	23.3	0.87	1613	1.70	5.0	Yes	
5	Cleveland Clinic	50.7	17.1	0.52	3470	2.14	5.0	No	
6	Duke University Medical Center, Durham, N.C.	42.0	13.9	1.19	2803	2.19	5.0	Yes	
7	UCLA Medical Center, Los Angeles	39.4	13.0	1.28	1754	1.70	5.0	Yes	(+3 SD)
8	University of Iowa Hospitals and Clinics, Iowa City	36.6	8.0	0.80	1544	1.31	5.0	Yes	
9	Brigham and Women's Hospital, Boston	35.2	5.5	0.72	2543	1.55	4.5	Yes	
10	University of Chicago Hospitals	34.4	4.7	0.58	1318	1.90	5.0	Yes	
11	University of Washington Medical Center, Seattle	34.0	7.0	0.66	1005	1.32	5.0	No	
12	Harborview Medical Center, Seattle	33.6	7.9	0.96	1005	2.17	3.5	Yes	
13	University of Pittsburgh Medical Center	33.2	5.6	0.98	2378	1.74	5.0	Yes	
14	Stanford University Hospital, Stanford, Calif.	32.7	6.5	0.82	2227	1.50	3.0	No	
15	Rush-Presbyterian-St. Luke's Medical Center, Chicago	32.4	5.1	0.72	2325	1.18	5.0	No	
16	New York Presbyterian Hospital	32.3	7.8	1.34	3261	1.36	5.0	Yes	
17	Vanderbilt University Hospital and Clinic, Nashville	32.2	2.3	0.52	1620	2.23	5.0	Yes	
18	Hospital for Joint Diseases-Orthopedic Institute, New York	31.7	4.1	0.27	2039	1.01	4.0	No	
19	University of Michigan Medical Center, Ann Arbor	31.6	3.6	0.76	1543	1.70	5.0	Yes	(+2 SD)
20	University of California, San Francisco Medical Center	31.5	7.3	1.02	1002	1.75	5.0	No	
21	University of Virginia Health Sciences Center, Charlottesville	31.4	1.2	0.56	2206	2.58	5.0	Yes	
22	Northwestern Memorial Hospital, Chicago	31.2	3.3	0.87	2278	1.93	5.0	Yes	
23	Barnes-Jewish Hospital, St. Louis	31.0	5.7	1.23	2891	1.50	5.0	Yes	
24	University of Miami, Jackson Memorial Hospital	30.9	2.3	0.47	724	1.46	5.0	Yes	
25	University Health System of Bexar County, San Antonio	30.4	3.4	0.37	671	0.96	4.0	Yes	
26	University Hospitals of Cleveland	30.4	0.6	0.59	2341	1.59	5.0	Yes	
27	Parkland Memorial Hospital, Dallas	30.4	6.7	1.20	631	1.71	5.0	Yes	
28	Yale-New Haven Hospital, New Haven, Conn.	30.1	0.8	0.44	1475	1.55	5.0	Yes	
29	University of Wisconsin Hospital and Clinics, Madison	30.0	1.0	0.51	1478	1.34	5.0	Yes	
30	Baptist Memorial Hospital, Memphis	30.0	5.8	1.19	2947	0.93	4.5	Yes	
31	Summa Health System, Akron, Ohio	29.4	0.4	0.50	3753	1.25	4.0	Yes	
32	University of California, Davis Medical Center, Sacramento	29.2	3.0	0.89	1247	2.89	5.0	Yes	
33	ST JOSEPH MEDICAL CENTER	29.2	0.0	0.49	2538	2.16	3.5	Yes	
34	Grant Medical Center, Columbus, Ohio	29.1	0.0	0.57	2882	1.28	5.0	Yes	
35	Florida Hospital Medical Center, Orlando, Fla.	28.7	0.0	0.68	4488	1.62	5.0	Yes	
36	Shands Hospital at the University of Florida, Gainesville	28.6	2.3	0.92	2111	1.61	4.0	Yes	
37	Lutheran General Healthsystem, Park Ridge, Ill.	28.6	0.0	0.53	2594	1.17	4.0	Yes	
38	Clarian Health Partners (IU and Methodist Hospitals), Indianapolis	28.5	2.0	0.97	4259	1.46	5.0	Yes	
39	Thomas Jefferson University Hospital, Philadelphia	28.4	2.7	0.94	4057	1.24	4.0	Yes	
40	University Hospital, Denver	28.4	0.4	0.31	667	2.25	5.0	Yes	
41	Strong Memorial Hospital-University of Rochester, N.Y.	28.3	1.7	0.83	1895	1.93	4.0	Yes	
42	Medical Center of Central Massachusetts, Worcester	28.2	0.0	0.35	1122	1.93	4.5	Yes	
43	North Carolina Baptist Hospital, Winston-Salem	28.2	1.5	0.93	2121	1.71	5.0	Yes	
44	Loma Linda University Medical Center, Loma Linda, Calif.	28.1	0.6	0.63	1388	1.87	4.0	Yes	
45	University of Louisville Hospital, Louisville, Ky.	28.1	0.4	0.51	477	1.56	5.0	Yes	
46	Henry Ford Hospital, Detroit	28.1	0.0	0.62	1862	1.82	4.0	Yes	
47	Carolinas Medical Center, Charlotte, N.C.	28.0	1.4	0.95	2924	1.67	5.0	Yes	
48	St. Luke's Medical Center, Milwaukee, Wis.	28.0	0.7	0.65	3792	0.85	4.5	Yes	
49	Pennsylvania Hospital, Philadelphia	27.9	0.0	0.58	2284	1.04	4.0	Yes	
50	Evanston Northwestern Health Care, Evanston, Ill.	27.9	0.0	0.64	3114	1.29	4.0	Yes	

2002 Respiratory Disorders Best Hospital List

Rank	Hospital	U.S. News Index	Reputational score	Mortality rate	Discharges	R.N.'s to beds	Technology score (of 4)	Trauma Center	Discharge planning (of 3)	Hospice, palliative care	
1	National Jewish Center, Denver	100.0	50.9	0.13	166	3.62	2.5	No	3		
2	Mayo Clinic, Rochester, Minn.	88.1	42.3	0.83	4616	1.47	4.0	Yes	3	H, P	
3	Johns Hopkins Hospital, Baltimore	72.4	33.4	0.94	1540	1.70	4.0	Yes	3	H, P	
4	Barnes-Jewish Hospital, St. Louis	54.2	21.6	0.95	5103	1.50	4.0	Yes	3	H	
5	Massachusetts General Hospital, Boston	53.1	21.0	1.04	3383	1.70	4.0	Yes	3	H, P	
6	University of California, San Francisco Medical Center	49.9	17.3	0.77	1230	1.75	4.0	No	3	H, P	
7	University Hospital, Denver	48.3	16.1	0.70	1019	2.25	4.0	Yes	3		
8	Cleveland Clinic	42.1	11.9	0.79	2761	2.14	4.0	No	3	H, P	
9	UCSD Medical Center, San Diego	40.3	11.5	0.84	1330	1.56	4.0	Yes	3	H	
10	University of Michigan Medical Center, Ann Arbor	39.5	10.2	0.79	2100	1.70	4.0	Yes	3	P	
11	Duke University Medical Center, Durham, N.C.	39.1	11.7	1.03	3015	2.19	4.0	Yes	3	H, P	(+3 SD)
12	Brigham and Women's Hospital, Boston	36.2	7.8	0.83	2444	1.55	4.0	Yes	3	H, P	
13	University of Washington Medical Center, Seattle	35.9	11.5	0.94	824	1.32	4.0	No	2	H	
14	Hospital of the University of Pennsylvania, Philadelphia	33.7	10.1	1.11	1505	1.63	4.0	Yes	3	H	
15	University of Pittsburgh Medical Center	32.5	5.8	0.90	2761	1.74	4.0	Yes	3	H, P	
16	UCLA Medical Center, Los Angeles	32.4	5.9	0.76	1898	1.70	4.0	Yes	3		
17	University of Chicago Hospitals	31.1	6.1	0.96	1417	1.90	4.0	Yes	3	H, P	(+2 SD)
18	Yale-New Haven Hospital, New Haven, Conn.	30.4	5.4	0.92	2414	1.55	4.0	Yes	3	H	
19	Vanderbilt University Hospital and Clinic, Nashville	29.6	5.2	0.95	2172	2.23	4.0	Yes	3	P	
20	University of North Carolina Hospitals, Chapel Hill	28.9	2.5	0.81	2868	1.60	4.0	Yes	3	H, P	
21	St. Louis University Hospital	28.9	1.6	0.63	1515	1.37	4.0	Yes	3	H	
22	University of Alabama Hospital at Birmingham	28.7	4.7	1.00	2110	1.47	4.0	Yes	3	H, P	
23	Stanford University Hospital, Stanford, Calif.	28.2	5.7	0.98	1692	1.50	4.0	No	3	H	
24	Miami Valley Hospital, Dayton, Ohio	28.1	0.4	0.60	3297	1.03	4.0	Yes	3	P	
25	DEACONESS WALTHAM HOSPITAL	27.9	0.0	0.56	1513	0.50	4.0	Yes	3	H, P	
26	Boston Medical Center	27.7	2.8	0.77	1598	1.63	4.0	Yes	3		
27	Christ Hospital, Cincinnati	27.4	0.0	0.57	2638	1.06	4.0	No	3	H, P	
28	Cook County Hospital, Chicago	27.4	0.0	0.50	1022	1.99	4.0	Yes	2	H, P	
29	MERCY HOSPITAL	27.4	0.0	0.54	1118	0.68	3.5	Yes	3	H, P	
30	Henry Ford Hospital, Detroit	27.1	0.9	0.79	3922	1.82	4.0	Yes	3	H, P	
31	University of Virginia Health Sciences Center, Charlottesville	27.1	2.4	0.85	2392	2.58	4.0	Yes	3	H	
32	University Hospitals of Cleveland	27.0	0.8	0.71	2723	1.59	4.0	Yes	3	H	
33	Summa Health System, Akron, Ohio	27.0	0.0	0.69	5741	1.25	4.0	Yes	3	H, P	
34	Akron General Medical Center, Akron, Ohio	27.0	0.0	0.69	3925	1.35	4.0	Yes	3	H, P	
35	OCONEE REGIONAL MEDICAL CENTER	27.0	0.0	0.55	1087	0.71	4.0	Yes	3	H	
36	University of Cincinnati Hospital	26.9	0.5	0.69	1819	1.10	4.0	Yes	3	H, P	
37	Sparrow Hospital and Health System, Lansing, Mich.	26.8	0.4	0.70	2089	1.12	4.0	Yes	3	H, P	
38	METROHEALTH MEDICAL CENTER	26.7	0.4	0.68	1721	0.67	4.0	Yes	3	H, P	
39	LDS Hospital, Salt Lake City	26.5	1.0	0.75	1454	0.99	4.0	Yes	3	H, P	
40	West Jefferson Medical Center, Marrero, La.	26.5	0.0	0.41	1444	1.08	4.0	Yes	3		
41	Lutheran General Healthsystem, Park Ridge, Ill.	26.4	0.4	0.76	3209	1.17	4.0	Yes	3	H, P	
42	MERCY HOSPITAL OF SCRANTON	26.3	0.0	0.58	2424	1.02	4.0	No	3	H	
43	Norton Southwest Hospital, Louisville, Ky.	26.3	0.0	0.54	1175	0.51	3.5	Yes	2	H, P	
44	University of Iowa Hospitals and Clinics, Iowa City	26.3	2.9	0.94	1334	1.31	4.0	Yes	3	H, P	
45	St. James Hospital and Health Care, Chicago Heights, Ill.	26.2	0.0	0.50	1943	0.58	4.0	No	3	H	
46	Hennepin County Medical Center, Minneapolis	26.1	0.0	0.58	1976	0.76	4.0	Yes	3		
47	Lahey Clinic, Burlington, Mass.	26.1	0.5	0.67	2029	1.79	4.0	Yes	3		
48	SOUTHWEST GENERAL HEALTH CTR	26.0	0.4	0.70	2649	0.60	4.0	Yes	3	H	
49	Ohio State University Medical Center, Columbus	25.9	0.0	0.62	1689	1.07	3.5	Yes	3	H	
50	MARTHA JEFFERSON HOSPITAL	25.9	0.0	0.68	2670	1.31	4.0	No	3	H, P	

2002 Rheumatology Best Hospital List

Rank	Hospital	U.S. News Index	Reputational score	Hospitalwide mortality rate	R.N.'s to beds	Technology score (of 5)	Discharge planning (of 3)	Palliative care	
1	Mayo Clinic, Rochester, Minn.	100.0	52.2	0.76	1.47	5.0	3	Yes	
2	Johns Hopkins Hospital, Baltimore	90.8	46.9	0.86	1.70	5.0	3	Yes	
3	Hospital for Special Surgery, New York	70.0	25.6	0.09	1.69	4.5	3	No	
4	UCLA Medical Center, Los Angeles	62.1	27.9	0.85	1.70	5.0	3	No	
5	Cleveland Clinic	60.6	23.6	0.68	2.14	5.0	3	Yes	
6	University of Alabama Hospital at Birmingham	56.5	24.8	1.02	1.47	5.0	3	Yes	
7	Massachusetts General Hospital, Boston	55.5	23.0	0.93	1.70	5.0	3	Yes	
8	Brigham and Women's Hospital, Boston	55.1	21.8	0.82	1.55	4.5	3	Yes	
9	Duke University Medical Center, Durham, N.C.	43.0	14.7	0.97	2.19	5.0	3	Yes	
10	University of California, San Francisco Medical Center	40.3	11.2	0.83	1.75	5.0	3	Yes	(+3 SD)
11	University of Michigan Medical Center, Ann Arbor	36.4	8.4	0.82	1.70	5.0	3	Yes	
12	Stanford University Hospital, Stanford, Calif.	34.4	10.9	0.91	1.50	3.0	3	No	
13	Denver Health and Hospitals	34.4	0.0	0.04	1.96	4.0	3	Yes	
14	Barnes-Jewish Hospital, St. Louis	33.4	8.2	0.88	1.50	5.0	3	No	
15	BENEDICTINE HOSPITAL	32.4	0.0	0.18	0.55	3.5	3	Yes	
16	Hospital for Joint Diseases-Orthopedic Institute, New York	32.1	5.3	0.71	1.01	4.0	3	Yes	
17	University of Pittsburgh Medical Center	31.8	5.8	0.87	1.74	5.0	3	Yes	
18	SAN JOAQUIN VLY REHAB HOSP	31.5	0.0	0.15	0.22	4.0	2	Yes	
19	St. Luke's Hospital, Newburgh, N.Y.	31.4	0.0	0.02	0.81	3.5	3	No	
20	Georgetown University Hospital, Washington, D.C.	30.6	1.2	0.55	1.52	5.0	3	Yes	
21	Parkland Memorial Hospital, Dallas	30.5	5.2	0.80	1.71	5.0	3	No	(+2 SD)
22	University of Chicago Hospitals	29.8	4.4	0.88	1.90	5.0	3	Yes	
23	James Lawrence Kernan Hospital, Baltimore	29.5	0.0	0.06	0.47	2.0	2	Yes	
24	Hillside Rehabilitation Hospital, Warren, Ohio	28.7	0.0	0.11	0.26	1.5	2	Yes	
25	Rehabilitation Institute of Michigan, Detroit	28.3	0.0	0.08	0.40	2.5	2	No	
26	University Hospital, Denver	28.3	2.9	0.74	2.25	5.0	3	No	
27	West Jefferson Medical Center, Marrero, La.	28.1	0.0	0.40	1.08	4.0	3	No	
28	Hospital of the University of Pennsylvania, Philadelphia	27.8	6.5	1.07	1.63	5.0	3	No	
29	Rehabilitation Institute of Chicago	27.7	0.0	0.05	0.34	2.0	2	No	
30	KAISER FOUNDATION HOSPITAL	27.6	0.0	0.43	0.60	4.5	3	No	
31	National Rehabilitation Hospital, Washington, D.C.	27.4	0.0	0.19	0.57	2.0	2	No	
32	Doctors Community Hospital, Lanham, Md.	27.3	0.0	0.34	1.17	3.5	2	No	
33	New York University Medical Center	27.1	6.8	1.19	1.25	4.5	3	Yes	
34	University of Washington Medical Center, Seattle	27.1	4.3	0.82	1.32	5.0	2	No	
35	Northwestern Memorial Hospital, Chicago	26.8	3.1	0.94	1.93	5.0	3	Yes	
36	Marianjoy Rehabilitation Hospital and Clinics, Wheaton, Ill.	26.7	0.0	0.04	0.17	0.0	3	No	
37	Christ Hospital, Cincinnati	26.6	0.0	0.62	1.06	4.5	3	Yes	
38	University Hospitals of Cleveland	26.6	1.9	0.75	1.59	5.0	3	No	
39	Los Angeles County-USC Medical Center	26.4	0.0	0.50	1.61	3.5	3	No	
40	Vanderbilt University Hospital and Clinic, Nashville	26.4	2.1	0.88	2.23	5.0	3	Yes	
41	University of Iowa Hospitals and Clinics, Iowa City	26.3	2.2	0.88	1.31	5.0	3	Yes	
42	Magee Rehabilitation Hospital, Philadelphia	26.1	0.0	0.06	0.46	0.5	2	No	
43	BAPTIST HEALTH REHAB INSTITUTE	26.0	0.0	0.28	0.24	2.5	2	No	
44	St. Joseph Hospital, Denver	25.8	0.0	0.53	0.96	4.0	3	No	
45	Miami Valley Hospital, Dayton, Ohio	25.8	0.0	0.70	1.03	5.0	3	Yes	
46	University Medical Center, Tucson, Ariz.	25.8	1.6	0.70	2.03	4.0	3	No	
47	Lahey Clinic, Burlington, Mass.	25.7	0.4	0.60	1.79	4.0	3	No	
48	Cardinal Hill Rehabilitation Hospital, Lexington, Ky.	25.7	0.0	0.01	0.53	0.0	2	No	
49	Lutheran General Healthsystem, Park Ridge, Ill.	25.6	0.3	0.69	1.17	4.0	3	Yes	
50	Meridia Hillcrest Hospital, Cleveland, Ohio	25.5	0.0	0.74	1.28	5.0	3	Yes	

2002 Urology Best Hospital List

Rank	Hospital	U.S. News Index	Reputational score	Mortality rate	Discharges	R.N.'s to beds	Technology score (of 8)	Trauma Center	
1	Johns Hopkins Hospital, Baltimore	100.0	74.1	0.92	1199	1.70	7.5	Yes	
2	Cleveland Clinic	77.8	51.4	0.60	1690	2.14	8.0	No	
3	Mayo Clinic, Rochester, Minn.	69.8	41.5	0.53	3742	1.47	8.0	Yes	
4	UCLA Medical Center, Los Angeles	53.1	29.0	1.47	1383	1.70	8.0	Yes	
5	Memorial Sloan-Kettering Cancer Center, New York	46.9	20.0	0.48	1075	2.04	7.0	No	
6	Barnes-Jewish Hospital, St. Louis	45.7	18.8	0.92	1656	1.50	8.0	Yes	
7	Massachusetts General Hospital, Boston	43.6	16.3	0.84	1318	1.70	8.0	Yes	
8	New York Presbyterian Hospital	42.7	15.6	0.82	3519	1.36	8.0	Yes	
9	Duke University Medical Center, Durham, N.C.	41.5	15.0	0.99	1607	2.19	8.0	Yes	
10	University of California, San Francisco Medical Center	38.8	12.7	0.61	743	1.75	8.0	No	
11	Methodist Hospital, Houston	38.4	13.8	0.84	1362	1.14	7.5	No	(+3 SD)
12	University of Texas, M. D. Anderson Cancer Center, Houston	35.2	11.9	1.09	754	2.93	7.0	No	
13	Clarian Health Partners (IU and Methodist Hospitals), Indianapolis	35.1	7.3	0.72	1560	1.46	8.0	Yes	
14	University of Michigan Medical Center, Ann Arbor	34.7	6.9	0.76	1292	1.70	8.0	Yes	
15	Stanford University Hospital, Stanford, Calif.	34.6	12.5	1.28	844	1.50	5.5	No	
16	Vanderbilt University Hospital and Clinic, Nashville	34.3	5.6	0.51	893	2.23	7.5	Yes	
17	Hospital of the University of Pennsylvania, Philadelphia	32.2	3.6	0.59	1164	1.63	8.0	Yes	
18	Lahey Clinic, Burlington, Mass.	32.1	3.5	0.46	858	1.79	7.0	Yes	(+2 SD)
19	Northwestern Memorial Hospital, Chicago	31.5	2.3	0.48	1100	1.93	8.0	Yes	
20	University of Virginia Health Sciences Center, Charlottesville	31.0	2.8	0.52	712	2.58	8.0	Yes	
21	Shands Hospital at the University of Florida, Gainesville	30.0	1.8	0.60	973	1.61	7.0	Yes	
22	Florida Hospital Medical Center, Orlando, Fla.	29.7	0.6	0.51	1622	1.62	8.0	Yes	
23	Henry Ford Hospital, Detroit	29.7	0.5	0.39	1026	1.82	7.0	Yes	
24	North Carolina Baptist Hospital, Winston-Salem	29.6	2.7	0.95	941	1.71	8.0	Yes	
25	University of Iowa Hospitals and Clinics, Iowa City	29.3	3.4	0.87	702	1.31	8.0	Yes	
26	Carolinas Medical Center, Charlotte, N.C.	29.2	0.0	0.45	963	1.67	7.5	Yes	
27	Columbia Wesley Medical Center, Wichita, Kan.	29.1	0.0	0.24	786	1.48	7.0	Yes	
28	University of Wisconsin Hospital and Clinics, Madison	28.9	0.5	0.56	1129	1.34	8.0	Yes	
29	William Beaumont Hospital, Royal Oak, Mich.	28.8	0.0	0.57	1880	1.90	8.0	Yes	
30	Loma Linda University Medical Center, Loma Linda, Calif.	28.7	0.4	0.28	678	1.87	6.0	Yes	
31	Brigham and Women's Hospital, Boston	28.7	5.9	1.50	636	1.55	7.5	Yes	
32	University of Washington Medical Center, Seattle	28.6	1.8	0.00	591	1.32	8.0	No	
33	Yale-New Haven Hospital, New Haven, Conn.	28.6	0.7	0.70	879	1.55	8.0	Yes	
34	Catherine McAuley Health System, Ann Arbor, Mich.	28.6	0.0	0.00	868	1.30	6.0	Yes	
35	Emory University Hospital, Atlanta	28.6	2.8	0.71	1092	1.40	7.0	No	
36	Abbott Northwestern Hospital, Minneapolis	28.5	0.0	0.46	866	1.25	8.0	Yes	
37	University Hospitals of Cleveland	28.4	0.3	0.55	718	1.59	8.0	Yes	
38	University of Chicago Hospitals	28.3	2.5	1.02	728	1.90	8.0	Yes	
39	Washington Hospital Center, Washington, D.C.	28.3	0.0	0.48	922	1.56	6.0	Yes	
40	Thomas Jefferson University Hospital, Philadelphia	28.2	1.4	0.77	969	1.24	7.0	Yes	
41	Lancaster General Hospital, Lancaster, Pa.	28.1	0.0	0.33	807	1.08	7.0	Yes	
42	Parkland Memorial Hospital, Dallas	28.0	4.6	1.13	261	1.71	8.0	Yes	
43	Mayo Clinic, Jacksonville, Fla.	27.8	0.0	0.24	891	1.42	7.0	No	
44	F.G. McGaw Hospital at Loyola University, Maywood, Ill.	27.7	1.8	1.06	921	1.87	7.0	Yes	
45	University Hospital, Denver	27.6	0.7	0.40	341	2.25	7.0	Yes	
46	Froedtert Memorial Lutheran Hospital, Milwaukee	27.5	0.0	0.49	718	1.44	6.5	Yes	
47	St. John's Regional Health Center, Springfield, Mo.	27.5	0.0	0.53	1022	0.92	7.5	Yes	
48	ST JOSEPH'S HOSPITAL	27.5	0.0	0.56	566	1.50	8.0	Yes	
49	University of California, Davis Medical Center, Sacramento	27.4	0.4	0.56	443	2.89	8.0	Yes	
50	Georgetown University Hospital, Washington, D.C.	27.4	1.8	0.44	350	1.52	8.0	No	

Appendix G

Reputation Rankings for Special-Service Hospitals

2002 Ophthalmology Reputational Score

Rank	Hospital	Reputational Score	
1	Johns Hopkins Hospital (Wilmer Eye Institute), Baltimore	72.0	
2	University of Miami (Bascom Palmer Eye Institute)	68.5	
3	Wills Eye Hospital, Philadelphia	53.3	
4	Massachusetts Eye and Ear Infirmary, Boston	40.1	(+3 SD)
5	UCLA Medical Center (Jules Stein Eye Institute), Los Angeles	33.1	(+2 SD)
6	University of Iowa Hospitals and Clinics, Iowa City	20.7	
7	USC University Hospital (Doheny Eye Institute), Los Angeles	10.9	
8	Duke University Medical Center, Durham, N.C.	8.7	
9	Mayo Clinic, Rochester, Minn.	8.5	
10	Barnes-Jewish Hospital, St. Louis	8.5	
11	Cleveland Clinic	7.1	
12	New York Eye and Ear Infirmary	6.9	
13	Emory University Hospital, Atlanta	6.4	
14	University of California, San Francisco Medical Center	5.8	
15	Methodist Hospital (Cullen Eye Institute), Houston	4.9	
16	Hospital of the University of Pennsylvania, Philadelphia	4.3	
17	University of Illinois Hospital and Clinics, Chicago	4.1	
18	University of Wisconsin Hospital and Clinics, Madison	3.5	
19	Manhattan Eye, Ear, and Throat Hospital, New York	3.3	

2002 Pediatrics Reputational Score

Rank	Hospital	Reputational Score	
1	Children's Hospital Boston	51.6	
2	Children's Hospital of Philadelphia	46.2	
3	Johns Hopkins Hospital, Baltimore	28.7	(+3 SD)
			(+2 SD)
4	Children's Hospital, Denver	14.4	
5	New York Presbyterian Hospital (Babies & Children's Hospital)	14.1	
6	Children's Hospital of Pittsburgh	13.8	
7	Univ. Hospitals of Cleveland (Rainbow Babies & Childrens Hosp.)	12.1	
8	Texas Children's Hospital, Houston	11.2	
9	Children's Hospital Medical Center, Cincinnati	10.2	
10	Children's Memorial Hospital, Chicago	9.1	
11	Childrens Hospital, Los Angeles	8.9	
12	University of California, San Francisco Medical Center	8.8	
13	UCLA (Mattel Children's Center), Los Angeles	8.2	
14	Massachusetts General Hospital, Boston	7.9	
15	Lucile Packard Children's Hospital, Stanford, Calif.	7.2	
16	Mayo Clinic, Rochester, Minn.	7.2	
17	Children's National Medical Center, Washington, D.C.	6.7	
18	Children's Hospital and Medical Center, Seattle	6.2	
19	Duke University Medical Center, Durham, N.C.	5.2	
20	Miami Children's Hospital	4.3	
21	Yale-New Haven Hospital, New Haven, Conn.	4.0	
22	University of Michigan Hospitals, Ann Arbor	3.2	
23	St. Christopher's Hospital, Philadelphia	3.0	

2002 Psychiatry Reputational Score

Rank	Hospital	Reputational Score	
1	Massachusetts General Hospital, Boston	41.7	
2	New York Presbyterian Hospital	30.7	
3	Johns Hopkins Hospital, Baltimore	28.4	
4	C. F. Menninger Memorial Hospital, Topeka, Kan.	22.1	(+3 SD)
5	McLean Hospital, Belmont, Mass.	20.5	
6	UCLA Neuropsychiatric Hospital, Los Angeles	19.4	(+2 SD)
7	Mayo Clinic, Rochester, Minn.	11.4	
8	Yale-New Haven Hospital, New Haven, Conn.	10.3	
9	Duke University Medical Center, Durham, N.C.	10.0	
10	Sheppard and Enoch Pratt Hospital, Baltimore	7.9	
11	Stanford University Hospital, Stanford, Calif.	6.9	
12	New York University Medical Center	5.9	
13	University of Iowa Hospitals and Clinics, Iowa City	5.2	
14	University of Pittsburgh Medical Center	5.1	
15	University of Michigan Medical Center, Ann Arbor	4.9	
16	Hospital of the University of Pennsylvania, Philadelphia	4.8	
17	Emory University Hospital, Atlanta	4.5	
18	University of California, San Francisco Medical Center	4.5	
19	Austen Riggs Center, Stockbridge, Mass.	4.4	
20	Barnes-Jewish Hospital, St. Louis	4.2	
21	Montefiore Medical Center, New York	4.0	
22	Cleveland Clinic	3.3	

2002 Rehabilitation Reputational Score

Rank	Hospital	Reputational Score	
1	Rehabilitation Institute of Chicago	68.6	
2	The Institute for Rehabilitation and Research, Houston	41.0	
3	University of Washington Medical Center, Seattle	35.8	(+3 SD)
4	Mayo Clinic, Rochester, Minn.	27.6	
5	Kessler Institute for Rehabilitation, West Orange, N.J.	25.7	
6	Craig Hospital, Englewood, Colo.	23.5	(+2 SD)
7	New York University Medical Center (Rusk Institute)	14.0	
8	Ohio State University Medical Center, Columbus	13.4	
9	Rancho Los Amigos National Rehabilitation Center, Downey, C.A.	12.7	
10	Thomas Jefferson University Hospital, Philadelphia	12.6	
11	Spaulding Rehabilitation Hospital, Boston	11.8	
12	National Rehabilitation Hospital, Washington, D.C.	10.9	
13	University of Michigan Medical Center, Ann Arbor	9.6	
14	Johns Hopkins Hospital, Baltimore	9.1	
15	Albert Einstein Med. Center (Moss Rehab. Hosp.), Philadelphia	5.9	
16	Stanford University Hospital, Stanford, Calif.	4.7	
17	Shepherd Center, Atlanta	4.7	
18	Mount Sinai Medical Center, New York	4.3	
19	University of Alabama Hospital at Birmingham	3.9	
20	Temple University Hospital, Philadelphia	3.1	
21	New York Presbyterian Hospital	3.0	

Appendix H

The 2002 “Honor Roll”

The Honor Roll

To lend additional perspective, we have constructed a measure called the Honor Roll to indicate excellence across a broad range of specialties.

To be listed on the Honor Roll, a hospital must rank at least two standard deviations (SDs) above the mean in at least six of the 17 specialties. A hospital's ranking in the Honor Roll is based on points, assigned as follows:

- If a hospital ranks between two and three SDs above the mean in a specialty, it receives one point.

- If a hospital ranks at least three SDs above the mean, it receives two points.

Using standard deviations above the mean as the criteria for inclusion in the Honor Roll sets a threshold for overall excellence. The Honor Roll also gives an indication of the relative distances between the best hospitals which is not possible to determine solely from the rankings.

The 2002 Honor Roll

Rank	Hospital	Points	3 SDs over the mean	2 SDs over the mean
1	Johns Hopkins Hospital, Baltimore	32	16	0
2	Mayo Clinic, Rochester, Minn.	27	13	1
3	Cleveland Clinic	24	12	0
3	Massachusetts General Hospital, Boston	24	12	0
5	UCLA Medical Center, Los Angeles	23	10	3
6	Duke University Medical Center, Durham, N.C.	20	9	2
7	University of California, San Francisco Medical Center	19	8	3
8	University of Michigan Medical Center, Ann Arbor	16	5	6
9	Barnes-Jewish Hospital, St. Louis	14	6	2
10	Brigham and Women's Hospital, Boston	13	5	3
11	University of Washington Medical Center, Seattle	11	3	5
12	New York Presbyterian Hospital	11	4	3
13	Hospital of the University of Pennsylvania, Philadelphia	10	2	6
14	Stanford University Hospital, Stanford, Calif.	9	1	7
14	University of Chicago Hospitals	9	1	7
16	University of Pittsburgh Medical Center	8	1	6
17	Vanderbilt University Hospital and Clinic, Nashville	8	2	4

Contact Information

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